



“FAN VA TEXNOLOGIYALARNING DOLZARB MUAMMOLARI”

MAVZUSIDAGI

XALQARO ILMIIY-AMALIY ANJUMAN
MATERIALLARI TO‘PLAMI

IV SHO‘BA V QISM

Qarshi shahri, 2026-yil 8-10-oktabr



**O‘ZBEKISTON RESPUBLIKASI
OLIY TA’LIM, FAN VA INNOVATSIYALAR VAZIRLIGI**

IQTISODIYOT VA PEDAGOGIKA UNIVERSITETI

PANCASAKTI TEGAL UNIVERSITETI

KARABÜK UNIVERSITETI

QOZON FEDERAL UNIVERSITETI

QARSHI DAVLAT UNIVERSITETI

QARSHI DAVLAT TEXNIKA UNIVERSITETI

FAN VA TEXNOLOGIYALARNING DOLZARB MUAMMOLARI

mavzusidagi

**XALQARO ILMIY-AMALIY ANJUMAN MATERIALLARI
TO‘PLAMI**

IV SHO‘BA (GUMANITAR FANLAR SHO‘BASI 5- QISM)

Qarshi shahri, 2026-yil 8-10-oktabr

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Fan va texnologiyalarning dolzarb muammolari.

Xalqaro ilmiy-amaliy anjuman materiallari to‘plami/

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Ushbu to‘plam O‘zbekiston respublikasi oliy ta’lim, fan va innovatsiyalar vazirligi, Iqtisodiyot va pedagogika universiteti, Pancasakti tegal universiteti, Karabük universiteti, Qozon federal universiteti, Qarshi davlat universiteti hamda Qarshi davlat texnika universiteti hamkorligida “Fan va texnologiyalarning dolzarb muammolari” mavzusida 2026 yil 8-10 oktabr kunlari o‘tkazilgan xalqaro ilmiy-amaliy anjuman ma’ruzalari asosida tayyorlangan nashr hisoblanadi.

To‘plamga kiritilgan maqolalarda aniq fanlar (matematika, fizika, informatika, statistika va ma’lumotlar tahlili, amaliy matematika va matematik modellashirish), muhandislik fanlari (axborot-kommunikatsiya texnologiyalari, neft va gaz sanoatidagi ilg‘or texnologiyalar, energetika tizimlari va energiya tejamkor texnologiyalar, konlarni o‘zlashtirish va qatlam muhandisligi, sanoat xavfsizligi, xavflarni baholash va ishonchlilik muhandisligi), tabiiy fanlar (fizika va zamonaviy fizik texnologiyalar, kimyo va kimyoviy texnologiyalar, neft-gaz sektorida atrof-muhitni muhofaza qilish va barqaror rivojlanish, biologiya, biotexnologiya va bioinformatika, neft va gaz konlarini qidirish va qatlamlarni tavsiflash), ijtimoiy-gumanitar fanlar (Iqtisodiyot va ijtimoiy-iqtisodiy rivojlanish, pedagogika va zamonaviy ta’lim texnologiyalari, psixologiya va ijtimoiy jarayonlar, falsafa, sotsiologiya va fanlararo tadqiqotlar, filologiya, lingvistika va madaniyatshunoslik) mavzularidagi masalalar qamrab olingan.

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To‘plamga kiritilgan materiallardagi ma’lumotlar to‘g‘riligi uchun mualliflar javobgardirlar.

Xalqaro ilmiy-amaliy anjuman materiallari to‘plami Iqtisodiyot va pedagogika universiteti

Ilmiy Kengashida muhokama qilingan va chop etishga tavsiya etilgan.

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Kirish soʻz!

Assalomu alaykum, hurmatli mehmonlar, aziz professor-oʻqituvchilar va olimlar, davlat va ishlab chiqarish sohasi vakillari, qadrlı hamkasblar, talabalar hamda konferensiyada onlayn ishtirok etayotgan mehmonlar!

Iqtisodiyot va pedagogika universitetida oʻtkazilayotgan **“Fan va texnologiyalarning dolzarb muammolari”** mavzusidagi xalqaro ilmiy-amaliy anjumaniga xush kelibsiz.

Iqtisodiyot va pedagogika universiteti bugungi kunda dunyoning 40 ga yaqin yetakchi oliy taʼlim muassasalari va ilmiy-tadqiqot tashkilotlari bilan hamkorlik aloqalarini yoʻlga qoʻyib, ular bilan oʻzaro hamkorlik shartnoma va memorandumlarini imzolagan.

Universitet Malayziya, Hindiston, Qozogʻiston, Rossiya, Indoneziya, Turkiya kabi yana bir qancha davlatlarning nufuzli oliy taʼlim muassasalari bilan akademik va ilmiy aloqalarni rivojlantirib kelmoqda.

Shuningdek, Yevropa Ittifoqining “Erasmus+” dasturi doirasida Portugaliya, Ruminiya, Ispaniya, Bolgariya va Italiya kabi davlatlarning oliy taʼlim muassasalari bilan samarali hamkorlik yoʻlga qoʻyilgan. Mazkur hamkorlik doirasida professor-oʻqituvchilar va talabalar almashinuvi, akademik mobillik, tajriba almashish hamda ilmiy tashabbuslarni amalga oshirish imkoniyatlari kengayib bormoqda.

Gʻurur va quvonch bilan taʼkidlash joizki, 2022–2026-yillar davomida universitetimizning 117 nafar professor-oʻqituvchilar xalqaro tajriba orttirib, malaka oshirib kelishdi. Xususan, Turkiyaning Karabuk universitetida 102 nafar, Rossiyaning Qozon federal universitetida 15 nafar professor-oʻqituvchimiz malaka oshirdi hamda 3 nafar talabamiz yozgi maktabda qatnashdi. Shuningdek, Vengriyaning Debresen universitetida 2 nafar oʻqituvchimiz ilmiy stajirovka oʻtab qaytdi. Yevropa Ittifoqining Erasmus+ dasturi doirasida Portugaliyaning Tomar politexnika institutida 2 nafar talabalarimiz taʼlimni tamomladi, yana 2 nafari 1 semestr davomida tahsil olmoqda va 1 nafar oʻqituvchimiz mobillik dasturida qatnashib keldi. Ispaniyaning Leon universitetida yesa 1 nafar talabamiz oʻqib kelgan boʻlsa, 3 nafar professor-oʻqituvchimiz kadrlar mobilligini amalga oshirdi. Ruminiyaning Luchian Blaga (Sibiu) va Piteshti universitetlarida yesa jami 6 nafar oʻqituvchimiz Erasmus+ doirasida xodimlar mobilligi boʻyicha xalqaro tajriba orttirib qaytdilar.

Yerishilgan natijalar bilan cheklanib qolmay, 2026–2027-oʻquv yilida ham talabalar va oʻqituvchilar almashinuvini davom yettirish rejalashtirilgan. Turkiya, Rossiya va boshqa xorijiy davlatlarning nufuzli oliygohlari bilan hamkorlikda xalqaro malaka oshirish kurslari, stajirovka hamda akademik mobillik dasturlarini yanada kengaytirish ustida tizimli ishlar olib borilmoqda.

Jadal rivojlanayotgan bugungi kunda ilm-fan va innovatsiyalar jamiyat taraqqiyotining muhim harakatlantiruvchi kuchiga aylanib bormoqda. Raqamli texnologiyalar, sunʼiy intellekt, zamonaviy taʼlim yondashuvlari, iqtisodiy jarayonlarning transformatsiyasi va ishlab chiqarishdagi innovatsiyalar hayotimizning barcha jabhalariga tobora chuqur kirib kelmoqda. Bunday sharoitda ilmiy izlanishlarni amaliyot bilan uygʻunlashtirish, yangi gʻoyalarni qoʻllab-quvvatlash va xalqaro ilmiy hamkorlikni kengaytirish muhim ahamiyat kasb etadi.

Bugungi anjuman ham aynan shu ezgu maqsadga xizmat qiladi. Unda turli soha vakillarining ilmiy qarashlari, tajribasi va ilgʻor ishlanmalari oʻzaro uygʻunlashib, yangi ilmiy gʻoyalar va amaliy yechimlar uchun mustahkam zamin yaratishiga ishonamiz.

Hurmatli anjuman qatnashchilari!

Ayni vaqtda insoniyat oldida turgan muammolar bir-biridan alohida emas. Iqlim oʻzgarishi, energetik xavfsizlik, oziq-ovqat xavfsizligi, suv resurslaridan oqilona foydalanish, raqamli transformatsiya, innovatsion iqtisodiyot, sunʼiy intellektning jadal rivojlanishi, kiberxavfsizlik, yangi avlod taʼlim texnologiyalari, iqtisodiy tenglik va demografik jarayonlar, bularning barchasi oʻzaro chambarchas bogʻliq. Shuning uchun ham bugungi ilm-fan fanlar chegarasidan chiqib, fanlararo hamkorlik sari intilmoqda.

Menimcha, zamonaviy ilm-fanning eng katta kuchi ham aynan shunda: matematik tafakkur iqtisodiyotga, sunʼiy intellekt barcha sohalarga, biologiya axborot texnologiyalariga, muhandislik

ekologiyaga, psixologiya esa ta'lim va ijtimoiy jarayonlarga ulanmoqda. Demak, bizga bugun alohida fanlar emas, balki muammoni kompleks ko'ra oladigan ilmiy tafakkur kerak.

Kelajakdagi universitetning vazifasi faqat talabaga tayyor bilim berishdan iborat bo'lmaydi. Universitet insonni mustaqil fikrlashga, savol berishga, muammoni aniqlashga, ilmiy izlanishga va yangi yechim yaratishga o'rgatishi kerak. Chunki kelajakda insonni texnologiyadan ajratib turadigan eng katta kuch uning tanqidiy fikrlashi, ijodkorligi, axloqiy mas'uliyati va insoniy qadriyatlari bo'ladi.

Iqtisodiyot va pedagogika universiteti uchun ushbu masala ayniqsa muhim. Chunki faoliyatimiz markazida ikki muhim tushuncha: iqtisodiyot va ta'lim turadi. Bizning asosiy vazifamiz zamonaviy bilim va texnologiyalarni ta'lim jarayoniga samarali tatbiq etish, mehnat bozori talablariga javob beradigan, innovatsion fikrlaydigan va amaliy ko'nikmalarga ega mutaxassislarni tayyorlashdan iborat.

Hurmatli anjuman ishtirokchilari!

Universitetimiz hamkorlik qilayotgan ishlab chiqarish korxonalari, zavodlar va tashkilotlar bilan ilmiy-amaliy aloqalarni yanada kuchaytirish, ta'lim, ilm-fan va ishlab chiqarish integratsiyasini ta'minlashni ustuvor vazifalarimizdan biri sifatida belgilagan. Kelgusida hamkor korxonalar bilan birgalikda qo'shma ilmiy loyihalarni amalga oshirish, talaba va tadqiqotchilar uchun amaliy tadqiqot maydonlarini kengaytirish, zamonaviy texnologiyalar asosida innovatsion ishlanmalarni yaratish hamda ularni ishlab chiqarishga joriy etishga alohida e'tibor qaratamiz.

Ishonamizki, bugungi anjuman doirasidagi ilmiy muloqotlar yangi ilmiy loyihalar, samarali hamkorliklar va amaliy natijalarga asos bo'ladi.

Shu ezgu niyatlar bilan "Fan va texnologiyalarning dolzarb muammolari" xalqaro ilmiy-amaliy anjumanini ochiq deb e'lon qilaman.

Barchangizga mustahkam sog'lik, ilmiy faoliyatingizda ulkan muvaffaqiyatlar, yangi ilmiy kashfiyotlar va samarali hamkorliklar tilayman!

E'tiboringiz uchun rahmat!

**Iqtisodiyot va pedagogika universiteti rektori,
texnika fanlari nomzodi, professor O.N.Bozorov**

BHAGAVAD GEETHA AND EMOTIONAL MANAGEMENT

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Annotatsiya. Insoniyatning muqaddas kitobi bo'lmish «Bhagavad-Gita» ko'pchilik tomonidan turli xil talqin qilinadi va ba'zan noto'g'ri tushuniladi. Hindiston va xorijdagi taniqli donishmandlar hamda olimlar ushbu kitobning mohiyatini anglashga intiladilar. Kitob ko'p qirrali bo'lib, o'ziga xos kenglik va chuqurlikka ega. U bizga nafaqat hayotni yaxlit va uyg'un tarzda kechirishni, balki aql va tanani boshqarishni ham o'rgatadi. Bugungi kunda aql-idrokni boshqarish hayotning barcha jabhalarida keng muhokama qilinadigan mavzuga aylangan; «Gita»da esa bu masala juda batafsil va nozik jihatlar bilan yoritilgan. Insoniyat timsoli bo'lgan Arjuna orqali ushbu kitob bizga maslahatchi sifatidagi Krishnaning ta'limotlarini yetkazadi. Har qanday sohada faoliyat yurituvchi inson uchun hissiy intellekt (EQ) juda muhim ahamiyatga ega. Ushbu maqolada Krishnaning ikkilanish va sarosima ichida qolgan Arjunaga (zero, barchamiz ham ma'lum ma'noda Arjuna kabi holatga tushamiz) bergan saboqlari tahlil qilinadi.

Kalit so'zlar: aql-idrok, Krishnaning ta'limoti, hissiy intellekt

Аннотация. Бхагавад-Гита — священная книга человечества, которую многие пытаются истолковать, порой допуская неверные трактовки. Выдающиеся мудрецы и ученые как в Индии, так и за ее пределами стремятся постичь суть этого произведения, отличающегося многогранностью, огромным масштабом и глубиной. Книга не только учит нас целостному подходу к жизни, но и показывает, как управлять своим умом и телом. В наши дни тема контроля над умом активно обсуждается во всех сферах жизни, и в Гите этот вопрос рассматривается всесторонне и детально. На примере Арджуны, олицетворяющего собой человека, книга доносит до нас наставления Кришны, выступающего в роли мудрого советчика. Эмоциональный интеллект необходим человеку в любой сфере деятельности. В данной статье рассматривается, как Кришна наставлял растерянного и сбитого с толку Арджуну, ведь каждый из нас в той или иной мере подобен ему.

Ключевые слова: интеллект, учение Кришны, эмоциональный интеллект

Abstract. Bhagavad Geetha the Holy book of the humanity is interpreted and misinterpreted by many. Famous sages and scientists in India and abroad try to learn the essence of this book. The dimensions of this book is varied and it has its own vastness and depth. The book not only tries to teach us how to live in an integral way but it also teaches us how to control and manage our mind as well as body. Now a days mind control is a much discussed topic in every spheres of life. Geetha refers it vastly with a minute way. With Arjuna, as a model of human being, this book gives us more teachings of Krishna as a counsellor. Emotional Quotient is very much needed for a person in every field. This article refers how the way krishna taught the confused and bewildered Arjuna as we are all the replicas of Arjuna.

Keywords: intellect, Krishna's teachings, emotional intelligence

INTRODUCTION

Emotions is nothing but a thought with feeling. when we have emotions we have tremendous energy. Memory also are there with emotions. In other words emotion is energy. An emotion is a combination of thought and desire. Every idea is charged with emotion. 'Emotions are desires which are penetrated by the thought element' 1. Generally people will always get into their emotions and they cannot understand why they are always going to failure and stressful situations. They cannot think that they themselves are the root cause of their problems. 'An emotion usually represents an amplified energized thought pattern, and because of its often-overpowering energetic charges, it is not easy initially to stay present enough to be able to watch it. It wants to take you over, and it usually succeeds- unless there is enough presence in you.' 2 Emotional intelligence is an important part of managing our emotions. Now a days EQ (Emotional Quotient) is more effective and integral part of our life than

IQ. Without EQ a person cannot live a happy life. Each one is surrounded by their own problems and they are always in a plight too. Daniel Goleman, American psychologist, in his years of study put forth the definitions and importance of emotional intelligence. According to Goleman EQ or EI is nothing but the management of our emotions and thoughts and actions. ie stability of our emotions is emotional intelligence. According to 'American psychologist Dr Eric Berne people are responsible for their destiny and their feelings. We are our creator of our actions, thoughts and emotions. So we have to manage our thoughts and actions. Thus we can manage our emotions. First we have to know or aware about our emotions and then we have to keep control of expressing it. *Raga* and *Dvesha* (love and hatred) are the two important emotions of the mind and all the other emotions are classified under these two emotions. Emotions are essential for a normal life. The problem comes when they are misdirected. Even negative emotions are so useful because sometimes it has its own purposes also. Every time when we experienced negative feeling we have to realize that the emotions come without our knowledge and it will go also.' Negative emotions act as a filter that taints the quality of your experiences. During a negative episode, every experience is perceived through this filter. While the world outside may remain the same, you will experience it in a completely different way based on how you feel.

MAIN PART

Emotional intelligence have five pathways or we can say five pillars. they are -Self Awareness, Self control, Empathy, Motivation, Social skill. Self awareness is very important for a person. For that meditative mind is very useful. When our mind is in a state of *kshipta* (totally confused) or we can say monkey mind, we cannot get self awareness. We know that our five sense organs are all focused for the outer world. So we don't have any surprise about how we become a monkey mind person. But through our *viveka* or the discriminatory power we have to know more about ourselves. Otherwise our life will be full of failures and total confusion. Without self awareness many unwanted thoughts will come and go continuously making a big confusion within. We have to remember that 'Thoughts are never inherited. Thoughts are individual and belong wholly to you who create them. So, in turn, you are responsible for them.'⁴ Self control is also has a pivotal role for a happily life. Control in every spheres of life needed. Uncontrolled emotions and actions are the enemies of a person. Murder is the end result of lack of self control. Conduct disorders and even personality disorders are the result of the uncontrolled emotions, so for the EQ one should be very much in need of self control. The Upanishad, one of the well known classics of India, says- *Ayathamayathamapekshaneeyam gatham gatham sarvamupekshaneeyam*-means we have to handle our life like whatever comes into our life is very essential for us and whatever goes from us is not at all ours. Whether it is property or wealth or anything. In all the situation we have to stay calm and cool. This is the state of self control. Empathy is very essential for EQ. After the entrance exams in India one of the leading Medical college ie, the Velloor medical college hospital management gives admissions to MBBS students only after having their EQ test. For this they are have to go through three or four day group discussions and the debate sessions. Through these test they are focusing mainly the empathy part of the aspirants. So a saying is there in India that a Velloor studied doctor is always a good one. Without empathy one cannot become aware of other persons feeling and emotions. Thus they knew that how others manage their stress. Motivation and social skills are also very much needed for emotional management. As life skills these five is important for emotional Intelligence.

Bhagavad Geetha is a holy book of India. It contains Eighteen chapters and 700 verse and it came from the world classic Book *Mahabharatha*. In *Bhagavad Geetha* when *Arjuna* was confused to do the war against *kaurava* ie war against *adharma* or evil God *krishna*, the charioteer and counsellor of *Arjuna* listened *Arjunas* complaints, emotions and confusions very keenly with a pious mind in the first chapter (*Arjuna Vishadayoga*). And in the second chapter ie in the *Sankhyayoga* he gave many instructions and advises to *Arjuna*. As a counselee *Arjuna* was a state of collapsing.

When *Arjuna* saw the other side ie *kaurava* troop he totally in a state of collapse. He says *krishna* that his body is shivering like anything.⁵ This is the condition of *Arjuna* it is called stress or

emotional mismanagement. But a good counsellor and an empowered person changed the mind through logical arguments and motivation. And after the completion of 18th chapter Arjuna could perform the war. This is the importance of *Bhagavad Geetha* as it is a guide and motivation for all the *Arjunas* ie all the worldly people like us. From the beginning of life itself we all are going through these agonies and confusions.

When *Arjuna* was in a confused state of mind and expressed his feelings to *Krishna*. After expressing his confusions and agonies he also gave many unethical and illogical clarifications regarding not to perform war and all. This is of course the power of negative emotions. Because when we are immersed with negative feelings we will lose our logical thinking and our mental condition will become more worse. After *Arjuna's* clarifications *Krishna* kept silent and in the last word of *Arjuna* in the first chapter it is said that-After telling *krishna* he could not perform the war, he throw his bow and arrow and sat with utmost sorrow with full of inefficiency.

Then in the second chapter, ie *sankhyayoga* *krishna* said to *Arjuna* that

how much weakness and confusion you are having in a critical situation. This behaviour is so dishonourable and it will deny spiritual elevation and gives you only bad reputation. In the next stanza *Krishna* says that effeminacy and timorousness do not fit for a noble warrior.⁶ This type of emotional weakness or immaturity is not good for a person like you so he motivates him that Rise above from your mental confusion and actively face your responsibilities. Lack of such Emotional Intelligence we used to fail in our all endeavors. Do not let temporary fear or doubt stop us from doing our righteous duties. We have to surmount with courage in every crisis.

He explains further about emotions. For a person who dwells on sense-objects, attachment arises; from attachment desire will come; from desire anger arises, from anger, complete delusion comes; and from delusion bewilderment of memory occurs. When memory is bewildered, intelligence is lost, and when intelligence is lost, one will collapse anyway.⁷ This clearly states the destructive chain reaction of human emotion, showing how anger leads directly to spiritual and intellectual decay. Nowadays this type of personality disorders are more. No body cannot concentrate with themselves and have no patience also. Everybody is in a hurry. No body wants to pause a while and to watch our own mind or emotions. Really we are slaves of our emotions. Now we are not taking the responsibility of our own wrong doings. Rather giving all the curse to the other person. When *krishna* says 'war' it is not only meant to be that so called physical war. War for us is our life path. We are having so much wars in our whole life from birth to death. 'The greatest battles being fought anywhere are those you fight daily inside your own soul-against anger, lies, habits, misjudgments, ill health-circumstances, continually it is the battle'.⁸ *Krishna* states when you take charge of your happiness and sorrow in the same way then war will not be a evil thing.⁹ Everything comes in our life with a purpose. Some saying was there no letter comes to us without the correct address of our self. So if it is a boon or curse we have to remember that the address was only ours.

Krishna continue his teachings that dear *Arjuna* you should never wish for the fruit of your *karmas*(actions). If you receive the fruit or not, in all the situation you should behave like unique or the same way thinking that god gave all this. This type of feeling or thought is called yoga or united or we can say that we are always united with god. When *Arjuna* asked regarding *sthithapranja*, or intellectual and Emotional stability *krishna* explained that one who leave all the desires and he who keep his concentration and happiness in soul or the pure consciousness, he is called a stable person. He who always keep his mind without shivering or flinching.

When happiness or sorrow comes and he who never involved in *raga* and *dvesha* or attachment and detachment he is also a *muni* or a saint. He further explains the stability through the example of a tortoise. When tortoise facing an issue or threat it used to keep all it's sense organs or the body parts inside his shell. So a person must keep his senses when he faces an issue is also be marked as stable intelligent or empowered individual.¹⁰ We can say this as a preparedness of the upcoming strength. If it is good or bad, we have to prepare ourselves for that. This is called positive attitude. In that Peace of mind all sorrows are destroyed; for the intellect of the tranquil-minded person soon becomes firmly established. If your mind and senses are not working under your control you cannot develop a focused intellect or steady wisdom. Without a stable mind, you cannot engage in

deep reflection or meditation. without this peace of mind it is difficult to have also and without peace true happiness cannot exist.¹¹

Real peace comes from dropping the burning desire to accumulate and control external things rather than control internally. True wisdom means realizing that material objects do not define who you are. This means we have to fulfill our duties in such a manner that without getting trapped by pride or selfish greed. *Arjuna* asks *Krishna* what forces a person against their own will. *Krishna* answers that unfulfilled material desires turn into greed and anger blinding human intellect. Lust is described as all devouring because no amount of material enjoyment can ever fully satisfy it.¹²

Krishna reminds us that we have to control our senses because it is the way our desires come into our self and corrupts our mind. The impulses are uncontrollable for a person. So this verse, in the era of digital distractions and instant gratification, reminds us that we have to have control over our impulses. This is very much essential for the emotional management. Now a days many such cases are reportedly seen that without getting mobile phones children are getting so much angry and they used to assault parents or they do suicide. This is a very tragic issue now. People cannot manage themselves at all. Emotional Intelligence is a real gift or boon for human beings. But lack of this the world is having many traumas. To solve our mental and spiritual issues this seven hundred verses gives each individual an inspiration in their social as well as spiritual life. *Geetha* gives a clear vision that how can we become an integrated person by controlling our emotions and accepting our responsibility.

CONCLUSION

According to *Krishna* whatever action a great person performs, ordinary people will follow it definitely. So we have a moral duty to perform our duties in a righteous way so that others can naturally imitate it. Upholding personal dignity and performing rightful duties (*karma*) inspires society to do the same. Theory of Emotional Intelligence by Daniel Goelman and the teachings of *Bhagavad Geetha* is truly a great pathway to the whole world to become a integrated personality.

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THE REPRESENTATION OF NATIONAL CULTURE IN UZBEK AND ENGLISH CINEMA: A THEORETICAL PERSPECTIVE

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Abstract. This study investigates the ways national culture is conveyed through Uzbek and English cinema within a theoretical framework. It focuses on how cinematic works communicate cultural identity through speech, character portrayal, traditional practices, social values, behavioral patterns, visual imagery, and film settings. By applying a comparative perspective, the research considers the distinctive cultural features presented in Uzbek and English films, as well as their common elements. Special emphasis is placed on the connection between language and cultural identity, particularly how culturally specific expressions and communicative practices contribute to the portrayal of national character. The study highlights cinema as a significant form of cultural representation that can preserve traditions, communicate national values, and encourage understanding between different cultural communities.

Keywords: national culture, Uzbek cinema, English cinema, cultural identity, film representation, language and culture, traditions, intercultural communication.

Annotatsiya. Ushbu tadqiqot o'zbek va ingliz kinosi orqali milliy madaniyatni nazariy asosda etkazish usullarini o'rganadi. Bu kinematik asarlar nutq, xarakterni tasvirlash, an'anaviy amaliyotlar, ijtimoiy qadriyatlar, xulq-atvor naqshlari, vizual tasvirlar va film sozlamalari orqali madaniy o'ziga xoslikni qanday bog'lashiga qaratilgan. Qiyosiy nuqtai nazarni qo'llagan holda, tadqiqot o'zbek va ingliz filmlarida taqdim etilgan o'ziga xos madaniy xususiyatlar hamda ularning umumiy elementlarini ko'rib chiqadi. Til va madaniy o'ziga xoslik o'rtasidagi bog'liqlikka, xususan, madaniy jihatdan o'ziga xos iboralar va kommunikativ amaliyotlar milliy xarakterni tasvirlashga qanday hissa qo'shishiga alohida e'tibor beriladi. Tadqiqot kinoni an'analarni saqlab qolish, milliy qadriyatlarni etkazish va turli madaniy jamoalar o'rtasida tushunishni rag'batlantiradigan madaniy vakillikning muhim shakli sifatida ta'kidlaydi.

Kalit so'zlar: milliy madaniyat, o'zbek kinosi, ingliz kinosi, madaniy o'ziga xoslik, film namoyishi, til va madaniyat, an'analalar, madaniyatlararo muloqot

Аннотация. В этом исследовании рассматриваются способы передачи национальной культуры через узбекское и английское кино в теоретических рамках. Основное внимание уделяется тому, как кинематографические произведения передают культурную идентичность посредством речи, изображения персонажей, традиционных практик, социальных ценностей, моделей поведения, визуальных образов и декораций к фильму. Применяя сравнительный подход, в исследовании рассматриваются отличительные культурные особенности, представленные в узбекских и английских фильмах, а также их общие элементы. Особый акцент делается на связи между языком и культурной идентичностью, в частности, на том, как специфические для культуры выражения и коммуникативные практики способствуют отображению национального характера. В исследовании подчеркивается, что кинематограф является важной формой культурной репрезентации, которая может сохранять традиции, передавать национальные ценности и способствовать взаимопониманию между различными культурными сообществами.

Ключевые слова: национальная культура, узбекское кино, английское кино, культурная идентичность, кинорепрезентация, язык и культура, традиции, межкультурная коммуникация

INTRODUCTION

Cinema represents more than artistic entertainment, it can also serve as a significant medium through which national culture and identity are expressed. Films preserve and present elements of everyday life, traditions, social relationships, values, beliefs, and patterns of communication. Through dialogue, visual imagery, characters, settings, music, and other semiotic elements, cinematic discourse can communicate cultural meanings and contribute to the representation of national identity. This study explores the representation of national culture in Uzbek and English cinema, with particular attention to the interaction between language and cultural meaning. The analysis considers how culturally significant expressions, social practices, traditions, and visual symbols contribute to the construction of national identity in film. By examining Uzbek and English cinematic materials from a comparative perspective, the study aims to identify distinctive cultural features as well as shared patterns of representation.

The research addresses the following questions:

- (1) Which linguistic and semiotic elements are used to represent national culture in Uzbek and English films?
- (2) How do these elements contribute to the construction and expression of national identity?
- (3) What similarities and differences can be observed in the representation of cultural values in Uzbek and English cinema?

METHODOLOGY

The present study uses a qualitative comparative approach to investigate the representation of national culture in Uzbek and English cinema. A qualitative method is appropriate because the research is concerned with cultural meanings, linguistic features, social relationships, and visual signs rather than numerical measurement. The films are examined as cultural and communicative texts in which national identity is constructed through a combination of verbal and non-verbal resources.

Two films were selected for the comparative analysis: *Suyunchi*, representing Uzbek cinema, and *Billy Elliot*, representing English cinema. The selection was based on the cultural and social material available in both films. Each film presents family relationships, community life, social expectations, and individual experiences, which makes comparison possible while also revealing differences between the two cultural contexts.

The analysis focuses on several categories. The first category is linguistic representation, including forms of address, culturally specific expressions, conversational patterns, humor, and ways of expressing respect or disagreement. The second category concerns social and cultural values, including family responsibility, respect for older people, individual freedom, community expectations, and social cooperation. The third category involves traditions and everyday practices, such as family gatherings, social customs, clothing, food, and other culturally significant activities.

The study also examines visual representation. Particular attention is given to domestic spaces, streets, workplaces, schools, clothing, architecture, landscapes, and other settings that establish the cultural environment of each film. Non-verbal communication, including gestures, facial expressions, physical distance, and patterns of interaction, is also considered where it contributes to cultural meaning.

The final stage of the research involves a comparison of the findings from the two films. Similar cultural themes are identified first, followed by differences in the ways those themes are represented. The study therefore combines textual interpretation with comparative cultural analysis. Since the research is based on two selected films, its purpose is not to generalize about all Uzbek or English cinema but to demonstrate particular ways in which national culture can be represented through cinematic discourse.

RESULTS

The analysis reveals that national culture in both films is communicated through a combination of language, behavior, social relationships, traditions, and visual imagery. The cultural

meanings are not usually expressed through one element alone. Instead, several elements work together to establish the social and cultural environment of each film.

In *Suyunchi*, family occupies a central position in the representation of Uzbek social life. Relationships between generations, respect for elders, family responsibility, and community involvement are repeatedly reflected in the behavior and communication of the characters. The characters' interactions demonstrate the importance of maintaining social relationships and fulfilling responsibilities toward family members.

Language is an important part of this representation. Forms of address and conversational behavior help indicate relationships between older and younger people and between members of the same community. Humor and culturally familiar expressions also contribute to the natural representation of everyday Uzbek communication. As a result, dialogue functions not only to move the story forward but also to communicate cultural information.

The visual aspects of *Suyunchi* reinforce these linguistic and social features. Domestic environments, family gatherings, clothing, food, and community spaces create a recognizable cultural setting. These details help establish a connection between the characters and their cultural environment. The combination of speech and visual signs therefore creates a broader representation of Uzbek identity.

In *Billy Elliot*, cultural representation is constructed through a somewhat different set of social features. The film presents a working-class community in northern England and emphasizes family relationships, economic circumstances, regional identity, social expectations, and personal ambition. Regional speech is particularly significant because it helps establish the geographical and social background of the characters.

The film's visual environment also contributes to its cultural meaning. Homes, schools, streets, industrial surroundings, and community spaces reflect the social conditions in which the characters live. These settings are closely connected with the characters' experiences and help the audience understand the social context of the narrative.

Another important result concerns the representation of individual aspiration. Billy's interest in ballet creates a conflict between his personal ambition and some of the expectations surrounding him. The film therefore presents identity as something that can develop through a person's interaction with family, community, and social norms.

The comparison demonstrates that both films use family and community as important cultural categories. However, the meanings attached to these categories are not identical. *Suyunchi* places stronger emphasis on collective responsibility, traditional relationships, and social harmony, while *Billy Elliot* gives greater attention to personal development, individual choice, and changing social attitudes.

DISCUSSION

The results support the view that cinema functions as a complex form of cultural communication. National culture is not represented only through explicitly traditional objects or ceremonies. It can also appear in ordinary conversations, family interactions, social behavior, clothing, architecture, humor, and everyday environments. This makes film particularly valuable for linguocultural research.

The representation of family provides one of the clearest points of comparison. In *Suyunchi*, the family is closely connected with collective identity and social responsibility. Older family members occupy an important position, and relationships between generations are influenced by cultural expectations concerning respect and responsibility. The family therefore functions as both a personal and social institution.

In *Billy Elliot*, family is also important, but the narrative places greater emphasis on the relationship between family expectations and individual aspirations. Billy's desire to pursue ballet challenges some of the assumptions held by people around him. The resulting tension illustrates how cultural identity can involve negotiation between established expectations and personal choices. The two films also demonstrate different approaches to tradition. In *Suyunchi*, traditions are integrated

into everyday social life and contribute to the continuity of cultural identity. They are represented through family practices, social relationships, communication, and community activities. In *Billy Elliot*, certain traditional expectations are presented as ideas that can be questioned or transformed. The contrast is therefore not simply between “traditional” and “modern” cultures but between different ways of representing social change.

Language provides another important point of discussion. In *Suyunchi*, culturally specific Uzbek expressions and forms of address contribute to the representation of social hierarchy, respect, and interpersonal closeness. In *Billy Elliot*, regional English and informal communication contribute to the construction of geographical and social identity. In both cases, speech provides information that may not be immediately visible in the storyline itself.

The findings also demonstrate the importance of visual culture. Cultural identity can be communicated through spaces in which characters live and interact. Houses, streets, schools, workplaces, clothing, food, and public spaces create a cultural background for the narrative. These elements can reinforce the meanings communicated through dialogue.

At the same time, it is important not to interpret either film as a complete representation of an entire nation. *Suyunchi* presents particular aspects of Uzbek society through its characters and narrative, while *Billy Elliot* focuses on a specific community and historical period in northern England. National cinema contains many different perspectives, and cultural representation may vary according to genre, period, director, social background, and narrative purpose. The comparison nevertheless demonstrates that both films use cinema to negotiate questions of identity and belonging. In *Suyunchi*, belonging is closely associated with family, community, cultural continuity, and shared responsibilities. In *Billy Elliot*, belonging is negotiated through family, community, social class, regional identity, and personal development. These differences provide useful material for understanding how national culture can be represented through different cinematic traditions.

CONCLUSION

The study has examined the representation of national culture in Uzbek and English cinema through a comparative analysis of *Suyunchi* and *Billy Elliot*. The findings demonstrate that cultural identity is communicated through interconnected linguistic, social, visual, and symbolic elements. In *Suyunchi*, national culture is particularly visible through family relationships, respect for elders, community connections, traditional practices, and culturally specific forms of communication. In *Billy Elliot*, cultural representation is associated with regional language, working-class life, family relationships, community expectations, and individual aspirations. The comparison shows that the two films share several important themes, especially family, community, social relationships, and the development of identity. However, they approach these themes from different cultural and social perspectives. The Uzbek film gives greater attention to collective values and cultural continuity, while the English film focuses more strongly on individual aspiration and the negotiation of social expectations. This study also confirms the importance of language in cinematic cultural representation. Dialogue, forms of address, regional speech, and culturally specific expressions can reveal relationships, social positions, and cultural values. At the same time, visual elements such as clothing, settings, architecture, food, and community spaces strengthen the cultural meanings communicated through language. Therefore, Uzbek and English cinema can be regarded as valuable sources for linguocultural and intercultural research. A comparative examination of films makes it possible to understand how cultural identity is expressed not only through explicit traditions but also through ordinary patterns of communication and everyday social life. Further research could expand the corpus by including a larger number of Uzbek and British films from different historical periods and genres, allowing a broader examination of the changing representation of national culture.

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GENERATIV SUN'İY INTELLEKT FILOLOGIK TADQIQOTDA: IMKONIYAT, TALQIN VA ILMIY ISHONCHLILIK MASALASI

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Annotatsiya. Maqolada generativ sun'iy intellekt vositalaridan filologik tadqiqotlarda foydalanishning imkoniyatlari va ular bilan bog'liq ilmiy-metodologik muammolar tahlil qilinadi. Sun'iy intellektning ilmiy adabiyotlarni izlash va tizimlashtirish, katta hajmdagi axborotni qayta ishlash, dastlabki tahliliy yo'nalishlarni belgilashdagi afzalliklari e'tirof etilgan holda, generativ model yaratgan matnni tayyor ilmiy xulosa sifatida qabul qilish mumkin emasligi asoslanadi. Xususan, birlamchi manbada mavjud bo'lmagan iqtiboslarning ilmiy matnga kiritilishi, xorijiy terminlarning mexanik tarjimai, metodologik jihatdan yetarli asoslanmagan qiyoslar, badiiy matnning tarixiy-poetik tabiatiga mos kelmaydigan talqinlar hamda dissertatsiya matnida tadqiqotchining individual ilmiy pozitsiyasi zaiflashishi kabi masalalarga e'tibor qaratiladi.

Kalit so'zlar: generativ sun'iy intellekt, filologik tadqiqot, badiiy matn, talqin, ilmiy manba, qiyosiy tahlil, tarjima, mualliflik pozitsiyasi, verifikatsiya, ilmiy metod.

Аннотация. В статье анализируются возможности использования генеративного искусственного интеллекта в филологических исследованиях и связанные с ним научно-методологические проблемы. Признавая преимущества искусственного интеллекта при поиске и систематизации научной литературы, обработке больших объёмов информации и определении первоначальных направлений анализа, автор обосновывает невозможность рассматривать текст, созданный генеративной моделью, как готовый научный вывод. Особое внимание уделяется таким проблемам, как включение в научный текст цитат, отсутствующих в первоисточнике, механический перевод иноязычных терминов, методологически недостаточно обоснованные сопоставления, интерпретации, не соответствующие историко-поэтической природе художественного текста, а также ослабление индивидуальной научной позиции исследователя в тексте диссертации.

Ключевые слова: генеративный искусственный интеллект, филологическое исследование, художественный текст, интерпретация, научный источник, сравнительный анализ, перевод, авторская позиция, верификация, научный метод.

Abstract. The article analyzes the potential of using generative artificial intelligence in philological research and the related scientific and methodological challenges. While acknowledging the advantages of artificial intelligence in searching for and systematizing scholarly literature, processing large volumes of information, and identifying preliminary directions for analysis, the article argues that text generated by a generative model cannot be regarded as a ready-made scientific conclusion. Particular attention is paid to such issues as the inclusion of quotations that are absent from the primary source, the mechanical translation of foreign-language terms, methodologically insufficiently substantiated comparisons, interpretations that do not correspond to the historical and poetic nature of literary texts, and the weakening of the researcher's individual scholarly position in dissertation writing.

Keywords: generative artificial intelligence, philological research, literary text, interpretation, scholarly source, comparative analysis, translation, authorial position, verification, scientific method.

KIRISH

Generativ sun'iy intellektning ilmiy faoliyatga jadal kirib kelishi tadqiqot olib borishning odatiy tartibiga sezilarli ta'sir ko'rsatmoqda. Bugun tadqiqotchi qisqa vaqt ichida katta hajmdagi ilmiy adabiyotlarni saralashi, muayyan muammo bo'yicha dastlabki ma'lumotlarni to'plashi, chet tilidagi materialning mazmunini anglab olishi, tadqiqot savollarini aniqlashtirishi, hatto o'z ilmiy qarashiga qarama-qarshi bo'lgan fikrlarni shakllantirib ko'rishi mumkin. Shu ma'noda, sun'iy intellektidan foydalanishni ilmiy tadqiqot uchun mutlaq xavf sifatida baholash biryozlama yondashuv bo'ladi. Masala undan foydalanish yoki foydalanmaslikda emas, balki uning ilmiy izlanishdagi o'rnini to'g'ri belgilashdadir. UNESCOning generativ sun'iy intellektidan ta'lim va tadqiqotda foydalanishga oid tavsiyalarida ham ushbu texnologiyalar inson tafakkuri va ilmiy mas'uliyatining o'rnini egallamasligi, yakuniy nazorat esa insonda qolishi zarurligi ta'kidlanadi.[1]

Filologiya yo'nalishida bu masala alohida ahamiyat kasb etadi. Chunki adabiyotshunoslikda tadqiqotchi tayyor faktlar bilangina emas, matn va uning ma'nosi bilan ishlaydi. Badiiy obrazning vazifasi, muallif pozitsiyasi, hikoyachi ovozi, ramz yoki detalning semantik yuki muayyan kontekst, poetik tizim va adabiy an'ana asosida aniqlanadi. Shu sababli generativ model tomonidan yaratilgan grammatik jihatdan to'g'ri, mantiqan izchil va usluban ravon javob hali filologik xulosa hisoblanmaydi. U, avvalo, tekshirilishi zarur bo'lgan dastlabki mulohazadir.

MATERIALLAR VA USULLAR

O'zbek tilidagi generativ modellar faoliyatiga bag'ishlangan yangi tadqiqotlar ham bunday ehtiyotkorlik zarurligini ko'rsatmoqda. D. Solidjonov va M. Najmiddinov GPT-5, Gemini 2.0 Pro hamda LLaMA 4 tomonidan yaratilgan 240 ta o'zbekcha matnni tahlil qilib, ularda 1152 ta turli lingvistik xatoni qayd etganlar. Xatolarning salmoqli qismini morfologik hamda leksik-semantik nomuvofiqliklar tashkil etgan.[2] Mazkur natija tashqi ravonlik bilan lingvistik aniqlik har doim ham bir-biriga mos kelmasligini ko'rsatadi. Filologik tadqiqot uchun bu, ayniqsa, muhim: modelning o'zbek tilida ishonarli matn yaratishi uning adabiy tushuncha yoki badiiy hodisani to'g'ri anglaganini avtomatik ravishda bildirmaydi.

Amaliyotda masala ba'zan bundan ham jiddiyroq tus oladi. Xorijiy adabiyot bo'yicha tayyorlangan ayrim ilmiy ishlarda asarning originalidan olingani ta'kidlangan inglizcha jumla qo'shtirnoq ichida keltirilib, unga nashr yili va hatto aniq sahifa ko'rsatiladi. Jumladan so'ng uning o'zbekcha tarjimasi va shu iqtibosga tayangan batafsil badiiy tahlil beriladi. Bir qarashda bunday parcha ilmiy talablar asosida rasmiylashtirilgandek ko'rinadi. Biroq iqtibos birlamchi manba bilan qiyoslanganda ayrim jumlalarining original asarda aynan shu shaklda mavjud emasligi aniqlanishi mumkin. Eng murakkab jihati shundaki, bunday jumla asarning umumiy mazmuniga mos tushadi, muallifning boshqa o'rinlardagi fikrlarini eslatadi va shu bois haqiqiy iqtibos taassurotini uyg'otadi.

Filologiya uchun bu farq prinsipial ahamiyatga ega. Muallif fikrining mazmunini o'z so'zlari bilan bayon qilish boshqa, uni qo'shtirnoq ichida muallifning aynan o'z jumlasini sifatida berish boshqa ilmiy amaldir. Birinchi holatda biz talqin bilan ishlaymiz; ikkinchi holatda esa matnning birlamchi manbada haqiqatan mavjud bo'lishi shart. Shu sababli generativ sun'iy intellekt davrida "bu fikr asar mazmuniga mosmi?" degan savolning o'zi yetarli bo'lmay qolmoqda. Undan oldin "muallif haqiqatan ham aynan shunday yozganmi?" degan tekstologik savol qo'yilishi zarur.

Shunga yaqin muammo xorijiy adabiy terminlarning o'zbek tilida qo'llanishida ham kuzatiladi. *Authorial voice*, *narrative voice*, *implied author* singari tushunchalar bir qarashda ma'nodoshdek tuyulishi mumkin, ammo narratologiyada ular bir xil nazariy hodisani anglatmaydi. Generativ model esa ayrim hollarda terminni tarjima qilish bilan uning nazariy mazmunini tushuntirish o'rtasidagi chegarani yo'qotadi. Natijada inglizcha termin qavs ichida keltiriladi, unga o'zbekcha muqobil beriladi, biroq tushunchaning nazariy chegarasi ochilmay qoladi. Xorijiy terminning matnda mavjudligi ilmiylik belgisi emas; uning qaysi nazariy yondashuv doirasida va qanday ma'noda ishlatilayotgani muhimdir.

NATIJALAR VA MUHOKAMA

Ilmiy bayonda inglizcha asar nomining har gal o'zbekcha tarjimasi bilan qavs ichida takrorlanishi yoki o'zbek adabiyotshunosligida shakllangan termin o'rniga sun'iy sinonim izlab, so'ng qavs ichida yana asl terminni berish ham matnning tabiiyligini buzadi. Asar birinchi marta tilga olinganda uning original nomi va zarur bo'lsa o'zbekcha tarjimasini ko'rsatish ilmiy jihatdan asosli. Keyingi o'rinlarda esa tanlangan shaklning izchil ishlatilishi maqsadga muvofiq. Aks holda, matn qaysi tilda yozilayotgani emas, muallif qaysi terminni asosiy deb qabul qilayotgani noaniqlashadi.

Bunday belgilarni ko'rish bilan matn "sun'iy intellekt tomonidan yozilgan" degan hukm chiqarish, albatta, ilmiy jihatdan to'g'ri emas. Bitta noodatiy termin, qavs yoki sintaktik konstruktsiya buning dalili bo'la olmaydi. Muammo ular tekshirilmagan iqtiboslar, mexanik tarjimalar, bir xil tahliliy qoliplar va matnga yetarlicha bog'lanmagan umumiy xulosalar bilan muntazam birga kelganda yuzaga chiqadi. Shuning uchun AI-detektor ko'rsatkichidan ko'ra ilmiy matndagi fikr, iqtibos va xulosalarni ularning manbalarigacha kuzatib borish imkoniyati muhimroqdir.

Generativ sun'iy intellektning qiyosiy adabiyotshunoslikdagi imkoniyati ham, cheklovi ham uning o'xshashlikni nihoyatda tez topa olishida namoyon bo'ladi. Modelga tarixiy davri, janri va poetik tabiati bir-biridan ancha uzoq ikki asar berilganda ham, u ko'pincha "yolg'izlik", "inson va jamiyat", "ichki ziddiyat", "kurash", "umid" yoki "axloqiy tanlov" kabi umumiy tushunchalar orqali ularni bir-biriga bog'lay oladi. Bunday umumiyliklarning mavjudligi o'z-o'zidan noto'g'ri emas. Biroq u hali qiyosiy-tipologik xulosa uchun yetarli asos bo'la olmaydi.

Turli davr, milliy adabiyot va janrlarga mansub asarlar qiyoslanishi mumkin. Ammo bunday tadqiqotda qiyoslash mezoni aniq belgilanishi, tanlangan hodisalarni bir qiyosiy maydonga olib kirishning nazariy asosi ko'rsatilishi lozim. Ikki asarda bir xil motivning uchrashi uning poetik vazifasi ham bir xil degani emas. Sun'iy intellekt o'xshashlikni topishda tadqiqotchiga yordam berishi mumkin, lekin bu o'xshashlikning tipologik mushtaraklik darajasiga ko'tarilishini tadqiqotchining o'zi asoslab berishi kerak.

Mumtoz adabiyot bunday talqinning chegaralarini yanada yaqqol ko'rsatadi. Alisher Navoiyning "Kecha kelgumdur debon ul sarvi gulro' kelmadi, / Ko'zlarimg'a kecha tong otquncha uyqu kelmadi" baytlarida[3] hijron, intizorlik va amalga oshmagan visol holati mumtoz she'riyatning o'z obrazlar tizimi orqali ifodalangan. "Sarvi gulro'" ma'shuq obraziga daxldor bo'lsa, tonggacha davom etgan bedorlik kutishning ruhiy zo'rqiqlashini kuchaytiradi. G'azal bo'ylab takrorlanadigan "kelmadi" radifi esa ushbu holatni asarning asosiy hissiy-semantik yo'nalishiga aylantiradi.

Ayni baytlarni generativ modelga berib, ularni ekzistensializm nuqtayi nazaridan sharhlash so'ralsa, ma'shuqning kelmasligini inson kutishlariga javob bermaydigan borliq, tunni ontologik yolg'izlik, oshiqni esa mavjudlik qarshisidagi yolg'iz subyekt sifatida talqin qiluvchi tashqi jihatdan mukammal matn olish mumkin. Bunday nazariy o'qishning o'zi mutlaqo mumkin emas, degan fikrdan yiroqmiz. Muammo Navoiy poetikasi bilan zamonaviy falsafiy konsepsiya o'rtasidagi metodologik asos ko'rsatilmagan holda tayyor nazariy kategoriyalarni mumtoz matnga tatbiq etishda yuzaga keladi. Filologik tahlilda nazariyaning murakkabligi emas, uning matnga qay darajada asosli tatbiq etilgani muhim.

Shu muammoning sodda, ammo juda ko'rgazmali ko'rinishi adabiyot o'qitish amaliyotida ham uchramoqda. Talabalarga Abdulla Oripovning onasi xotirasiga bag'ishlangan "Onajon" she'rini o'qib, mustaqil tahlil qilish topshirig'i berilganda, ayrim hollarda asarning o'zi bilan ishlash o'rniga generativ sun'iy intellektdan tayyor tahlil olishga urinish kuzatildi. Holbuki, she'rning poetik mazmuni umumiy "ona mehri" haqidagi fikrlar bilangina ochilmaydi. Undagi tush motivi, beshik va tobut obrazlarining keskin qarama-qarshiligi, onadan ayrilish iztirobi, ikkinchi qismdagi to'y bilan bog'liq armon asarning individual badiiy qiyofasini belgilaydi.[4] Generativ model esa aniq matn bilan ta'minlanmaganida muallif va mavzu haqidagi umumiy ma'lumotlarga tayangan holda ishonarli tahlil yaratishi, hatto matnda mavjud bo'lmagan obraz yoki mazmuniy bog'lanishlarni unga nisbat berishi mumkin. Talaba bunday javobni she'rning o'zi bilan solishtirmasa, ravon yozilgan tahlilning birlamchi matndan uzoqlashganini sezmay qoladi.

Mazkur pedagogik kuzatuv muammoning mohiyatini juda sodda ko'rsatadi: filologik tahlil asar nomidan emas, matnning o'zidan boshlanishi kerak. Matnni o'qish, undagi dalilni ko'rish, savol

qo'yish va undan keyin xulosa chiqarish o'rnini "asar nomi – prompt – tayyor tahlil" ketma-ketligi egallasa, talabning asosiy filologik faoliyati — mustaqil o'qish va talqin qilish jarayoni — qisqarib qoladi. Shuning uchun AI bergan tahlilni tekshirishning eng ishonchli yo'li uni boshqa generativ modelga qayta tekshirtirish emas, birlamchi matnga qaytishdir.

Bu masala dissertatsiyalarda metodlarni qo'llash bilan bog'liq yana bir muammoni yuzaga chiqaradi. Tadqiqot metodologiyasida qiyosiy-tipologik, germenevtik, biografik, psixologik, analitik yoki boshqa metodlarni sanab o'tishning o'zi ularning amalda qo'llanganini anglatmaydi. Agar tahlilda qaysi xulosa qanday metodologik tamoyil asosida chiqarilgani ko'rinmasa, metodlar ro'yxati deklarativ xarakter kasb etadi. Generativ modelga "asarni germenevtik metod asosida tahlil qil" yoki "ikki romanni qiyosiy-tipologik jihatdan solishtir" deb topshiriq berish esa metodning real ilmiy qo'llanilishiga teng emas. Metod — promptga kiritilgan atama emas; u materialni tanlash, savol qo'yish, dalilni sharhlash va xulosani asoslashning izchil ilmiy tartibidir.

Shu sababli yuzlab generativ tahlillarning mavjudligi tadqiqotning metodologik jihatdan kuchli ekanini o'z-o'zidan ko'rsatmaydi. Agar tahlillar bir xil umumiy qolip asosida yaratilgan, birlamchi matn bilan muntazam tekshirilmagan va tadqiqotchining o'z metodologik amaliyotidan o'tmagan bo'lsa, ularning ko'pligi ilmiy dalillar sonining ko'payganini anglatmaydi. Dissertatsiya tadqiqotchining faqat ma'lumot yig'ish qobiliyatini emas, material bilan mustaqil ishlash, dalillar orasidan ilmiy ahamiyatlisini tanlash va o'z xulosasini asoslash salohiyatini ham namoyon etishi kerak.

Generativ sun'iy intellektning akademik mualliflikka ta'siri bo'yicha olib borilgan tadqiqotlar ushbu masalaning boshqa tomonini ham ko'rsatadi. W. Zhao doktorlik dissertatsiyalari korpusi asosida generativ AI akademik matndagi muallif pozitsiyasini ifodalash vositalariga ta'sir qilayotganini aniqlagan. Jumladan, generativ vositalardan foydalanish kengaygan davrda ayrim ehtiyotkor pozitsiya markerlarining kamayishi va qat'iyroq ifodalarning ko'payishi kuzatilgan.[5] Filologik dissertatsiya nuqtayi nazaridan bu muhim, chunki ilmiy ish faqat to'g'ri tuzilgan gaplardan iborat emas. Unda muallifning savol qo'yish usuli, dalillarni tanlashi, boshqa qarashlarga munosabati va o'z xulosasining chegarasini anglashi ham ko'rinishi lozim.

Masalaning falsafiy tomoni ham aynan shu yerda namoyon bo'ladi. Fikrlarning ishonarli eshitilishi bilan uning asoslangan bo'lishi bir xil hodisa emas. Generativ model ehtimollik jihatidan mos va lingvistik jihatdan tabiiy javob yaratishga qodir; ilmiy tadqiqot esa fikrning manbasini, dalilini va tekshirish imkoniyatini talab qiladi. Shu sababli asar ruhiga mos, lekin asarda mavjud bo'lmagan iqtibos, terminologik jihatdan murakkab eshitiladigan, ammo matn tarixiga mos kelmaydigan talqin yoki ikki asar o'rtasidagi chiroqli, biroq metodologik jihatdan asoslanmagan o'xshashlik bir xil epistemologik muammoni yuzaga chiqaradi: ishonarli ko'rinish hali ilmiy ishonchlilik degani emas.

Ilmiy mualliflik mas'uliyati ham shu nuqtada boshlanadi. Sun'iy intellekt tadqiqotchiga ilmiy adabiyotlarni dastlabki saralash, katta hajmdagi materialni tizimlashtirish, savol variantlarini shakllantirish, qarama-qarshi fikrlarni ko'rish va matnni tahrirlashda yordam berishi mumkin. Lekin u iqtibosning haqiqiyliги, tanlangan nazariyaning o'rinaligi yoki chiqarilgan ilmiy xulosaning to'g'riligi uchun javob bera olmaydi. COPEning AI va mualliflikka oid pozitsiyasida ham sun'iy intellekt vositalari ilmiy muallif sifatida e'tirof etilmasligi, chunki ular ilmiy mazmun uchun javobgarlikni o'z zimmasiga ola olmasligi ta'kidlangan.[6]

XULOSA

Shunday ekan, filologiyada generativ sun'iy intellektidan foydalanish masalasini "foydalanish mumkin" yoki "foydalanish mumkin emas" degan sodda qarama-qarshilik doirasida hal qilib bo'lmaydi. Uning ilmiy izlanishdagi foydali imkoniyatlarini saqlagan holda, talqin va ilmiy xulosa o'rtasidagi chegarani aniq belgilash zarur. AI o'xshashlikni topishi mumkin, lekin uning tipologik mushtaraklik ekanini tadqiqotchi asoslaydi; AI talqin variantini taklif qilishi mumkin, lekin uning matnga muvofiqligini filolog tekshiradi; AI iqtibos keltirishi mumkin, biroq uning mavjudligini faqat birlamchi manba tasdiqlaydi.

Filologiya ixtisosligida tadqiqot olib borayotgan izlanuvchilar uchun asosiy xavf sun'iy intellektning xato qilishining o'zida emas. Qo'pol xatoni aniqlash odatda qiyin emas. Murakkablik

xatoning to'g'ri fikrga o'xshab qolishidadir. Shuning uchun generativ sun'iy intellekt davrida filologning kasbiy kompetensiyasiga yana bir muhim talab qo'shilmoqda: u nafaqat badiiy matnni, balki mashina yaratgan talqinni ham tanqidiy o'qiy olishi kerak. Texnologiya tadqiqotchiga javobni tezroq topishda yordam beradi, ammo nima uchun aynan shu javob ilmiy jihatdan asosli ekanini ko'rsatish vazifasi tadqiqotchining o'zida qoladi.

Shu bois generativ sun'iy intellektdan filologik tadqiqotda foydalanishda bir qator qat'iy ilmiy ehtiyot choralariga rioya etish zarur. Eng avvalo, AI tomonidan taqdim etilgan har qanday iqtibos, bibliografik ma'lumot, asar nomi, mualliflik atributsiyasi va termin birlamchi yoki ishonchli akademik manba asosida alohida tekshirilishi lozim; sahifa raqami, nashr yili yoki havolaning mavjudligi ma'lumotning haqqoniyligini avtomatik ravishda kafolatlamaydi. Badiiy matn talqinida esa generativ modelning ravon va mantiqan izchil javobi dalil o'rnini bosmasligi kerak: har bir xulosa konkret matn, poetik detal, tarixiy-adabiy kontekst va tanlangan metodning real tatbiqi bilan asoslanishi shart. Ayniqsa, turli davr, milliy adabiyot yoki janrlarga mansub asarlarni qiyoslashda tashqi o'xshashlik, umumiy motiv yoki mavzu ilmiy mushtaraklik sifatida qabul qilinmasligi, qiyoslash mezonini va nazariy asosi oldindan aniq belgilanishi zarur. Xorijiy terminlarni o'zbekchalashtirishda mexanik tarjima, bir tushunchaga bir necha tasodifiy muqobil berish yoki inglizcha terminlarni ortiqcha qavslar orqali takrorlashdan qochish, terminning ilmiy an'anadagi aniq mazmuni va qo'llanish doirasini saqlash talab etiladi. Dissertatsiya va boshqa ilmiy ishlarda metodlarning nomini sanab o'tish bilan cheklanib qolmasdan, ularning tahlil jarayonida qanday ishlagani ko'rsatilishi kerak; promptda "germenevtik", "qiyosiy-tipologik" yoki "psixologik" so'zining mavjudligi metodning amalda qo'llanganini anglatmaydi. Talaba va yosh tadqiqotchilar uchun esa eng muhim talab — birlamchi matnni o'qimasdan tayyor generativ tahlilni qabul qilmaslik, AI javobini ilmiy haqiqat emas, tekshirilishi lozim bo'lgan yordamchi material sifatida ko'rishdir. Aks holda, filologik tadqiqotning eng muhim tamoyillari — matnga sodiqlik, manba aniqligi, terminologik izchilik, metodologik asoslanganlik va muallifning shaxsiy ilmiy javobgarligi — asta-sekin shaklan mukammal, biroq mazmunan tekshirilmagan generativ bayon bilan almashib qolishi mumkin. Shuning uchun sun'iy intellektdan foydalanishni taqiqlash emas, uning ilmiy chegaralarini qat'iy belgilash, har bir generativ ma'lumotni verifikatsiyadan o'tkazish va yakuniy xulosa uchun javobgarlikni tadqiqotchining o'zida saqlash bugungi filologik ilmning muhim metodologik talablaridan biri bo'lishi kerak.

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IQBOL MIRZONING “BONU” ROMANIDA AYOL RUHIYATI VA SUITSIDAL XAVF OMILLARINING BADIY TALQINI

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Annotatsiya. Mazkur maqolada Iqbol Mirzoning Bonu romanida ayol ruhiyatining inqirozli holatlari, ma'naviy yolg'izlik, yo'qotish, ijtimoiy begonalashuv va umidsizlik motivlari suitsidal diskurs nuqtayi nazaridan tahlil qilinadi. Tadqiqotda suitsid bevosita o'z joniga qasd qilish hodisasi sifatida emas, balki insonni ruhiy chegaraviy holatga olib keluvchi psixologik va ijtimoiy omillar bilan bog'liq badiiy muammo sifatida o'rganiladi. Bonu obrazida ketma-ket hayotiy sinovlar, yaqin insonlardan ayrilish, xiyonat, ijtimoiy bosim va ruhiy yolg'izlikning qahramon ichki dunyosiga ta'siri ochib beriladi. Romanning epistolyar shakli qahramonning kechinmalarini ichki monolog, xotira va e'tirof vositasida ifodalash imkonini yaratgani alohida e'tiborga olinadi. Tahlil natijasida Bonuning ruhiy iztiroblari o'zlikni yo'qotish emas, aksincha, og'ir psixologik holatlardan o'tib, hayot mazmunini qayta anglashga intilish bilan xarakterlanishi aniqlanadi. Shu jihatdan romanda ruhiy inqiroz va ma'naviy uyg'onish bir-biriga qarama-qarshi, ayni paytda o'zaro bog'liq badiiy jarayonlar sifatida namoyon bo'ladi.

Kalit so'zlar: Bonu romani, ayol ruhiyati, suitsidal diskurs, ruhiy inqiroz, yolg'izlik, begonalashuv, umidsizlik, o'zlikni anglash, ma'naviy uyg'onish, psixologizm.

Аннотация. В статье исследуются психологический кризис, духовное одиночество, утрата, социальное отчуждение и мотивы безысходности в романе Икбола Мирзо «Бону» в контексте суицидального дискурса. Суицид рассматривается не как непосредственно изображённый в произведении акт, а как литературно-психологическая проблема, связанная с факторами, способными привести человека к предельному эмоциональному состоянию. Особое внимание уделяется влиянию жизненных испытаний, потери близких, предательства, общественного давления и одиночества на внутренний мир главной героини. Эпистолярная форма романа позволяет раскрыть психологическое состояние Бону посредством воспоминаний, внутренних размышлений и исповедального повествования. Анализ показывает, что переживаемый героиней духовный кризис приводит не к окончательной утрате личности, а к стремлению заново осмыслить собственную жизнь и сохранить внутреннюю идентичность. В этом отношении психологический кризис и духовное пробуждение представлены в романе как противоположные, но взаимосвязанные художественные процессы.

Ключевые слова: роман «Бону», женская психология, суицидальный дискурс, психологический кризис, одиночество, отчуждение, безысходность, самосознание, духовное пробуждение.

Abstract. This article examines psychological crisis, spiritual loneliness, loss, social alienation and hopelessness in Iqbol Mirzo's novel Bonu from the perspective of suicidal discourse. Suicide is approached not as a direct act represented in the novel, but as a literary and psychological problem associated with conditions that may place an individual in an extreme emotional state. Particular attention is paid to the impact of repeated life difficulties, loss of loved ones, betrayal, social pressure and isolation on Bonu's inner world. The epistolary structure of the novel enables the heroine's psychological experiences to be expressed through memories, inner reflection and confession. The analysis demonstrates that Bonu's emotional suffering does not ultimately result in the complete loss of self; rather, it becomes part of her struggle to reconsider the meaning of life and preserve her personal identity. Thus, psychological crisis and spiritual awakening function as opposing yet interconnected processes in the artistic structure of the novel.

Keywords: Bonu, female psychology, suicidal discourse, psychological crisis, loneliness, alienation, hopelessness, self-awareness, spiritual awakening, literary psychology.

KIRISH

Badiiy adabiyot insonning chegaraviy ruhiy holatlarini tadqiq etuvchi muhim ma'naviy-estetik makondir. Yo'qotish, yolg'izlik, umidsizlik, ijtimoiy begonalashuv, oilaviy ziddiyat va insonning o'z hayotining mazmuniga doir savollari adabiyotda ruhiy inqirozning turli shakllari orqali ifodalanadi. Suitsid mavzusining badiiy talqini ham inson hayoti va o'limi o'rtasidagi munosabatni tasvirlash bilangina cheklanmay, shaxsning ruhiy barqarorligini zaiflashtiruvchi ijtimoiy va psixologik omillarni o'rganishni taqozo etadi.

Suitsidologiyada o'z joniga qasd qilish xulqi yagona sabab bilan emas, balki bir-biriga ta'sir qiluvchi ko'plab individual, psixologik va ijtimoiy omillar bilan bog'liq murakkab hodisa sifatida qaraladi. Yo'qotish, yolg'izlik, munosabatlar inqirozi, zo'ravonlik, ijtimoiy ajralish va og'ir hissiy tanglik shunday omillar sirasiga kiradi. Badiiy asarni tahlil qilishda esa ushbu mezonlarni klinik tashxis sifatida emas, qahramon ruhiy holatini ochishga xizmat qiluvchi nazariy tushunchalar sifatida qo'llash maqsadga muvofiqdir.

Iqbol Mirzoning Bonu romani ana shunday psixologik yondashuv uchun muhim badiiy material beradi. Asar qahramoni hayoti davomida yo'qotishlar, xiyonatlar, ijtimoiy adolatsizlik, yaqin insonlar bilan bog'liq ruhiy zarbalar va yolg'izlikni boshdan kechiradi. Uning hayotiy tajribasi xotiralar, maktublar va ichki mulohazalar orqali bayon qilinishi qahramon ruhiyatining chuqur qatlamlarini ochishga imkon yaratadi.

Mazkur tadqiqotning maqsadi Bonu romanidagi ayol ruhiy inqirozini suitsidal diskurs bilan bog'liq psixologik omillar nuqtayi nazaridan o'rganish, qahramonning yolg'izlik, yo'qotish va umidsizlik holatlaridan ma'naviy o'zlikni qayta anglash tomon harakatini badiiy-psixologik jihatdan tahlil qilishdan iborat.

MATERIALLAR VA USULLAR

Tadqiqotning asosiy materiali Iqbol Mirzoning Bonu romani hisoblanadi. Tahlilda badiiy-psixologik, kontekstual, tavsifiy va interpretativ metodlardan foydalanildi. Qahramonning ichki monologlari, maktublari, xotiralari va turli hayotiy voqealarga bergan ruhiy reaksiyalari tadqiqotning asosiy tahlil birliklari sifatida olindi.

Suitsidal diskursni talqin qilishda yolg'izlik, yo'qotish, ijtimoiy ajralish, og'ir hissiy iztirob va munosabatlar inqirozi singari omillarga e'tibor qaratildi. Shu bilan birga, badiiy qahramon ruhiyati tibbiy tashxis nuqtayi nazaridan emas, adabiy-psixologik hodisa sifatida baholandi. Bu yondashuv Bonuning holatini bevosita suitsidal xulq bilan tenglashtirmasdan, asardagi ruhiy tanglikning poetik ifodasini o'rganish imkonini beradi.

NATIJALAR VA MUHOKAMA

Bonu romanidagi ruhiy inqiroz bir martalik hodisa sifatida emas, qahramon hayotida ketma-ket yuz beruvchi sinovlarning yig'indisi sifatida shakllanadi. Uning shaxsiy hayotidagi yo'qotishlar, yaqin insonlarning xiyonati, ijtimoiy muhit bilan ziddiyat va tushunilmaslik hissi ichki ruhiy muvozanatning izdan chiqishiga sabab bo'luvchi badiiy omillarga aylanadi. Shu jihatdan Bonu kechinmalarining poetik tasviri insonning og'ir hayotiy vaziyatlarga munosabati va ruhiy chidamliligi masalasini yuzaga chiqaradi.

Qahramonning ruhiy yolg'izligi romanning muhim psixologik qatlamlaridan biridir. Bonu atrofida odamlar mavjud bo'lishiga qaramay, uning ichki dunyosini to'liq tushuna oladigan suhbatdoshga ehtiyoji kuchli. Maktub shaklidagi bayon ana shu ehtiyojning poetik ifodasiga aylanadi. U o'z kechinmalarini boshqa bir insonga aytib berish orqali nafaqat muloqotga kirishadi, balki o'zining ichki "meni"ni saqlab qolishga ham harakat qiladi.

Suitsidal diskurs nuqtayi nazaridan bunday yolg'izlik shaxsning jamiyatdan jismonan ajralishi bilangina belgilanmaydi. Ruhiy begonalashuv insonning o'z dardi, qo'rquvi va iztiroblari bilan yolg'iz qolishi orqali yuzaga keladi. Bonuda ham qahramonning ayrim kechinmalari aynan tushunilmaslik va o'z dardini ichida olib yurish bilan bog'langan.

Asardagi yo'qotish motivi ham qahramon ruhiy inqirozining rivojlanishida muhim ahamiyatga ega. Yaqinlardan ayrilish va insonlar o'rtasidagi ishonchning buzilishi Bonuning dunyo

haqidagi avvalgi tasavvurlarini o'zgartiradi. Bunda yo'qotish faqat jismoniy ayriliq ma'nosida emas, balki ishonch, mehr, xavfsizlik va kelajakka bo'lgan umidning zaiflashuvi sifatida ham namoyon bo'ladi. Shu tariqa muallif inson ruhiyatidagi iztirobni ijtimoiy va axloqiy omillar bilan bog'laydi.

Xiyonat va qadriyatlar ziddiyati ham ruhiy bosimning muhim manbalaridan biridir. Bonuning odamlar va hayot haqidagi ideal tasavvurlari real voqelik bilan to'qnashgan sari ichki qarama-qarshilik kuchayadi. Qahramon uchun og'riqli bo'lgan narsa faqat boshidan kechirgan voqealarning o'zi emas, balki ilgari ishongan qadriyatlarning shubha ostida qolishidir. Insonning ishonch tizimi izdan chiqqan sharoitda hayot mazmuni haqidagi savollar ham keskinlashadi.

Biroq roman ruhiy inqirozni faqat tanazzul jarayoni sifatida talqin qilmaydi. Bonuning maktub yozishi, o'z hayotini xotirada qayta tiklashi va boshidan o'tgan voqealarni tahlil qilishi ma'naviy qarshilik shakli sifatida ko'rinadi. Qahramon o'z dardini so'zga aylantirar ekan, hayotining turli bosqichlariga ma'no berishga intiladi. Shu nuqtada epistolyar shakl oddiy kompozitsion vositadan psixologik o'zlikni tiklash mexanizmiga aylanadi.

Bonuning ruhiy olamida umidsizlik va umid o'rtasidagi qarama-qarshilik ham muhimdir. Og'ir voqealar qahramonning dunyo va insonlarga bo'lgan ishonchini zaiflashtiradi, biroq uning axloqiy qadriyatlarini butunlay yo'q qila olmaydi. Kechirish, fikrlash, o'z hayotini qayta baholash va suhbatdosh izlash ehtiyoji uning ruhiy dunyosida hayot bilan bog'lanish rishtalari saqlanib qolganini ko'rsatadi.

Shu sababli Bonuni suitsidal diskurs doirasida tahlil qilishda qahramonni suitsidal shaxs sifatida to'g'ridan-to'g'ri tavsiflash ilmiy jihatdan asosli emas. Asarda muhimroq masala — og'ir ruhiy iztirobni yuzaga keltiruvchi yo'qotish, begonalashuv, xiyonat, ijtimoiy bosim va yolg'izlik motivlarining badiiy tizimidir. Aynan shu motivlar suitsidologik tadqiqotlarda insonning ruhiy tangligi bilan bog'lanadigan omillarga tipologik jihatdan yaqinlashadi.

Asarning avvalgi ma'naviy uyg'onish konsepsiyasi ham yangi talqinda o'z ahamiyatini saqlab qoladi. Bonuning o'zligini anglashga intilishi ruhiy inqirozga qarshi turuvchi ichki kuch sifatida namoyon bo'ladi. Qahramonning hayotiy tajribasini fikriy qayta ishlashi, ma'naviy mezonlarini saqlashga urinishi va o'z shaxsiyatini yo'qotmasligi uning badiiy evolyutsiyasining asosini tashkil qiladi.

Shu ma'noda romanda ma'naviy uyg'onish va ruhiy inqiroz dialektik birlikda namoyon bo'ladi. Ruhiy tanglik o'zlikning butunlay yemirilishini emas, ayrim hollarda insonning o'z hayoti va qadriyatlariga yangicha nazar tashlashini ham yuzaga keltiradi. Iqbol Mirzo Bonu obrazi orqali ayolning og'ir hayotiy sinovlardan keyingi ichki holatini tasvirlar ekan, insonning ruhiy chidamliligi, o'zini anglash va hayot mazmunini qayta izlash muammolarini markazga olib chiqadi.

XULOSA

Iqbol Mirzoning Bonu romanida ayol ruhiyati yo'qotish, xiyonat, yolg'izlik, ijtimoiy bosim va ma'naviy iztirob bilan bog'liq murakkab psixologik jarayonlar orqali ochib beriladi. Mazkur holatlar suitsidal diskurs bilan bog'liq xavf omillariga tipologik jihatdan yaqin bo'lsa-da, romanda ularni bevosita o'z joniga qasd qilish harakati sifatida baholash uchun asos yetarli emas.

Asarning muhim badiiy xususiyati shundaki, ruhiy inqiroz qahramonning o'zligini butunlay yo'qotishi bilan emas, o'z hayotini qayta anglash va ma'naviy tayanchlarini saqlashga intilishi bilan uyg'unlashadi. Epistolyar bayon, ichki monolog va xotira Bonuning ruhiy iztirobini ifodalash bilan birga, uning hayot mazmunini qayta qurish vositasiga ham aylanadi. Shu jihatdan Bonu romani zamonaviy o'zbek nasrida ayolning ruhiy inqirozi, yolg'izligi va ma'naviy qarshiligini o'rganish uchun muhim badiiy manba hisoblanadi.

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SEMANTIC TRANSFORMATION AND LEXICAL DEVELOPMENT OF LEGAL TERMS IN ENGLISH AND UZBEK

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Abstract. This study examines the semantic transformation and lexical development of legal terms in English and Uzbek from a comparative linguistic perspective. It focuses on how legal terminology changes in form, meaning, and contextual usage under the influence of historical, social, cultural, and institutional factors. The research analyzes major sources of legal vocabulary, including native lexical elements, borrowings, internationalisms, compounds, and multiword terminological units. Particular attention is given to semantic processes such as specialization, generalization, polysemy, synonymy, semantic extension, and contextual reinterpretation. The study also explores similarities and differences in the representation of legal concepts in English and Uzbek legal discourse. The findings demonstrate that legal terminology is a dynamic system in which lexical development and semantic transformation are closely connected with changes in legal institutions and social realities. The research contributes to comparative linguistics, legal terminology studies, lexicography, and accurate English–Uzbek legal translation and the development of bilingual legal resources.

Keywords: transformation, legal terms, generalization, polysemy, synonymy, semantic extension, analyse, contextual reinterpretation.

Annotatsiya. Mazkur tadqiqot ingliz va o'zbek tillaridagi huquqiy terminlarning semantik transformatsiyasi va leksik rivojlanishini qiyosiy-lingvistik nuqtayi nazardan o'rganadi. Unda huquqiy terminologiyani tarixiy, ijtimoiy, madaniy va institutsional omillar ta'sirida shakli, ma'nosi hamda kontekstual qo'llanishidagi o'zgarishlarga e'tibor qaratiladi. Tadqiqot huquqiy leksikaning asosiy manbalarini, jumladan, milliy leksik birliklar, o'zlashmalar, internatsionalizmlar, qo'shma so'zlar va ko'p so'zli terminologik birliklarni tahlil qiladi. Shuningdek, ixtisoslashuv, umumlashuv, polisemiya, sinonimiya, semantik kengayish va kontekstual qayta talqin qilish kabi semantik jarayonlarga alohida e'tibor beriladi. Tadqiqotda ingliz va o'zbek huquqiy diskursida huquqiy tushunchalarning ifodalanishidagi o'xshashlik va farqlar ham o'rganiladi. Tadqiqot natijalari huquqiy terminologiya dinamik tizim bo'lib, undagi leksik rivojlanish va semantik transformatsiya huquqiy institutlar hamda ijtimoiy voqelikdagi o'zgarishlar bilan chambarchas bog'liqligini ko'rsatadi. Tadqiqot qiyosiy tilshunoslik, huquqiy terminologiya, leksikografiya, ingliz–o'zbek huquqiy tarjimasining aniqligini ta'minlash hamda ikki tilli huquqiy resurslarni rivojlantirishga hissa qo'shadi.

Kalit so'zlar: transformatsiya, huquqiy terminlar, umumlashuv, polisemiya, sinonimiya, semantik kengayish, tahlil, kontekstual qayta talqin.

Аннотация. В данном исследовании рассматриваются семантическая трансформация и лексическое развитие юридических терминов в английском и узбекском

языках с позиций сравнительно-сопоставительного языкознания. Основное внимание уделяется изменениям формы, значения и контекстуального употребления юридической терминологии под влиянием исторических, социальных, культурных и институциональных факторов. В исследовании анализируются основные источники юридической лексики, включая исконные лексические элементы, заимствования, интернационализмы, сложные слова и многокомпонентные терминологические единицы. Особое внимание уделяется таким семантическим процессам, как специализация, генерализация, полисемия, синонимия, семантическое расширение и контекстуальная переинтерпретация. В работе также исследуются сходства и различия в репрезентации юридических понятий в английском и узбекском юридическом дискурсе. Результаты исследования показывают, что юридическая терминология представляет собой динамическую систему, в которой лексическое развитие и семантическая трансформация тесно связаны с изменениями в правовых институтах и социальной реальности. Исследование вносит вклад в сравнительное языкознание, изучение юридической терминологии, лексикографию, обеспечение точности англо-узбекского юридического перевода и развитие двуязычных юридических ресурсов.

Ключевые слова: трансформация, юридические термины, генерализация, полисемия, синонимия, семантическое расширение, анализ, контекстуальная переинтерпретация.

INTRODUCTION

Language functions as the primary vehicle through which legal systems articulate norms, obligations, and systemic values. Within the architecture of specialized discourse, legal terminology undergoes continuous evolution, shaped by socio-historical shifts, institutional reforms, and cross-cultural contact (Tiersma, 2010). The semantic transformation and lexical development of legal terms represent a dynamic process wherein words acquire specialized functional loads that frequently diverge from their everyday usage (Mattila, 2006). Investigating this evolution in typologically different languages, such as English and Uzbek, reveals how distinct linguistic mechanisms govern the birth, stabilization, and semantic expansion of legal concepts across different legal traditions.

The lexical development of legal terminology in English is heavily influenced by a rich etymological heritage that combines Germanic roots with extensive borrowing from Latin, Old French, and Greek (Mellinkoff, 2002). This historical stratification has generated a complex web of synonyms, doublets, and structural variants within Common Law frameworks (Crystal, 2003). Over time, many English legal terms have experienced profound semantic shifts, transitioning from general moral or social concepts into highly technical terms of art with strict statutory or judicial definitions (Driedger, 1983). Processes such as broadening, narrowing, and functional conversion continuously alter the semantic boundaries of these terms, requiring scholars and legal professionals to navigate a landscape where surface-level transparency often masks deep technical specialization.

Conversely, the lexical expansion of legal terminology in Uzbek reflects a unique trajectory marked by historical Arabic-Islamic influences, Soviet-era terminology planning, and post-independence modernization centered on national legal codification (Abazov, 2016). The creation and adaptation of Uzbek legal vocabulary involve active derivational morphology, semantic calquing, and the strategic adoption of international legal concepts (Karimov, 2021). As the national legal system aligns with contemporary global standards, indigenous roots and historical borrowings interact with modern global legal discourse. This interaction triggers specific semantic transformations, where traditional words are re-semanticized to accommodate statutory requirements, constitutional updates, and international legal norms.

RESULTS AND DISCUSSION

Legal terminology represents one of the most dynamic and socially significant components of specialized vocabulary. Unlike ordinary lexical units, legal terms are closely associated with the development of legal institutions, legislative practices, social relations, and systems of governance. Consequently, their meanings are not always stable and may undergo substantial transformation over time. Semantic transformation in legal terminology can be understood as a process through which the meaning, scope, connotations, or functional characteristics of a legal term change under the influence

of historical, institutional, cultural, and linguistic factors. In both English and Uzbek, the development of legal terminology demonstrates that semantic change is closely connected with changes in the corresponding legal systems. However, the mechanisms and intensity of such changes differ because English and Uzbek have developed within different historical and sociocultural environments.

Changes in the meanings of legal terms over time are particularly evident in English, where legal vocabulary has been influenced by Old English, French, Latin, and later international legal terminology. Many contemporary English legal terms have preserved elements of their historical meanings while acquiring additional specialized senses. The term *action*, for example, originally had a relatively broad meaning associated with doing or performing something, whereas in legal discourse it developed the specialized meaning of a legal proceeding brought before a court. Similarly, *appeal* has a general meaning of making a serious or urgent request, but within the legal domain it denotes a formal request for a higher court to reconsider a decision made by a lower court. Such developments illustrate the process of semantic specialization, whereby a general lexical item acquires a narrower and technically defined legal meaning (Khujakulov, 2026).

Uzbek legal terminology also demonstrates considerable semantic transformation and contextual variation. The development of Uzbek legal vocabulary has been influenced by traditional Turkic lexical resources, Arabic and Persian elements, Russian terminology, and, increasingly, international and English-derived legal concepts. Words such as *huquq*, *qonun*, *sud*, *da'vo*, *shartnoma*, and *javobgarlik* have established specialized meanings within contemporary legal discourse, while some of their semantic characteristics have developed in accordance with changes in legislation and legal institutions. For example, *da'vo* is associated in legal discourse with a formal claim or demand submitted for judicial consideration, although the broader notion of demanding or claiming something may occur in non-legal contexts. Its legal meaning is therefore strengthened and specified through institutional usage (García Landa, 2018).

In Uzbek, specialization can likewise be observed when ordinary lexical units become established as technical legal terms. The term *mulk* refers generally to property or possessions, but in legal discourse it acquires a more precise conceptual meaning related to legally recognized property rights and ownership relations. Similarly, *majburiyat* can refer broadly to an obligation or duty, while in civil law it represents a legally recognized relationship in which one party is required to perform a particular action or refrain from acting. These examples demonstrate how legal discourse narrows and systematizes the meanings of lexical units (Bhatia, 2014).

At the same time, certain legal terms may experience semantic expansion as their use extends beyond their original institutional or technical domains. In contemporary legal discourse, this process can be influenced by globalization, international legislation, human rights discourse, digitalization, and the emergence of new areas of law. Terms associated with privacy, security, rights, data, and discrimination, for example, have acquired increasingly complex legal and interdisciplinary meanings. Similar processes can be observed in Uzbek, particularly as new legal concepts are incorporated into national legislation and professional discourse.

The lexical development of legal terminology is a continuous process determined by changes in legal systems, social relations, political institutions, technological development, and international communication. Legal vocabulary is not a fixed collection of terms; rather, it develops in response to the emergence of new legal concepts and the transformation of existing institutions. According to Cabré (1999), specialized terminology evolves together with the conceptual structures of the professional field it represents. In the legal domain, this relationship is particularly strong because the creation of new legislation, legal institutions, procedures, and areas of regulation requires the development of corresponding linguistic units. Consequently, the lexical development of English and Uzbek legal terminology reflects both internal linguistic processes and external legal and sociocultural changes.

One of the principal mechanisms of lexical development is the formation of new legal terms. New terms emerge when existing vocabulary is insufficient to designate newly developed legal concepts. Contemporary legal systems have generated terminology associated with such areas as cybercrime, data protection, intellectual property, environmental law, financial technology, electronic

commerce, and artificial intelligence. For example, contemporary English legal discourse contains terms such as cybercrime, cybersecurity, data protection, digital evidence, smart contract, and online dispute resolution. These terms demonstrate that legal terminology responds directly to technological and institutional innovation. Sager (1990) emphasizes that terminology formation is fundamentally related to the need to name and organize newly emerging concepts within specialized domains. The same tendency can be observed in Uzbek, where new legal concepts have required the creation or adaptation of terms corresponding to developments in national legislation and international legal practice.

Borrowing represents another important mechanism in the development of legal vocabulary. Throughout its history, English legal terminology has incorporated a substantial number of words from other languages, particularly Latin and French. Terms such as contract, justice, court, jury, attorney, alibi, bona fide, and habeas corpus demonstrate the historical importance of borrowing in the formation of English legal vocabulary. Tiersma (1999) notes that the historical development of English legal language was strongly influenced by the coexistence of Anglo-Saxon, French, and Latin elements. Borrowed terms have not simply been incorporated into English; many have undergone phonological, morphological, and semantic adaptation and have become integral components of the modern legal lexicon.

Uzbek legal terminology has also developed through extensive lexical borrowing, although its sources and historical circumstances differ from those of English. Traditional Uzbek vocabulary has interacted with Arabic and Persian lexical elements, while Russian exerted considerable influence during the Soviet period. In the contemporary period, international and English-derived terminology has become increasingly significant. Terms associated with compliance, digitalization, mediation, copyright, cybersecurity, and other internationally circulating concepts may enter Uzbek either directly or through translation and adaptation. This process can be described as internationalization, whereby specialized terms or concepts circulate across national linguistic boundaries as a consequence of increased international cooperation (Temmerman, 2000). For example, international legal expressions relating to human rights, personal data, intellectual property, and money laundering can be rendered in Uzbek through established translation equivalents that integrate the international concept into the Uzbek legal system. Such processes demonstrate that lexical development is closely connected with legal translation. A translated term may initially be used as a contextual equivalent but later become standardized through legislation, official documents, legal scholarship, and professional practice. Once standardized, the term can become an independent component of the national legal lexicon.

Derivation and word formation constitute additional productive mechanisms of legal terminology development. New legal terms may be created through affixation, compounding, conversion, and other morphological processes. English demonstrates extensive use of compounds such as lawyer-client, courtroom, law-making, cybercrime, and data protection. Derivational processes also produce terms such as legalize, criminalize, legality, legislative, prosecution, and enforcement. Such formations illustrate the ability of English morphology to generate terminological families around central legal concepts. According to Bauer (2003), derivation and compounding are among the principal mechanisms through which languages expand their lexical inventories (Bauer, 2003).

Uzbek also possesses productive morphological mechanisms for creating legal terminology. Affixation can be used to form nouns referring to legal processes, institutions, qualities, and participants. Examples include formations containing suffixes such as -lik, -chi, -uvchi, and -noma, as in javobgarlik (liability/responsibility), sudlanuvchi (defendant/person on trial), and shartnoma (contract). Compounding and phrase formation are also important in contemporary Uzbek legal terminology, particularly when translating multiword international concepts. These processes allow newly introduced legal concepts to be integrated into the grammatical and lexical patterns of Uzbek.

Abbreviation and lexical reduction have become increasingly important with the expansion of complex institutional and technological terminology. Legal discourse frequently contains long names of laws, governmental institutions, international organizations, procedures, and regulatory

frameworks. Consequently, abbreviations are used to increase efficiency and reduce repetition. English legal and institutional discourse contains abbreviations such as ADR (Alternative Dispute Resolution), GDPR (General Data Protection Regulation), and IP (Intellectual Property). Although abbreviations may initially be restricted to professional communication, some become sufficiently established to function as independent lexical units.

Legal reforms represent another major factor influencing lexical development in Uzbek. Changes in legislation and institutional structures create the need to introduce, redefine, or standardize legal terminology. When new legal institutions or procedures are established, their names and associated concepts must be linguistically codified. The development of terminology relating to mediation, administrative procedures, intellectual property, digital technologies, anti-corruption measures, and data protection illustrates the close relationship between legal reform and lexical expansion. In this respect, legal terminology functions not merely as a linguistic instrument but also as a reflection of institutional modernization.

The role of English as a source of contemporary legal terminology in Uzbek has become increasingly prominent because English functions as a major language of international legal, economic, technological, and academic communication. The growing influence of English does not necessarily mean that Uzbek simply adopts English words without modification. Instead, English-origin concepts may enter Uzbek through several mechanisms, including direct borrowing, translation, calquing, semantic adaptation, and terminological standardization. Cabré (1999) points out that the international circulation of specialized knowledge inevitably promotes interaction between terminological systems. This phenomenon is particularly visible in areas where technological and legal innovation occurs rapidly.

The influence of English is especially strong in emerging fields where internationally standardized concepts develop faster than national terminology. Digital law, intellectual property, information technology law, international commercial arbitration, corporate governance, and compliance provide important examples. English terms may initially circulate among specialists and then acquire Uzbek equivalents through legislative documents, professional publications, university textbooks, and official translations. Over time, some terms may become fully integrated into Uzbek, while others remain in their original or partially adapted forms.

However, the incorporation of English-derived terminology presents several challenges. Direct borrowing can produce terminological variation when several competing equivalents are used for the same concept. Literal translation may also result in semantic or conceptual inaccuracies when the source concept has no exact equivalent in Uzbek law. As Šarčević (1997) argues, legal concepts are embedded in specific legal systems, meaning that linguistic similarity does not necessarily indicate legal equivalence. Therefore, the introduction of English-origin legal terminology into Uzbek requires systematic terminological analysis and standardization.

The comparative analysis of English and Uzbek demonstrates that lexical development in both languages is characterized by several common mechanisms: the creation of new terms, borrowing, translation, calquing, derivation, compounding, abbreviation, and semantic adaptation. Nevertheless, the relative importance of these mechanisms differs according to historical and sociolinguistic circumstances. English has historically developed through extensive borrowing and now plays an important role as an international source language. Uzbek, in contrast, has increasingly developed its contemporary legal terminology through the interaction of indigenous lexical resources, historical borrowings, Russian influence, and international terminology, particularly English-derived concepts.

Overall, the lexical development of legal terminology in English and Uzbek reflects the dynamic relationship between linguistic change and legal transformation. New legal concepts generate new lexical forms, while globalization and legal reform accelerate the exchange of terminology between languages. English currently occupies a particularly influential position in the international circulation of legal and interdisciplinary terminology, and Uzbek increasingly adapts these concepts through borrowing, translation, calquing, and morphological formation. The study of these processes is therefore essential for understanding the development of modern legal vocabulary,

improving legal translation, standardizing terminology, and identifying similarities and differences between English and Uzbek legal conceptual systems.

CONCLUSION

The comparative analysis demonstrates that the semantic transformation and lexical development of legal terms in English and Uzbek are closely connected with the historical, social, and institutional development of their respective legal systems. Legal terminology is not static; its meanings and forms continuously change under the influence of legislative reforms, professional practice, globalization, technological development, and international legal communication. In both languages, semantic processes such as specialization, generalization, polysemy, semantic extension, and contextual modification contribute to the development of legal vocabulary.

The study also shows that English and Uzbek employ similar mechanisms of lexical development, including borrowing, translation, calquing, derivation, compounding, and abbreviation. However, the realization of these processes reflects the distinctive historical and cultural characteristics of each language. English legal terminology has been significantly shaped by Latin and French influences and currently functions as an important international source of legal and interdisciplinary terminology. Uzbek legal terminology, meanwhile, demonstrates the interaction of native lexical resources with Arabic-Persian, Russian, and increasingly English-derived terminology.

The growing influence of English has accelerated the introduction of new legal concepts into Uzbek, particularly in emerging areas such as digital law, intellectual property, international commerce, and data protection. Therefore, comparative investigation of English and Uzbek legal terminology is important for achieving conceptual accuracy in legal translation, improving terminological standardization, and developing modern bilingual legal dictionaries and resources. Overall, the study confirms that legal terminology reflects both linguistic evolution and changes in legal thought, making its systematic comparative analysis essential for contemporary legal linguistics.

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THE UNQUANTIFIABLE CODE: WHY HUMAN TRANSLATION REMAINS INDISPENSABLE IN THE AGE OF ALGORITHMS

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Abstract. This paper examines the indispensable role of human translation in an era dominated by neural machine translation (NMT) and artificial intelligence. While acknowledging the efficiency of algorithmic systems in technical and formulaic domains, it argues that machine translation fundamentally lacks the capacity to process situated meaning, cultural nuance, and sociopolitical context. The analysis draws on literary, scientific, and sociopolitical perspectives to demonstrate that human translators function as cultural mediators and ethical arbiters, not merely linguistic decoders. The paper concludes that the relationship between human and machine translation should be framed as complementary rather than competitive, with human expertise remaining essential for preserving cultural specificity, emotional resonance, and interpretive accuracy.

Keywords: human translation, machine translation, cultural mediation, contextual meaning, translation ethics.

Annotatsiya. Ushbu maqolada neyron mashina tarjimasi (NMT) va sun'iy intellekt ustunlik qilayotgan davrda inson tarjimasining ajralmas o'rni tadqiq etiladi. Algoritmik tizimlarning texnik va qolipli sohalaridagi samaradorligi e'tirof etilgan holda, mashina tarjimasi muayyan kontekstga bog'liq ma'no, madaniy nozikliklar hamda ijtimoiy-siyosiy kontekstni to'liq qayta ishlash imkoniyatiga ega emasligi ta'kidlanadi. Tahlil adabiy, ilmiy va ijtimoiy-siyosiy nuqtayi nazarlarga asoslanib, inson tarjimonlari shunchaki lingvistik dekodeklar emas, balki madaniy vositachilar va axloqiy qarorlarni amalga oshiruvchi subyektlar sifatida faoliyat yuritishini ko'rsatadi. Maqolada inson va mashina tarjimasi o'rtasidagi munosabat raqobatbardosh emas, balki o'zaro to'ldiruvchi xususiyatga ega bo'lishi lozim degan xulosaga kelinadi. Bunda madaniy o'ziga xoslik, hissiy ta'sirchanlik va talqin aniqligini saqlab qolishda inson tajribasi muhim ahamiyat kasb etadi.

Kalit so'zlar: inson tarjimasi, mashina tarjimasi, madaniy vositachilik, kontekstual ma'no, tarjima etikasi.

Аннотация. В данной статье исследуется незаменимая роль человеческого перевода в эпоху, характеризующуюся широким распространением нейронного машинного перевода (NMT) и искусственного интеллекта. Признавая эффективность алгоритмических систем в технических и стандартизированных областях, авторы подчёркивают, что машинный перевод принципиально ограничен в способности обрабатывать ситуативное значение, культурные нюансы и социально-политический контекст. Анализ, основанный на литературном, научном и социально-политическом подходах, показывает, что переводчики-человеки выступают не просто в качестве лингвистических декодеров, а как культурные посредники и носители этической ответственности. В статье делается вывод о том, что взаимодействие между человеческим и машинным переводом следует рассматривать не как конкуренцию, а как взаимодополняющее сотрудничество, при котором человеческая экспертиза остаётся необходимой для сохранения культурной специфики, эмоциональной выразительности и интерпретационной точности.

Ключевые слова: человеческий перевод, машинный перевод, культурное посредничество, контекстуальное значение, этика перевода.

INTRODUCTION

The dawn of the twenty-first century has been defined by the relentless march of technology. We live in an era of instantaneous digital communication, where sophisticated neural machine

translation (NMT) systems can process vast swathes of text in milliseconds. From real-time conversation apps to AI-powered content generation, the dream of a seamless, universal translator feels tantalizingly close. Yet, to mistake this computational efficiency for genuine communication is to fundamentally misunderstand the nature of language. As we navigate the complexities of the third millennium, the distinction between *translating* words and *transmitting* meaning has never been more critical. Despite the exponential advances in electronic processing, the human translator remains the sole guardian of cultural nuance, social sensitivity, and intellectual rigor.

The primary deficiency of machine translation lies in its inherent inability to process context beyond statistical probability. While an algorithm can be trained on billions of texts, it does not *understand* the societal weight of a word, the historical trauma embedded in a phrase, or the subtle power dynamics of a formal versus an informal address. In the scientific realm, where precision is paramount, this presents a clear danger. The mistranslation of a single methodological term can derail international research collaboration. However, the stakes are even higher in the cultural sphere. A machine can translate the dialogue of a novel, but it cannot translate the *feeling* of a post-colonial irony, the resonance of a regional dialect, or the subtext of a taboo subject. Human translators bring to their work a critical sociolinguistic awareness; they act as cultural mediators who bridge the gap between the source and target audiences. They are not merely exchanging lexicons but negotiating identities, values, and worldviews. In the globalized 21st century, where misunderstanding can have profound political and social consequences, this humanistic mediation is not a luxury—it is a necessity.

MATERIALS AND METHODS

We are inundated with data, yet starved for understanding. The 21st century offers us the paradox of hyper-connectivity combined with deep cultural fragmentation. In this landscape, the proliferation of machine translation offers a seductive efficiency, reducing the friction of global commerce and travel. Yet, when we turn to the essence of human expression—our literature, our poetry, our history, and our scientific discoveries—we must ask a fundamental question: Is it enough to merely decode, or must we also *feel* and *interpret*? This is the battleground where human translation retains its absolute sovereignty. It is not a rejection of technology, but a reclamation of the human soul in the act of communication.

Literary translation is an act of re-creation, not reproduction. When a translator works with a text, they perform a deep psychological and cultural archaeology. They must navigate the specific "cultural DNA" of the source language—the idioms born of geography, the humor rooted in social quirks, and the metaphors drawn from a shared collective memory. To translate these into the target language requires a delicate balance of fidelity and artistry, a skill that no algorithm can possess because it lacks consciousness. Similarly, in the sciences, while data is universal, the *dissemination* of that data to the public relies on the translator's ability to adapt complex jargon into accessible, culturally resonant concepts. The human translator is the critical filter who understands the target audience's educational background, social anxieties, and cultural taboos. They ensure that a medical breakthrough is reported with clarity, or that a philosophical treatise is rendered without losing its metaphysical depth. As we move further into an era dominated by digital interfaces, the role of the human translator evolves into that of a guardian of authenticity—ensuring that even as technology grows smarter, our human connection grows deeper, more nuanced, and ultimately, more civilized.

RESULTS AND DISCUSSION

In the second decade of the 21st century, we find ourselves caught between two opposing forces: the global demand for speed and the local need for authenticity. Machine translation systems, powered by deep learning and vast corpora, have undoubtedly transformed how we access foreign information. They offer a surface-level bridge across languages, useful for navigation, commerce, or emergency. Yet, this very convenience conceals a profound risk: the erosion of cultural specificity and the flattening of human voice. Human translation, in contrast, is not a mechanical transfer but a cognitive and ethical act—one that requires judgment, empathy, and an intimate familiarity with the sociocultural ecosystems of both source and target communities.

The core argument for human primacy rests on the concept of situated meaning. Words do not carry fixed definitions; they acquire significance through usage, history, and social positioning. A machine processes tokens; a human processes *implicature*. Consider a scientific text: while terminology may appear universal, its reception depends heavily on the target culture's educational infrastructure, research traditions, and even funding priorities. A human translator with domain expertise can rephrase, qualify, or even reframe a finding to suit the epistemic expectations of the target audience—without betraying the original data. In literature, this becomes even more intricate. The translator must decode not only syntax but also stylistic idiosyncrasies, rhythmic patterns, and intertextual references that may be opaque to an outsider. This is not a task of substitution but of *negotiation*—a dialogue between two worldviews. In the 21st century, where digital tools are ubiquitous, the human translator emerges not as a competitor to technology but as its necessary complement: the one who adds conscience, context, and cultural intelligence to the raw output of algorithms.

The 21st century has witnessed an unprecedented democratization of information, yet paradoxically, it has also exposed deep fissures in intercultural understanding. Machine translation, for all its algorithmic elegance, operates on a dangerous assumption: that language is a neutral carrier of information. It is not. Language is a vessel of power, identity, memory, and resistance. To translate is to navigate these invisible currents—and this is precisely where human translators prove irreplaceable. Their role extends far beyond linguistics; they are cultural diplomats, social critics, and, at times, ethical arbiters who decide what is preserved, what is adapted, and what is respectfully left untranslated.

In literary works, the human translator confronts the weight of colonial histories, minority voices, and marginalized dialects. A machine, trained on dominant corpora, often defaults to standardized forms, erasing the very distinctiveness that gives a text its political or aesthetic force. The human translator, however, can choose to retain a foreignizing strategy—preserving the "otherness" of the source—or a domesticating one, making it accessible without stripping it of its origins. This decision is profoundly social and carries ethical consequences. In scientific translation, the stakes are similarly high but often overlooked. The way a public health guideline is rendered into a local language can determine whether a community trusts or rejects it. The translator must account for local belief systems, colloquial expressions of illness, and even religious sensitivities. No algorithm can perform this kind of situated judgment because it lacks historical awareness and emotional intelligence. As we progress deeper into the digital era, the human translator stands as a vital counterforce to technological uniformity—a guardian of pluralism, ensuring that in the rush to connect, we do not lose the very diversity that makes human expression worth translating in the first place.

In the contemporary landscape of global communication, machine translation (MT) has secured a legitimate and expanding niche. Powered by neural networks and trained on massive parallel corpora, systems like DeepL and Google Translate now produce output that is often grammatically coherent and lexically adequate for routine tasks. They excel in domains characterized by formulaic language, restricted vocabulary, and low contextual ambiguity—such as technical manuals, weather reports, financial summaries, or travel phrasebooks. Their speed is unparalleled, their cost marginal, and their availability ubiquitous. Yet, to confuse this utility with equivalence to human translation is to misunderstand the fundamental nature of language as a human, situated, and evolving phenomenon. The difference between machine and human translation is not merely one of accuracy but of ontology: they operate on entirely different principles, serve different purposes, and produce different kinds of meaning.

The most critical distinction lies in interpretive agency. A machine translates based on statistical patterns; it identifies the most probable sequence of words in the target language given a source input. It does not *understand* the text, nor does it possess intentionality, emotion, or cultural memory. It cannot distinguish between irony and sincerity, cannot recognize a deliberate grammatical error used for stylistic effect, and cannot assess whether a term carries offensive connotations in a specific social context. Human translation, by contrast, is a process of active interpretation. The

human translator reads between the lines, infers unstated assumptions, and makes pragmatic choices based on the communicative purpose of the text, the relationship between author and audience, and the sociocultural norms of both language communities. Furthermore, humans engage in what translation scholars call "decision-making under uncertainty"—they weigh multiple possible renderings, consider the consequences of each, and select the one that best serves the text's function. Machines do not decide; they calculate. They do not negotiate; they approximate. In the 21st century, as MT becomes ever more sophisticated, its proper role is increasingly clear: it is a powerful assistant, a preliminary tool, and a time-saving device—but never a substitute for the cognitive, cultural, and ethical labor that defines genuine translation.

If machine translation operates within the realm of probability, human translation dwells in the realm of possibility. Nowhere is this more evident than in the translation of literary and scientific texts—two genres that, despite their apparent opposition, both demand extraordinary creativity from the translator. Literature, with its aesthetic density, emotional depth, and stylistic idiosyncrasy, requires the translator to function as a co-creator. The translator must not only convey plot and character but also reproduce rhythm, tone, imagery, wordplay, and the elusive "voice" of the author. This is an act of artistic re-invention. When translating poetry, for instance, the human translator may sacrifice literal fidelity to preserve meter or rhyme; when rendering dialect or slang, they may invent equivalent sociolects in the target language that carry the same social weight. These are not errors but deliberate, imaginative choices—choices that machines are incapable of making because they lack aesthetic intuition and cultural memory. The literary translator is, in essence, a writer in their own right, constrained by a foreign original yet liberated by the expressive resources of their native tongue.

Scientific translation, often mistaken for a mechanical exercise, is equally reliant on human creativity—though of a different order. Here, the challenge is not aesthetic but epistemic. Scientific texts are dense with specialized terminology, but they also contain explanatory narratives, analogies, hedging devices, and rhetorical structures that shape how knowledge is received. A skilled translator of scientific material must creatively adapt complex concepts for audiences with varying levels of expertise, educational backgrounds, and cultural references. For example, a medical instruction aimed at rural communities may require the translator to replace biomedical jargon with local metaphors for illness and healing—without distorting the underlying scientific truth. This demands not only linguistic dexterity but also what might be called "cognitive empathy": the ability to anticipate how a target audience thinks, learns, and relates to authority. Moreover, in rapidly evolving fields like AI ethics, climate science, or genetic engineering, new terminology emerges constantly, and the human translator must coin neologisms that are both accurate and intuitively understandable—a creative linguistic act that no algorithm can perform. Thus, whether in the service of art or of science, human creativity remains the indispensable engine of meaningful translation, ensuring that knowledge and beauty traverse linguistic borders without losing their soul.

Translation is never a neutral act. Every text carries within it the sediment of its culture—its unspoken assumptions, its hierarchies of respect, its humor, its taboos, and its emotional registers. In the 21st century, as digital platforms connect readers across continents at lightning speed, the demand for culturally adapted content has never been greater. Yet here lies the fundamental divide: machine translation processes *language*, while human translation processes *culture*. A machine can identify a word; only a human can recognize when that word carries a historical wound, a religious reverence, or a political subtext that must be handled with care. Cultural adaptability is not an optional enhancement to translation; it is its very essence, and it remains the exclusive domain of human expertise.

Consider the seemingly simple act of addressing someone. In many languages, pronoun choice encodes social distance, age, gender, and power dynamics. A machine, trained on generic corpora, may default to the most statistically frequent form—but that form might be disrespectful in one context and overly formal in another. The human translator, however, perceives the relational matrix of the source text: Who is speaking? To whom? Under what circumstances? What is the implicit social contract between them? This awareness extends to metaphors, idioms, proverbs, and even color symbolism—all of which vary dramatically across cultures. A human translator does not merely

substitute words; they *recreate* the communicative gesture so that it resonates authentically in the target culture. This requires not only linguistic fluency but also ethnographic sensitivity, historical knowledge, and a willingness to make creative adjustments—sometimes adding explanatory bridges, sometimes omitting what is culturally unintelligible, and sometimes substituting a local equivalent that carries the same functional weight. Machines, by contrast, lack this capacity for relational and contextual judgment. They do not adapt; they transfer. They do not interpret; they map. In a world where cultural missteps can damage diplomatic relations, alienate consumers, or distort scholarly exchange, the adaptive intelligence of the human translator is not merely preferable—it is indispensable.

In the discourse surrounding translation quality, one virtue is often overlooked yet fundamentally essential: transparency. Transparency refers to the degree to which a translation is clear, unambiguous, and accountable to its source while remaining accessible to its target audience. It is the quality that allows a reader to trust that what they are reading faithfully represents the original—or, when adaptation is necessary, that they understand why a choice was made. Transparency is not simply about linguistic clarity; it is about ethical responsibility. And in this arena, the contrast between human and machine translation is stark, revealing deep differences in how meaning is produced, justified, and communicated.

Machine translation operates as a "black box." Its neural networks process input and produce output through layers of computation that are largely opaque even to their developers. When a machine generates a translation, there is no explanation for why it chose one word over another, no acknowledgment of ambiguity, and no indication of uncertainty. The reader receives a single, unmarked output—confident in appearance but potentially flawed in substance. Moreover, machines cannot signal when a text is culturally ambiguous, politically sensitive, or linguistically underdetermined. They produce a false transparency: an illusion of clarity that conceals the absence of genuine understanding. Human translators, by contrast, practice what might be called *reflexive transparency*. They are aware of their own interpretive choices and, when appropriate, can make those choices visible—through footnotes, glossaries, translator's prefaces, or even explicit annotations within the text. They can flag a difficult passage, explain a cultural reference, or admit when a term is untranslatable. This openness fosters trust and allows readers to engage critically with the translated text, aware that it is an interpretation rather than a facsimile. Furthermore, human translators can calibrate transparency to the genre: a legal contract demands high explicitness, while a poem may thrive on deliberate ambiguity, with the translator's role being to preserve rather than resolve that ambiguity. Machines cannot make these genre-sensitive judgments; they apply the same probabilistic logic to every text. In the 21st century, where misinformation travels as fast as information, the transparency offered by human translation is not merely a technical advantage but a moral safeguard—ensuring that clarity does not become a mask for distortion, and that readers remain active participants in the exchange of meaning rather than passive recipients of algorithmic output.

The question is deceptively simple yet profoundly unsettling: Will artificial intelligence ever produce translations that possess the psychological resonance, aesthetic grace, and cultural fidelity of human work? As neural machine translation systems grow more fluent, their outputs become increasingly convincing—grammatically seamless, lexically varied, and stylistically polished. Yet fluency is not eloquence, and coherence is not depth. The fundamental limitation of AI in translation lies not in its computational power but in its ontological poverty: it processes symbols without experiencing their emotional charge, and it generates text without inhabiting its cultural universe. Psychological eloquence—the ability to move a reader, to evoke empathy, to capture the unspoken turbulence of human emotion—remains irrevocably beyond the reach of algorithms because they lack consciousness, memory, and mortality.

Consider the translation of a literary passage that describes grief. A machine can identify synonyms for "sorrow," maintain syntactic parallelism, and even replicate metaphors through pattern recognition. But it cannot draw upon its own lived experience of loss, cannot recall the weight of silence in a room, cannot distinguish between the raw ache of fresh bereavement and the quiet resignation of longstanding absence. Human translators bring to their work not only linguistic

expertise but also emotional intelligence—the capacity to sense the author's psychological state, to hear the subtext beneath the text, and to reproduce that affective atmosphere in a new language. This is not a technical skill but a humanistic one, forged through years of reading, feeling, and reflecting. In scientific translation, psychological eloquence manifests differently but equally crucially. A patient's description of pain, a therapist's nuanced assessment, or a researcher's cautious interpretation of ambiguous data all require the translator to grasp the psychological stakes involved—to understand fear, hope, uncertainty, and trust. Machines, devoid of subjectivity, flatten these dimensions into neutral propositions. They produce text that is correct but cold, accurate but empty. As we move deeper into the AI era, we must confront the sobering reality that while machines may one day mimic the surface of eloquence, they will never inhabit its depths—because eloquence, at its core, is the expression of a soul that has known joy, suffered loss, and dared to speak.

If psychological eloquence is the soul of translation, then cultural authenticity is its conscience—and both remain stubbornly resistant to algorithmic capture. The question is not whether AI can produce aesthetically pleasing translations; it often can, especially in formulaic or highly repetitive genres. The question is whether it can produce translations that are *culturally true*—that honor the originating culture's values, references, and sensibilities while simultaneously respecting the target culture's expectations and sensitivities. This is the realm of aesthetic beauty and cultural fidelity, and it is here that the chasm between human and machine translation reveals itself most starkly. Beauty in translation is not merely decorative; it is structural. It resides in rhythm, in the echoes of sound, in the deliberate choice of a rare word over a common one, in the preservation of ambiguity where clarity would be reductive. These are decisions that arise from a translator's cultivated taste, their literary intuition, and their deep immersion in both linguistic traditions.

A machine can analyze patterns of rhyme and meter; it cannot *feel* why a particular archaic term evokes nostalgia or why a colloquialism carries rebellion. It cannot perceive the political weight of choosing one dialect over another in a post-colonial context, nor can it appreciate the sacredness of a phrase in a religious tradition. Cultural authenticity demands not only knowledge but also *reverence*—a recognition that some texts carry the memory of a people, the wounds of history, or the aspirations of a marginalized community. Human translators navigate this terrain with caution, humility, and creativity. They may decide to foreignize a text to preserve its cultural otherness, or domesticate it to foster accessibility—but in either case, the decision is conscious, justified, and accountable. Machines make no such decisions; they default to the statistically average, the culturally neutral, the linguistically safe. In doing so, they strip texts of their particularity, their strangeness, their beauty. Furthermore, AI systems are trained on massive datasets that inevitably privilege dominant languages, standard dialects, and mainstream voices—marginalizing minority cultures and flattening linguistic diversity. The result is a homogenizing force that, however unintentionally, erases the very richness that makes translation valuable. So, can AI ultimately preserve the psychological, aesthetic, and cultural dimensions of human translation? The answer is a resounding no—not because technology is insufficiently advanced, but because these dimensions are irreducibly human. They emerge from lived experience, moral deliberation, and cultural memory. No algorithm, however sophisticated, can replace the translator's heart, mind, and conscience. In the 21st century, we may use machines as tools, but we must never mistake their outputs for the art, the truth, or the soul of translation.

CONCLUSION

The evidence surveyed in this paper leads to a clear conclusion: machine translation, despite its rapid evolution from statistical to neural paradigms, remains structurally incapable of replicating the cognitive and ethical dimensions of human translation. This is not a matter of technological immaturity but of ontological difference. NMT systems, as demonstrated across literary, journalistic, and technical genres, exhibit persistent deficiencies in handling implicit meaning, cultural specificity, narrative voice, and emotional fidelity (Kothari, 2005; Toral & Way, 2015; Läubli et al., 2018). The human translator's role—as cultural mediator, ethical decision-maker, and guardian of pluralism—cannot be reduced to post-editing or quality assurance. As Venuti (2013) argues, translation is never

a neutral act; it is an intervention shaped by power, ideology, and interpretive judgment. The future of translation lies not in the replacement of human agency but in a hybrid model where algorithmic efficiency serves humanistic ends. The critical question is not whether machines can translate, but whether we, as a global community, are willing to accept the cultural flattening that algorithmic uniformity inevitably produces (Cronin, 2013; House, 2018).

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TEKNOLOGIK TARAQQIYOT TA'SIRIDA ZAMONAVIY INGLIZ TILI LEKSIKASINING RIVOJLANISHI

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Annotatsiya. Mazkur maqolada texnologik taraqqiyotning zamonaviy ingliz tili rivojiga ta'siri haqida so'z yuritiladi. Texnologiyalar, internet, ijtimoiy tarmoqlar va sun'iy intellektning ingliz tili lug'at tarkibiga ta'siri tahlil qilinadi. Texnologiyaning rivojlanishi natijasida ingliz tilida yangi so'z va atamalar paydo bo'layotgani, ayrim mavjud so'zlar esa yangi ma'nolarda qo'llanayotgani misollar orqali ko'rsatiladi. Shuningdek, internet va raqamli muloqotning ingliz tili kundalik qo'llanilishiga ta'siri yoritiladi.

Kalit so'zlar: texnologik taraqqiyot, zamonaviy ingliz tili, ingliz tili leksikasi, yangi so'zlar, texnologik atamalar, internet, sun'iy intellekt.

Аннотация. В данной статье рассматривается влияние технологического прогресса на развитие современного английского языка. Анализируется влияние технологий, Интернета, социальных сетей и искусственного интеллекта на лексический состав английского языка. На конкретных примерах показано, что в результате технологического развития в английском языке появляются новые слова и термины, а некоторые существующие слова начинают употребляться в новых значениях. Кроме того, рассматривается влияние Интернета и цифровой коммуникации на повседневное употребление английского языка.

Ключевые слова: технологический прогресс, современный английский язык, лексика английского языка, новые слова, технологические термины, Интернет, искусственный интеллект.

Abstract. This article examines the impact of technological development on the evolution of modern English. It analyzes the influence of technology, the Internet, social media, and artificial intelligence on the vocabulary of the English language. The study demonstrates through examples that technological development has led to the emergence of new words and terms in English, while some existing words have acquired new meanings and uses. The article also highlights the impact of the Internet and digital communication on the everyday use of the English language.

Keywords: technological development, modern English, English vocabulary, new words, technological terms, Internet, artificial intelligence.

KIRISH

Bugungi kunda texnologiya inson hayotining deyarli barcha sohalariga chuqur kirib bormoqda. Internet, smartfonlar, kompyuterlar, ijtimoiy tarmoqlar va sun'iy intellektning jadal rivojlanishi nafaqat insonlarning muloqot qilish usullarini, balki tildan foydalanish jarayonini ham sezilarli darajada o'zgartirmoqda. Ayniqsa, ingliz tili texnologik taraqqiyot bilan chambarchas bog'liq bo'lgan tillardan biridir. Buning asosiy sabablaridan biri ko'plab texnologik mahsulotlar, dasturiy ta'minotlar, internet platformalari va raqamli xizmatlarning ingliz tilida yaratilishi va faol qo'llanilishidir.

Texnologik taraqqiyotning ingliz tiliga ta'siri, avvalo, uning lug'at tarkibida yaqqol namoyon bo'lmoqda. Yangi texnologiyalar va raqamli xizmatlarning paydo bo'lishi bilan ularni ifodalash uchun yangi so'z va atamalar ham yuzaga kelmoqda. Shu bilan birga, mavjud leksik birliklarning ayrimlari texnologik sohada yangi ma'nolarda qo'llanila boshlamoqda. Natijada zamonaviy ingliz tili lug'at tarkibi muntazam ravishda boyib va o'zgarib bormoqda.

NATIJALAR VA MUHOKAMA

Texnologik taraqqiyotning ingliz tiliga ta'sirini, avvalo, yangi so'z va terminlarning paydo bo'lishida ko'rish mumkin. Har bir yangi texnologik kashfiyot yoki innovatsiya uni nomlash uchun muayyan lingvistik birlikka ehtiyoj tug'diradi. Shu sababli ingliz tilida yangi texnologik terminlar muntazam ravishda shakllanib bormoqda.

Masalan, smartphone (aqlli telefon), smartwatch (aqlli soat), cybersecurity (kiberxavfsizlik), cloud computing (bulutli hisoblash) va artificial intelligence (sun'iy intellekt) kabi birliklar zamonaviy ingliz tilida keng qo'llanilmoqda. Mazkur terminlar texnologik taraqqiyot natijasida yuzaga kelgan yangi tushunchalarni ifodalashga xizmat qiladi.

Bundan tashqari, selfie, influencer va podcast kabi so'zlarning keng ommalashuvi ham internet va raqamli kommunikatsiyaning tilga ta'sirini ko'rsatadi. Ushbu birliklar dastlab raqamli texnologiyalar va internet muhitida faol qo'llanilgan bo'lsa, keyinchalik kundalik nutqqa ham kirib kelgan. Demak, texnologik yangiliklar nafaqat maxsus terminologiyaning, balki umumiste'mol leksikasining ham rivojlanishiga ta'sir ko'rsatmoqda.

Yangi so'zlarning paydo bo'lishi ingliz tilining jamiyatdagi zamonaviy ehtiyojlarga moslashuvchanligini ko'rsatadi. Til ijtimoiy va texnologik o'zgarishlarni aks ettirar ekan, yangi tushunchalarni ifodalash uchun o'z lug'at tarkibini muntazam ravishda boyitib boradi.

Texnologik taraqqiyot ingliz tiliga faqat yangi so'zlarni olib kirish bilan cheklanmaydi. Ayrim mavjud so'zlar ham texnologik rivojlanish ta'sirida yangi ma'nolarga ega bo'lmoqda yoki ularning qo'llanish doirasi kengaymoqda.

Masalan, cloud so'zi an'anaviy ravishda "bulut" ma'nosini bildiradi. Biroq zamonaviy texnologik diskursda cloud computing birikmasi ma'lumotlarni internet orqali saqlash, qayta ishlash va ulardan foydalanish imkonini beruvchi texnologik tizimni anglatadi. Shunday qilib, mavjud so'z yangi texnologik tushunchani ifodalash uchun semantik jihatdan kengaygan.

Viral so'zi ham bunga misol bo'la oladi. Uning an'anaviy ma'nosi virus bilan bog'liq bo'lsa, internet va ijtimoiy tarmoqlar kontekstida viral video, viral post kabi birikmalarda juda tez tarqaladigan va keng ommalashadigan kontentni ifodalash uchun ishlatiladi. Bu holat so'z ma'nosining texnologik va ijtimoiy o'zgarishlar ta'sirida kengayishini ko'rsatadi.

Demak, texnologik taraqqiyot mavjud leksik birliklarning semantik imkoniyatlarini kengaytirib, ularga yangi ma'nolar yuklanishiga ham sabab bo'lmoqda. Bunday jarayon ingliz tilining dinamik va rivojlanib boruvchi leksik tizim ekanligini ko'rsatadi.

Bugungi kunda internet insonlar o'rtasidagi xalqaro muloqotning eng muhim vositalaridan biriga aylangan. Internet orqali turli mamlakatlardagi insonlar qisqa vaqt ichida o'zaro muloqot qilishlari, axborot almashishlari va yangi til birliklarini tezda tarqatishlari mumkin. Natijada yangi so'zlar, qisqartmalar va iboralar keng miqyosda ommalashmoqda.

Masalan, DM (*direct message*), BTW (*by the way*) va FYI (*for your information*) kabi qisqartmalar internet va ijtimoiy tarmoqlardagi yozma muloqotda keng qo'llaniladi. Dastlab raqamli kommunikatsiya doirasida faol ishlatilgan bunday birliklarning ayrimlari keyinchalik kundalik norasmiy muloqotga ham kirib kelmoqda.

Ijtimoiy tarmoqlar esa yangi leksik birliklarning shakllanishi va tez tarqalishida alohida ahamiyatga ega. Foydalanuvchilar yangi so'z va iboralarni yaratish, ularni ommalashtirish hamda qisqa vaqt ichida keng auditoriyaga tarqatish imkoniyatiga ega. Shu sababli raqamli muloqot zamonaviy ingliz tili leksikasining boyishiga ta'sir qiluvchi muhim omillardan biri hisoblanadi.

Bu jarayon ingliz tilining o'zgaruvchan va moslashuvchan xususiyatini yanada yaqqol namoyon etadi. Internet muhiti til birliklarining paydo bo'lishi, ommalashishi va kundalik nutqqa kirib kelish jarayonini sezilarli darajada tezlashtirmoqda.

So‘nggi yillarda sun‘iy intellekt texnologiyalarining jadal rivojlanishi ham ingliz tilida yangi so‘z va terminlarning keng qo‘llanilishiga sabab bo‘lmoqda. Artificial intelligence, machine learning, chatbot, generative AI va prompt kabi birliklar zamonaviy texnologik diskursda, ilmiy adabiyotlarda va kundalik raqamli muloqotda tobora faol qo‘llanilmoqda.

Sun‘iy intellektning rivojlanishi natijasida nafaqat yangi terminlar paydo bo‘lmoqda, balki ayrim mavjud so‘zlarning qo‘llanish sohasi ham kengaymoqda. Masalan, prompt so‘zi an‘anaviy ravishda “ko‘rsatma”, “turtki” yoki “undov” kabi ma‘nolarda ishlatilgan. Hozirgi sun‘iy intellekt texnologiyalari kontekstida esa prompt foydalanuvchi tomonidan sun‘iy intellekt tizimiga beriladigan topshiriq, savol yoki ko‘rsatmani anglatadi.

Shunday qilib, sun‘iy intellekt zamonaviy ingliz tili lug‘at tarkibining o‘zgarishi va rivojlanishiga ta‘sir ko‘rsatayotgan muhim omillardan biri sifatida namoyon bo‘lmoqda. AI bilan bog‘liq terminlarning tez ommalashuvi texnologik innovatsiyalar va til rivoji o‘rtasidagi bevosita aloqani ko‘rsatadi.

XULOSA

Yuqoridagi tahlillardan ko‘rinadiki, texnologik taraqqiyot zamonaviy ingliz tili leksikasining rivojlanishiga bevosita ta‘sir ko‘rsatmoqda. Yangi texnologiyalar, internet, ijtimoiy tarmoqlar va sun‘iy intellektning rivojlanishi natijasida yangi so‘z va terminlar paydo bo‘lmoqda, mavjud leksik birliklarning esa ma‘no va qo‘llanish doirasi kengaymoqda.

Smartphone, cybersecurity, cloud computing, influencer, podcast, chatbot, generative AI va prompt kabi birliklar texnologik taraqqiyotning ingliz tili lug‘at tarkibiga ta‘sirini yaqqol namoyon etadi. Shu bilan birga, cloud va viral kabi mavjud so‘zlarning yangi texnologik ma‘nolarda qo‘llanilishi ingliz tilidagi semantik o‘zgarishlarning ham muhimligini ko‘rsatadi.

Internet va ijtimoiy tarmoqlar esa yangi leksik birliklarning shakllanishi va tarqalish jarayonini sezilarli darajada tezlashtirmoqda. Ayniqsa, raqamli kommunikatsiya orqali qisqartmalar, yangi iboralar va texnologik terminlar qisqa vaqt ichida keng ommalashmoqda.

Umuman olganda, texnologik taraqqiyot zamonaviy ingliz tilining lug‘at tarkibini boyituvchi va uning semantik imkoniyatlarini kengaytiruvchi muhim omillardan biridir. Ingliz tilining texnologik o‘zgarishlarga tez moslashishi uning dinamik, moslashuvchan va doimiy rivojlanib boruvchi til ekanligini ko‘rsatadi.

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LINGUOCULTURAL ASPECTS OF TRANSLATING CULTURE-SPECIFIC CONCEPTS: PROBLEMS AND STRATEGIES

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Abstract. This article examines the translation of culture-specific vocabulary from a linguoculturological perspective. Special attention is given to culture-bound lexical units (realia) that reflect the historical, social, and cultural identity of a nation and often lack direct equivalents in the target language. The study aims to identify the linguistic and cultural factors influencing the choice of translation strategies and to develop a practical typology for translators. The research is based on comparative-typological, componential, contextual, and quantitative methods. The analysis demonstrates that culture-specific vocabulary can be classified into ethnographic, socio-political, folklore-mythological, and geographic realia. The study evaluates the effectiveness of transliteration, calque, descriptive translation, and cultural substitution in different communicative contexts. The findings indicate that the optimal translation strategy depends on text genre, communicative purpose, and target audience. The article also highlights the challenges faced by machine translation systems in rendering culturally loaded vocabulary and emphasizes the importance of linguoculturological competence in translation practice.

Keywords: culture-specific vocabulary, realia, linguoculturology, translation strategies, transliteration, calque, descriptive translation, cultural substitution, lexical gaps, intercultural communication.

Аннотация. В статье рассматриваются проблемы перевода культурно-маркированной лексики с позиций лингвокультурологии. Особое внимание уделяется реалиям — языковым единицам, отражающим исторические, социальные и культурные особенности народа и не имеющим прямых эквивалентов в языке перевода. Цель исследования заключается в выявлении лингвистических и культурных факторов, влияющих на выбор переводческой стратегии, а также в разработке практической типологии перевода культурно-специфической лексики. Исследование основано на сравнительно-типологическом, компонентном, контекстуальном и количественном методах анализа. Установлено, что культурно-специфическая лексика включает этнографические, общественно-политические, фольклорно-мифологические и географические реалии. В работе анализируется эффективность транслитерации, калькирования, описательного перевода и функциональной замены в различных коммуникативных условиях. Результаты исследования показывают, что выбор оптимальной стратегии зависит от жанра текста, коммуникативной цели и особенностей целевой аудитории. Отдельное внимание уделяется трудностям машинного перевода культурно обусловленной лексики и значению лингвокультурологической компетенции переводчика.

Ключевые слова: культурно-специфическая лексика, реалии, лингвокультурология, переводческие стратегии, транслитерация, калькирование, описательный перевод, функциональная замена, лакуны, межкультурная коммуникация.

Annotatsiya. Mazkur maqolada lingvokulturologik yondashuv asosida madaniyatga xos leksikaning tarjima muammolari tahlil qilinadi. Tadqiqotda muayyan xalqning tarixiy, ijtimoiy va madaniy xususiyatlarini aks ettiruvchi hamda tarjima tilida to'g'ridan-to'g'ri ekvivalentga ega bo'lmagan realiyalar alohida o'rganiladi. Ishning maqsadi madaniyatga xos birliklarni tarjima qilishda qo'llaniladigan strategiyalar tanloviga ta'sir etuvchi lingvistik va madaniy omillarni aniqlash hamda amaliy tarjima uchun samarali tipologiyani ishlab chiqishdan iborat. Tadqiqot

qiyosiy-tipologik, komponent tahlili, kontekstual va statistik usullarga asoslanadi. Tahlil natijasida madaniyatga xos leksika etnografik, ijtimoiy-siyosiy, folklor-mifologik va geografik realiyalar guruhlariga ajratildi. Transliteratsiya, kalkalash, tavsifiy tarjima va funksional muqobil usullarining samaradorligi turli kommunikativ vaziyatlarda baholandi. Natijalar tarjima strategiyasini tanlash matn janri, kommunikativ maqsad va maqsadli auditoriya xususiyatlariga bog'liqligini ko'rsatadi. Shuningdek, maqolada sun'iy intellekt va mashina tarjimasi tizimlarining madaniy yuklangan birliklarni tarjima qilishdagi muammolari yoritilib, tarjimonning lingvokulturologik kompetensiyasining ahamiyati ta'kidlanadi.

Kalit so'zlar: *madaniyatga xos leksika, realiyalar, lingvokulturologiya, tarjima strategiyalari, transliteratsiya, kalkalash, tavsifiy tarjima, funksional muqobil, leksik lakunalar, madaniyatlararo kommunikatsiya.*

INTRODUCTION

Language and culture are inseparably linked, and this connection becomes particularly evident in the process of translation, where a translator must bridge not only two linguistic systems but also two distinct worldviews. Culture-specific concepts — words and expressions denoting objects, phenomena, customs, rituals, or institutions unique to a particular nation — often lack direct equivalents in the target language. This phenomenon, widely discussed in linguoculturology under the term "realia," reflects the idea that vocabulary is not a neutral naming system but a repository of a people's historical experience, everyday life, and value system. Rendering such units accurately, without distorting their cultural meaning or overloading the reader with unfamiliar information, remains one of the most persistent problems in translation studies. The growing intensity of intercultural communication, the expansion of literary, scientific, diplomatic, and media translation, and the increasing role of machine translation systems — which frequently fail to handle culturally loaded vocabulary — make this problem increasingly relevant and require a systematic linguoculturological approach.

MATERIALS AND METHODS

The aim of the study is to identify the linguistic and cultural factors that determine the choice of translation strategy for culture-specific vocabulary and to propose a working typology that can guide translators in practice. To achieve this aim, the following objectives were set: to define the concept of "culture-specific vocabulary" within linguoculturology and distinguish it from related notions such as lacunae and non-equivalent lexis; to classify the main types of lexical gaps arising from cultural asymmetry between source and target languages; to analyze existing translation strategies applied to culture-specific units and evaluate their comparative effectiveness; to determine the criteria for selecting an optimal strategy depending on text type, genre, and communicative purpose; and to formulate practical recommendations for translators, lexicographers, and translation instructors.

DISCUSSIONS AND RESULTS.

The research employs comparative-typological analysis, componential analysis of lexical meaning, contextual analysis of translated texts, and elements of quantitative analysis to assess the frequency of strategy use across genres. The material for analysis includes examples of culture-specific vocabulary drawn from literary prose, folklore texts, journalistic articles, and official documents, together with their published translations, examined through a descriptive-analytical method. Special attention is given to cases where several published translations of the same source text exist, allowing a direct comparison of strategic choices made by different translators facing an identical lexical gap.

The analysis reveals that culture-specific vocabulary can be broadly grouped according to the type of cultural referent: ethnographic realia, including clothing, food, dwellings, and everyday objects; socio-political realia, including institutions, titles, administrative units, and historical events; and folklore-mythological realia, including legendary figures, rituals, and beliefs. A fourth, often overlooked category concerns geographic and toponymic realia, whose translation frequently

intersects with conventions of cartography and official transliteration standards. Each group poses distinct challenges: ethnographic realia typically require explication because their referents are physically unfamiliar to the target reader, whereas socio-political realia often demand functional analogues so that the reader can grasp institutional roles without a lengthy digression.

Four principal strategies emerge from the analysis. Transliteration and transcription preserve the exotic flavor of the source culture and are commonly used for proper names and unique realia with no analogue in the target culture; this strategy maintains authenticity but, when overused, can reduce comprehensibility for readers unfamiliar with the source culture and may require accompanying footnotes or glossaries. Calque, or loan translation, allows the structural transfer of meaning while maintaining a degree of transparency and is particularly effective for compound terms and institutional names, though it occasionally produces unnatural collocations or false-friend effects in the target language. Descriptive translation, or explication, sacrifices brevity for clarity by providing the target reader with sufficient contextual information to understand the referent; this strategy is especially useful in texts aimed at a general audience unfamiliar with the source culture, though excessive explication can disrupt narrative rhythm in literary texts. Cultural substitution, or the use of a functional analogue, replaces a source-culture realia with a target-culture equivalent, facilitating comprehension and stylistic naturalness, but it risks eroding the cultural specificity that the source text intended to convey and can, in some cases, introduce anachronisms or misleading associations.

The comparative analysis of translated excerpts demonstrates that professional translators frequently combine several strategies within a single text, adjusting their choice according to the communicative weight of each culture-specific unit and the overall skopos, or purpose, of the translation. For instance, in literary translation aimed at preserving local color, transliteration combined with a brief in-text gloss was the dominant approach, whereas in journalistic and official texts aimed at immediate comprehension, functional analogues and descriptive translation prevailed. The frequency analysis further suggests that translator experience and publisher guidelines play a measurable role in strategy selection, indicating that the choice is not purely linguistic but also shaped by institutional and market-driven factors such as target readership and editorial policy.

CONCLUSION

Based on the analysis, several conclusions can be drawn. The translation of culture-specific vocabulary cannot rely on a single universal strategy; the choice must be context-dependent and function-oriented, guided by the genre of the text, the cultural competence of the target audience, and the intended communicative effect. Preserving cultural specificity and ensuring reader comprehension are often competing goals that require careful balancing, and translators must consciously decide how much foreignness to retain versus how much to domesticate for fluency. Combining strategies, such as transliteration paired with a brief explanatory gloss or a footnote, frequently yields the most communicatively effective results, particularly in literary and ethnographic texts. Furthermore, the emergence of machine translation and AI-assisted tools introduces a new dimension to this problem, since such systems tend to default to literal or calque-based renderings and struggle to apply the more nuanced descriptive or substitutive strategies that human translators use; this suggests a growing need for culturally annotated parallel corpora to improve machine handling of realia. Further corpus-based research is recommended to establish more precise correlations between text genre, target audience, and optimal translation strategy for culture-specific units, as well as to examine how digital and AI-assisted translation tools can be trained to recognize and appropriately render culturally loaded vocabulary.

The findings of this study may be of practical use for translators, lexicographers, and instructors of translation theory, as well as for the compilation of bilingual dictionaries of culture-specific vocabulary and the development of translator training curricula that place greater emphasis on linguoculturological competence alongside purely linguistic skills.

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FEATURES OF WORKING WITH STUDENTS WITH SPECIAL EDUCATIONAL NEEDS IN INCLUSIVE EDUCATION: A COMPARATIVE STUDY OF KAZAKHSTAN AND FINLAND

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Abstract. *This paper examines the features of working with students with special educational needs (SEN) in the context of inclusive education by comparing Kazakhstan and Finland. The article analyses legal frameworks, support structures, teaching methods, and teacher preparation. The study findings underline the difference in the initial logic of support: Finland begins with the needs of all learners, while Kazakhstan begins with the logic of identified special needs, despite active legislative activities and pilot projects.*

Keywords: *inclusive education, students with special educational needs, Kazakhstan, Finland, comparative education, three-tier support.*

Аннотация. *В статье рассматриваются особенности работы с учащимися с особыми образовательными потребностями в инклюзивном образовании на основе сравнения Казахстана и Финляндии. Анализируются правовые основы, структуры и методы поддержки, подготовка педагогов. Основное различие заключается в начальной логике поддержки: Финляндия исходит из потребностей всех учащихся, Казахстан — из логики выявленных специальных потребностей.*

Ключевые слова: *инклюзивное образование, учащиеся с особыми образовательными потребностями, Казахстан, Финляндия, сравнительная педагогика.*

Annotatsiya. *Ushbu maqolada inklyuziv ta'lim sharoitida alohida ta'lim ehtiyojlari (ATE) bo'lgan o'quvchilar bilan ishlash xususiyatlari Qozog'iston va Finlyandiya misolida qiyosiy tahlil qilinadi. Tadqiqot huquqiy asoslar, qo'llab-quvvatlash tuzilmalari, o'qitish usullari va o'qituvchilar tayyorlash tizimini tahlil qiladi. Asosiy farq qo'llab-quvvatlashning boshlang'ich mantiqida: Finlyandiya barcha o'quvchilar ehtiyojlaridan kelib chiqadi, Qozog'iston esa aniqlangan alohida ehtiyojlar mantiqidan.*

Kalit so'zlar: *inklyuziv ta'lim, alohida ta'lim ehtiyojlari, Qozog'iston, Finlyandiya, qiyosiy pedagogika.*

INTRODUCTION

The shift from segregation to inclusion is a profound change in approach. Article 24 of the UN Convention sets inclusive education for all people with disabilities as a fundamental right, yet the implementation paths in different countries may reflect their philosophies as much as their resources.

Kazakhstan has been developing legislation on inclusive education since the early 2010s, while Finland is seen as a European pioneer with advanced support for students with special educational needs (SEN). The two countries have different logics, reflected in their practice and legislation.

This article uses the literature comparison method. A comparison was made of four components: legal frameworks, support structures, teaching methods, and teacher preparation for work with students with SEN.

MATERIALS AND METHODS

This research uses a qualitative comparative approach based on a document analysis method. The materials used are: (1) normative legal acts of the Republic of Kazakhstan — the Law on Education and the State Program for the Development of Education 2020–2025; (2) normative legal acts and documents of Finland — the Finnish National Agency for Education; (3) empirical research studies of both countries; (4) international reports of UNESCO and the European Agency for Special Needs and Inclusive Education.

The four components of comparative analysis were legal frameworks, support structures, teaching methods, and teacher preparation for work with students with SEN.

RESULTS AND DISCUSSION

Legal Frameworks and Implementation Reality in Kazakhstan

The legal framework of Kazakhstan provides that SEN students have the right to be included in mainstream schooling. However, in reality, a survey of 34 English teachers in Astana, Almaty, and Shymkent revealed that teachers demonstrated high declarative awareness of the inclusive concept, but only about a third of them implemented inclusive practices in real lessons.

The teachers expressed several challenges: lack of methodological materials and teacher training, as well as absence of support from school administrations and specialists. Although the legal framework provides the right of SEN students to be included in the mainstream, there is no support system that would ensure this right.

At the level of methodology, an experimental project in three schools of Karaganda involving 87 students (19 of whom had SEN) and 14 math teachers is noteworthy. Differentiated learning, information and communication technologies, and games were used. As a result, there was a 25% improvement in the academic performance of SEN students, while their activity and motivation were also enhanced. Despite this, such cases are mostly presented as isolated examples with no systematic approach being established.

The Finnish Three-Tier Support System

The Finnish three-level support system is built around general, intensified, and special forms of support. General support is designed for any student and is provided without any assessment. When difficulties occur, the teacher can provide guidance right away. Intensified support is intended for students who need more help than general support can provide. In such cases, a teacher will need to conduct a pedagogical assessment in cooperation with parents. Special support is the highest level and is designed for students for whom intensified support was not sufficient.

Finland's teaching methods focus on early identification and flexible grouping. The Finnish three-level support system provides the teacher with a high degree of autonomy and is supported by a high level of qualification and multidisciplinary teams comprising special education teachers, psychologists, and social workers. The SEN of students is not viewed as an indicator that requires the child to be identified as having special educational needs; instead, it is seen as a continuum of needs for which solutions must be found.

Comparative Analysis

Legal Frameworks. While Finnish legislation codifies an existing support practice, Kazakhstani legislation defines the desired state in advance. This initial phase is critical to all subsequent activities.

Support Structures. Finland has institutionalized support, while in Kazakhstan identifying students with SEN is still associated with stigma.

Teaching Methods. Finland has developed evidence-based methods for general education. Kazakhstan presents interesting evidence, but it is still at the level of individual cases.

Teacher Preparation. In Finland, the preparation of all teachers is based on studies of special education. In Kazakhstan, there is a shortage of specially trained personnel, and general education teachers are unprepared to meet the challenges of SEN students.

CONCLUSION

The comparison of approaches to working with SEN students in inclusive education in Kazakhstan and Finland has revealed that the main difference between the two countries is the logic of support. While Finland starts with the needs of all students, including those with SEN, Kazakhstan starts with the needs of students with SEN and the corresponding special support.

For Kazakhstan, the Finnish experience suggests that the most promising way to improve the situation is not to be found in new legislation but in the development of a support system in the context of general education, including differentiated and game-based methods.

For Finland, this comparison is a lesson in understanding that for successful education, it is the interaction between legislative, supportive, and teaching components, as well as appropriate teacher preparation, that is important.

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АРОЛЬ И ЗНАЧЕНИЕ РАЗВИТИЯ ИССЛЕДОВАТЕЛЬСКИХ НАВЫКОВ В НАШЕ ВРЕМЯ

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Аннотация: важность темы статьи заключается в том, что научно-исследовательскую деятельность следует начинать с раннего возраста. После начала обучения этот процесс становится систематическим и целенаправленным, учитывающим школьную программу. В статье определяется, что исследовательская деятельность является частью жизни учащихся, и главная задача учителя в этой связи - не только поддерживать интерес учеников к исследовательской деятельности, но и развивать этот интерес. Научная деятельность школьников является необходимым условием духовного и личностного развития.

Ключевые слова: познавательная деятельность, исследовательские умения, научно-исследовательская деятельность, наблюдательность, интеллектуальный и творческий потенциал, исследовательские умения школьников.

Abstract: The importance of this article lies in the fact that research activities should begin at an early age. After children start school, this process becomes systematic and purposeful, taking into account the school curriculum. The article emphasizes that research activity is an integral part of students' lives. In this regard, the main task of the teacher is not only to maintain students' interest in research activities but also to develop and strengthen this interest. Students' research activities are an essential condition for their spiritual and personal development.

Keywords: cognitive activity, research skills, scientific research activity, observation skills, intellectual and creative potential, students' research skills.

Annotatsiya. Mazkur maqolada o'quvchilarda ilmiy-tadqiqot va tadqiqotchilik ko'nikmalarini rivojlantirishning bugungi kundagi ahamiyati yoritiladi. Tadqiqotchilik faoliyatini erta yoshdan boshlash, ta'lim jarayonida uni tizimli va maqsadli ravishda tashkil etish masalalariga alohida e'tibor qaratiladi. Shuningdek, o'quvchilarning tadqiqot faoliyatiga bo'lgan qiziqishini shakllantirish va rivojlantirishda o'qituvchining roli tahlil qilinadi. Tadqiqotchilik faoliyatining o'quvchilarning bilish faolligi, kuzatuvchanligi, intellektual va ijodiy salohiyatini rivojlantirishdagi o'rnini ochib beriladi. Maqolada o'quvchilarning ilmiy-tadqiqot faoliyati ularning shaxsiy va ma'naviy rivojlanishining muhim sharti ekanligi ta'kidlanadi.

Kalit so'zlar: bilish faoliyati, tadqiqotchilik ko'nikmalari, ilmiy-tadqiqot faoliyati, kuzatuvchanlik, intellektual salohiyat, ijodiy salohiyat, o'quvchilarning tadqiqotchilik ko'nikmalari.

ВВЕДЕНИЕ

На протяжении многих лет ученые и методисты ищут, анализируют и исследуют эффективные подходы, методы, приемы и средства обучения и были представлены хорошие методы и идеи. В чем секрет, который мы ищем уже много веков, и который является одной из тем образовательных дебатов? Мы перейдем к сути этих обсуждений и идей. Верно говорят, что методов обучения столько же, сколько учителей в мире. Возможно, именно поэтому каждый педагог, который пишет несколько строк о своем опыте работы, подчеркивает, прежде всего, то, что он использует новые методы и приемы. Это хорошо, и мы рады, что некоторые учителя творчески подходят к своей работе и стремятся сделать свои уроки интересными и содержательными. Они также наблюдают, исследуют, ищут и делают свои выводы научно обоснованными и доступными для других. Они представляют собой теоретическую и практическую деятельность человека, направленную на выполнение определенной цели и достижение конкретного объекта. Например, они говорят о методах выращивания новых сортов хлопка и зерна, методах сева, методах производства химических продуктов, методах литературной литературы, методах научного образования и т. д. [Андреев В.И., 189]

В своей преподавательской деятельности учителя всегда стремятся к тому, чтобы их ученики усваивали знания точнее и качественнее. Они находят и используют новые пути и средства в ходе своей деятельности и достигают целей и задач образования. Эта форма теоретического и практического усвоения учебного материала обозначается стилем.

МАТЕРИАЛЫ И МЕТОДЫ

Путь познавательной деятельности учителей и учащихся, в ходе которого они приобретают знания, формируют умения и навыки, развивают кругозор и интеллектуальные способности, называется методом обучения. Методы обучения связаны с целью образования - целостным развитием личности - и содержанием школьного образования. Стили преподавания также связаны с анатомо-физиологическими особенностями учащихся, учитывают их работоспособность, утомляемость, особенности нервной системы и т. д.

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

Сегодня мы живем в эпоху беспрецедентного развития науки и техники. В образовании продолжается поиск новейших методов, совершенствуются и укрепляются традиционные методы обучения, внедряются новые методы. Возрастает значение методов в образовательном процессе. На сегодняшний день проблемам обучения школьников исследовательским навыкам посвящено немало исследований, анализ которых позволяет сделать вывод о том, что

научная деятельность школьников - это творческая деятельность, направленная на познание окружающего мира и открытие новых знаний. Она создает условия для развития их достоинства, интеллектуального и творческого потенциала, активизирует их, является средством формирования интереса к изучаемому материалу, дает возможность развивать научные и общенаучные умения. Данные исследований (Л.П. Виноградова, А.В. Леонтович, А.Н. Поддьяков, А.И. Савенков) показывают возможность успешного обучения элементам учебно-исследовательской деятельности школьного образования. [Бондаренко С. М., 28]

Не менее важно оценить исследовательские способности школьника. Чтобы понять результаты, учитель должен знать методы диагностики, уметь их применять, знать положительные и отрицательные стороны каждого метода, а также применять различные методы совместно

В педагогике регулярно ведутся споры и дискуссии по поводу широкого использования тех или иных методов в исследовательских и диагностических целях. Фактически в деятельности начальных школ, средних школ и высших учебных заведений преподаватели непосредственно используют научно-исследовательский метод. Без педагогических методов невозможны никакие научные исследования учащихся.

Одной из форм деятельности, применяемой в школах, является развитие исследовательских навыков. Использование этого метода было предложено классиками педагогики Я.А. Коменский, И.Г. Песталоцци, Ж.Ж. Руссо и К.Д. Ушинский. «То, чего человек не достиг благодаря своей независимости, ему не принадлежит», - сказал А.Дистервег. Ряд ученых, в том числе С.Л. Рубинштейн, И.С. Якиманская и другие работали над этой проблемой. Развитие исследовательских умений с использованием различных методов заключается в целенаправленном познании объектов и явлений природы в процессе выявления их общих черт и различий, установления закономерностей и на их основе составления выводов и обобщений. [Константинов Н.А., 289]

Научно-исследовательская работа влияет на интеллектуальное развитие учащихся, помогая им не только запоминать, но и объяснять то, что они видят в классе и в природе. Ученики объединяют, сопоставляют и анализируют фактические данные, что влияет на развитие их памяти, логического мышления и их тесную связь с речью.

В процессе практической деятельности учащиеся готовятся к проведению научных исследований - организуют и проводят эксперименты. Это требование впервые выдвигает учитель начальной школы. Младшие школьники наблюдают за предметами и вещами, выделяя их общие и отличительные черты, явления природы и их изменения.

В процессе научной деятельности у младших школьников развиваются исследовательские навыки. По определению И.А. Зимняя и Е.А. Шашенкова подчеркивают, что научно-исследовательская деятельность - это «специфическая деятельность человека, направленная на удовлетворение познавательных, интеллектуальных потребностей, регулируемая мышлением и деятельностью человека и ее продуктом». Новые целенаправленные знания и законы, определяющие действительность и существующие условия, а также достижение цели через прогнозирование и проверку знаний, определение конкретных особенностей и характера деятельности, определяют конкретные способы и средства действия. [Выготский Л.С., 254]

Для полного понимания понятия «исследовательская деятельность» мы рассмотрели понятия «деятельность» и «исследование». Деятельность - процесс активного взаимодействия субъекта с миром, в ходе которого субъект удовлетворяет все свои потребности.

Деятельностью можно назвать любую человеческую деятельность, которая придает ей определенный смысл. Деятельность описывает сознательную сторону человека. Понятие деятельности можно определить как специфический вид сознательной человеческой деятельности, в ходе которой человек изучает и совершенствует окружающий его мир, а также себя и условия своей жизни. Исследование следует рассматривать как отдельный вид интеллектуально-творческой деятельности, который возникает в результате деятельности

поисковых систем и строится на основе исследовательского поведения, в отличие от спонтанных форм познания окружающего мира.

Исследование, исследовательское поведение является неотъемлемой частью каждого живого существа, особенно поведения учащихся начальной школы, поскольку в основе такого поведения лежит любопытство. Исследования помогают адаптироваться к постоянно меняющемуся миру, но также способствуют личностному развитию. Научно-исследовательская деятельность всегда активна, когда в знаниях есть несоответствия или пробелы. Ребенок, который постоянно занимается такой деятельностью, пытается объяснить все противоречия и заполнить все пробелы, тогда он чувствует удовлетворение, и его исследовательские способности качественно возрастают.

Исследования можно классифицировать по-разному:

по количеству участников (групповые, индивидуальные);

местонахождение (вне класса и в классе);

по времени (краткосрочные и долгосрочные);

по теме;

по темам (усвоение программного материала, вопросы, не входящие в учебную программу). [Есипов Б.П.,116]

Уровень, форму и время проведения исследования учитель определяет в зависимости от возраста учащихся, успеваемости и склонности к решению конкретных педагогических задач. Что такое исследовательские навыки? Не существует точного определения исследовательского навыка, которое удовлетворило бы всех, что естественно и обычно происходит со сложными психологическими явлениями. Однако следует отметить, что различия незначительны.

Исследовательские навыки включают в себя:

Поиск информации.

Навыки, помогающие снизить тревожность, возникающую из-за неопределенности.

В этом контексте мы рассматриваем исследовательские навыки как тип обучения, основанный на исследовательских навыках и предметно-ориентированных навыках, базирующихся на психологических требованиях поисковой деятельности. Несомненно, что интерес ребенка к учебе во многом зависит от содержания образования. Поэтому данная проблема не только традиционно изучается педагогикой и педагогической психологией, но и занимает одно из центральных мест в этих дисциплинах.

Почему процесс обучения становится трудной и неприятной задачей? Это также очень сложная задача для учителей и родителей. Ученые нашли простой ответ на этот вопрос: необходимо учитывать «природу» ребенка, которая от природы ориентирована на познание окружающего мира. Правильно структурированные упражнения следует выполнять без принуждения. Научная деятельность школьников является необходимым условием духовного и личностного развития. Необходимо развивать у них наблюдательность. Научно-исследовательскую деятельность следует начинать с раннего возраста. После начала обучения этот процесс становится систематическим и целенаправленным, учитывающим школьную программу.

Часто можно услышать школьника, не толкайте его беззаботно в этом возрасте, не закрывайте глаза детям, горящим любопытством, не гасите огромное стремление к их маленьким открытиям. Таким образом, стремление школьника к получению новых знаний, с одной стороны, и острая потребность в этих знаниях, с другой, создают благоприятную основу для начала научной деятельности уже со школьного возраста.

Одной из их главных особенностей является наблюдательность, способность замечать мелкие детали, которые не видны глазу взрослого человека. Нередко школьники замечают орфографические ошибки в учебниках, опiski в словах учителя, логические несоответствия в книгах и иллюстрациях. Вопросы, ориентированные на анализ текста, диаграммы и задания, помогают развивать исследовательские навыки. Учитель, который поощряет исследовательскую деятельность, всегда спрашивает: «Что вам показалось здесь

интересным?» Еще одной характерной чертой молодых исследователей является их точность и усердие. Они не допускают ошибок в организации образовательного процесса, не отклоняются от намеченного плана. Например, если необходимо регистрировать температуру каждое утро в 7 утра в течение месяца, такие дети будут рано просыпаться в выходные и готовы отказаться от увлекательной поездки, если продолжение наблюдений окажется под угрозой. Особое рвение, упорство и терпение проявляют школьники в процессе выполнения научной работы. Они могут найти и прочитать подборку книг по темам, которые их интересуют.

Для нас очевидно, что исследовательская деятельность является частью жизни учащихся, и главная задача учителя в этой связи - не только поддерживать интерес учеников к исследовательской деятельности, но и развивать этот интерес. Уровень развития исследовательских умений у школьников определяется также способностью ученика выполнять сложные действия.

ЗАКЛЮЧЕНИЕ

Таким образом, развитие исследовательских навыков школьников является важным условием повышения качества современного образования и формирования познавательно активной личности. Исследовательская деятельность способствует переходу от усвоения готовой информации к самостоятельному поиску, наблюдению, анализу и обобщению полученных данных, развивая логическое мышление, самостоятельность, наблюдательность и творческий потенциал учащихся.

Формирование исследовательских умений целесообразно начинать с ранних этапов обучения, постепенно усложняя содержание исследовательской деятельности с учётом возрастных и индивидуальных особенностей школьников. Особая роль при этом принадлежит учителю, который должен не только поддерживать познавательный интерес учащихся, но и создавать условия для его развития в целенаправленную исследовательскую деятельность.

Важным аспектом является также диагностика исследовательских умений, позволяющая определить способность учащихся ставить цель, осуществлять поиск информации, наблюдать, анализировать результаты и формулировать выводы. Следовательно, систематическое включение школьников в исследовательскую деятельность способствует осознанному усвоению знаний и развитию навыков самостоятельного познания. Перспективным направлением дальнейших исследований является совершенствование методов формирования и диагностики исследовательских умений учащихся.

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RETHINKING CHOICE AND DECISION-MAKING IN HEALTHCARE UTILISATION: A RATIONAL CHOICE PERSPECTIVE

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Abstract. Healthcare utilisation is fundamentally a process of choice, yet the rationality underlying such choices remains complex. Unlike conventional consumption decision, healthcare choices are shaped by healthcare needs, individual and household circumstances, availability of alternatives, accessibility, affordability and perceptions of healthcare services. Individuals decide not only whether to seek healthcare but also which service provider to be consulted, and which system of medicine to be followed. These interconnected choices reflect the interaction of individual preferences with economic, social, health related and institutional factors. Against this background, this paper revisits healthcare utilisation through the lens of Rational Choice Theory, examining the relevance of preferences, and purposive decision making in understanding healthcare seeking behaviour. Healthcare choice is conceptualised as a multidimensional decision making process in which individuals evaluate available alternatives according to their preferences, perceived benefits, risks involved and the costs within which the decisions are made. Applying the economic logic of rational choice to different dimensions of healthcare utilisation, the paper provides a theoretical basis for understanding why individuals and households make different choices despite similar healthcare needs. It demonstrates how preferences, alternatives and constraints provide a foundation for the economic and econometric conceptualisation of healthcare choice. By bridging Rational Choice Theory with healthcare decision making, the paper offers a coherent framework for understanding choices among service providers, and system of medicine, while providing a theoretical foundation for subsequent empirical applications in health economics.

Keywords: Rational Choice Theory, Healthcare Choice, Healthcare Service Providers, System of Medicine, Rational Choice Orientation.

Аннотация. Использование медицинских услуг по своей сути представляет собой процесс выбора, однако рациональность, лежащая в основе таких решений, остаётся сложной. В отличие от традиционных потребительских решений, выбор в сфере здравоохранения определяется потребностями в медицинской помощи, индивидуальными и семейными обстоятельствами, наличием альтернатив, доступностью, финансовой приемлемостью и восприятием медицинских услуг. Люди решают не только, обращаться ли им за медицинской помощью, но и к какому поставщику медицинских услуг обратиться и какую систему медицинской помощи выбрать. Эти взаимосвязанные решения отражают взаимодействие индивидуальных предпочтений с экономическими, социальными, медико-санитарными и институциональными факторами. В этом контексте в статье повторно рассматривается использование медицинских услуг с позиции теории рационального выбора, а также анализируется значение предпочтений и целенаправленного принятия решений для понимания поведения при обращении за медицинской помощью. Выбор в сфере здравоохранения рассматривается как многомерный процесс принятия решений, в рамках которого люди оценивают доступные альтернативы в соответствии со своими предпочтениями, предполагаемыми выгодами, возможными рисками и затратами, в пределах которых принимаются решения. Применяя экономическую логику рационального выбора к различным аспектам использования медицинских услуг, статья формирует теоретическую основу для понимания того, почему отдельные лица и домохозяйства делают различные выборы даже при наличии схожих потребностей в медицинской помощи. Показано, каким образом предпочтения, альтернативы и ограничения создают основу для экономической и эконометрической концептуализации выбора в сфере здравоохранения. Объединяя теорию рационального выбора с процессом принятия решений в сфере здравоохранения, статья предлагает целостную концептуальную основу для понимания выбора между поставщиками медицинских услуг и системами медицинской помощи, а также

создаёт теоретическую базу для последующих эмпирических исследований в области экономики здравоохранения.

Ключевые слова: теория рационального выбора, выбор в сфере здравоохранения, поставщики медицинских услуг, система медицинской помощи, ориентация на рациональный выбор.

Annotatsiya. Tibbiy xizmatlardan foydalanish mohiyatan tanlov jarayoni hisoblanadi, biroq bunday tanlovlar asosidagi ratsionallik murakkabligicha qolmoqda. An'anaviy iste'mol qarorlaridan farqli ravishda, sog'liqni saqlash sohasidagi tanlovlar tibbiy yordamga bo'lgan ehtiyoj, shaxsiy va oilaviy sharoitlar, muqobil variantlarning mavjudligi, ulardan foydalanish imkoniyati, moliyaviy jihatdan qulayligi hamda tibbiy xizmatlarga bo'lgan munosabat va tasavvurlar bilan belgilanadi. Shaxslar nafaqat tibbiy yordamga murojaat qilish yoki qilmaslik to'g'risida, balki qaysi tibbiy xizmat ko'rsatuvchiga murojaat qilish va qaysi tibbiyot tizimidan foydalanish haqida ham qaror qabul qiladilar. Ushbu o'zaro bog'liq tanlovlar individual afzalliklarning iqtisodiy, ijtimoiy, tibbiy va institutsional omillar bilan o'zaro ta'sirini aks ettiradi. Shu nuqtayi nazaridan, mazkur maqolada tibbiy xizmatlardan foydalanish Ratsional tanlov nazariyasi nuqtayi nazaridan qayta ko'rib chiqilib, tibbiy yordam izlash xatti-harakatlarini tushunishda afzalliklar va maqsadga yo'naltirilgan qaror qabul qilishning ahamiyati tahlil qilinadi. Sog'liqni saqlash sohasidagi tanlov ko'p o'lchovli qaror qabul qilish jarayoni sifatida konseptuallashtiriladi. Bunda shaxslar mavjud muqobil variantlarni o'z afzalliklari, kutilayotgan manfaatlari, yuzaga kelishi mumkin bo'lgan xatarlar hamda qaror qabul qilinadigan xarajatlar doirasida baholaydilar. Ratsional tanlovning iqtisodiy mantiqini tibbiy xizmatlardan foydalanishning turli jihatlariga tatbiq etgan holda, maqola o'xshash tibbiy ehtiyojlarga ega bo'lgan shaxslar va uy xo'jaliklari nima sababdan turlicha tanlov qilishlarini tushuntirish uchun nazariy asos yaratadi. Unda afzalliklar, muqobil variantlar va cheklovlar sog'liqni saqlash sohasidagi tanlovni iqtisodiy va ekonometrik jihatdan konseptuallashtirish uchun qanday asos bo'lib xizmat qilishi ko'rsatiladi. Ratsional tanlov nazariyasini sog'liqni saqlash sohasida qaror qabul qilish jarayoni bilan bog'lash orqali maqola tibbiy xizmat ko'rsatuvchilar va tibbiyot tizimlari o'rtasidagi tanlovni tushunish uchun yaxlit nazariy asosni taklif etadi hamda sog'liqni saqlash iqtisodiyoti sohasidagi keyingi empirik tadqiqotlar uchun nazariy poydevor yaratadi.

Kalit so'zlar: Ratsional tanlov nazariyasi, sog'liqni saqlash sohasidagi tanlov, tibbiy xizmat ko'rsatuvchilar, tibbiyot tizimi, ratsional tanlovga yo'naltirilganlik.

INTRODUCTION

Health care choice is not a simple act of selecting a hospital or a medical system. It is a decision made within the context of illness, household resources, access to facilities, perceived quality of care, expected treatment benefit, risk, and affordability. An individual who experiences a health need may first decide whether care is required, then choose among available service providers, and system of medicine. Each of these decisions involves alternatives and trade offs. From an economic perspective, this makes healthcare utilisation a particularly relevant domain for the application of choice theory, because the observed use of care can be viewed as the outcome of preferences exercised within a set of opportunities and constraints.

The economic foundation of this approach lie in the conventional theory of consumer choice, in which individual rank alternatives according to the preferences and select the option that yields the greatest utility subject to resource constraints. In health economics, demand for health is also understood as part of household decision-making, in which individuals and families respond to illness, income constraints, time costs, expected benefits, and available treatment options (Grossman, 1972). Healthcare utilisation has also been analysed through broader behavioural framework. The behavioural model of health services use explains utilisation as the outcome of predisposing characteristics, enabling resources, and need-related factors (Andersen, 1995). A rational choice perspective compliments this literature by focusing specifically on the decision process through which available alternatives are evaluated and a particular option is selected.

MATERIALS AND METHODS

Rational choice theory suggests that individuals compare expected benefits, costs, and risks while choosing among available alternatives (Becker, 1976). This perspective provides the point of departure for the present study. Rather than treating healthcare utilisation merely as an observed use of services, the paper approaches it as a decision making phenomenon that can be examined within an economic framework of choice. Accordingly, the paper first establishes the theoretical foundations necessary for understanding rational choice, and subsequently extends to the specific context of healthcare utilisation. Building on this progression, it develops a conceptual framework for examining Rational Choice Orientation in healthcare. The discussion finally explores how the proposed conceptual framework can be expressed in mathematical and econometric terms.

1. Rational Choice Theory: Theoretical Foundations

Rational Choice provides an economic framework for explaining individual decision making among available alternatives. It is based on the premise that individuals act purposively, possesses preferences over alternative course of action, and make choices within the constraints they face. The theoretical foundations of rational choice can be traced to the development of classical and neoclassical economic thought concerning individual choice and the pursuit of individual interests. Early economic thinking particularly the work of Adam Smith recognised the importance of individual self-interest in explaining the economic behaviour (Smith, 1776). The utilitarian tradition associated with Jeremy Bentham subsequently emphasised the evaluation of actions in terms of pleasure and pain, contributing to the intellectual foundations from which the economic concept of utility later developed (Bentham, 1789). With the marginalist and neoclassical developments of the nineteenth century, utility and individual preference became increasingly central to the economic explanation of choice.

RESULTS AND DISCUSSION

During the twentieth century, these ideas acquired a more formal analytical structure. The development of the preference based consumer theory provided a systematic framework for representing individual choice, while Von Neumann and Morgenstern extended utility analysis to decision making under risk through expected utility theory (Mas-Cololl et al, 1995). Gary Becker later broadened the economic approach to human behaviour by applying the principles of purposive choice, preferences, and maximizing behaviour beyond conventional market decisions to a wide range of individual and social behaviour (Becker, 1976). Thus, the Rational Choice Theory emerged from a broader economic tradition that views individual behaviour as the outcome of choices among alternatives. Its analytical framework is centred on the interrelated concepts of rationality, preferences, utility, constraints and choice.

1.1. The Concept of Rationality in Economics Decision Making

In economics, rationality refers to the systematic and consistent manner in which individuals make choices among available alternatives in accordance with their preferences. A rational decision maker is assumed to be capable of comparing alternatives and selecting the option that is most preferred within the opportunities and constraints faced. Thus economic rationality does not necessarily imply that a decision is objectively correct or socially desirable; rather it concern the consistency of choice with the individual's own preference ordering (Sen, 1977; Mas-Colell et.al, 1995)

In standard microeconomic theory, rational preferences are characterised principally by completeness and transitivity which provides the consistency required for alternatives to be ordered and represented through a utility function. (Mas-Colell et.al., 1995). In the conventional economic formulation, the reasoning is expressed though utility maximization subject to relevant constraints. The resulting choice need not imply that individuals possess unlimited resources or unrestricted opportunities, rather, the choice is made from the alternatives that are feasible within the constraints faced by the decision maker.

The conception of rationality provides the basis for analysing individual choice in a structured manner. An important extension of rational choice concerns decisions involving risk. The expected

utility framework developed Von Neumann and Morgenstern provide a formal basis for analysing choice among risky alternatives. Rationality in economic analysis has a specific meaning associated with the consistency and purposiveness of choice and should not automatically be equated with what an external observer considers the objectively best decision. (Sen, 1977, Mas-Colell et al., 1995)

2. From Rational Choice to Healthcare Choice

Rational Choice Theory generally views individuals as purposive decision makers who evaluate available alternatives in accordance with their preferences and constraints. the application of rational choice reasoning of healthcare requires recognising that healthcare utilisation is not merely the consumption of a service, but the outcome of a decision process. A health need creates a situation in which an individual may have to decide whether to seek care, and when alternatives are available, where and from whom such care should be obtained. Healthcare utilisation can therefore be viewed as the observed outcome of choices made from a set of feasible healthcare alternatives. The demand for healthcare services is derived from the value individuals attach to health and to the expected contribution of healthcare to health outcomes.

Healthcare choice extends beyond the decision of whether to use medical care or not. Once care is sought, individuals may face several alternative courses of action. Depending on the healthcare environment and the accessible alternatives, these may involve the selection of a particular service provider, or a system of medicine. Thus, the healthcare utilisation can be conceptualised as a multidimensional choice process, in which different dimensions of choice may arise at different stages of healthcare seeking behaviour. The distinction between healthcare utilisation and healthcare choice is therefore analytically important. The healthcare choice to be examined at two levels; service provider choice concerns the selection of a particular source of provider of care; and choice of system of medicine.

The translation of rational choice into healthcare therefore requires attention not only to the existence of alternatives but also to the basis on which those alternatives are evaluated. Healthcare alternatives can involve economic sacrifices, expected health or service benefits, and different perceptions of risk. Accordingly, the present paper proposes that the rational choice orientation underlying healthcare choice evaluation can be examined through three interrelated dimensions; Cost Consciousness (CC), Risk Aversion (RA), and Benefit Orientation (BO). These dimensions provide a conceptual bridge between the general principles of rational choice and the specific process through which individuals evaluate healthcare alternatives.

2.1. Healthcare Utilisation as a Choice Process

Healthcare utilisation can be understood as the outcome of a sequence of decisions that begins with the recognition of a health need and proceeds through the evaluation and selection of available healthcare alternatives. The utilisation of healthcare therefore involves more than the decision to seek or not to seek care. Once the need for care is recognised, individuals may have to choose among alternative sources and forms of treatment depending on the options available and accessible to him. Therefore, the observed healthcare utilisation represents the outcome of an underlying choice process. (Grossman, 1972; Andersen 1995)

The choice process may involve several interconnected decisions. An individual may first decide whether to seek professional healthcare, followed by decisions concerning where to seek care, whom to consult, and what form of treatment to use. These decisions can be represented as a sequence as

Health Need → Decisions to Seek Care → Evaluation

The economic relevance of this process arises from the fact that the healthcare alternatives are rarely identical. They may differ in the resources required, the outcome expected by the individual, and the consequences associated with choosing one alternative rather than other. Consequently, healthcare utilisation may be interpreted as an observed choice emerging from the evaluation of feasible alternatives, rather than simply as the use of a healthcare service.

Utilisation refers to the healthcare service or source that is ultimately used, whereas choice concerns the decision making process through which outcome is reached

2.2. The Multidimensional Nature of Healthcare Choice

Healthcare choice is multidimensional because the decisions to utilise healthcare may involve choices relating to both the sources of care and the form of treatment. In the present framework, these are represented through two broad dimensions; the choice of healthcare service provider and the choice of system of medicine. Depending on the available healthcare environment, individuals may choose among alternative providers such as government hospitals, private hospitals, private practitioners, cooperative facilities, or recognised sources of care. The choice of system of medicine, in contrast, concerns the therapeutic system through which treatment is sought. Individuals may choose among modern medicine and recognised alternative systems such as Ayurveda, Homeopathy, or other systems of medicine available within the healthcare environment.

Choice of service provider and the choice of system of medicine need not be governed by identical considerations. Understanding these dimensions identifies what is chosen in healthcare decision making.

3. Conceptualising Rational Choice Orientation in Healthcare

The application of rational choice reasoning to healthcare requires a framework that captures how individuals evaluate alternative courses of action before making a healthcare choice. Economic decision making is fundamentally concerned with choices involving trade-offs, where the consequences associated with one alternative are evaluated relative to those associated with others. In healthcare, such evaluations acquire particular significance because the alternatives available to an individual may differ in their economic implications, expected outcomes and associated risks. The relevance of these considerations is well established in the literature on healthcare decision making by Grossman, Hall & Schneider, Von Neumann & Morgenstern etc.

Drawing upon the theoretical foundations, the present paper conceptualises Rational Choice Orientation in healthcare as the orientation with which individuals evaluate healthcare alternatives by considering three interrelated dimensions; Cost Consciousness, Risk Aversion and Benefit Orientation. Cost Consciousness represents the extent to which the economic implications of available alternatives enter the decision processes; Risk aversion reflects the individual's orientation towards the risks associated with alternative healthcare choice; and Benefit Orientation represents the emphasis placed on the expected benefits or favourable outcomes associated with those alternatives. (Djulgovic et al. 2018)

So by integrating Cost, Risk and Benefits, the Rational Choice Orientation can therefore be represented as

$$RCO = f(CC, RA, BO)$$

Where RCO represents the Rational Choice Orientation, CC -Cost Consciousness, RA- Risk Aversion, and BO- Benefit Orientation.

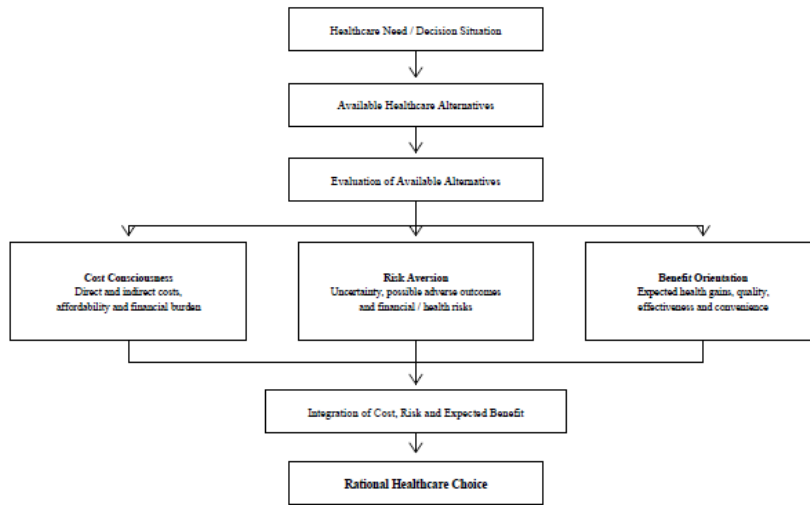
This formulation does not imply that the three dimensions necessarily carry equal weight or that a rational healthcare decision must minimize cost or risk or maximize benefit independently. Rather, it provides an analytical framework for examining how these considerations jointly constitute an individual's orientation towards evaluating healthcare alternatives.

4. A Conceptual Framework of Rational Healthcare Choice

The purpose of the framework is not to redefine the individual dimensions of Rational Choice Orientation, but to specify their position in the process through which healthcare alternatives are evaluated and translated into observed choices. With the proposed framework, Rational Choice Orientation operates as the evaluative mechanism linking available healthcare alternatives with the eventual healthcare choice. Individuals approach the alternatives with varying orientation towards cost, risk and expected benefit. The interaction of these orientations shapes the evaluation of the alternatives and consequently, the option that is ultimately selected. The framework therefore distinguishes between the choice environment, the orientation underlying evaluation, and the observed healthcare choice. The conceptual sequence can be represented as

Fig 1

Conceptual Framework for Rational Healthcare Choice



The framework does not presume that individuals facing similar healthcare needs will necessarily make identical choices. Rather, it allows for variation in the way available alternatives are evaluated, resulting in differences in observed healthcare choices. Rational Choice Orientation thus provides the conceptual link between the alternatives confronting the decision maker and the healthcare options ultimately selected

5. Mathematical and Econometric Representation for the Rational Choice orientation

The conceptual framework developed above can be translated into a formal representation that links Rational Choice Orientation to observed healthcare choice. The mathematical formulation is to formalize the proposed relationships rather than to estimate them

At the individual level, Rational Choice Orientation (RCO_i) may be represented as a function of its three constituent dimensions

$$RCO_i = f(CC_i, RA_i, BO_i)$$

Where CC_i, RA_i, BO_i , denotes the Cost Consciousness, Risk Aversion benefit orientation of the individual ' i '. This functional representation indicates that Rational Choice Orientation is jointly characterised by the individual's orientation towards the cost, risk and expected benefit associated with healthcare alternatives

For empirical operationalization, the construct may be represented in a general weighted form as

$$RCO_i = W_1CC_i + W_2RA_i + W_3BO_i$$

Where W_1, W_2 & W_3 represent the relative contribution assigned to the respective dimensions. The formulation provides a basis for operationalising RCO, and it does not require the three components to have equal weights; the appropriate weighting structure is an empirical matter and may be determined according to the measurement and estimation strategy adopted in the research.

6. Linking Rational Choice Orientation with Healthcare Choice

The next analytical step is to relate Rational Choice Orientation to healthcare choice. While the RCO measure captures the orientation underlying an individual's evaluation of healthcare alternatives, the observed healthcare choice represents the outcome of the decision process. Let HC_i denote the healthcare choice made by the individual ' i '. In its general form, the relationship can be expressed as

$$HC_i = f(RCO_i, X_i) \text{ or } HC_i = f(CC_i, RA_i, BO_i, X_i)$$

RCO_i represents the individual's Rational Choice Orientation, and X_i denotes other relevant characteristics and constraints that may influence healthcare choice. The formulation, however remains general and does not specify how probability of selecting a particular healthcare alternative

can be empirically modelled. Translating this relationship into an empirically testable form therefore requires an econometric specification appropriate to the nature of healthcare choice.

7. Econometric Representation of Healthcare Choice

Healthcare choice is typically observed as a discrete outcome, since an individual select one alternative from a defined set of available healthcare options. The appropriate econometric representation therefore depends on the number and the structure of alternative contained in the choice set.

Where healthcare choice is represented by two mutually exclusive alternatives, the dependent variable may be specified as a binary outcome. For instance, if $HC_i = 1$ denotes the selection of one healthcare alternative and $HC_i = 0$ denote the selection of the reference alternative, the probability of choice may be represented as;

$$P(HC_i = 1 | RCO_i, X_i) = F(\alpha + \beta RCO_i + \gamma X_i)$$

Where $F(\cdot)$ represents an appropriate cumulative distribution function, α is the intercept, β captures the relationship between Rational Choice Orientation and the probability of selecting the specified healthcare alternative, and γ represents the vector parameters associated with other relevant characteristics contained in X_i , depending on the assumed distribution of the response probability, the relationship may be estimated using a binary logit or probit model (Wooldridge, 2010)..

Healthcare choice, however may also involve more than two alternatives. The choice of service provider, for example may include alternative provider categories, while the choice of system of medicine may similarly involve several treatment systems. When these alternatives are mutually exclusive and have no inherent ordering, healthcare choice may be represented within a multidimensional discrete choice framework (McFadden, 1974; Greene, 2018). In general form, the probability that individual 'i' chooses alternative 'j' may be expressed as

$$P(HC_i = j) = \frac{\exp(\alpha + \beta RCO_i + \gamma X_i)}{\sum_{j=1}^J \exp(\alpha + \beta RCO_i + \gamma X_i)}$$

Where $j = 1 \dots J$ represents the alternatives contained in the healthcare choice set. One alternative is treated as the reference category for model identification, and the estimated parameters indicate how RCO and other relevant characteristics are associated with the relative probability of choosing the remaining alternatives. Such a specification corresponds to the multinomial logit framework widely used for modelling discrete choices among multiple unordered alternatives (McFadden, 1974; Greene, 2018)

Taken together, these formulations translate the proposed conceptual framework into an empirically testable structure. The mathematical representation defined RCO through its underlying dimensions, while econometric representation provides a basis for operationalising RCO through its underlying dimensions, while econometric representation enables its relationship with observed healthcare choices to be examined systematically. Rather than classifying a particular healthcare choice is either rational or irrational, the framework makes it possible to examine the extent to which RCO is associated with variations in healthcare decision making. In particular it provides basis for investigating whether and how differences in RCO are related to the choice of healthcare service provider and the choice of system of medicine. The framework thus shifts the analytical focus from judging the rationality of a particular healthcare option to examining the role of rational orientation in shaping healthcare choice.

8. Discussion on Rethinking Rationality in Healthcare Decision

The framework developed in this paper offers a way of reconsidering rationality in healthcare decision making. Its central proposition is that rationality need not be understood as a label attached to a particular healthcare choice. Choosing a government provider rather than a private provider, or selecting one system of medicine rather than another, cannot by itself establish the degree of rationality underlying the decision. The analytical focus should instead be placed on the orientation through which individuals evaluate the alternatives available to them. Rational Choice Orientation provides a means of capturing this underlying evaluative orientation and examining its relationship with observed healthcare choice.

From this perspective, differences in healthcare choices may reflect differences in the relative importance individuals attach to cost, risk and expected benefit when evaluating available alternatives. Rational Choice Orientation therefore provides an analytical bridge between the theoretical principles of rational choice and the observable decisions made within healthcare settings. Its relevance lies not in identifying a universally rational healthcare option, but in enabling the degree and pattern of rational orientation underlying different healthcare choice to be examined systematically.

CONCLUSION

Healthcare utilisation involves a series of choices through which individuals select among available healthcare alternatives. Understanding these choices requires attention not only to the healthcare option ultimately selected but also to the orientation underlying the decision making process. Rational Choice Theory provides a useful theoretical foundation for such an enquiry by locating individual choice within a framework of preferences, evaluation and purposive decision making.

Within this perspective, the present paper conceptualises Rational Choice Orientation (RCO) as an analytical construct comprising Cost Consciousness, Risk Aversion and Benefit Orientation. The framework extends this reasoning to two dimensions of healthcare choice; choice of service provider and choice of system of medicine and provides a mathematical and econometric basis for linking Rational Choice Orientation with observable healthcare decisions. This makes it possible to move from a theoretical conception of rationality towards a framework that can subsequently be operationalised and empirically examined.

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THE ROLE OF ARTIFICIAL INTELLIGENCE IN EDUCATION TECHNOLOGIES

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Abstract. This research paper examines the integration of Artificial Intelligence (AI) into modern educational technologies and its impact on teaching and learning processes. In the context of the rapidly developing digital economy, traditional educational models are increasingly being transformed into intelligent, data-driven systems. The study focuses on the implementation of machine learning algorithms for personalized learning, automation of administrative tasks, and predictive analytics aimed at improving student performance and retention. Using qualitative and comparative research methods, the paper evaluates the effectiveness of contemporary AI-based educational platforms and analyzes the transition toward student-centered learning environments. The findings demonstrate that AI-enhanced systems significantly improve student engagement while reducing educators' administrative workload. In addition, the paper discusses ethical concerns related to data privacy and algorithmic transparency and offers recommendations for the sustainable integration of AI technologies in higher education.

Keywords: artificial intelligence, educational technology, adaptive learning, machine learning, predictive analytics, digital economy, neural networks, academic efficiency, personalized learning.

Annotatsiya. Mazkur tadqiqot zamonaviy ta'lim texnologiyalariga sun'iy intellekt (SI)ni integratsiya qilish va uning o'qitish hamda ta'lim olish jarayonlariga ta'sirini o'rganadi. Jadval rivojlanayotgan raqamli iqtisodiyot sharoitida an'anaviy ta'lim modellari tobora ko'proq intellektual va ma'lumotlarga asoslangan tizimlarga aylantirilmoqda. Tadqiqot shaxsiylashtirilgan ta'limni tashkil etish, ma'muriy vazifalarni avtomatlashtirish hamda talabalar o'zlashtirishi va ta'limni davom ettirish ko'rsatkichlarini yaxshilashga qaratilgan prognozli tahlil uchun mashinaviy o'qitish algoritmlarini qo'llashga e'tibor qaratadi. Sifat va qiyosiy tadqiqot usullaridan foydalangan holda, maqolada zamonaviy sun'iy intellektga asoslangan ta'lim platformalarining samaradorligi baholanadi hamda talaba markazidagi ta'lim muhitlariga o'tish jarayoni tahlil qilinadi. Tadqiqot natijalari sun'iy intellekt bilan takomillashtirilgan tizimlar talabalarining ta'lim jarayonidagi faolligini sezilarli darajada oshirishi bilan birga, o'qituvchilarning ma'muriy ish yuklamasini kamaytirishini ko'rsatadi. Bundan tashqari, maqolada ma'lumotlar maxfiyligi va algoritmlarning shaffofligi bilan bog'liq axloqiy masalalar muhokama qilinadi hamda sun'iy intellekt texnologiyalarini oliy ta'limga barqaror integratsiya qilish bo'yicha tavsiyalar beriladi.

Kalit so'zlar: sun'iy intellekt, ta'lim texnologiyalari, adaptiv ta'lim, mashinaviy o'qitish, prognozli tahlil, raqamli iqtisodiyot, neyron tarmoqlar, akademik samaradorlik, shaxsiylashtirilgan ta'lim.

Аннотация. В данной исследовательской статье рассматривается интеграция искусственного интеллекта (ИИ) в современные образовательные технологии и его влияние на процессы преподавания и обучения. В условиях стремительно развивающейся цифровой экономики традиционные образовательные модели всё чаще трансформируются в интеллектуальные системы, основанные на данных. Исследование сосредоточено на применении алгоритмов машинного обучения для персонализации образовательного процесса, автоматизации административных задач и проведения прогнозных аналитики, направленной на повышение успеваемости студентов и уровня их удержания в образовательном процессе. С использованием качественных и сравнительных методов исследования в статье оценивается эффективность современных образовательных платформ на основе искусственного интеллекта и анализируется переход к образовательной среде,

ориентированной на студента. Результаты исследования показывают, что системы, усовершенствованные с помощью искусственного интеллекта, значительно повышают вовлечённость студентов в учебный процесс, одновременно снижая административную нагрузку на преподавателей. Кроме того, в статье рассматриваются этические вопросы, связанные с конфиденциальностью данных и прозрачностью алгоритмов, а также предлагаются рекомендации по устойчивой интеграции технологий искусственного интеллекта в систему высшего образования.

Ключевые слова: искусственный интеллект, образовательные технологии, адаптивное обучение, машинное обучение, прогнозная аналитика, цифровая экономика, нейронные сети, академическая эффективность, персонализированное обучение.

INTRODUCTION

The rapid development of digital technologies has positioned Artificial Intelligence (AI) as one of the most transformative forces in contemporary education. In the era of the Fourth Industrial Revolution, traditional pedagogical approaches characterized by standardized instruction are increasingly considered inadequate for modern learners. Today's students require flexible, interactive, and personalized learning environments that address their individual cognitive and educational needs. The integration of AI into educational technologies represents a significant shift from teacher-centered instruction toward student-centered learning models driven by data and intelligent systems.

The relevance of this research is closely connected to the expansion of the global digital economy. Education is no longer viewed as a limited stage of life; instead, it has become a continuous process of lifelong learning, upskilling, and reskilling. Artificial Intelligence provides scalable solutions capable of supporting large numbers of learners while simultaneously offering individualized educational experiences. This study aims to investigate the key AI algorithms applied in education, analyze their benefits for students and educational institutions, and identify socio-economic and ethical challenges related to their implementation.

METHODOLOGY

To evaluate the impact of Artificial Intelligence on educational outcomes, the study employed a qualitative and comparative research methodology. The research consisted of the following components:

Systematic Literature Review. An extensive review of recent academic studies, international reports, and publications from leading educational technology companies was conducted. Sources included reports from organizations such as UNESCO and the World Economic Forum. The literature review enabled the identification of major AI applications in education, including Natural Language Processing (NLP) for language learning and Computer Vision technologies for online assessment and proctoring.

Comparative Analysis of EdTech Platforms. The study analyzed the performance and user engagement data of several AI-driven educational platforms, including Coursera and Khan Academy. These platforms utilize machine learning algorithms to provide personalized educational content and adaptive learning experiences. The analysis focused on the ability of these systems to adjust learning materials according to students' progress and learning behavior.

Case Study Evaluation. The research also examined case studies of universities that implemented AI-based predictive analytics systems to monitor student performance and engagement. These case studies provided empirical evidence regarding the effectiveness of early intervention strategies in improving graduation rates and reducing student dropout rates.

RESULTS

The findings of the study demonstrate several significant ways in which Artificial Intelligence enhances educational efficiency and learning outcomes.

Efficiency of Customized Educational Content. One of the most significant findings is the effectiveness of adaptive learning systems. Unlike traditional educational materials, AI-powered

platforms analyze students' responses, learning pace, and patterns of mistakes to personalize educational content. The study revealed that students using adaptive learning technologies demonstrated approximately 30% higher retention rates compared to those following traditional linear curricula. By focusing on learners' individual abilities and developmental stages, AI systems create more efficient learning experiences.

Reduction in Educator Administrative Load. The research indicates that AI-based grading systems and virtual administrative assistants substantially reduce educators' routine workload. Automated essay scoring systems utilizing Natural Language Processing technologies have become increasingly accurate in evaluating students' written assignments based on coherence, structure, and language quality. As a result, educators can dedicate more time to mentoring, research, and student support activities.

Impact of Predictive Analytics on Engagement. AI models using predictive analytics demonstrated high accuracy in identifying students at risk of academic failure. By analyzing engagement data and learning behavior, these systems allow educational institutions to provide timely support and intervention. Consequently, universities implementing predictive analytics systems reported improved academic performance and higher student retention rates.

DISCUSSION

The findings suggest that Artificial Intelligence should not be viewed as a replacement for teachers but rather as a supportive tool that enhances the educational process. Nevertheless, the implementation of AI in education presents several important challenges.

The Role of the Digital Economy in Education. The increasing role of the digital economy requires students to develop advanced digital literacy skills. AI-supported educational systems help prepare learners for the demands of the modern labor market. However, there is a significant risk of widening the digital divide, particularly in developing countries where institutions may lack access to advanced technological infrastructure and financial resources.

Ethical Implications and Data Privacy. The implementation of AI technologies requires the collection and analysis of large amounts of personal data, raising serious concerns regarding privacy and security. In addition, so-called "black-box" algorithms may introduce unintended biases into educational decision-making processes. Algorithms trained on biased datasets may unfairly disadvantage particular student groups. Therefore, educational institutions must prioritize transparency, ethical standards, and the development of explainable AI systems.

Maintaining the Human Element. Although AI technologies significantly improve educational efficiency, human interaction remains an essential component of effective learning. Emotional support, mentorship, empathy, and social communication cannot be fully replaced by automated systems. Therefore, the most effective educational model is likely to be a hybrid approach in which AI supports administrative and analytical functions while educators focus on critical thinking, creativity, and emotional development.

CONCLUSION

Artificial Intelligence is fundamentally redefining the landscape of education technologies. Through the delivery of customized educational content and the optimization of institutional workflows, AI enables a more efficient, inclusive, and effective learning environment. The results of this study confirm that AI-driven personalization leads to higher academic achievement and better resource management.

To fully harness this potential, policymakers and educational leaders must address the challenges of algorithmic bias and data security. As we move further into the 21st century, the synergy between human creativity and artificial intelligence will be the cornerstone of educational success. The goal should not be to automate the teacher out of existence, but to empower both teachers and students through the intelligent use of data.

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BADIIY KINOYANI ANIQLASH MEZONLARI TALQINI

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Annotatsiya. Mazkur tezisdá badiiy kinoya tushunchasi va uni aniqlashning asosiy mezonlari tahlil qilinadi. Badiiy asarda kinoyaning yuzaga kelishi yozuvchining davr, jamiyat va inson ruhiyatini chuqur anglash darajasi bilan chambarchas bog‘liq. Kinoyaviy tasvir orqali muallif jamiyatdagi ijtimoiy, siyosiy va ma‘naviy muammolarga bevosita yoki bilvosita munosabat bildiradi. Tadqiqotda badiiy kinoyani aniqlashning beshta muhim mezonlari: ijtimoiy muhitda inson obrazini ochish, ruhiy holatni tasvirlash, parodiya va hajviy usullardan foydalanish, yashab qolish umidini ifodalash hamda yozuvchi idealining soxtalikka qarshi yo‘nalganligi yoritiladi. Ushbu mezonlar o‘zbek va ingliz nasridagi kinoyaviy-parodik talqinlarni qiyosiy o‘rganishda muhim nazariy asos bo‘lib xizmat qiladi.

Kalit so‘zlar: kinoya, badiiy obraz, parodiya, ijtimoiy muhit, yozuvchi ideali, mafkura, totalitarizm, modernizm, o‘zbek nasri, ingliz adabiyoti.

Аннотация. В данном тезисе анализируется понятие художественной иронии и основные критерии её выявления. Возникновение иронии в художественном произведении тесно связано с глубиной понимания писателем эпохи, общества и человеческой психологии. Посредством иронического изображения автор прямо или косвенно выражает своё отношение к социальным, политическим и нравственным проблемам общества. В исследовании рассматриваются пять основных критериев выявления художественной иронии: раскрытие образа человека в социальной среде, изображение его психологического состояния, использование приёмов пародии и сатиры, выражение надежды на выживание, а также направленность авторского идеала против фальши и лицемерия. Данные критерии могут служить важной теоретической основой для сравнительного изучения иронических и пародийных интерпретаций в узбекской и английской прозе.

Ключевые слова: ирония, художественный образ, пародия, социальная среда, авторский идеал, идеология, тоталитаризм, модернизм, узбекская проза, английская литература.

Abstract. This thesis analyzes the concept of artistic irony and the main criteria for identifying it in literary works. The emergence of irony in a literary text is closely associated with the writer’s profound understanding of the historical period, society, and human psychology. Through ironic

representation, the author expresses a direct or indirect attitude toward social, political, and moral problems within society. The study examines five major criteria for identifying artistic irony: revealing the image of the individual within a social environment, portraying psychological states, employing parody and satirical techniques, expressing hope for survival, and the orientation of the writer's ideal against falsehood and hypocrisy. These criteria provide an important theoretical basis for the comparative study of ironic and parodic interpretations in Uzbek and English prose.

Keywords: irony, literary character, parody, social environment, authorial ideal, ideology, totalitarianism, modernism, Uzbek prose, English literature.

KIRISH

Badiiy adabiyot inson va jamiyat o'rtasidagi murakkab munosabatlarni aks ettirish, ijtimoiy voqelikni baholash hamda inson ruhiyatining turli qirralarini ochib berishning muhim vositalaridan biridir. Badiiy asarda muallif o'z munosabatini doimo bevosita ifodalamaydi, balki turli badiiy vositalar, jumladan, kinoya, istehzo, satira va parodiya orqali yashirin yoki bilvosita tarzda namoyon etadi. Shu jihatdan kinoya badiiy tafakkurning muhim shakllaridan biri sifatida alohida ahamiyat kasb etadi. U nafaqat matnning estetik ta'sirchanligini oshiradi, balki muallifning jamiyat, inson va mavjud ijtimoiy qadriyatlarga bo'lgan munosabatini ochib berishga xizmat qiladi.

Badiiy kinoya ko'p qatlamli hodisa bo'lib, uning mazmuni faqat so'zning bevosita ma'nosiga qarama-qarshi ma'no ifodalash bilan cheklanmaydi. Kinoyaviy mazmun ko'pincha muayyan tarixiy davr, ijtimoiy muhit, madaniy qadriyatlar va kommunikativ vaziyat bilan bog'liq holda shakllanadi. Shu sababli kinoyani to'g'ri anglash uchun asarning umumiy mazmuni, qahramonlarning xatti-harakati, muallif pozitsiyasi va tasvirlangan ijtimoiy muhitni kompleks tarzda tahlil qilish talab etiladi.

Ayniqsa, ijtimoiy va siyosiy ziddiyatlar kuchaygan davrlarda kinoya yozuvchi uchun voqelikni tanqidiy ifodalashning samarali vositalaridan biriga aylanadi. Muallif ochiq tanqid qilish imkoniyati cheklangan sharoitlarda ijtimoiy muammolarni kinoyaviy, parodik yoki satirik tasvir orqali ifodalashi mumkin. Bunday holatda kinoya nafaqat estetik, balki ijtimoiy va g'oyaviy funksiyani ham bajaradi. Shu nuqtayi nazardan, totalitar muhit, mafkuraviy bosim, ijtimoiy tengsizlik va inson erkinligi bilan bog'liq masalalarning badiiy talqinida kinoyaning o'rni alohida tadqiq etilishi lozim.

ASOSIY QISM

O'zbek va ingliz adabiyotida kinoyadan foydalanish an'alarini qiyosiy o'rganish mazkur hodisaning umumiy va milliy xususiyatlarini aniqlash imkonini beradi. Turli tarixiy va madaniy sharoitlarda yaratilgan badiiy asarlarda kinoya insonning ijtimoiy muhitdagi mavqei, ruhiy holati, jamiyatdagi mavjud qarama-qarshiliklar va muallif idealining ifodasi sifatida namoyon bo'lishi mumkin. Shu bilan birga, ingliz modernistik adabiyotida kinoya va parodiya ko'pincha an'anaviy qadriyatlarni qayta ko'rib chiqish, insonning ichki dunyosini ochish va ijtimoiy voqelikni tanqidiy tasvirlash vositasi sifatida qo'llanilgan bo'lsa, o'zbek nasrida uning namoyon bo'lish shakllari muayyan tarixiy, ijtimoiy va madaniy sharoitlar bilan chambarchas bog'liq holda shakllangan.

Mazkur tadqiqotning dolzarbligi badiiy kinoyani faqat lingvistik yoki stilistik hodisa sifatida emas, balki ijtimoiy, psixologik va estetik mazmunni birlashtiruvchi murakkab badiiy hodisa sifatida o'rganish zarurati bilan belgilanadi. Ayniqsa, kinoyaviy tasvirning inson obrazi, ruhiy holat, ijtimoiy muhit, parodiya va satira hamda yozuvchi idealining ifodalanishi bilan aloqasini aniqlash badiiy matnning yashirin ma'nolarini chuqurroq anglashga yordam beradi.

Tadqiqotning asosiy maqsadi o'zbek va ingliz nasrida badiiy kinoyaning mazmuniy va funksional xususiyatlarini aniqlash hamda uning yuzaga kelishini belgilovchi asosiy mezonlarni tahlil qilishdan iborat. Ushbu maqsad doirasida kinoyaning ijtimoiy muhit bilan munosabati, inson ruhiyatini ochib berishdagi imkoniyatlari, parodik va hajviy vositalar bilan aloqasi hamda muallif idealini ifodalashdagi o'rni ko'rib chiqiladi.

Tadqiqot natijalari badiiy kinoyaning nazariy mohiyatini chuqurroq yoritish, o'zbek va ingliz adabiyotidagi kinoyaviy-parodik talqinlarni qiyosiy o'rganish hamda badiiy matnning yashirin mazmunini tahlil qilish uchun nazariy asos bo'lib xizmat qilishi mumkin.

Badiiy kinoya adabiyotda muayyan hodisa, shaxs yoki ijtimoiy muammoga yashirin, bilvosita yoki qarama-qarshi ma'no orqali munosabat bildirish vositalaridan biridir. Kinoyani to'g'ri anglash uchun asarning yaratilgan davri, undagi ijtimoiy muhit, muallifning estetik qarashlari va qahramonlarning ruhiy holatini hisobga olish zarur.

Badiiy kinoyani aniqlashda, avvalo, ijtimoiy muhit va inson munosabati muhim ahamiyat kasb etadi. Ayniqsa, mafkuraviy bosim kuchli bo'lgan jamiyatlarda yozuvchi o'z munosabatini bevosita emas, balki ramz, allegoriya, metafora va kinoya orqali ifodalashi mumkin. Bunday holatda qahramonning xatti-harakati va ichki kechinmalari davrning ijtimoiy muammolarini aks ettiradi.

Ikkinchi mezon — inson ruhiy holatini badiiy tasvirlash. Modernistik adabiyotda qahramonning ichki dunyosi, yolg'izlik, qo'rquv, umidsizlik va begonalashuv holatlariga alohida e'tibor beriladi. Franz Kafka va Albert Kamyu kabi ijodkorlar asarlarida insonning murakkab ruhiy kechinmalari orqali davrning muammolari badiiy ifodalangan.

Uchinchi mezon — parodiya va hajviy tasvir usuli. Kinoya ko'pincha kulgi, istehzo va parodiya bilan uyg'unlashadi. Bunday usul orqali jamiyatdagi soxtalik, qo'rquv, mansabparastlik va insonning ijtimoiy bosim ostidagi holati ochib beriladi. Jorj Oruellning "Molxona" asari bunga yorqin misol bo'la oladi. Asardagi hayvonlar obrazi orqali totalitar tuzum va hokimiyatning inson ongiga ta'siri allegorik shaklda yoritilgan.

To'rtinchi mezon — yashab qolish umidi. Inson qanchalik murakkab ijtimoiy sharoitda yashamasin, kelajakka umid bilan qaraydi. Badiiy kinoyada ana shu umid va qo'rquv o'rtasidagi ziddiyat muhim poetik vositaga aylanadi. Qahramonning o'z hayoti, oilasi va kelajagi uchun kurashi orqali jamiyatdagi muammolar ochib beriladi.

Beshinchi mezon esa yozuvchi idealining soxtalikka qarshi yo'nalganligidir. Chinakam badiiy kinoya faqat kuldirish yoki masxara qilish maqsadini ko'zlamaydi. Unda muallifning ma'lum bir estetik va axloqiy ideali mavjud bo'ladi. Yozuvchi jamiyatdagi soxtalikni fosh etish orqali haqiqat, insoniylik va adolat kabi qadriyatlarni ilgari suradi.

O'zbek va ingliz adabiyotida kinoyaviy tasvirning turli ko'rinishlarini uchratish mumkin. Jorj Oruell ijodidagi allegoriya va parodiya, Franz Kafkadagi absurdlik hamda o'zbek adabiyotidagi ijtimoiy-hajviy tasvirlar kinoyaning turli poetik imkoniyatlarini namoyon etadi. Shu jihatdan Oruell ijodini Swift va Kafka an'analari bilan bog'lash mumkin. Ularning ijodida jamiyatdagi adolatsizlik, hokimiyat va inson munosabatlari turli badiiy vositalar orqali yoritilgan.

XULOSA

Xulosa qilib aytganda, badiiy kinoyani aniqlashda ijtimoiy muhit, inson ruhiyati, parodiya, yashab qolish umidi va yozuvchi ideali kabi mezonlar muhim ahamiyatga ega. Ushbu mezonlar asosida o'zbek va ingliz nasridagi kinoyaviy obrazlar hamda parodik tasvirlarni qiyosiy o'rganish mumkin. Kinoya yozuvchiga jamiyatdagi murakkab muammolarni bevosita bayon qilmasdan, balki badiiy obraz, ramz va istehzo orqali ifodalash imkonini beradi. Shu sababli badiiy kinoya nafaqat estetik, balki ijtimoiy-falsafiy ahamiyatga ham ega bo'lgan muhim adabiy hodisa sifatida namoyon bo'ladi.

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XX ASRDAGI INGLIZ REALISTIK ROMANLARIDA JANR XILMA-XILLIGI VA BADIY JIHATLARI

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Annotatsiya: Mazkur maqolada XX asr ingliz realistik romanining janriy xilma-xilligi, uning tipologik xususiyatlari hamda dramatik-estetik tabiati ilmiy jihatdan tahlil etilgan. Tadqiqotda realizm va modernizm o'rtasidagi qarama-qarshilik, shuningdek, shaxs va jamiyat munosabatining badiiy aks etish shakllari yoritiladi. Maqolada fojia va satira uyg'unligi, dramatik konfliktlarning shakllanishi hamda zamonaviy roman evolyutsiyasi masalalari tahlil qilinadi.

Kalit so'zlar: realistik roman, modernizm, janr differensiyasi, dramatism, fojia, satira, ingliz adabiyoti, shaxs va jamiyat, ijtimoiy roman, personal roman, estetik sintez

Аннотация: В данной статье проводится научный анализ жанрового разнообразия английского реалистического романа XX века, его типологических особенностей, а также драматико-эстетической природы. Особое внимание уделяется синтезу трагического и сатирического, формированию драматических конфликтов и эволюции современного романа.

Ключевые слова: реалистический роман, модернизм, жанровая дифференциация, драматизм, трагедия, сатира, английская литература, личность и общество, социальный роман, персональный роман, эстетический синтез

Abstract: This article provides a scientific analysis of the genre diversity of the 20th-century English realist novel, its typological features, and its dramatic-aesthetic nature. The study examines the opposition between realism and modernism, as well as the artistic representation of the relationship between the individual and society. Particular attention is given to the synthesis of tragedy and satire, the formation of dramatic conflicts, and the evolution of the modern novel.

Keywords: realist novel, modernism, genre differentiation, dramatism, tragedy, satire, English literature, individual and society, social novel, personal novel, aesthetic synthesis.

KIRISH.

XX asr ingliz romanida janr xilma-xilligi rivoji, roman tuzilishining epik-dramatik xususiyatlari turlanishi sifatida, muayyan tipologik alomatlariga ega. Adabiyotni tipologik o'rganish zarurati, adabiy jarayonda umumiylik va xususiylikning o'zaro munosabati masalalarini tadqiq etish haqida so'z yuritib, M.B.Xrapchenko shunday qayd etgan: "So'z san'atkorlarining o'ziga xosliklari ular o'rtasida ichki aloqalar mavjud emas, aslo ularning asarlarida umumiy asos va tendentsiyalar namoyon bo'lmaydi, degan ma'noni anglatmaydi. Bu umumiy asos va tendentsiyalar nafaqat mavjud, balki ular turli shakllarda namoyon bo'lib, adabiy jarayonda muhim ahamiyat kasb etadi. Biz, masalan, milliy adabiyot, uning rivoji haqida so'z yuritarkanmiz, ko'plab yirik va uncha mashhur bo'lmagan yozuvchilarning ijodini qay tarzda nazarda tutsak, turli-tuman adabiy hodisalarga xos bo'lgan umumiylikni ham shunday nazarda tutamiz".

San'atning modernistik kontseptsiyasi o'zining g'oyaviy mazmuni, jamiyat va insonga munosabati, hayotiy konfliktlar talqiniga ko'ra realistik san'at kontseptsiyasidan tubdan farq qiladi. Bu ikki inson kontseptsiyalarining qarama-qarshiligi realistik romanning modernistik romanga zidligi, ularning o'zaro kurashida aks etadi. Realist-yozuvchilar jo'shqin, keskin burilishlarga doir voqealarni va ijtimoiy siljishlarni ijtimoiy dramalar sifatida ko'rsatadi. Angliyada dramatik roman asosan realistik san'at yo'lida rivojlandi. Hatto realist bo'lmagan dramatik romanlar mualliflari ham, to'la ma'noda, ushbu badiiy metodga muayyan darajada intiladi. Realistik roman ommaviy adabiyot: shov-shuvli bestsellerlar va jangarilar, atom bilan bog'liq utopiyalar, g'ayrikommunistik detektivlar, uy bekalari o'qiydigan xom, g'o'r va freydcha ruhiy tahlil qoramallari orasidan o'ziga yo'l ochadi.

ADABIYOTLAR SHARXI.

D.Quronov, «So'nggi yillarda adabiyot qanday bo'lishi kerakligi to'g'risida bahslar yuritilmoqdaki, kimdir u ommaviy bo'lishi kerak deb ta'kidlasa, boshqa olimlar adabiyot elitar

bo'lishi kerak deb hisoblaydi. Ikkinchi tomon tarafdorlari adabiyot ommaviy bo'lishiga butunlay qarshi, birinchi tomon tarafdorlari esa, agar adabiyot faqat o'ta aqllilar uchun yaratilsa, u holda adabiyot o'zining jamiyatdagi ahamiyatini butunlay yo'qotadi, deb hisoblaydi. Birinchi ko'rinishda bu bahs hech qachon barham topmaydigandaydek, lekin bizning fikrimizcha muammoning yechimi kelishuvdir», deb ta'kidlaydi. Albatta, ommaviy adabiyotda juda sayoz va zararli mahsulotlar bilan birga umuminsoniyat uchun juda kerakli masalalar ham mavjud ekanligiga ko'z yumib bo'lmaydi.

Davrning asosiy kolliziyalari — jahon urushlari, inqiloblar, ishchilar sinfining kurashi, kapitalistik jamiyatdagi begonalashuv — realistik romanda shunday dramatik konfliktlarda tasvirlanadiki, ular fojeaviylik va komiklikning murakkab uyg'unlashuvini namoyon etadi. Ingliz adabiyotida satira va yumor an'anasi ustunlik qiladi, degan umum tomonidan e'tirof etilgan nuqtai nazar ayrim tuzatishlarni taqozo etadi. XX asr ingliz realistik romanida dramatik va tragik strukturaga intilish tobora kuchayib borgani kuzatiladi va bu jihatlar satira unsurlari bilan mos, muvofiq keladi. Fojeaviy roman yaratish niyati har doim ham muvaffaqiyatli chiqmasligi esa boshqa masala.

METODOLOGIYA.

Asosan e'tibor XX asr ingliz realistik romaniga qaratilsa, unda o'ziga xos xususiyat — fojeaviylik va satira uyg'unligini kuzatish mumkin. Romanda burjua olamidagi ijtimoiy-siyosiy konfliktlar tasviri bilan bog'liq ravishda tez-tez original badiiy hodisalar — fojeaviylik va fars (qo'pol, qaltis hazil, hayosizlik) uyg'unligi namoyon bo'ladi. Burjuaziya endi fojeali ulug'vorlikka davo qilolmaydi. Bu esa burjuaziyaning sinf sifatidagi tarixiy mohiyatiga mos holatki, uning mavjudligi allaqachon farsga aylangan edi. Biroq zamonaviy burjua jamiyatida kapitalizmga qarshi isyon ko'tarayotgan va norozilik bildirayotganlarning taqdiri dramatik holatda kechdi. Shu boisdan ham o'tgan asr g'arb romanida fojeaviylik asosi tabiiydir. Biroq agar burjuaziya tartib-qoidalariga qarshi noroziliklar kapitalizm sistemasini butunlay inkor etishdan iborat bo'lmasa-da, shunga qaramay qahramonning isyoni burjuaziya individualizmidan xoli emas edi. XX asr ingliz realistik romanidagi fojeaviylik aksar hollarda melodramatik tus oladi va karikaturali-fojeaviy, fojeaviy fars hamda fojeaviy mubolag'aga aylanishi mumkin. Fojea va farsning sintezi ijtimoiy voqelikning mohiyati bilan bog'liq bo'lib, bu holat hayotiy voqealarni badiiy o'zlashtirish usulini oldindan belgilab beradi. Yangi hodisa — fojeaviy fars — ingliz romanida tobora keng o'rin egallab, uning estetik o'ziga xosligini belgilaydi.

Ingliz yozuvchisi, sotsiolog va adabiyotshunos Reymond Uilyams “Realizm va zamonaviy roman” (1959) maqolasida Angliyada zamonaviy realistik roman tipologiyasi, uning janr tasnifi haqida qiziqarli fikrlarni aytgan. U romanda individ (alohida shaxs) va jamiyat munosabati keng tasvirlanishidan kelib chiqib fikr yuritadi. Realistik romanda individga ham, jamiyatga ham birdek e'tibor qaratiladi; shu tariqa shaxs va jamiyat munosabatining yaxlit manzarasi yaratiladi. Biroq o'tgan asr zamonaviy romanida jamiyatda begonalashishning kuchayishi, shaxs va jamiyat manfaatlari o'rtasidagi bog'liqlikning uzilishi chuqurlashgani, individ va jamiyatning bir-biriga qarama-qarshi g'oyalarga aylanishi oqibatida shaxs va jamiyat o'rtasidagi o'zaro munosabatlarning yaxlit realistik manzarasiga putur yetdi. Zamonaviy romandagi janr differentsiyasi, ya'ni farq yoxud tabaqalanishning boisi shunda. Uilyamsning fikricha, XX asr ingliz realistik romani tarixida ikkita yetakchi oqim mavjud: bular ijtimoiy roman va “personal” roman (shaxs haqida roman, psixologik roman). Bu differentsiatsiya individ va jamiyat munosabatida tomonlardan biriga berilgan muayyan urg'u bilan bog'liq. Shaxs va jamiyat o'rtasidagi bunday munosabat roman janrida doimo bo'ladi va uning mavjudligi ham shu bilan izohlanadi. Biroq bu munosabatning badiiy asarda qayta yaratilishida muayyan xilma-xilliklar kuzatiladi. Ijtimoiy romanda urg'u jamiyatga qaratilgan, shaxs esa bu yerda faqat jamiyat hayoti aspektida ko'rsatilgan. “Personal” romanda shaxslar va jamiyat faqat shaxs hayoti aspektida tasvirlanadi. O'z navbatida, bu ikki tip o'zining qism-bo'limlariga ega. Ijtimoiy roman ijtimoiy-tavsifiy (bayonchilik), hujjatli (Charlz Snou asarlari) va ijtimoiy roman-formulaga (Uilyam Golding asarlari) ajraladi. Ijtimoiy-tavsifiy romanda jamiyat hayotining umumiy oqimi, muayyan bir muhit — ishchilar, universitet, savdo muhiti tasvirlanadi. Ijtimoiy roman-formulada jamiyat muayyan bir tuzilish, qurilma, jamiyat haqida g'oyalar nuqtai nazaridan ko'rsatiladi. “Personal” roman o'xshash — personal-tavsifiy (Edvard Morgan Forster) va maxsus roman-formula

qism-bo'limlarga ega. Birinchi ko'rinishida odatdagi hayot va individ xarakteri tavsiflanadi, ikkinchisida — odam qandaydir formulalar, problemalar nuqtai nazaridan kuzatiladi. Raymond Uilyams zamonaviy ingliz romanidagi bu ikki — ijtimoiy va “personal” — oqimlarning jamiyatning o'zidagi inqirozni bartaraf etish va “yangi realizm”ni yaratish asosida birlashishini yoqlab chiqdi.

O'tgan asr adabiy kurashlarida realistik pozitsiyani izchil egallab kelayotgan ingliz yozuvchilari ingliz romani taraqqiyotining asosiy yo'lini shaxs va jamiyat o'rtasidagi o'zaro munosabatlarning ob'ektiv tasviri printsiplariga sodiqlikda ko'radilar. Masalan, Charlz Snou G'arb adabiyotida modernistik “sindrom”ga qarshi matbuotda qator chiqishlar qildi. “Intellektga da'vat” (1958) maqolasida Snou modernizmning “qadriyatlar” tizimini: “intelektualning begonalashuvi, aksilroman estetikasi, umumlashadigan intellektdan voz kechish, ilmiy-texnika inqilobiga nafrat, so'z nayranglarini sharaflash, jamiyatdan begonalashish”ni qat'iy rad etdi. Ch.Snou aksilroman estetikasini realistik roman nazariyasiga qarama-qarshi qo'yadi. Inson xarakterisiz, Snou fikricha, roman yo'q. Buyuk romanchilar inson qalbining sirli q'rilariga intilganlar; ular inson zoti hayratlanarli darajada o'ziga xoslikda bitmas-tuganmasligini bilgan holda yangidan-yangi badiiy kashfiyotlarga qo'l urdilar. Roman — bu nafaqat ko'z o'ngimizdan o'tadigan hayotni ko'rsatishga, balki shu hayot haqidagi fikr-mulohazalarni, u haqdagi hukm-xulosalarni yetkazishga ham qodir badiiy shakldir.

Ingliz yozuvchisi va tanqidchisi Malkolm Bredberining “Imkoniyatlar. Romanning ahvoli haqida ocherklar” (1973) kitobi Angliyada realistik roman taqdiriga jiddiy e'tibor qaratilgani bilan ajralib turadi. Unda ingliz romani ahvoli amerika va frantsuz romani bilan bog'lab, qiyosiy tahlil etilgan. Bredberi chet ellik adabiyotshunoslarning ishlarida xiyla keng yoyilgan tasavvur — XX asr ingliz romani roman sifatida kam qiziqtirishi, AQSh va Frantsiya romanlariga nisbatan “poytaxtdan uzoqdaligi”, ya'ni qoloq, orqada qolganligi haqidagi qarashlarni tanqid qiladi. Burjuaziya tanqidchilari ingliz romanini realistik an'analarni davom ettirayotganiga asoslanib, uning qimmatini shubha ostiga oladi; ular buni eskirgan va zamonaviy o'quvchiga keraksiz, deb hisoblaydi. Tanqidchilar amerika va frantsuz adabiyotini nisbatan yuqori baholarkan, ular bu adabiyotlarda ijodiy tajribalar amalga oshirilayotgani va uslub sohasida moderncha izlanishlar qilinayotganiga asoslanadilar. Bredberining o'zi esa, ingliz romanini afzal, deb biladi, chunki u asosan realistik prozadir. Biroq Bredberi realizm himoyasida izchil emas. U zamonaviy ingliz romani o'zgarib, yangilanib borayotganini, ingliz romani XX asr romani shakllarini ko'r-ko'rona takrorlamayotganini to'g'ri ta'kidlarkan, ayni paytda tadqiqotchi bu o'zgarish, yangilanishni realizm va modernizmning qandaydir yangicha sintezida ko'rayotganiga moyillik bildiradi. Shu tariqa u realistik va modernistik tendentsiyalarning bir-biriga mos kelmagan, aksincha qarama-qarshiligi aks etgan asarlarni mutlaqlashtiradi, o'zining ingliz romanining salohiyati uning realistik ekanida, degan dastlabki ishonchli tezisidan chekinadi va ayrim ingliz romanchilari amerikacha “qaltis yumor” va frantsuz “yangi romani” darajasiga “ko'tarilayotgani”ni asoslashga kirishadi.

NATIJA.

Angliyadagi XX asr realistik romani nafaqat Britaniya oroli hayotiga taalluqli dramatismni, shu bilan birga butun jahonda ro'y berayotgan siljishlar va o'zgarishlarni ham qamrab oladi. Shu sababli dramatik va fojeali konfliktlarning ijtimoiy zamini ingliz hayot tarzidan iborat bo'lib qolmaydi, balki britan imperiyasidagi va butun jahondagi voqealar tasviridan tashkil topadi. Angliyaning o'zi, Yevropa mintaqasi mamlakatlari qatori bunday halokatli lahzalarni kechirmagan bo'lsa-da, XX asr jahon tarixining bo'ronli voqealariga tortilgan edi (jahon urushlari, mustamlakachilik urushlaridagi ishtiroki; Britaniya imperiyasining qulashi va h.k.).

XULOSA.

Xulosa qilib aytganda, XX asr ingliz realistik romani murakkab ijtimoiy-tarixiy jarayonlar fonida shakllangan bo'lib, unda janr xilma-xilligi va estetik izlanishlar ustuvor ahamiyat kasb etadi. Ushbu davr romanida shaxs va jamiyat o'rtasidagi ziddiyatlar markaziy o'rinni egallab, dramatik hamda fojiali unsurlar bilan boyitilgan. Realizm va modernizm o'rtasidagi kurash esa roman taraqqiyotining asosiy harakatlantiruvchi omillaridan biri sifatida namoyon bo'ladi. Shuningdek,

fojia va satiraning sintezi ingliz romani uchun xos bo'lgan muhim badiiy hodisa sifatida yuzaga chiqadi.

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CHET TILI O'QITUVCHILARINI TAYYORLASH JARAYONIDA AUTENTIK MATERIALLARDAN FOYDALANISHNING O'RNI VA AHAMIYATI

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Annotatsiya. Ushbu maqolada chet tillarini o'qitishda autentik materiallardan foydalanishning nazariy asoslari, didaktik afzalliklari va amaliy qo'llanilish mexanizmlari keng yoritiladi. Autentik materiallarning o'quv jarayonida talabalarning kommunikativ kompetensiyasini rivojlantirishga, real hayotiy vaziyatlarda muloqot qilish malakasini oshirishga, shuningdek, madaniyatlararo kompetensiyani shakllantirishga ta'siri tahlil qilinadi. Tadqiqot jarayonida sifat tahlili, kuzatuv, taqqoslovchi metod hamda ilmiy manbalarni tahlil qilish metodlari qo'llanildi. Olingan natijalar autentik materiallarning kelajak chet tili o'qituvchilarining kasbiy kompetensiyalarini rivojlantirishda muhim omil ekanligini ko'rsatdi. Mazkur maqola o'quv jarayonini takomillashtirish, innovatsion metodlarni tatbiq etish va til o'rganishda haqiqiy kontekst yaratish bo'yicha metodik tavsiyalarni o'z ichiga oladi.

Kalit so'zlar: autentik materiallar, chet tili ta'limi, kommunikativ kompetensiya, madaniyatlararo kompetensiya, real kontekst, lingvodidaktika, zamonaviy pedagogika.

Аннотация: В данной статье подробно рассматриваются теоретические основы, дидактические преимущества и механизмы практического применения аутентичных материалов в обучении иностранным языкам. Анализируется влияние аутентичных материалов на развитие коммуникативной компетенции студентов, повышение навыков общения в реальных жизненных ситуациях, а также формирование межкультурной компетенции. В процессе исследования применялись методы качественного анализа, наблюдения, сравнительного метода и анализа научных источников. Полученные результаты показали, что аутентичные материалы являются важным фактором в развитии профессиональных компетенций будущих учителей иностранного языка. Статья включает методические рекомендации по совершенствованию учебного процесса, внедрению инновационных методов и созданию реального контекста при изучении языка.

Ключевые слова: аутентичные материалы, обучение иностранным языкам, коммуникативная компетенция, межкультурная компетенция, реальный контекст, лингводидактика, современная педагогика

Abstract: This article explores the theoretical foundations, didactic advantages, and practical application mechanisms of authentic materials in foreign language teaching. The influence of authentic materials on the development of students' communicative competence, the improvement of communication skills in real-life situations, and the formation of intercultural competence is analyzed. The study employed qualitative analysis, observation, comparative methods, and scientific literature review. The results demonstrated that authentic materials are a crucial factor in developing the professional competencies of prospective foreign language teachers. The article includes methodological recommendations for improving the learning process, implementing innovative teaching methods, and creating authentic contexts in language learning.

Keywords: authentic materials, foreign language education, communicative competence, intercultural competence, real context, linguodidactics, modern pedagogy

KIRISH

Globalizatsiya jarayonlari jadal rivojlanayotgan bir davrda chet tilini o'qitish ilg'or metodologiyalar, texnologiyalar va didaktik yondashuvlarni talab qilmoqda. Bugungi kunda ta'lim tizimi oldida turgan muhim vazifalardan biri — o'quvchi yoki talabani real hayotiy kommunikativ vaziyatlarga tayyorlashdir. An'anaviy o'quv qo'llanmalari ko'pincha ideal, soddalashtirilgan til namunalarini taqdim etadi, bu esa o'quvchilarning haqiqiy tildan foydalanish jarayoniga moslashuvini cheklashi mumkin. Shu bois, autentik materiallar — ya'ni til egalarining real hayotda foydalanish uchun yaratgan matn va media mahsulotlari — zamonaviy ta'limning strategik komponentiga aylanmoqda. Autentik materiallar yordamida o'quvchilar tilni nafaqat grammatik tizim sifatida, balki madaniy va ijtimoiy hodisa sifatida o'rganishga qodir bo'ladi.

Chet tili o'qituvchilari tayyorlanayotgan oliy ta'lim muassasalarida autentik materiallardan foydalanish yanada dolzarb ahamiyat kasb etadi. Chunki kelajak o'qituvchilar nafaqat til bilimiga, balki zamonaviy metodik yondashuvlarga ham ega bo'lishi kerak. Ushbu maqola aynan mazkur jarayonning metodologik va amaliy jihatlarini chuqur tahlil qiladi.

Autentik materiallar — bu ona tilida so'zlashuvchilar tomonidan kundalik hayotda foydalanish maqsadida yaratilgan materiallardir. Ular: tilning real ko'rinishini, tabiiy grammatik qurilishlarni, nutqning haqiqiy tezligini, madaniy jihatlarni aks ettiradi. Til o'rganuvchilar uchun maxsus yaratilgan o'quv qo'llanmalaridan farqli o'laroq, autentik materiallar real kommunikativ muhitni taqdim etadi.

Autentik materiallar quyidagi asosiy turlarga bo'linadi:

1. Matnli autentik materiallar: gazeta va jurnal maqolalari, bloglar, reklama matnlari, e'lonlar, yo'riqnomalar, elektron maktublar
2. Audiovizual autentik materiallar: filmlar, seriallar, vebinarlar, podkastlar, radio eshittirishlar, YouTube videolar
3. Onlayn autentik resurslar; veb-saytlar, ijtimoiy tarmoqlar (Twitter, Instagram, Facebook), forumlar, sharhlar
4. Madaniy autentik materiallar: qo'shiqlar, festivallar haqidagi videolar, tarixiy hujjatlar, madaniyatga oid vizual materiallar. Ushbu materiallar o'quv jarayonini real hayotiy vaziyatlar bilan boyitadi.

Autentik materiallardan foydalanishning nazariy asoslari sifatida kommunikativ metod ta'limda tilni aloqa vositasi sifatida ko'radi. Autentik materiallar ana shu mazmunni to'liq ta'minlaydi, chunki ular: real nutq vaziyatini taqdim etadi, pragmatik kompetensiyani shakllantiradi,

o'quvchini muloqotga tayyorlaydi. Konstruktivizmga ko'ra, o'quvchi bilimni faol ravishda yaratadi. Autentik materiallar o'quvchini mustaqil izlanishga majbur qiladi, chunki ular: murakkab kontekstlarni o'z ichiga oladi, taqqoslash va tahlil qilish ko'nikmalarini talab qiladi, yuqori darajadagi fikrlashni rivojlantiradi. Sotsiolingvistik va pragmatik yondashuvlar asosida tilning madaniy

kontekstdagi ishlatilishini tushunish uchun autentik materiallar muhimdir. Ular: nutq odoblari, madaniy stereotiplar, pragmatik niyatlar kabi unsurlarni o'z ichiga oladi.

Tadqiqot quyidagi metodlarga tayangan:

Sifat tahlilida autentik materiallar asosida tashkil qilingan darslar tahlil qilindi. Talabalarning kommunikativ faolligi va motivatsiyasi kuzatildi. Pedagogik kuzatuvda oliy ta'lim muassasasida 40 nafar talaba ishtirokida o'tkazilgan kuzatuvlar shuni ko'rsatdiki, autentik materiallar qo'llanganda: talabalar ko'proq savollar berishgan, o'zaro muhokamalar faollashgan, darsga qiziqish 45% ga oshgan. Taqqoslovchi metodda an'anaviy o'quv qo'llanmalari bilan autentik materiallarning samaradorligi taqqoslandi. Ilmiy adabiyotlar tahlilida mahalliy va xorijiy ilmiy manbalar o'rganilib, umumiy nazariy qarashlar tizimlashtirildi.

Autentik materiallardan foydalanishning ustunliklari (Analiz)

Tabiiy til muhitini yaratish. Autentik materiallar tilning tabiiy ko'rinishini taqdim etadi. Bu o'quvchiga: nutqni tushunish, yangi leksika bilan tanishish, real til qurilishlarini kuzatish imkonini beradi. Leksik va grammatik boylikni kengaytirish autentik materiallarda til juda boy va rang-barang. Talabalar: kontekstual o'rganishga, sinonim va idiomalardan foydalanishga, zamonaviy sleng va iboralarni tushunishga o'rgatiladi. Har bir autentik material madaniyat bilan sug'orilgan. O'quvchilar: milliy qadriyatlar, urf-odatlar, ijtimoiy xulq normalari bilan tanishadi. Motivatsiyani oshirish bo'yicha talabalar real hayot kontentini o'rganishga qiziqadi. Bu darsning interaktivligini oshiradi, mustaqil ta'limga undaydi, o'qishga ijodiy yondashuvni kuchaytiradi. Mustaqil o'rganish ko'nikmalarini shakllantirishda talabalar analiz qilish, tahlil qilish, xulosa chiqarish kabi ko'nikmalarni rivojlantiradi.

Tinglab tushunish bo'yicha YouTube'dagi bloglar, inglizcha intervyular yangiliklar asosida savol-javob mashqlari, muhokamalar, diktantlar o'tkaziladi. O'qish bo'yicha BBC News, National Geographic maqolalari reklama matnlari, shuningdek, matndagi asosiy g'oyalar aniqlanadi, tahlil qilinadi. Yozma nutqni rivojlantirishda talabalarga real onlayn forumlardan misollar beriladi, ularga shaxsiy fikr bildirish, sharh yozish topshiriladi. Og'zaki nutqni rivojlantirishda film parchalaridan sahna takrorlash dialoglar tuzish, real hayot vaziyatlarini rolly o'yin shaklida qayta yaratish kabi mashqlar samaralidir.

Bundan tashqari autentik materiallar bilan ishlash jarayonida bir qator muammolar paydo bo'lishi mumkin:

1. Nutq tezligi, o'quvchilar uchun juda tez bo'lishi mumkin.
2. Leksik murakkablik, sleng, idiomalar, nostandart grammatik qurilishlar uchraydi.
3. Texnik sharoitlar, har doim ham internet, proyektor yoki kompyuter mavjud emas.
4. Metodik tayyorgarlik, o'qituvchi materialni darajaga moslab tanlashi va qayta ishlashi zarur. Biroq ushbu muammolar to'g'ri metodik yondashuv orqali bartaraf etilishi mumkin.

XULOSA

Xulosa o'rnida shuni aytish mumkinki, autentik materiallardan foydalanish chet tili ta'limida nafaqat samarali, balki zaruriy metoddir. Bu materiallar talabalarda kommunikativ kompetensiya, madaniyatlararo kompetensiya, mustaqil o'rganish ko'nikmalari, ijodkorlik, real hayot uchun til kompetensiyasi kabi qator muhim malakalarni shakllantiradi.

Kelajak chet tili o'qituvchilarining kasbiy tayyorgarligida autentik materiallardan muntazam foydalanish ularning amaliy ko'nikmalarini sezilarli darajada oshiradi. Shuning uchun ham oliy ta'lim tizimida autentik materiallardan foydalanishni yanada rivojlantirish, o'quv dasturlariga keng joriy etish va o'qituvchilarni bu borada metodik jihatdan tayyorlash dolzarb vazifa hisoblanadi.

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INGLIZ TILIDA QO'SHMA SO'ZLARNING MOHIYATI VA ULARNING TASNIFI

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Annotatsiya. Mazkur maqolada ingliz tilidagi qo'shma so'zlarning mohiyati, tuzilishi va tasnifi masalalari yoritiladi. Qo'shma so'zlarning so'z yasalishidagi o'rni, tarkibiy qismlari va semantik xususiyatlari tahlil qilinadi. Shuningdek, ularning asosiy strukturaviy turlari va hosil bo'lish modellari ko'rib chiqiladi.

Kalit so'zlar: qo'shma so'z, qo'shma so'zlarning mohiyati, qo'shma so'zlarning tasnifi, so'z yasalishi, kompozitsiya, morfemik tuzilish, so'z birikmasi, komponent, semantik yaxlitlik, strukturaviy model, leksik birlik, derivatsiya, produktivlik, ikki komponentli qo'shma so'zlar.

Abstract. This article examines the essence, structure, and classification of compound words in English. It analyzes their role in word formation, structural components, and semantic features. The study also considers the main structural types and formation patterns of English compounds.

Keywords: compound word, essence of compounds, classification of compounds, word formation, compounding, morphological structure, word combination, constituent, semantic integrity, structural model, lexical unit, derivation, productivity, two-component compounds, multi-component compounds, noun+ noun pattern, adjective+ noun pattern, verb + noun pattern.

Аннотация. В статье рассматриваются сущность, структура и классификация сложных слов в английском языке. Анализируются их роль в словообразовании, структурные компоненты и семантические особенности. Также рассматриваются основные структурные типы и модели образования сложных слов.

Ключевые слова: сложное слово, сущность сложных слов, классификация сложных слов, словообразование, словосложение, морфемная структура, словосочетание, компонент, семантическая целостность, структурная модель, лексическая единица, деривация, продуктивность, двухкомпонентные сложные слова, многокомпонентные сложные слова, модель существительное+ существительное, модель прилагательное+ существительное, модель глагол+ существительное.

Inson lisoniy qobiliyatining dinamik tabiati namoyon bo'ladigan lingvistik tuzilma hisoblangan qo'shma so'zni o'rganish muammosi tadqiqotchilarni doimo o'ziga jalb qilgan va hozirgi kunga qadar jalb qilib kelmoqda. Qo'shma so'zlarning hosil bo'lish miqdori chegaralanmagan va ular alohida bir tizimni tashkil qiladi, bu tizimga tuzilishi, tarkibi va qismlarining munosabati har xil bo'lgan birliklar jamlanadi. Shu tizimning tadqiqi jarayonida duch kelinayotgan qiyinchiliklar, eng avvalo, umumnazariy xarakterga ega va bu qo'shma so'z hodisasi nazariyasining tugal shakllanib ulgurmaganligi ushbu jarayonning davom etayotganligidan dalolat beradi. Qo'shma so'zlarning tabiati ikki tomonlama xususiyatga ega, bu, bir tomondan, ularning tarkibiy qismlardan iborat ekanligida bo'lsa, boshqa tomondan, ular o'ziga xos bir butun ma'noga ega ekanligida namoyon bo'ladi. Qo'shma so'zning semantikasi transformasion tahlil, yuzaki va chuqur tuzilmalar nuqtai nazaridan tahlil va komponent tahlil usulini qo'llash yordamida o'rganildi.

Hozirgi vaqtda qo'shma so'zning integrativ (o'zaro bog'liq) ma'nosini aniqlash masalasi ham lingvistik, ham konseptual darajalarni hisobga olgan holda hal qilinmoqda. Birinchidan, tadqiqotchilar semantik shaffof so'zlarni idrok etishning o'ziga xos xususiyatlarini ko'rib chiqadilar, ya'ni, ma'nosi tarkibiy qismlari ma'nolaridan kelib chiqadigan so'zlar (masalan, *teaspoon* / choyqoshiq). K.Gagne yangi semantik jihatdan shaffof qo'shma so'zlarni idrok etishni hisobga olib, qo'shma so'zning tarkibiy qismlari tagzaminidagi konseptlarga murojaat qilish va ushbu konseptlar

o'rtasidagi munosabatlarni aniqlash orqali ularning ma'nosini belgilaydigan konseptual tuzilmani tiklash zarurligi haqida yozadi. Shu tariqa, ushbu konseptual tuzilmaga murojaat qilish nafaqat yangi so'zlar qabul qilinganda, balki til tizimiga allaqachon kirib ulgurgan so'zlar bilan ham sodir bo'lishini isbotlaydi. Uning fikriga ko'ra, bu so'zlar o'rtasida keskin farq o'rnatish mumkin emas, bu tanish so'zlardan yangi so'zlarga o'zgarib turadigan doimiylikning bir turidir.

Aytish joizki, qo'shma so'zning mohiyatini aniqlash masalasi juda ko'p tadqiqotchilarning e'tiborini tortgan va uning strukturaviy yaxlitligi, tugalligi, nominativ vazifa bajarishi, tayyor holda qo'llanilishi, tarkibli ekanligi haqida qator fikrlar bildirilib kelinmoqda.

Qo'shma so'z lisoniy substansiyaga ega va uning ushbu kategorial xususiyati shakl hamda mazmun uyg'unligining ramzidir. Shaklan tarkibli ko'rinishga (kamida ikkita komponentdan tarkib topishi) ega bo'lgan qo'shma so'z mazmunan ham tarkibli. Qo'shma so'zning substansional xususiyatlari uning qismlari o'rnini egallayotgan til belgilarining informativ qiymati bilan belgilanadi, zero, axborotni ifodalash xususiyatiga ega bo'lishi til tizimida yuzaga keladigan barcha jarayonlar va munosabatlarning asosini tashkil qiladi. Xuddi shu kategoriya til belgilarining ma'lum sintagmatik va paradigmatic munosabatlarga kirishuvini ta'minlaydi. Bundan tashqari, informativ qiymat tushunchasi lisoniy faoliyatning muhim jihatlaridan bo'lgan yaratuvchanlik xususiyati bilan bog'liqdir, chunki bir lisoniy belgi negizida boshqasining yaratilishi jarayonida (masalan, so'zlardan qo'shma so'z tuzilishi) yangi axborot xarakteriga ega bo'lgan substansiya yaratiladi.

Qo'shma so'z "ikki yoki undan ortiq asoslardan qo'shilish yo'li bilan hosil bo'lgan va nutq oqimida uning yaxlitligi asosida ajralib turadigan leksik birlik" deb tushuniladi. A.Smirnitskiy qo'shma so'zlar ikki yoki undan ortiq o'zak morfemalaridan iborat ekanligini ta'kidlaydi. "Qo'shma so'zni, shubhasiz, bitta so'z, bitta birlik sifatida qo'llanilishiga imkoni bo'lgan ikki yoki undan ortiq so'zlarning birlashishi deb ta'riflash mumkin". I.Arnoldning fikriga ko'ra, "qo'shma so'z (a compound word) – bu o'zining yaxlitligiga ko'ra bir butun ko'rinishda qo'llaniladigan va jumla tarkibida maxsus leksik birlik sifatida ajralib turadigan ikki yoki ba'zan (juda kam hollarda) uchta asosning birikmasidir". "Qo'shma so'z – bu so'z yasashning shunday bir turiki, unda ikki yoki undan ortiq asoslarni birlashtirish orqali yangi so'zlar hosil bo'ladi". "Qo'shma so'z – bu ikkita o'zak morfemaning birlashishi". "Qo'shma so'z – bu ikki yoki undan ortiq mustaqil elementlardan tashkil topgan, ma'no birligi bilan tavsiflangan va rus tilining leksik va grammatik tizimida u yoki bu so'z turkumi bilan o'zaro bog'liq bo'lgan leksik birlik".

Qo'shma so'zlar ko'plab tillar – o'zbek, sanskrit, yunon, shved, yapon, xitoy, mo'g'ul, rus, ingliz, nemis va boshqa tillarda uchraydi. Ularning soni bir qator tillarda, masalan, lotin tilida nisbatan kam. Shunga qaramay, so'z tarkibi orqali so'z shakllanishi dunyoning aksariyat tillariga xosdir, deb ta'kidlash mumkin. Tilning qo'shma so'zlarni shakllantirish qobiliyati ona tilida so'zlashuvchilarning dunyo haqidagi tasavvurining o'ziga xos xususiyatlarini, milliy va madaniy xususiyatlarini aks ettiradi.

Y.Kubryakova "Qo'shma so'zlar – bu tarkibida kamida ikkita mustaqil asosga ega bo'lgan, struktur-semantik birlikni tashkil etuvchi so'zlardir", deya ta'kidlaydi. Y.Kubryakovaning ushbu ta'rifi eng aniq va o'ziga xosdir, chunki u qo'shma so'zning nafaqat tuzilishini (ikki yoki undan ortiq komponentlarning birlashishi), balki uning roli va maqomini (struktur-semantik birlik) ham qayd etadi. Shunday qilib, qo'shma so'z to'liq shakllangan yaxlit leksik birlik sifatida tushuniladi. A.Smirnitskiy tomonidan kiritilgan "yaxlitlik" atamasi quyidagi xususiyatlarga ko'ra tavsiflanadi: grafik (birlashtirilgan, defis orqali yozilishi), fonetik (bitta kuchli urg'uning mavjudligi), morfologik, semantik. Qo'shma so'zlar yaxlitligining grafik xususiyati haqida gapirganda, uning beqarorligini ta'kidlash kerak (birlashgan, defislangan, ingliz tilida – alohida imlo).

Meshkovning fikriga ko'ra, eng keng tarqalgan, qo'shma so'zlar modeli hisoblanadi. O.Meshkov 39 ta modeldan har biriga tavsif beradi, unda quyidagi parametrlar aks etadi: modelning mahsuldorligi, komponentlar o'rtasidagi munosabatlarning tabiati va ular orasidagi semantik munosabatlar. Masalan, N+N (ot + ot) modeli asintaktik hisoblanadi, chunki bir xil shakldagi ikkita ot ibora hosil qila olmaydi. Model bo'ysunuvchi (*rainbow*) va bog'lanuvchi aloqa (*fighter-bomber*) orqali yasalgan qo'shma so'zlarni, shuningdek komponentlari aniqlanishi talab etiladigan

munosabatlarda bo'lgan va/yoki N2 transformatsiyasi orqali aniqlangan so'zlarni qamrab oladi who/which is N1(*slave girl*).

P.Sarev ham, shuningdek, qo'shma so'zlarning so'z turkumlariga mansubligiga qarab tasniflaydi. Qo'shma sifatlar va otlar qo'shma so'zlarning hajmi va turlari soni bo'yicha eng ko'p, qo'shma fe'llar va ravishlar soni esa cheklangan. Ushbu tasnif doirasida barcha so'zlar tarkibiy qismlarining struktur-semantik munosabatlariga qarab ma'lum turlarga bo'linadi. Qo'shma so'zlarni so'z turkumlari bo'yicha umumiy tasniflashdan tashqari, qo'shma qisqartma so'zlar alohida guruhlar, birinchi element – so'z yasash elementi bo'lgan so'zlar sifatida (*bio, Anglo, cosmo*) va so'zlar-iboralar deb nomlangan guruhlariga ajratiladi. Uning fikriga ko'ra, so'z-iboralar so'zlar va gaplar orasida turgan shakllanishlarni anglatadi. Tuzilishiga ko'ra ular gaplar, vazifasi va mazmuni bo'yicha esa qo'shma so'zlardir. Masalan: *The baby was eight months old, and he was at the crawling stage and the looking-about stage and putting-things-into-hismouth stage* (Upton Sinclair). *Putting-things-into-his-mouth* o'zining tuzilishiga ko'ra “fe'l + bevosita to'ldiruvchi + o'rin holati” sintaktik qurilishidir, o'z vazifasiga ko'ra esa – bu qo'shma so'zdir. Grafik jihatdan so'z-iboraning barcha qismlari bir-biridan defis bilan ajratilgan bo'lib, bu ularning gapga emas, balki qo'shma so'zga tegishli ekanligini ko'rsatadi. Ushbu qo'shma so'z-iboralarining aksariyati lug'atlarda qayd etilmagan, ular alohida mualliflar tomonidan stilistik maqsadlarda yaratilgan shakllanishlardir. Biroq, ularning ba'zilar lug'atlarga kiritilgan, masalan: *forget-me-not / bo'tako'z (gulning nomi), hit-or-miss / noto'g'ri/aniq* emas. P.Tsarevning tasnifi komponentlar o'rtasidagi struktur-semantik munosabatlarni, qo'shma so'z va iboraning mosligini hisobga olgan holda tuzilgan juda mazmunli va murakkab tasnif hisoblanadi. Quyida, misol tariqasida, P.Tsarev tomonidan tuzilgan qo'shma otlarning tasnifi keltirilgan. Qo'shma otlar tuzilishi bo'yicha bevosita qo'shma so'zlar va qo'shma yasalma so'zlarga bo'linadi. *Qo'shma otlar*. 1. “*Ot asos + ot asos*”. Ushbu turdagi otlarda birinchi komponent o'z ma'nosi orqali ikkinchi komponentning ma'nosini aniqlaydi, konkretlashtiradi, sifat vazifasini bajaradi: *raindrop – one drop of rain, handwork – work done with the hands*. Bunday qo'shma so'z tarkibiy qismlarining struktur-semantik munosabatlari ma'lum turdagi iboralarga kiritilgan so'zlarning tarkibiy va semantik munosabatlariga yaqin (aniqlovchi va aniqlanmish so'zning munosabatlari). Agar bunday so'zning tuzilishi ko'p komponentli bo'lsa, unda uning ma'nosini aniqlash so'zning oxiridan, ya'ni semantik rejadagi asosiy komponentdan boshlanishi kerak. 2. “*Ot asos + fe'llashgan ot asos*”. O'z tuzilishiga ko'ra, bu turdagi so'zlar ikki guruhga bo'linadi:

1) qo'shma otlar, bu yerda 1-komponent – ot asos – 2-komponent - fe'llashgan ot asosga nisbatan to'ldiruvchi vazifasini bajaradi: *housekeeping // maishiy/ro'zg'or xo'jalik (to keep house // ro'zg'or/xo'jalik yuritish), shipbuilding // kemasozlik (to build ships // kyemalar qurish); house, ship* komponentlari bevosita to'ldiruvchi vazifasini bajarish orqali *keeping, building* ma'nosini to'ldirmoqda;

2) qo'shma otlar, bu yerda 1-komponent - ot asos – 2-komponent - fe'llashgan ot asosga nisbatan hol vazifasini bajarmoqda: *homecoming // uyga qaytish (to come home // uyga qaytmoq); home* komponenti harakat joyiga ishora qilish orqali *coming* komponentining ma'nosini aniqlashtirmoqda;

3. “*Fe'llashgan ot asos (gerundiy) + ot asos*”.

Qo'shma so'zlarning birinchi komponentlari - *fye'llashgan ot asos* (gerundiy) (*dining, washing*) 2-komponent – ot asos bilan belgilangan ob'yekt bilan bog'liq harakatni ifodalaydi. Ob'yektning o'zi bu amalni bajarishi mumkin (*machine – washing-machine*) yoki bajarmasligi mumkin (*room – dining-room*).

XULOSA

Olib borilgan tahlil natijasida ingliz tilidagi qo'shma so'zlar ikki yoki undan ortiq asosning birikishi natijasida hosil bo'ladigan, strukturaviy va semantik yaxlitlikka ega mustaqil leksik birliklar ekanligi aniqlandi. Ularning asosiy belgisi tarkibiy qismlarning o'zaro birikishi natijasida yagona nominativ va semantik birlikning shakllanishidir. Qo'shma so'zlarning yaxlitligi grafik, fonetik, morfologik va semantik jihatlarida namoyon bo'lishi mumkin. Shu bilan birga, ingliz tilida grafik

yaxlitlikning beqarorligi sababli qo'shma so'zlarni aniqlashda birgina imlo mezoniga tayanish maqsadga muvofiq emas. Strukturaviy va semantik mezonlarning birgalikda qo'llanishi qo'shma so'z bilan erkin so'z birikmasi o'rtasidagi farqni aniqlashga yordam beradi.

Tadqiqotda ko'rib chiqilgan N+N, ot asos + fe'llashgan ot asos hamda fe'llashgan ot asos + ot asos modellari ingliz tilidagi qo'shma so'zlarning strukturaviy xilma-xilligini ko'rsatadi. Komponentlar o'rtasidagi aniqlovchi-aniqlanmish, obyekt, yo'nalish va boshqa semantik munosabatlar qo'shma so'zlarning umumiy mazmunini shakllantirishda muhim rol o'ynaydi.

Shunday qilib, ingliz tilidagi qo'shma so'zlar so'z yasaliishi tizimining muhim va mahsuldor birliklaridan biri bo'lib, tilning nominativ imkoniyatlarini kengaytirishga xizmat qiladi. Ularni kompleks ravishda strukturaviy va semantik mezonlar asosida o'rganish ingliz tili leksik tizimining o'ziga xos xususiyatlarini chuqurroq yoritish imkonini beradi.

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IJTIMOIIY TARMOQ MARKETINGI DISKURSIDA TERMINLARNING SEMANTIK VA PRAGMATIK XUSUSIYATLARI

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Annotatsiya. Mazkur maqolada zamonaviy raqamli kommunikatsiyaning muhim tarkibiy qismi bo'lgan ijtimoiy tarmoq marketingi diskursida qo'llaniladigan terminlarning lingvistik, semantik va pragmatik xususiyatlari tadqiq etiladi. Tadqiqotning asosiy e'tibori influencer marketing, engagement, reach, targeting, content marketing, social media campaign, hashtag, viral marketing, brand awareness, conversion rate, clickbait va sponsored content kabi terminlarning diskursiv funksiyalariga qaratilgan. Tadqiqotda tavsifiy, semantik, diskursiv va kontekstual tahlil metodlaridan foydalanildi. Tahlil natijalari ijtimoiy tarmoq marketingi terminologiyasi dinamik va ochiq terminologik tizim ekanligini ko'rsatdi. Terminlarning shakllanishida ingliz tilidan o'zlashish, terminologizatsiya, metaforizatsiya, semantik transformatsiya, qisqartirish va gibridlanish jarayonlari muhim o'rin egallaydi. Shuningdek, marketing terminlari faqat nominativ vazifani emas, balki auditoriyani jalb qilish, ishontirish, iste'molchi xatti-harakatiga ta'sir ko'rsatish va marketing kommunikatsiyasining samaradorligini o'lchash kabi pragmatik vazifalarni ham bajarishi aniqlandi.

Kalit so'zlar: ijtimoiy tarmoq marketingi, marketing diskursi, raqamli diskurs, terminologiya, marketing terminlari, semantika, pragmatika, terminologizatsiya, o'zlashma, neologizm.

Аннотация. В данной статье исследуются лингвистические, семантические и прагматические особенности терминов, используемых в дискурсе маркетинга в социальных сетях как важной составляющей современной цифровой коммуникации. Основное внимание уделяется дискурсивным функциям таких терминов, как influencer marketing, engagement, reach, targeting, content marketing, social media campaign, hashtag, viral marketing, brand awareness, conversion rate, clickbait и sponsored content. В исследовании применяются методы описательного, семантического, дискурсивного и контекстуального анализа. Результаты анализа показывают, что терминология маркетинга в социальных сетях представляет собой динамичную и открытую терминологическую систему. В процессе формирования терминов важную роль играют заимствование из английского языка, терминологизация, метафоризация, семантическая трансформация, сокращение и гибридизация. Кроме того, установлено, что маркетинговые термины выполняют не только номинативную функцию, но и прагматические функции, связанные с привлечением аудитории, убеждением,

воздействием на поведение потребителей и измерением эффективности маркетинговой коммуникации.

Ключевые слова: маркетинг в социальных сетях, маркетинговый дискурс, цифровой дискурс, терминология, маркетинговые термины, семантика, прагматика, терминологизация, заимствование, неологизм.

Abstract. This article examines the linguistic, semantic, and pragmatic features of terms used in social media marketing discourse as an important component of modern digital communication. The study focuses primarily on the discursive functions of such terms as influencer marketing, engagement, reach, targeting, content marketing, social media campaign, hashtag, viral marketing, brand awareness, conversion rate, clickbait, and sponsored content. The research employs descriptive, semantic, discourse, and contextual analysis methods. The findings demonstrate that social media marketing terminology constitutes a dynamic and open terminological system. The formation of these terms involves such processes as borrowing from English, terminologization, metaphorization, semantic transformation, abbreviation, and hybridization. The study also reveals that marketing terms perform not only a nominative function but also pragmatic functions related to attracting audiences, persuasion, influencing consumer behavior, and measuring the effectiveness of marketing communication.

Keywords: social media marketing, marketing discourse, digital discourse, terminology, marketing terms, semantics, pragmatics, terminologization, borrowing, neologism.

KIRISH

Raqamli texnologiyalarning jadal rivojlanishi va ijtimoiy tarmoqlarning global miqyosda keng tarqalishi kommunikatsiya jarayonining shakli va mazmunini sezilarli darajada o'zgartirdi. Facebook, Instagram, TikTok, YouTube kabi platformalar nafaqat shaxslararo muloqot, balki biznes va marketing kommunikatsiyasining asosiy vositalaridan biriga aylandi. Natijada an'anaviy marketing faoliyati raqamli muhitga ko'chib, yangi kommunikativ shakllar, strategiyalar va terminologik birliklarning shakllanishiga sabab bo'ldi. Ijtimoiy tarmoq marketingi diskursi o'zining interaktivligi, multimodalligi, tezkorligi, auditoriyaga yo'naltirilganligi va yuqori darajadagi persuziv xususiyatlari bilan an'anaviy marketing diskursidan farqlanadi. Mazkur diskursda *content marketing, influencer, engagement, reach, targeting, hashtag, viral marketing, sponsored content* kabi terminlar keng qo'llaniladi. Terminologik nuqtayi nazardan, ushbu birliklarning ayrimlari an'anaviy marketing terminologiyasiga mansub bo'lsa, boshqalari internet va raqamli texnologiyalar rivojlanishi natijasida paydo bo'lgan. Bundan tashqari, umumtil birliklarining marketing diskursiga kirib, maxsus ma'no kasb etishi ham kuzatiladi. Masalan, *reach* umumiy ingliz tilida "yetib bormoq" ma'nosini bildirsa, marketing diskursida muayyan kontentni ko'rgan noyob foydalanuvchilar sonini anglatadi. Xuddi shuningdek, *viral* so'zi biologik kontekstdagi ma'nosidan tashqari, raqamli diskursda juda tez tarqaluvchi kontentni ifodalash uchun ishlatiladi. Ijtimoiy tarmoq marketingi terminlarining bunday semantik va funksional o'zgarishlari ularni faqat lug'aviy birliklar sifatida emas, balki muayyan ijtimoiy va kommunikativ sharoitda ma'no hosil qiluvchi diskursiv birliklar sifatida tadqiq etishni talab qiladi.

Ijtimoiy tarmoq marketingi terminologiyasi jadal rivojlanayotganiga qaramay, ushbu terminlarning semantik o'zgarishi, diskursiv funksiyalari va o'zbek tilidagi qo'llanish xususiyatlarini kompleks ravishda o'rganish dolzarb masalalardan biri bo'lib qolmoqda. Ayniqsa, ingliz tilidan o'zlashgan marketing terminlarining o'zbek tilida qo'llanishi, ularning grammatik jihatdan moslashuvi va gibrid birliklarning shakllanish mexanizmlari alohida ilmiy tadqiqotni talab qiladi. Tadqiqotning asosiy maqsadi ijtimoiy tarmoq marketingi terminlarining diskursdagi lingvistik, semantik va pragmatik xususiyatlarini aniqlash hamda ularning zamonaviy raqamli kommunikatsiyadagi funksiyalarini tavsiflashdan iborat. Ushbu maqsadga erishish uchun quyidagi vazifalar belgilandi: ijtimoiy tarmoq marketingi diskursining asosiy xususiyatlarini aniqlash; marketing terminlarini semantik guruhlariga ajratish; terminlarning ma'no o'zgarishlarini tahlil qilish; ingliz tilidan o'zlashgan terminlarning xususiyatlarini aniqlash; terminlarning pragmatik funksiyalarini ochib berish; terminologik gibridlanish va neologizatsiya jarayonlarini tavsiflash.

Tadqiqot sifat jihatidan lingvistik tahlilga asoslangan bo'lib, ijtimoiy tarmoq marketingi diskursida faol qo'llaniladigan terminlarning semantik, strukturaviy va pragmatik xususiyatlarini aniqlashga yo'naltirildi. Tadqiqot materiallari sifatida zamonaviy ingliz tilidagi ijtimoiy tarmoq marketingiga oid terminologik birliklar tanlab olindi. Tahlil uchun *influencer marketing, engagement, engagement rate, reach, targeting, retargeting, content marketing, social media campaign, hashtag, viral content, brand awareness, conversion rate, click-through rate, clickbait* va *sponsored content* kabi birliklardan foydalanildi. Tadqiqotda quyidagi metodlardan foydalanildi: Tavsifiy metod yordamida ijtimoiy tarmoq marketingi diskursining asosiy terminlari, ularning strukturaviy shakllari va qo'llanish xususiyatlari aniqlandi. Semantik tahlil yordamida terminlarning lug'aviy va terminologik ma'nolari o'rtasidagi farqlar o'rganildi. Xususan, umumtil birliklarining marketing diskursiga kirishi natijasida yuzaga kelgan maxsus ma'nolar tahlil qilindi. Diskursiv tahlil terminlarning ma'nosi va funksiyasini ularning real kommunikativ kontekstidagi qo'llanishi bilan bog'liq holda o'rganish imkonini berdi. Terminlarning marketing xabarlarini, reklama matnlari va raqamli kommunikatsiyadagi vazifalari tahlil qilindi. Kontekstual tahlil yordamida bir xil terminlarning turli kommunikativ vaziyatlarda qanday ma'no va funksiyaga ega bo'lishi aniqlandi. Ingliz tilidagi terminlarning o'zbek tilidagi qo'llanish shakllari qiyoslandi. Ayniqsa, inglizcha terminlarning o'zbek tilidagi grammatik vositalar bilan birikishi tahlil qilindi. Tadqiqotning konseptual asosi diskurs tahlili, terminologiya, semantika va raqamli kommunikatsiya nazariyalarining o'zaro integratsiyasiga asoslanadi.

Tadqiqot natijalari ijtimoiy tarmoq marketingi diskursida auditoriya va kommunikatsiya ishtirokchilarini ifodalovchi terminologik birliklar alohida semantik guruhni tashkil etishini ko'rsatdi. Mazkur guruhga *target audience, consumer, follower, subscriber, influencer* va *content creator* kabi terminlar kiradi. Ushbu terminlar marketing kommunikatsiyasining subyektlari, potensial yoki real iste'molchilari hamda raqamli kontentni yaratish va tarqatishda ishtirok etuvchi shaxslarni nomlash uchun xizmat qiladi. Xususan, *target audience* termini muayyan marketing xabari, mahsulot yoki xizmat yo'naltirilgan maqsadli auditoriyani anglatib, uning semantik tarkibida iste'molchilarning yoshi, jinsi, geografik joylashuvi, qiziqishlari, ehtiyojlari va xulq-atvoriga oid belgilari mujassamlashadi. *Consumer* termini esa mahsulot yoki xizmatni sotib oluvchi yoki undan foydalanishi mumkin bo'lgan shaxsni bildiradi va an'anaviy marketing diskursidagi asosiy terminlardan biri sifatida ijtimoiy tarmoq marketingida ham faol qo'llanadi. Biroq raqamli muhitda iste'molchi faqat mahsulotni qabul qiluvchi passiv subyekt sifatida emas, balki kontentni baholash, izohlash, ulashish va qayta ishlab chiqish orqali marketing kommunikatsiyasining faol ishtirokchisiga aylanadi. *Follower* va *subscriber* terminlari esa foydalanuvchining muayyan akkaunt, sahifa yoki kontent yaratuvchisi bilan raqamli aloqasini ifodalaydi. Ular semantik jihatdan yaqin bo'lsa-da, funksional nuqtayi nazardan farqlanadi: *follower* odatda foydalanuvchining ijtimoiy tarmoqdagi akkauntini kuzatishini anglatadi, *subscriber* ko'proq muayyan kanal yoki kontent manbasiga obuna bo'lish munosabatini ifodalaydi. *Influencer* termini zamonaviy ijtimoiy tarmoq marketingi diskursining eng xarakterli birliklaridan biri bo'lib, keng auditoriyaga ega va uning qarashlari, tanlovlari yoki iste'mol xatti-harakatlariga ta'sir ko'rsatish salohiyatiga ega bo'lgan shaxsni anglatadi. Mazkur terminning semantik tuzilishida nafaqat auditoriya hajmi, balki ishonch, ijtimoiy ta'sir va kommunikativ nufuz kabi pragmatik komponentlar ham mavjud. Shu jihatdan *influencer* an'anaviy reklama kommunikatori tushunchasidan farq qiladi, chunki uning marketingdagi samaradorligi ko'pincha auditoriya bilan shakllangan doimiy kommunikativ munosabat va subyektiv ishonchga asoslanadi. *Content creator* esa ijtimoiy tarmoqlar uchun matn, foto, video, audio yoki multimodal materiallarni muntazam ravishda yaratadigan shaxsni ifodalaydi. Ushbu termin *influencer* bilan semantik jihatdan kesishsa-da, ular to'liq sinonim hisoblanmaydi: har bir *influencer* kontent yaratuvchi bo'lishi mumkin, biroq har bir *content creator* auditoriya xatti-harakatiga sezilarli ta'sir ko'rsatuvchi *influencer* maqomiga ega bo'lavermaydi. Demak, mazkur terminologik guruhdagi birliklar ijtimoiy tarmoq marketingi diskursida auditoriyaning turli maqomlarini — maqsadli auditoriya, iste'molchi, kuzatuvchi, obunachi, ta'sir o'tkazuvchi kommunikator va kontent yaratuvchini — semantik jihatdan differensiallashtirishga xizmat qiladi. Ularning qo'llanishi marketing kommunikatsiyasining an'anaviy "brend-iste'molchi" modelidan "brend-kontent

yaratuvchi–auditoriya” kabi ko‘p subyektli, interaktiv va tarmoqlashgan kommunikativ modelga o‘tayotganini ham ko‘rsatadi. Shu sababli auditoriyaga oid terminlar ijtimoiy tarmoq marketingi diskursining nafaqat nominativ, balki diskursiv va pragmatik tashkil etilishida ham muhim ahamiyat kasb etadi.

Tadqiqot natijalari shuni ko‘rsatadiki, ijtimoiy tarmoq marketingi diskursida terminologik birliklarning shakllanishida umumtil leksikasining maxsus kasbiy-semantik ma‘no kasb etishi, ya‘ni terminologizatsiya jarayoni alohida ahamiyatga ega. Mazkur jarayonda umumiy tilda mavjud bo‘lgan birliklar marketing kommunikatsiyasining ehtiyojlari asosida o‘z semantik doirasini toraytiradi, kengaytiradi yoki yangi, sohaga xos ma‘no komponentlari bilan boyiydi. Masalan, *reach* leksemasi umumiy ingliz tilida “yetib bormoq”, “erishmoq” ma‘nolarini anglatga, ijtimoiy tarmoq marketingi diskursida u muayyan kontentni ko‘rgan yoki unga yetib borgan noyob auditoriya miqdorini ifodalovchi analitik termin sifatida qo‘llanadi. Xuddi shuningdek, *viral* so‘zi umumiy tilda “virusga oid” ma‘nosini bildirsa-da, raqamli marketing kontekstida qisqa vaqt ichida keng auditoriyaga tarqaladigan kontentni tavsiflaydi; bunda biologik jarayon bilan axborotning tezkor tarqalishi o‘rtasida metaforik semantik ko‘chish yuzaga kelgan. *Engagement* termini esa umumiy ma‘noda “ishtirok etish”, “jalb qilish” tushunchalarini ifodalasa, marketing diskursida foydalanuvchilarning post, video yoki boshqa kontent bilan o‘zaro aloqaga kirishishi, jumladan, *like*, *comment*, *share* kabi faoliyatlarini umumshtiruvchi maxsus terminologik birlik sifatida shakllangan. *Traffic* leksemasida ham shunga o‘xshash semantik transformatsiya kuzatiladi: uning dastlabki ma‘nosi transport yoki harakat oqimini bildirgan bo‘lsa, raqamli marketingda u veb-sayt, landing page yoki boshqa raqamli platformaga yo‘naltirilgan tashriflar oqimini anglatadi. *Organic* termini esa “tabiiy” ma‘nosidan kelib chiqib, marketing diskursida pulli reklama vositalarisiz, tabiiy ravishda shakllangan auditoriya qamrovini ifodalovchi maxsus birlikka aylangan. *Funnel* so‘zining “voronka” ma‘nosidan marketingdagi “xaridorning bosqichma-bosqich xarid jarayoni” ma‘nosiga o‘tishi esa konseptual metaforizatsiyaning yaqqol namunasidir. Shuningdek, *campaign* umumiy tilda “kampaniya”, “yurish” kabi ma‘nolarni anglatga, ijtimoiy tarmoq marketingi diskursida ma‘lum kommunikativ yoki tijoriy maqsadga yo‘naltirilgan reklama va marketing tadbirlari majmuasini bildiradi. Demak, mazkur birliklarning semantik rivojlanishi oddiy lug‘aviy ma‘noning o‘zgarishidan ko‘ra murakkabroq jarayon bo‘lib, unda terminologizatsiya, metaforizatsiya, semantik torayish va kontekstual ixtisoslashuv kabi mexanizmlar birgalikda namoyon bo‘ladi. Natijada umumtil birliklari marketing diskursida aniq konseptual mazmunga ega bo‘lgan terminlarga aylanadi va mazkur jarayon ijtimoiy tarmoq marketingi terminologiyasining dinamik hamda doimiy yangilanib boruvchi xarakterini belgilaydi.

Tadqiqot materiallari tahlili ijtimoiy tarmoq marketingi terminologiyasining o‘zbek tilidagi rivojlanishida ingliz tilidan o‘zlashgan birliklarning grammatik, morfologik va sintaktik jihatdan faol moslashayotganini ko‘rsatdi. Ayniqsa, raqamli marketing va ijtimoiy tarmoqlar bilan bog‘liq professional kommunikatsiyada inglizcha terminlarning o‘zbekcha yordamchi fe‘llar, otlar va grammatik shakllar bilan birikib, gibrid terminologik konstruksiyalar hosil qilishi keng tarqalgan hodisadir. Masalan, *targeting qilish* birikmasida inglizcha *targeting* termini o‘zbek tilidagi *qilmoq* yordamchi fe‘li bilan birlashib, marketing faoliyatiga xos harakatni ifodalaydi; *post joylashtirish* birikmasida esa inglizcha *post* termini o‘zbekcha *joylashtirish* fe‘li bilan birikib, ijtimoiy tarmoqqa kontent yuklash jarayonini anglatadi. *Kontent yaratish* birikmasida ingliz tilidan o‘zlashgan *content* leksemasi o‘zbek tilining fe‘l yasash va sintaktik birikish imkoniyatlari asosida faol qo‘llanib, raqamli material ishlab chiqish jarayonini bildiradi. Shuningdek, *targetni sozlash* birikmasida inglizcha *target* so‘zi o‘zbek tilining kelishik qo‘shimchasi *-ni* ni qabul qilgan holda o‘zbek grammatik tizimiga morfologik jihatdan moslashadi. *Reklamani boost qilish* konstruksiyasida esa inglizcha *boost* fe‘l yoki harakat nomi o‘zbekcha *qilish* yordamchi fe‘li bilan birikib, reklama yoki postning pulli vositalar yordamida qamrovini oshirish ma‘nosini ifodalaydi. Xuddi shunday, *followerlarni jalb qilish* birikmasida inglizcha *follower* leksemasi o‘zbek tilining ko‘plik va kelishik affiksini qabul qilib, *follower-lar-ni* shaklida grammatik jihatdan moslashgan. Bunday birliklar inglizcha terminning o‘zbek tiliga shunchaki leksik o‘zlashishini emas, balki uning yangi til tizimida faol grammatik integratsiyalashuvini ko‘rsatadi. Mazkur jarayonda o‘zlashgan terminlar o‘zbek tilining morfologik

modeli asosida qo‘shimchalar qabul qiladi, o‘zbekcha fe‘llar bilan birikadi va mahalliy sintaktik strukturalarga moslashadi. Shu sababli *targeting qilish, post joylashtirish, kontent yaratish, targetni sozlash, boost qilish, followerlarni jalb qilish* kabi birliklarni zamonaviy professional diskursda shakllanayotgan gibril terminologik birikmalar sifatida baholash mumkin. Ushbu hodisa, bir tomondan, global raqamli marketing terminologiyasining ingliz tili orqali tezkor kirib kelishini, ikkinchi tomondan esa, o‘zbek tilining yangi tushunchalarni o‘z ichki grammatik imkoniyatlari asosida o‘zlashtirish va moslashtirish qobiliyatini namoyon etadi. Demak, inglizcha terminlarning o‘zbek tilidagi moslashuvi ijtimoiy tarmoq marketingi diskursining lingvistik xususiyatlaridan biri bo‘lib, u terminologik o‘zlashuv, kod-almashinuvi va gibrilizatsiya jarayonlarining o‘zaro aloqasi asosida yuzaga keladigan dinamik hodisa sifatida namoyon bo‘ladi.

Tadqiqot natijalari ijtimoiy tarmoq marketingi terminologiyasining statik emas, balki doimiy ravishda rivojlanib boruvchi ochiq tizim ekanligini ko‘rsatadi. Birinchi navbatda, mazkur terminologik tizimning shakllanishida ingliz tilining dominantligi alohida e‘tiborga loyiq. Raqamli marketingning asosiy konseptlari va texnologik vositalari ko‘pincha ingliz tilida shakllanganligi sababli *targeting, engagement, reach, influencer, content* kabi terminlar boshqa tillarga tez sur‘atlarda o‘zlashmoqda. Ikkinchidan, terminlarning ma‘nosi ularning diskursiv muhitiga bog‘liq holda o‘zgaradi. Masalan, *engagement* umumiy ingliz tilida keng semantik diapazonga ega bo‘lsa, marketing diskursida u ancha aniq professional tushunchani bildiradi. Demak, terminning ma‘nosini faqat lug‘aviy birlik sifatida emas, balki u qo‘llanilayotgan diskurs doirasida tahlil qilish zarur. Uchinchidan, marketing terminlari pragmatik xususiyatga ega. Ular faqat ma‘lumot berish uchun emas, balki auditoriyani ishontirish va muayyan harakatga undash uchun ham xizmat qiladi. *Trending, viral, bestseller, exclusive, limited offer* kabi birliklar iste‘molchida mahsulotning ommaviyligi, cheklanganligi yoki yuqori talabga ega ekanligi haqida tasavvur shakllantiradi. To‘rtinchidan, ijtimoiy tarmoq marketingi diskursida metaforizatsiya jarayoni faol kechadi. *Viral, funnel, traffic, organic* kabi terminlar boshqa sohalarga tegishli konseptlarni marketing faoliyatiga ko‘chirgan holda yangi terminologik ma‘no hosil qiladi. Beshinchidan, ijtimoiy tarmoq marketingi terminologiyasining muhim xususiyati uning multimodal tabiatidir. Ayrim terminlar matn shaklida mavjud bo‘lish bilan birga, platformalarning texnik va vizual elementlari bilan ham bog‘lanadi. Masalan, *hashtag* bir vaqtning o‘zida lingvistik birlik, qidiruv vositasi va kontentni kategoriyalash mexanizmi sifatida faoliyat yuritadi. Shuningdek, ijtimoiy tarmoq marketingi terminlarining professional doiradan kundalik kommunikatsiyaga o‘tishi kuzatilmoqda. Ilgari asosan marketing mutaxassislari tomonidan qo‘llangan *content, targeting, influencer, follower, engagement* kabi birliklar bugungi kunda oddiy internet foydalanuvchilari nutqida ham faol ishlatilmoqda. Bu holat terminologiyaning determinologizatsiyasi, ya‘ni professional terminlarning umumxalq tiliga o‘tishi jarayonini ko‘rsatadi.

XULOSA

Tadqiqot natijalari ijtimoiy tarmoq marketingi terminlari zamonaviy raqamli diskursning faol rivojlanayotgan leksik qatlamlaridan biri ekanligini ko‘rsatdi. Ijtimoiy tarmoq marketingi terminologiyasining shakllanishida terminologizatsiya, semantik transformatsiya, metaforizatsiya, o‘zlashish, neologizatsiya, qisqartirish va gibrilidanish jarayonlari muhim rol o‘ynaydi. Tahlil qilingan terminlar asosan auditoriya, kontent, foydalanuvchi faolligi, reklama va marketing strategiyasi kabi semantik guruhlariga ajratildi. Ularning ayrimlari an‘anaviy marketing terminologiyasidan meros bo‘lib qolgan bo‘lsa, boshqalari raqamli texnologiyalar rivoji natijasida shakllangan. Tadqiqot shuningdek, marketing terminlarining diskursdagi vazifasi nominativ funksiya bilan cheklanmasligini ko‘rsatdi. Ular auditoriyani jalb qilish, iste‘molchiga ta‘sir ko‘rsatish, brendga nisbatan ijobiy munosabat shakllantirish va kommunikativ samaradorlikni o‘lchash kabi pragmatik vazifalarni ham bajaradi. Ingliz tilidan o‘zlashgan terminlarning o‘zbek tilida *targeting qilish, post joylashtirish, kontent yaratish, followerlarni jalb qilish* kabi gibril shakllarda qo‘llanishi o‘zbek marketing diskursida terminologik moslashuv jarayoni faol ekanligini ko‘rsatadi. Umuman olganda, ijtimoiy tarmoq marketingi terminlari diskursini lingvistik jihatdan tadqiq etish zamonaviy ingliz tilidagi semantik o‘zgarishlarni, raqamli kommunikatsiyaning tilga ta‘sirini hamda inglizcha

terminlarning o'zbek tiliga kirib kelish mexanizmlarini aniqlash uchun muhim nazariy va amaliy ahamiyatga ega.

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LEARNING ENGLISH THROUGH MULTIMEDIA

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Abstract. This article examines the role of multimedia in English language learning and explores how multimedia resources can contribute to the development of listening, speaking, reading, writing, vocabulary, grammar, and pronunciation skills. The article also discusses major theoretical perspectives that explain the effectiveness of multimedia learning, including constructivist approaches, dual coding theory, multimedia learning theory, and principles of second-language acquisition.

Keywords: multimedia, technology-assisted language learning, digital learning, theories of multimedia learning, interactive learning.

Annotatsiya. Mazkur maqolada ingliz tiliga o'rgatishda multimediya vositalaridan foydalanish masalasi o'rganib chiqilgan. Multimediane ta'lim jarayonida ishlatilishiga oid turli yondashuvlar va qarashlar atroflicha o'rganib chiqilgan.

Kalit so'zlar: multimediya, texnologiya yordamidagi ta'lim, raqamli ta'lim, interfaol metodlar, multimediyaga oid nazariyalar, multimediane ta'lim o'rgatishdagi roli.

Аннотация. Данная статья посвящена изучению роли мультимедии при обучении иностранным языкам. В нем изучены использование мультимедии как новый метод при обучении иностранным языкам. В нем также проанализированы различные взгляды на использование мультимедии в процесс обучения.

Ключевые слова: мультимедия, обучение при помощи современных технологий, цифровое обучение, интерактивные методы, теории по использованию мультимедии, роль мультимедии при обучении иностранным языкам.

INTRODUCTION

English has become one of the most widely learned languages in the world. It is used extensively in international communication, higher education, science, business, tourism, technology,

diplomacy, and popular culture. As a result, millions of learners study English as a foreign or second language. However, learning English can be challenging because successful language acquisition requires learners to develop several interconnected skills, including listening, speaking, reading, writing, vocabulary, grammar, and pronunciation. Traditional classroom instruction can provide an organized environment for developing these skills, but it may not always provide sufficient exposure to authentic language or enough opportunities for individual practice.

The rapid development of information and communication technologies has created new possibilities for language education. Multimedia has become one of the most significant technological resources available to language learners. In an educational context, multimedia generally refers to the use of multiple forms of information and communication, such as written text, photographs, graphics, audio recordings, video, animation, and interactive activities. These resources can be delivered through computers, smartphones, tablets, interactive whiteboards, websites, educational platforms, mobile applications, and other digital devices.

The use of multimedia in English language education has changed the relationship between learners, teachers, and educational materials. A learner can listen to an English podcast while traveling, watch a video with subtitles, practice vocabulary through a mobile application, communicate with speakers of English through online platforms, or complete an interactive grammar activity without being physically present in a classroom. Consequently, language learning can take place across different environments and at different times.

Multimedia is particularly valuable because language is fundamentally a communicative phenomenon. Learners need exposure not only to written words but also to pronunciation, intonation, gestures, facial expressions, cultural references, and different varieties of spoken English. Video and audio materials can provide forms of input that printed textbooks cannot fully reproduce. For example, a video conversation allows students to observe not only what speakers say but also how they say it, including their pronunciation, rhythm, body language, and interactional behavior.

At the same time, the availability of multimedia does not automatically guarantee successful language learning. Digital materials can distract learners, contain inaccurate information, or present language in ways that are inappropriate for their proficiency levels. Learners may also spend considerable time consuming English-language content without actively processing or producing the language. Therefore, effective multimedia-based learning requires careful pedagogical planning.

The purpose of this article is to examine the role of multimedia in learning English, identify its major advantages and limitations, and discuss ways in which multimedia can be integrated effectively into English language education. The article focuses particularly on the development of language skills and learner autonomy and considers the responsibilities of teachers in designing meaningful multimedia-based learning experiences.

Multimedia learning involves the use of more than one mode of communication to present information. In English language education, these modes may include written language, spoken language, images, video, animation, music, and interactive exercises. The combination of these elements can create a more varied learning environment than instruction based exclusively on printed texts.

MAIN BODY

Multimedia resources used in English education can be divided into several broad categories. The first category consists of audio materials, including podcasts, audiobooks, recorded conversations, songs, radio programs, and pronunciation recordings. Audio materials are especially useful for developing listening comprehension and pronunciation.

The second category is video-based material. Videos can include films, television programs, documentaries, interviews, lectures, educational videos, advertisements, and short-form digital content. Video provides contextualized language input and allows learners to observe visual information alongside spoken language.

The third category includes interactive digital resources. These resources may consist of language-learning applications, online exercises, quizzes, games, virtual classrooms, discussion

forums, and learning management systems. Interactive materials can provide immediate feedback and allow learners to repeat activities as many times as necessary.

A fourth category consists of social and communicative media. Social networking platforms, video-conferencing tools, discussion communities, and online messaging applications can give learners opportunities to communicate in English with other people. Such environments may support authentic communication and collaborative learning.

Finally, multimedia includes digital presentation and instructional tools, such as electronic textbooks, interactive presentations, digital flashcards, and educational websites. These tools can help teachers present complex linguistic concepts using combinations of text, sound, images, and examples.

The important characteristic of multimedia is therefore not simply the presence of technology but the integration of different modes of representation. When used appropriately, these modes can complement one another and make language input more understandable and memorable. Several theories help explain why multimedia can contribute to effective English language learning.

Constructivist Learning Theory. Constructivism emphasizes that learners actively construct knowledge through experience, interaction, and reflection rather than simply receiving information from teachers. From this perspective, multimedia can create environments in which learners explore language, solve problems, communicate with others, and construct meaning.

For example, instead of simply memorizing vocabulary from a list, students may watch a short video about travel, identify unfamiliar words, infer their meanings from context, discuss the content with classmates, and then use the new vocabulary in a role-play. In this situation, multimedia provides the context, while learners actively process and use language.

Multimedia can therefore support learner-centered education by giving students greater control over what they study, how quickly they progress, and how frequently they practice.

Dual Coding Theory. Dual coding theory proposes that information can be processed through interconnected verbal and non-verbal systems. When verbal information is supported by relevant visual information, learners may have additional pathways through which to understand and remember it.

This principle is highly relevant to language learning. For instance, when learners hear the word airport while viewing an image of an airport, the association between the word and its meaning may become stronger. Similarly, watching a video demonstrating a particular activity can make related vocabulary easier to understand.

However, visual information must be relevant. Unnecessary decorative images or excessive animation may increase cognitive demands rather than improve learning.

Cognitive Theory of Multimedia Learning. Multimedia learning theory emphasizes that learners process information through verbal and visual channels and that working memory has limited capacity. Effective multimedia instruction therefore requires careful organization of information. For English teachers, this means that multimedia materials should not overwhelm learners with excessive text, sound, animation, and images simultaneously. A short video accompanied by carefully selected vocabulary and a focused comprehension task may be more effective than a complicated presentation containing large quantities of information.

Second-Language Acquisition Perspectives. Research on second-language acquisition emphasizes the importance of meaningful language input and interaction. Learners need exposure to language that is understandable but also sufficiently challenging to promote development. Multimedia can provide a large amount of such input.

Videos, podcasts, online conversations, and interactive exercises can expose learners to different accents, vocabulary items, grammatical structures, and communicative situations. In addition, interactive multimedia can encourage learners to produce language rather than merely receive it.

CONCLUSION

Thus, multimedia can support both input and output dimensions of language learning when it is integrated into communicative activities. Multimedia has become an important component of contemporary English language education. Through the integration of text, audio, contribution of multimedia is its ability to provide diverse and contextualized language input. Videos can expose learners to authentic conversations and non-verbal communication; podcasts can strengthen listening skills; digital applications can support vocabulary and grammar practice; online communication can create opportunities for authentic role is to select appropriate materials, establish learning objectives, guide students through activities, provide feedback, and encourage meaningful communication. Learners, computers or smartphones. It should be understood as the purposeful use of multiple modes of communication and technology to create meaningful opportunities for language exposure, interaction, practice, reflection, and production. When implemented thoughtfully, multimedia can make English learning more flexible, engaging, authentic, and learner-centered. Its greatest potential lies not in replacing traditional education but in expanding what teachers and learners can accomplish together images, video, animation, and interactive communication, multimedia can create rich learning environments that extend beyond the traditional classroom. The major contribution of multimedia is its ability to provide diverse and contextualized language input. Videos can expose learners to authentic conversations and non-verbal communication; podcasts can strengthen listening skills; digital applications can support vocabulary and grammar practice; online communication can create opportunities for authentic interaction; and multimedia projects can encourage creative speaking and writing.

Nevertheless, multimedia is not automatically effective. Technology can create distractions, increase cognitive load, provide unreliable information, or encourage passive learning. The educational value of multimedia depends largely on how it is selected, organized, and integrated into pedagogical activities.

Teachers therefore remain central to successful multimedia-based education. Their role is to select appropriate materials, establish learning objectives, guide students through activities, provide feedback, and encourage meaningful communication. Learners, meanwhile, need to develop autonomy, motivation, and digital literacy.

Ultimately, learning English through multimedia should not be understood simply as learning through computers or smartphones. It should be understood as the purposeful use of multiple modes of communication and technology to create meaningful opportunities for language exposure, interaction, practice, reflection, and production. When implemented thoughtfully, multimedia can make English learning more flexible, engaging, authentic, and learner-centered. Its greatest potential lies not in replacing traditional education but in expanding what teachers and learners can accomplish together.

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**INGLIZ TILINI SUN'IIY INTELLEKT ASOSIDA O'QITISHDA PAREMIOLOGIK
BIRLIKLARNING LINGVOKULTUROLOGIK VA DISKURSIV SALOHİYATIDAN
FOYDALANISH**

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Annotatsiya: Mazkur maqolada ingliz tilini sun'iy intellekt texnologiyalari asosida o'qitish jarayonida paremiologik birliklarning lingvokulturologik va diskursiv salohiyatidan foydalanish imkoniyatlari tadqiq etiladi. Asosiy e'tibor maqollarni tayyor ekvivalentlar majmui sifatida emas, balki muayyan madaniy tajriba, qadriyat, ijtimoiy me'yor va kommunikativ vaziyatni ifodalovchi diskursiv birlik sifatida o'rgatishga qaratiladi. Sun'iy intellekt vositalarining kontekst yaratish, qiyosiy misollar ishlab chiqish, pragmatik vaziyatlarni modellashtirish, o'quvchi javoblariga tezkor individual fikr-mulohaza berish imkoniyatlari paremiologik materialni o'zlashtirish samaradorligini oshirishi mumkinligi asoslanadi. Shu bilan birga, generativ sun'iy intellekt tomonidan maqol ekvivalentlarini noto'g'ri tenglashtirish, tarixiy-madaniy kontekstni soddalashtirish yoki mavjud bo'lmagan paremiologik shakllarni hosil qilish ehtimoli metodik nazoratni talab etishi ko'rsatiladi. Ingliz va o'zbek tillaridagi "A friend in need is a friend indeed", "Actions speak louder than words", "Don't count your chickens before they hatch", "Do'st kulfatda bilinadi", "Ishlagan tishlaydi", "Jo'jani kuzda sanaydilar" kabi birliklarning qiyosiy tahlili asosida sun'iy intellekt yordamida kontekstualizatsiya, lingvokulturologik sharhlash va diskursiv qo'llashga yo'naltirilgan o'qitish modeli taklif etiladi.

Kalit so'zlar: sun'iy intellekt, ingliz tilini o'qitish, paremiologik birlik, maqol, lingvokulturologik kod, diskurs, pragmatika, madaniyatlararo kompetensiya, generativ sun'iy intellekt.

Abstract: This article examines the pedagogical potential of paremiological units in AI-supported English language teaching, with particular attention to their linguocultural and discursive dimensions. Proverbs are treated not as isolated lexical equivalents, but as culturally embedded discourse units representing values, social norms, communicative intentions and culturally specific ways of conceptualizing experience. Generative AI can support proverb instruction by producing contextual scenarios, contrasting English and Uzbek usages, modelling communicative situations and providing individualized feedback. At the same time, AI-generated outputs require pedagogical verification because systems may establish misleading equivalences, oversimplify cultural meanings or generate unattested proverbial forms. On the basis of comparative examples from English and Uzbek, the article proposes a teaching model that combines contextualization, linguocultural interpretation, pragmatic analysis and controlled AI-assisted production.

Keywords: artificial intelligence, English language teaching, proverb, paremiology, linguocultural code, discourse, pragmatics, intercultural competence, generative AI.

Аннотация: В данной статье исследуются возможности использования лингвокультурологического и дискурсивного потенциала паремиологических единиц в процессе обучения английскому языку на основе технологий искусственного интеллекта. Основное внимание уделяется изучению пословиц не как совокупности готовых эквивалентов, а как дискурсивных единиц, отражающих определённый культурный опыт, ценности, социальные нормы и коммуникативные ситуации. Обосновывается положение о том, что возможности инструментов искусственного интеллекта по созданию контекста, разработке сопоставительных примеров, моделированию прагматических ситуаций и предоставлению оперативной индивидуальной обратной связи на ответы обучающихся могут повысить

эффективность усвоения паремиологического материала. Вместе с тем отмечается, что вероятность некорректного сопоставления эквивалентов пословиц генеративным искусственным интеллектом, упрощения историко-культурного контекста или создания несуществующих паремиологических форм требует методического контроля. На основе сопоставительного анализа таких единиц английского и узбекского языков, как “A friend in need is a friend indeed”, “Actions speak louder than words”, “Don’t count your chickens before they hatch”, “Do’st kulfatda bilinadi”, “Ishlagan tishlaydi”, “Jo’jani kuzda sanaydilar”, предлагается модель обучения, ориентированная на контекстуализацию, лингвокультурологическое комментирование и дискурсивное использование паремиологических единиц с помощью искусственного интеллекта.

Ключевые слова: искусственный интеллект, обучение английскому языку, паремиологическая единица, пословица, лингвокультурологический код, дискурс, прагматика, межкультурная компетенция, генеративный искусственный интеллект.

KIRISH

Sun’iy intellektga asoslangan texnologiyalarning ta’lim tizimiga kirib kelishi xorijiy til o’qitish metodikasida o’quv materiali, topshiriq shakli va o’qituvchi–talaba o’rtasidagi didaktik munosabatni qayta ko’rib chiqishni talab qilmoqda. Generativ sun’iy intellekt vositalari o’quvchining savoliga mos matn yaratishi, muloqot vaziyatini modellashtirishi, turli murakkablik darajasidagi mashqlar tuzishi hamda yozma yoki og’zaki javobga tezkor fikr-mulohaza berishi mumkin. Til o’qitish sohasidagi tadqiqotlarda ham generativ AI vositalarining aynan dialog, individual mashq, yozuv, lug’at va til faoliyatining boshqa komponentlarini qo’llab-quvvatlash imkoniyatlari qayd etilgan. Shu bilan birga, bunday vositalardan foydalanish o’qituvchi va o’quvchidan raqamli hamda tanqidiy kompetensiyani talab qiladi. Mazkur texnologik imkoniyatlar ingliz tilini faqat grammatik konstruksiyalar yoki alohida leksik birliklar darajasida emas, balki madaniy va diskursiv mazmun bilan birgalikda o’qitishga ham tatbiq etilishi mumkin. Ayniqsa, paremiologik birliklar bunga mos material hisoblanadi. Maqol ixcham shaklda umumlashtirilgan ijtimoiy tajribani ifodalashi, muayyan kommunikativ vaziyatda nasihat, ogohlantirish, baholash, dalda, tanqid yoki xulosa funksiyasini bajarishi bilan oddiy lug’aviy birlikdan farqlanadi. N. R. Norrick maqol ma’nosining matn va muloqot sharoitida yuzaga chiqishiga alohida e’tibor qaratadi; W. Mieder esa paremiologiyaning til, folklor, madaniyat va pedagogika bilan uzviy aloqadorligini ko’rsatadi. Shuning uchun ingliz tilini o’qitishda maqolni “inglizcha maqol — o’zbekcha tarjima” shaklidagi tayyor juftlik sifatida berish uning lingvokulturologik va pragmatik salohiyatini cheklaydi. Masalan, “A friend in need is a friend indeed” va “Do’st kulfatda bilinadi” mazmunan yaqin. Har ikkisi do’stlikning sinov vaziyatida namoyon bo’lishini aks ettiradi. Ammo ta’lim jarayonida faqat “bu maqolning o’zbekcha ekvivalenti mana shu” deyish yetarli emas. O’quvchi qaysi kommunikativ vaziyatda mazkur birlikning tabiiy qo’llanishini, u qanday bahoni aktualizatsiya qilishini va uning adresatga pragmatik ta’siri nimadan iboratligini ham tushunishi kerak. Shu nuqtada sun’iy intellektning didaktik imkoniyati namoyon bo’ladi. AI bir maqol uchun bir nechta nutqiy vaziyat yaratishi, ulardan qaysi biri tabiiy yoki sun’iy ekanini taqqoslash imkonini berishi, ingliz va o’zbek variantlaridagi umumiy hamda farqli madaniy komponentlarni ko’rsatishga yordam berishi mumkin. Biroq bu jarayon to’liq avtomatlashtirilmasligi lozim. UNESCO generativ sun’iy intellektning ta’limdagi qo’llanishini inson markazli, etik va pedagogik jihatdan tekshirilgan yondashuv asosida tashkil etishni tavsiya qiladi; madaniy va lingvistik xilma-xillikni saqlash ham ushbu yondashuvning muhim tamoyillaridan biridir.

Mazkur maqolaning maqsadi ingliz tilini sun’iy intellekt vositalari asosida o’qitishda paremiologik birliklarning lingvokulturologik hamda diskursiv imkoniyatlaridan foydalanishning metodik asoslarini aniqlash va ingliz-o’zbek qiyosiy materiali asosida amaliy o’qitish modelini taklif etishdan iborat.

TADQIQOT MATERIALLARI VA METODLARI

Tadqiqot materiali sifatida ingliz va o’zbek tillaridagi kommunikativ jihatdan faol va semantik jihatdan qiyoslash imkonini beruvchi maqollar tanlandi. Jumladan, “A friend in need is a friend indeed” — “Do’st kulfatda bilinadi”, “Actions speak louder than words” — “Gap bilan emas, ish

bilan” mazmunidagi o‘zbek paremiologik konsepsiyasi, “Don’t count your chickens before they hatch” — “Jo‘jani kuzda sanaydilar”, “Where there’s a will, there’s a way” — “Intilgan tog‘dan oshar”, “Two heads are better than one” — “Kengashli to‘y tarqamas” singari birliklarning semantik va kommunikativ imkoniyatlari o‘rganildi. Bunda qiyoslashning maqsadi maqollarni mexanik ravishda “to‘liq ekvivalent” deb belgilash emas, balki ularning umumiy konseptual mazmuni, obrazli asosi, qo‘llanish sharoiti va pragmatik funksiyasini aniqlashdan iborat bo‘ldi. Chunki ikki tildagi paremiologik birliklar umumiy didaktik xulosani ifodalasa ham, ularning obrazli modeli va kommunikativ qo‘llanishi to‘liq mos kelmasligi mumkin.

Tadqiqotda lingvokulturologik tahlil paremiologik birlik tarkibida faollashadigan qadriyat va madaniy tasavvurlarni aniqlashga; kontekstual-pragmatik tahlil maqolning konkret nutqiy vaziyatda qanday funksiyani bajarishini belgilashga; qiyosiy metod ingliz va o‘zbek paremiologik birliklari o‘rtasidagi funksional yaqinlik va madaniy tafovutlarni ochishga xizmat qildi. Metodik modellashtirish orqali esa generativ AI vositasida bajarilishi mumkin bo‘lgan topshiriqlar tizimi shakllantirildi.

NATIJALAR VA MUHOKAMA

An’anaviy mashqlarda maqollar ko‘pincha tarjima qilish, juftini topish yoki bo‘sh joyni to‘ldirish shaklida beriladi. Bu usullar paremiologik birlikning struktur-semantik shaklini eslab qolishda yordam berishi mumkin, biroq uning diskursiv funksiyasini to‘liq o‘zlashtirishni kafolatlamaydi. Masalan, o‘quvchi “Don’t count your chickens before they hatch” jumlasining lug‘aviy ma’nosini tushunishi mumkin, lekin undan qaysi vaziyatda foydalanishni bilmasligi ehtimol. Maqol hali ro‘y bermagan natijani oldindan aniq deb qabul qilishdan ogohlantiruvchi nutqiy vosita sifatida ishlaydi. O‘zbek tilidagi “Jo‘jani kuzda sanaydilar” birlik ham natijani yakuniy holatga yetmasdan baholamaslik g‘oyasini ifodalaydi. Shunga qaramay, ikki birlikning obrazli strukturasini bir xil deb bo‘lmaydi: inglizcha birlikda tuxumning ochilishi bilan bog‘liq jarayon, o‘zbek paremiologik obrazida esa jo‘janing ma’lum muddat davomida saqlanib qolishi va yakuniy natijani keyin hisoblash tasavvuri mavjud. Sun‘iy intellekt yordamida o‘quvchiga “Qaysi vaziyatda bu maqolni ishlatish tabiiy?” mazmunidagi bir nechta mikrodialoglar yaratilishi mumkin. Masalan, bir talaba imtihon natijasi chiqmasdan stipendiya olganini nishonlamoqchi bo‘lgan vaziyatda maqol ogohlantirish funksiyasida ishlashi mumkin. Shu tariqa o‘quvchi maqolning nafaqat tarjimasini, balki uning illokutiv vazifasini o‘zlashtiradi.

Paremiologik birliklarda madaniy tajriba ko‘pincha obrazli komponent orqali ifodalanadi. Hayvon, mehnat, oila, vaqt, mehnatsevarlik, do‘stlik, boylik, ovqat yoki tabiat obrazlari muayyan qadriyatni verbal shaklda tashkil qiladi. Ingliz tilini o‘qitishda ushbu komponentni e‘tiborsiz qoldirish maqolni madaniy mazmundan uzib qo‘yadi. Masalan, “Where there’s a will, there’s a way” qat’iyat va maqsadga intilishni konseptual markazga chiqaradi. O‘zbek tilidagi “Intilgan tog‘dan oshar” ham iroda va harakatning natija bilan bog‘liqligini ifodalaydi, biroq uning obrazli bazasida jismoniy to‘siqni — “tog‘”ni — yengib o‘tish tasavvuri mavjud. Demak, umumiy aksiologik yo‘nalish o‘xshash bo‘lsa-da, lingvokulturologik kodlash bir xil emas.

AI vositasidan foydalanib talabaga ikki maqolning semantik yadrosi, metaforik modeli va nutqiy qo‘llanishini alohida taqqoslash topshirig‘i berilishi mumkin. Bunda sun‘iy intellekt tayyor “to‘g‘ri javob” beruvchi tizim emas, balki tahlil uchun variantlar yaratadigan didaktik vosita sifatida ishlatilishi maqsadga muvofiq. Masalan, o‘quvchidan AI yaratgan uch xil izohning qaysi biri ilmiy jihatdan asosli ekanini tanlash va sababini tushuntirish talab etiladi. Bunday topshiriq ikki natijani bir vaqtning o‘zida ta’minlaydi: paremiologik kompetensiya shakllanadi va AI bergan ma’lumotga tanqidiy munosabat rivojlanadi.

Generativ AI vositalarining muhim metodik afzalliklaridan biri bir lingvistik birlik uchun ko‘p variantli kommunikativ vaziyatlarni tez yaratish imkoniyatidir. Til o‘qitishda bu xususiyat, ayniqsa, kontekstga kuchli bog‘langan maqollar bilan ishlashda samarali bo‘lishi mumkin. Masalan, “Actions speak louder than words” biror shaxsning va’dalaridan ko‘ra uning amaliy harakati ishonchliroq ekanini ta’kidlash uchun ishlatiladi. AI quyidagi turdagi vaziyatlarni modellashtirishi mumkin: jamoa

loyihasida ko'p va'da berib, vazifasini bajarmagan talaba; ko'p gapirmasdan boshqalarga amaliy yordam bergan do'st; saylov yoki reklama nutqida va'da va real natija o'rtasidagi tafovut.

Talabaning vazifasi qaysi vaziyatda maqol tabiiy ishlatilishini aniqlash, uning nutqiy maqsadini tavsiflash va o'zbek tilida funksional jihatdan yaqin ifoda topishdan iborat bo'ladi. Natijada maqol dekontekstual yodlash obyekti emas, real kommunikativ tanlov vositasi sifatida o'zlashtiriladi. Kohnke, Moorhouse va Zou generativ chatbotlarning til o'rganishda interaktiv muloqot hamda moslashtirilgan o'quv faoliyatlarini yaratish imkoniyatini qayd etadi. Biroq ular bunday tizimlardan samarali foydalanish uchun o'qituvchi va talabada tegishli raqamli kompetensiya zarurligini ham ta'kidlaydi.

Sun'iy intellekt asosidagi paremiologik ta'limning eng muhim muammolaridan biri — generativ modelning ikki tildagi semantik jihatdan yaqin birliklarni asossiz ravishda to'liq ekvivalent deb ko'rsatish ehtimolidir. Masalan, "Two heads are better than one" umumiy ma'noda maslahatlashib ishlashning samaradorligini bildiradi. O'zbek tilidagi "Kengashli to'y tarqamas" ham maslahat va hamjihatlikning ahamiyatini ifodalaydi. Biroq ularni formal va pragmatik jihatdan mutlaq ekvivalent deyish to'g'ri emas. Inglizcha maqolda ikki individning birgalikdagi fikrlashi to'g'ridan to'g'ri konseptual markazda turadi; o'zbek maqolida esa "kengash" va jamoaviy tadbir obrazi orqali hamjihatlikning natijaviy qiymati aks etadi.

Shunday hollarda AI talaba uchun boshlang'ich qiyoslash materialini yaratishi mumkin, lekin yakuniy lingvokulturologik xulosa o'qituvchi nazorati va ishonchli paremiografik manba asosida tekshirilishi kerak.

UNESCO ham generativ AI mahsulotlarini ta'limda avtomatik ravishda ishonchli bilim manbasi sifatida qabul qilish emas, balki ularning pedagogik va etik muvofiqligini baholash zarurligini ta'kidlaydi.

Tahlil natijalari sun'iy intellekt yordamida paremiologik birliklarni o'qitishni to'rt o'zaro bog'liq bosqichda tashkil etish maqsadga muvofiqligini ko'rsatadi.

Birinchi bosqichda maqolning struktur-semantik mazmuni aniqlanadi. Talaba uning literal komponentlari va umumlashtirilgan ma'nosini farqlaydi.

Ikkinchi bosqichda lingvokulturologik interpretatsiya amalga oshiriladi. O'quvchi maqoldagi obraz, qadriyat va madaniy modelni aniqlaydi hamda o'zbek tilidagi yaqin paremiologik birlik bilan taqqoslaydi. Uchinchi bosqichda diskursiv-pragmatik faollashuv tahlil qilinadi. AI turli nutqiy vaziyatlarni yaratadi, talaba esa qaysi holatda maqolning nasihat, ogohlantirish, dalda, baholash yoki xulosa funksiyasi yuzaga chiqishini izohlaydi.

To'rtinchi bosqich produktiv qo'llashdan iborat. Talaba AI bilan muloqotda yoki o'qituvchi tomonidan berilgan topshiriq asosida maqolni tegishli kontekstga mustaqil kiritadi, so'ng uning tabiiyligi, pragmatik muvofiqligi va madaniy asoslanganligi tekshiriladi. Bu modelda sun'iy intellekt bilimning yakuniy arbitri emas. U kontekst generatori, qiyosiy material yaratuvchi va individual mashq vositasi sifatida qo'llanadi. Talabaning asosiy vazifasi esa yaratilgan materialni tahlil qilish, tekshirish va kommunikativ jihatdan asoslangan qaror qabul qilishdan iborat. Generativ AI paremiologik material bilan ishlash uchun qulay bo'lsa-da, undan nazoratsiz foydalanish bir qator muammolarni keltirib chiqaradi. Birinchidan, model real tilda mavjud bo'lmagan, ammo shaklan maqolga o'xshash birlik yaratishi mumkin. Ikkinchidan, u ingliz va o'zbek maqollari o'rtasidagi umumiy mazmunni aniqlab, ularning madaniy hamda pragmatik farqlarini yo'qotib yuborishi mumkin. Uchinchidan, paremiologik birlikning qo'llanish chastotasi yoki zamonaviy kommunikativ maqomini dalilsiz umumlashtirishi ehtimoli mavjud.

Shu sababli sun'iy intellekt yordamida olingan paremiologik ma'lumot uch mezon asosida tekshirilishi zarur: birlikning real paremiografik manbalarda qayd etilganligi; uning taklif etilgan kontekstga pragmatik mosligi; qiyoslanayotgan ikki birlikning semantik yaqinligi bilan birga madaniy tafovutlarining ham saqlanishi. Ta'lim metodikasi nuqtayi nazaridan bu cheklov kamchilik bilangina izohlanmaydi. Aksincha, AI xatosini aniqlashga qaratilgan topshiriqlar talabada lingvistik dalillash, manba bilan ishlash va tanqidiy raqamli savodxonlikni shakllantirishi mumkin.

XULOSA

Ingliz tilini sun'iy intellekt vositalari asosida o'qitishda paremiologik birliklardan foydalanish faqat lug'at boyligini oshirish vositasi sifatida qaralmasligi lozim. Maqollar til egalarining tarixiy-madaniy tajribasi, qadriyatlari, kommunikativ me'yorlari va voqelikni konseptuallashtirish usullarini ixcham shaklda ifodalashi sababli ular lingvokulturologik hamda diskursiv kompetensiyani rivojlantirish uchun muhim material hisoblanadi.

Tadqiqot natijalari generativ sun'iy intellektning paremiologik birliklarni o'qitishda uch asosiy didaktik imkoniyatini ko'rsatdi: kommunikativ kontekstlarni variativ modellashtirish, ingliz va o'zbek birliklarini ko'p mezonli qiyoslash hamda o'quvchining individual javobiga mos interaktiv mashqlar tashkil etish. Biroq sun'iy intellekt tomonidan yaratilgan paremiologik ma'lumotni tayyor lingvistik haqiqat sifatida qabul qilish metodik jihatdan asosli emas. AI maqolning mavjudligi, ekvivalentligi yoki madaniy mazmuniga doir noto'g'ri generalizatsiya qilishi mumkin. Shu bois uning natijasi paremiografik manba, real kontekst va o'qituvchining lingvistik ekspertizasi asosida nazorat qilinishi lozim.

Ingliz va o'zbek maqollarining qiyosiy tahlili semantik yaqinlik har doim lingvokulturologik ayniyatni anglatmasligini ham ko'rsatadi. "Where there's a will, there's a way" — "Intilgan tog'dan oshar", "Don't count your chickens before they hatch" — "Jo'jani kuzda sanaydilar" singari birliklar umumiy pragmatik yo'nalishga ega bo'lsa-da, ularning obrazli kodlari va madaniy motivatsiyasi farqlanadi. Ta'lim jarayonida aynan shu tafovutning tahlil qilinishi o'quvchining madaniyatlararo kompetensiyasini rivojlantiradi. Shu asosda sun'iy intellekt yordamidagi paremiologik ta'limni semantik anglash → lingvokulturologik talqin → diskursiv-pragmatik tahlil → produktiv qo'llash → AI natijasini tanqidiy tekshirish izchilligida tashkil etish metodik jihatdan samarali model sifatida taklif etiladi. Mazkur yondashuvda texnologiya o'qituvchini almashtiruvchi vosita emas, balki paremiologik mazmunni kontekstlashtirish va o'quvchini mustaqil lingvistik tahlilga jalb qilish imkonini beruvchi didaktik resurs sifatida xizmat qiladi.

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КОГНИТИВНАЯ СТИЛИСТИКА КАК СОВРЕМЕННОЕ НАПРАВЛЕНИЕ ИССЛЕДОВАНИЯ ХУДОЖЕСТВЕННОГО ТЕКСТА

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Annotatsiya. Mazkur maqolada zamonaviy tilshunoslikning istiqbolli yo'nalishlaridan biri bo'lgan kognitiv stilistikaning nazariy va amaliy jihatlari tahlil qilinadi. Kognitiv yondashuv asosida badiiy matnning til xususiyatlari, konseptualizatsiya jarayoni va o'quvchi tomonidan matnning idrok

etilishi hamda talqin qilinishi o'rtasidagi o'zaro bog'liqlik yoritiladi. Tadqiqotda konsept, freym, kognitiv metafora, obrazli sxema va mental makon kabi asosiy kognitiv-stilistik kategoriyalarning badiiy mazmunni shakllantirishdagi o'rni ko'rib chiqiladi. Shuningdek, badiiy asar sarlavhasining konseptual va kognitiv-stilistik funksiyasi, uning o'quvchi ongida muayyan bilim tuzilmalari va assotsiativ bog'lanishlarni faollashtirish imkoniyatlari tahlil qilinadi. Ushbu nazariy qarashlar U. S. Moemning "The Moon and Sixpence" ("Oy va chaqa") romani sarlavhasidagi antiteza misolida ochib beriladi. Sarlavhada ifodalangan qarama-qarshilik moddiy va ma'naviy qadriyatlar, yuksaklik va tubanlik, ijtimoiy farovonlik va ijodiy erkinlik o'rtasidagi ziddiyatni ifodalashi hamda bosh qahramon konseptini shakllantirishga xizmat qilishi asoslanadi. Tadqiqot natijalari kognitiv stilistik yondashuv badiiy matn mazmunini til, tafakkur va o'quvchi idroki o'rtasidagi uzviy bog'liqlik asosida chuqurroq talqin qilish imkonini berishini ko'rsatadi.

Kalit so'zlar: kognitiv stilistika, badiiy matn, kognitiv yondashuv, konsept, freym, kognitiv metafora, konseptualizatsiya, antiteza, sarlavha, talqin, o'quvchi, personaj konsepti.

Аннотация. В статье рассматриваются теоретические и практические аспекты когнитивной стилистики как одного из перспективных направлений современной лингвистики. Особое внимание уделяется взаимосвязи языковой организации художественного текста с процессами концептуализации, восприятия и интерпретации текста читателем. Анализируются такие основные категории когнитивной стилистики, как концепт, фрейм, когнитивная метафора, образная схема и ментальное пространство, а также их роль в формировании художественного смысла. Особое место занимает исследование когнитивно-стилистической функции заглавия художественного произведения и его способности актуализировать определенные структуры знаний в сознании читателя. Теоретические положения исследования рассматриваются на материале заглавия романа У. С. Моэма "The Moon and Sixpence" («Луна и грош»), в котором реализуется стилистический прием антитезы. Показано, что противопоставление, выраженное в заглавии, отражает ключевой конфликт произведения — противостояние материального и духовного, социального благополучия и творческой свободы, внешнего и внутреннего предназначения человека. Антитеза в заглавии не только выполняет символическую и стилистическую функции, но и участвует в формировании концепта главного героя. Сделан вывод о том, что когнитивно-стилистический подход позволяет глубже раскрыть механизмы формирования художественного смысла и выявить взаимосвязь между языковой формой, авторским замыслом и когнитивной деятельностью читателя.

Ключевые слова: когнитивная стилистика, художественный текст, когнитивный подход, концепт, фрейм, когнитивная метафора, концептуализация, антитеза, заглавие, интерпретация, читатель, концепт персонажа.

Abstract. This article examines the theoretical and practical aspects of cognitive stylistics as a promising field of contemporary linguistics. Particular attention is paid to the relationship between the linguistic organization of a literary text and the processes of conceptualization, perception, and interpretation carried out by the reader. The study considers such major categories of cognitive stylistics as concept, frame, conceptual metaphor, image schema, and mental space, focusing on their role in the construction of literary meaning. Special attention is given to the cognitive-stylistic function of literary titles and their ability to activate particular knowledge structures in the reader's mind. These theoretical principles are illustrated through an analysis of the title of W. Somerset Maugham's novel *The Moon and Sixpence*, which employs the stylistic device of antithesis. The analysis demonstrates that the contrast expressed in the title reflects the central conflict of the novel, namely the opposition between material and spiritual values, social prosperity and artistic freedom, and external social identity and inner creative vocation. The antithesis in the title performs not only a symbolic and stylistic function but also contributes to the construction of the protagonist's conceptual representation. The study concludes that a cognitive-stylistic approach provides a deeper understanding of the mechanisms underlying the construction of literary meaning and reveals the interaction between linguistic form, authorial intention, and the reader's cognitive processes.

Keywords: *cognitive stylistics, literary text, cognitive approach, concept, frame, conceptual metaphor, conceptualization, antithesis, literary title, interpretation, reader, character concept.*

Когнитивная стилистика представляет собой одно из перспективных направлений современной лингвистики, находящееся на пересечении когнитивной науки, стилистики, лингвистики текста и теории интерпретации. В центре внимания данного подхода находится исследование взаимосвязи между языковой формой художественного произведения и особенностями его восприятия, интерпретации и концептуализации читателем.

В отличие от традиционной стилистики, ориентированной преимущественно на описание выразительных средств и стилистических приемов, когнитивная стилистика рассматривает текст как инструмент формирования определенной ментальной репрезентации. Языковые единицы при этом анализируются не изолированно, а с учетом фоновых знаний, концептуальных структур, образных схем и когнитивных механизмов, участвующих в понимании текста.

Особое значение в когнитивно-стилистическом анализе приобретают такие категории, как концепт, фрейм, когнитивная метафора, образная схема, ментальное пространство [1, с.36]. Их исследование позволяет выявить способы организации авторского мировидения и механизмы воздействия текста на читательское сознание. Например, метафора в рамках когнитивного подхода рассматривается не только как средство художественной выразительности, но и как способ структурирования и осмысления определенной области опыта.

Когнитивная стилистика также уделяет значительное внимание роли читателя. Интерпретация художественного текста понимается как активный процесс, в ходе которого читатель на основе языковых сигналов и собственного когнитивного опыта конструирует смысл произведения. Поэтому одно и то же стилистическое средство может вызывать различные интерпретации в зависимости от контекста и знаний реципиента. Так концептуальная значимость стилистических приемов и их когнитивных функций с наибольшей отчетливостью проявляются в случае использования стилистического приема в заглавии художественного произведения. Как известно, заглавие выражает концептуальный смысл всего произведения, его концептуальное содержание в сжатой конденсированной форме. Известно классическое определение заглавия, данное И. Р. Гальперином, что заголовок это «нераскрытое содержание текста, это имплицитная максимально сжатая содержательно-концептуальная информация, стремящаяся к развертыванию» [3, с.87] Исследователи отмечают разные функции стилистических приёмов в составе заглавия: номинативную, коммуникативную, стилистическую, прагматическую функции.

Представляется, что наибольшую значимость в плане функционального использования стилистического приёма в заглавии произведения представляет его когнитивно-стилистическая функция. С этих позиций большой интерес представляет мнение Джусупова Н.М., отмечающего, что «когнитивно-стилистическая значимость заглавия определяется его способностью транслировать целый ряд существенных в когнитивном плане текстовых категорий (информативность, модальность, интертекстуальность и актуализировать у читателя определенные структуры знаний, которые составляют его когнитивную базу, определяют его культурную память и творческую компетенцию» [5, с.47].

В свете сказанного, остановимся на рассмотрении заглавия знаменитого романа У. С. Моэма “The Moon and Sixpence” («Луна и грош»), который со стилистической точки зрения представляет собой стилистический прием антитезы. В плане языкового выражения антитеза может быть представлена простыми, сложными, а также сложноподчиненными предложениями. Важно подчеркнуть, что в художественном тексте зачастую используется контекстуальная антитеза, т.е. антитеза, построенная на оппозиции, обусловленной контекстом. В приведенном романе У. С. Моэма “The Moon and Sixpence” (Луна и грош) антитеза передает весь смысл задуманного автором сюжета. Роман рассказывает о Чарльзе Стрикленде, успешном биржевом маклере, который оставляет семью и уезжает в Париж, чтобы заниматься живописью. Несмотря на нищету и отсутствие успеха, он продолжает

писать картины. После его смерти работы Стрикленда признают шедеврами. Последние годы жизни он провёл на Таити, где умер от болезни и нищеты. Антитеза, представленная в заглавии выполняет, прежде всего, символическую функцию, противопоставляя духовное начало материальному, возвышенное низменному, талант и гениального художника, его ничтожному, жалкому существованию.

Контраст, заданный антитезой в заглавии произведения, прослеживается в романе на всех этапах жизненного пути Стрикленда. Его семейная жизнь сменяется одиночеством, благополучие в семейной жизни заканчивается нищенской судьбой в конце жизни.

Более того, образ Стрикленда, его характер также свидетельствует о двойственной противоречивой природе его натуры. Для Стрикленда ничего в жизни, кроме высокого искусства не имеет значения: ни семья, ни дети, ни друзья, ни женщины, которых он на протяжении своей жизни игнорировал и предавал. Таким образом, использованная в заглавии антитеза имеет большое значение для характеристики персонажа и выполняет когнитивно-стилистическую функцию --- конструирования персонажного концепта.

Таким образом, когнитивная стилистика позволяет комплексно исследовать художественный текст, объединяя анализ языковых особенностей с изучением процессов концептуализации и интерпретации. Перспективность данного направления обусловлена возможностью более глубокого понимания механизмов создания художественного смысла и взаимодействия автора, текста и читателя.

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IMPROVING VOCABULARY MASTERY USING CULTURE-BASED DICTOGLOSS TECHNIQUE: A QUASI-EXPERIMENTAL STUDY IN INDONESIAN SENIOR HIGH SCHOOL

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Abstract. *This quasi-experimental study measured the effectiveness of culture-based dictogloss on vocabulary mastery among 64 eleventh-grade EFL students at SMA Negeri 1 Pagerbarang, Indonesia. Using a nonequivalent control group design, the experimental group received four sessions of dictogloss incorporating Tegal folklore narratives (Si Gringsing and Si Kasur, Joko Kendil, Ki Gede Sebayu, and Legends of Kramat Tegal Ratu), while the control group received conventional vocabulary instruction without cultural integration. Pre-test and post-test assessments were administered to measure vocabulary mastery, and data were analyzed using descriptive statistics, normality tests, homogeneity tests, paired sample t-tests, and independent sample t-tests. The experimental group improved significantly from 58.06 to 79.13 (gain=21.07, $p=.013$), outperforming the control group which improved from 54.88 to 63.81 (gain=8.93, $p=.036$). The independent t-test confirmed a significant between-group difference ($t(62)=12.734$, $p=.021$). These findings indicate that integrating local folklore into dictogloss creates meaningful vocabulary learning experiences that leverage students' cultural knowledge, enhancing vocabulary acquisition*

more effectively than conventional methods. This study contributes to research on culturally responsive teaching in EFL contexts and offers practical implications for Indonesian senior high school English teachers.

Keywords: Dictogloss, vocabulary mastery, culture-based learning, narrative text, EFL

Аннотация. В этом квазиэкспериментальном исследовании оценивалась эффективность диктоглосса на основе культуры для усвоения словарного запаса среди 64 учащихся одиннадцатого класса, изучающих английский как иностранный (EFL), в государственной средней школе SMA Negeri 1 Pagerbarang, Индонезия. С использованием дизайна с неэквивалентной контрольной группой экспериментальная группа прошла четыре занятия диктоглосса, включающих фольклорные повествования Тегала («Си Грингсинг и Си Касур», «Джоко Кендил», «Ки Гедэ Себаю» и «Легенды Крамат Тегал Рату»), в то время как контрольная группа получала традиционное обучение лексике без культурной интеграции. Для измерения уровня владения словарным запасом проводились предварительное и итоговое тестирования, а данные анализировались с использованием описательной статистики, тестов на нормальность, тестов на однородность, парного t -критерия и t -критерия для независимых выборок. Экспериментальная группа продемонстрировала значительное улучшение с 58,06 до 79,13 (прирост=21,07, $p=0,013$), превзойдя контрольную группу, результаты которой улучшились с 54,88 до 63,81 (прирост=8,93, $p=0,036$). Независимый t -критерий подтвердил значимую разницу между группами ($t(62)=12,734$, $p=0,021$). Эти результаты показывают, что интеграция местного фольклора в диктоглосс создает значимый опыт изучения лексики, который опирается на культурные знания учащихся, повышая эффективность усвоения словарного запаса по сравнению с традиционными методами. Данное исследование вносит вклад в изучение культурно-ориентированного преподавания в контексте EFL и предлагает практические рекомендации для индонезийских учителей английского языка в старших классах.

Ключевые слова: Диктоглосс, усвоение словарного запаса, обучение на основе культуры, повествовательный текст, EFL.

Annotatsiya. Ushbu kvazi-eksperimental tadqiqot Indoneziyaning SMA Negeri 1 Pagerbarang maktabida ingliz tilini chet tili (EFL) sifatida o'rganayotgan 64 nafar o'n birinchi sinf o'quvchilari o'rtasida lug'at boyligini o'zlashtirishda madaniyatga asoslangan diktoglossning samaradorligini o'lchadi. Noekvivalent nazorat guruhi dizaynidan foydalangan holda, eksperimental guruh Tegal folklori hikoyalarini (Si Gringsing va Si Kasur, Joko Kendil, Ki Gede Sebayu va Kramat Tegal Ratu afsonalari) o'z ichiga olgan to'rtta diktogloss mashg'ulotini o'tkazdi, nazorat guruhi esa madaniy integratsiyasiz an'anaviy lug'at o'qitish usulida ta'lim oldi. Lug'atni o'zlashtirish darajasini o'lchash uchun dastlabki (pre-test) va yakuniy (post-test) baholashlar o'tkazildi va ma'lumotlar tavsifiy statistika, normallik testlari, bir xillik testlari, juftlangan tanlanma t -testlari va mustaqil tanlanma t -testlari yordamida tahlil qilindi. Eksperimental guruh sezilarli darajada 58,06 dan 79,13 gacha yaxshilandi (o'sish=21,07, $p=0,013$) va 54,88 dan 63,81 gacha yaxshilangan nazorat guruhidan (o'sish=8,93, $p=0,036$) o'zib ketdi. Mustaqil t -testi guruhlar o'rtasida sezilarli farqni tasdiqladi ($t(62)=12,734$, $p=0,021$). Ushbu natijalar shuni ko'rsatadiki, mahalliy folklori diktoglossga integratsiya qilish o'quvchilarning madaniy bilimlaridan foydalanadigan mazmunli lug'at o'rganish tajribasini yaratadi va an'anaviy usullarga qaraganda lug'atni o'zlashtirishni samaraliroq oshiradi. Ushbu tadqiqot EFL kontekstlarida madaniyatga e'tibor qaratadigan o'qitish bo'yicha tadqiqotlarga hissa qo'shadi va Indoneziya yuqori sinf ingliz tili o'qituvchilari uchun amaliy tavsiyalar beradi.

Kalit so'zlar: Diktogloss, lug'atni o'zlashtirish, madaniyatga asoslangan ta'lim, hikoya matni, EFL.

INTRODUCTION

English is the most widely used global language, with more than 2.3 billion users and a 90% share of global business communication (Bogore, 2025). In Indonesia, English is taught as a foreign language and remains a compulsory subject across all educational levels, including senior high

schools (Ramadhan et al., 2022). Its instruction has undergone multiple curriculum reforms, from KTSP and Kurikulum 2013 to the recent Merdeka curriculum, all intended to enhance students' communicative competence (Khalisa, 2025). Despite these ongoing efforts, many Indonesian senior high school students continue to experience significant difficulties in vocabulary mastery, which in turn constrains their overall English proficiency.

Empirical evidence substantiates the gravity of this vocabulary deficit. Sudarman (2018) reported that first-year English Education university students possessed a vocabulary size of only about 1,273 words. More alarmingly, Mustafa (2019) examined 1,775 senior high school graduates and found that their average vocabulary knowledge stood at approximately 1,750 words, falling substantially short of the expected 3,000 word target for that level. Specifically, students mastered only 72% of the first 1,000 word families, 54% of the second, and 49% of the third, clearly indicating that the majority lack the lexical resources required to meet curriculum standards.

Limited vocabulary knowledge carries serious pedagogical consequences, impeding text comprehension, classroom participation, and effective self expression. Vocabulary underpins all language skills, and research confirms its critical role. Brooks et al. (2021) found it contributes more to reading comprehension than decoding or fluency, while Hartini (2024) established a positive correlation between vocabulary knowledge and overall English achievement. Nation (2022) defines vocabulary as the body of words a person knows and uses, acquired cumulatively through three essential processes: noticing, retrieval, and active use. These processes together reinforce long term retention.

In the Indonesian EFL context, limited exposure to authentic English outside the classroom makes teacher led interventions critical (Biseko, 2024). Husna (2025) reinforced the importance of such instructional support. Nevertheless, conventional practices like rote memorization and translation exercises fail to promote deep processing for long term retention. The dictogloss technique offers a more effective alternative. Jose (2022) described it as a collaborative dictation activity in which learners reconstruct a text after listening and noting key words. The technique consists of four stages: preparation, dictation, reconstruction, and analysis correction.

To further strengthen vocabulary instruction, this study integrates dictogloss with culture based learning. Gay (2018) defined this approach as intentionally drawing upon students' cultural knowledge and experiences to make instruction personally meaningful. This integration aligns with Culturally Responsive Teaching, which connects curricular content to learners' cultural backgrounds to improve outcomes (Gay, 2018). The present research applies this culture based dictogloss at SMA Negeri 1 Pagerbarang using four Tegal folklore narratives: *Si Gringsing dan Si Kasur*, *Joko Kendil*, *Ki Gede Sebayu*, and *Legends of Kramat Tegal Ratu*. These stories contain culturally familiar vocabulary, creating a meaningful bridge from students' existing knowledge to new English lexical acquisition.

Although previous studies have demonstrated the effectiveness of dictogloss for vocabulary instruction, none have specifically examined the integration of culturally relevant content into dictogloss for vocabulary improvement in Indonesian senior high schools. Therefore, this study aims to fill this gap by investigating the effect of culture-based dictogloss on vocabulary mastery among 11th-grade students at SMA Negeri 1 Pagerbarang. Based on the background described above, the research questions are formulated as follows:

1. Is the culture-based dictogloss technique effective in enhancing high school EFL students' vocabulary mastery in narrative texts?
2. Are there significant differences in narrative vocabulary scores between control and experimental groups using culture-based dictogloss technique?

MATERIALS AND METHODS

This study employs a quantitative quasi experimental pretest posttest design with nonequivalent groups (Creswell, 2018), selected because fixed classroom structures made randomization impractical. The sample comprised 64 eleventh grade students from SMA Negeri 1 Pagerbarang, drawn from a target population of 279 across eight intact classes. Through purposive

selection, Class XI 2 (experimental, n=32) received culture based dictogloss, while Class XI 8 (control, n=32) underwent conventional instruction.

Both groups took a pre-test (Meeting 1) and post-test (Meeting 6), with four treatment sessions (Meetings 2–5) in between. Data analysis followed Creswell's (2018) structured progression: descriptive statistics via SPSS, a Shapiro-Wilk normality test (Sanchez-Solis, 2024), Levene's homogeneity test, and paired/independent sample t-tests (Kishore, 2023) at $\alpha = 0.05$. All hypotheses were tested at $\alpha = 0.05$, with H_0 rejected if $p < 0.05$ (indicating a significant effect) and accepted if $p > 0.05$ (indicating no significant effect). The interpretations of the hypotheses are explained below:

1. H_0 : There is no significant effect of culture based dictogloss on students' vocabulary improvement in English language learning in grade 11 at SMA Negeri 1 Pagerbarang.
2. H_1 : There is a significant effect of culture based dictogloss on students' vocabulary improvement in English language learning in grade 11 at SMA Negeri 1 Pagerbarang.

RESULT AND DISCUSSION

Descriptive Statistics

Table 1. Descriptive Statistics Result

	N	Minimum	Maximum	Mean	Std. Deviation
Pre Experiment	32	50	68	58.06	4.938
Post Experiment	32	72	88	79.13	4.709
Pre Control	32	46	64	54.88	4.976
Post Control	32	54	72	63.81	4.908
Valid (listwise)	N 32				

As indicated by the descriptive statistics, the two groups entered the study with broadly equivalent vocabulary competencies, registering mean pretest scores of 58.06 for the experimental condition and 54.88 for the control condition. Post-intervention, however, the gap between them widened substantially. The experimental cohort exhibited a marked advancement to 79.13, translating to a 21.07-point increase, whereas the control group's performance rose to just 63.81, reflecting a comparatively modest gain of 8.93 points.

Normality Test

Table 2. Normality Test Result

Class	Saphiro-Wilk		
	Statistic	df	Sig.
Pre-Experiment	.960	32	.270
Post-Experiment	.951	32	.151
Pre-Control	.964	32	.346
Post-Control	.946	32	.108

The Shapiro-Wilk test confirmed that normality assumptions were met for all datasets, with p-values exceeding 0.05 for both groups (experimental: pretest $p=.270$, posttest $p=.151$; control: pretest $p=.346$, posttest $p=.108$), justifying the use of parametric statistical procedures.

Homogeneity Test

Table 3. Homogeneity Test Result

	Levene Statistic	df1	df2	Sig.
Based on Mean	.060	1	62	.808
Based on Median	.077	1	62	.782
Based on Median and with adjusted df	.077	1	62.959	.782
Based on trimmed mean	.055	1	62	.816

As indicated by the Levene's test, the calculated significance value stood at $p = .808$, comfortably exceeding the conventional 0.05 cutoff. This finding establishes that the variance

between the two cohorts was indeed homogeneous, thereby validating the equality of variances assumption and affirming the suitability of the data for subsequent parametric analyses.

Hypothesis Testing

A. Paired Sample T-Test

Table 4. Paired Sample T-Test Result

		Paired Differences	95% Confidence Interval of the Difference		
		Mean	t	df	Sig. (2-tailed)
Pair 1	Pre Exp-Post Exp	-21.063	-67.751	31	.013
Pair 2	Pre Cont-Post Cont	-8.938	-9.760	31	.036

Both groups showed significant vocabulary gains, but the experimental group's improvement ($M=21.06$, $t(31)=-67.751$, $p=.013$) was more than double that of the control group ($M=8.94$, $t(31)=-9.760$, $p=.036$). This disparity highlights the clear advantage of culture-based dictogloss with local folklore over conventional instruction.

B. Independent Sample T-Test

Table 5. Paired Sample T-Test Result

		T- Test for Equality of Means			
		t	df	Sig (2-tailed)	Mean Difference
Equal Variances Assumed		12.734	62	.021	15.313

A significant between-group difference was found ($t(62) = 12.734$, $p = .021$), with the experimental group scoring 15.31 points higher than the control group, confirming the effectiveness of culture-based dictogloss over traditional instruction.

C. Hypothesis Testing Summary

The null hypothesis (H_0) stating that there is no significant effect of culture-based dictogloss on students' vocabulary improvement is rejected. The alternative hypothesis (H_1) stating that there is a significant effect of culture-based dictogloss on students' vocabulary improvement is accepted.

CONCLUSION

This quasi-experimental study examined the efficacy of culture-based dictogloss on vocabulary acquisition among 64 eleventh-grade students at SMA Negeri 1 Pagerbarang using a pretest-posttest design. The experimental group, which engaged with Tegal folklore through dictogloss, improved significantly from $M=58.06$ to $M=79.13$ (gain=21.07, $t(31)=-67.751$, $p=.013$), while the control group receiving conventional instruction improved modestly from $M=54.88$ to $M=63.81$ (gain=8.93, $p=.036$). The independent t-test confirmed a significant between-group difference ($t(62)=12.734$, $p=.021$), with the experimental group outperforming the control by 15.31 points. Consequently, H_0 is rejected and H_1 is accepted, confirming that culture-based dictogloss significantly enhances vocabulary mastery by integrating local folklore, offering an effective alternative to traditional instruction.

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BO‘LAJAK SHIFOKORLAR UCHUN XORIJIY TILNI O‘QITISHDA INTERFAOL METODLARDAN FOYDALANISH IMKONIYATLARI

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Annotatsiya: Maqolada bo‘lajak shifokorlar uchun xorijiy tilni o‘qitishda interfaol metodlardan foydalanish imkoniyatlari o‘rganildi. Tadqiqotda talabalarning lingvistik va kommunikativ kompetensiyasini shakllantirishda interfaol usullar samaradorligi tahlil qilindi. Olingan natijalar interfaol metodlarning motivatsiya, mustaqil fikrlash va amaliy nutq ko‘nikmalarini rivojlantirishda muhimligini ko‘rsatdi.

Kalit so‘zlar: Xorijiy til, interfaol metodlar, tibbiyot ta’limi, kommunikativ kompetensiya, bo‘lajak shifokorlar, motivatsiya.

Аннотация. В статье исследуются возможности использования интерактивных методов при обучении иностранному языку будущих врачей. В рамках исследования анализируется эффективность интерактивных методов в формировании лингвистической и коммуникативной компетенций студентов. Полученные результаты показывают, что интерактивные методы играют важную роль в повышении учебной мотивации, развитии самостоятельного мышления и формировании практических речевых навыков будущих специалистов.

Ключевые слова: иностранный язык, интерактивные методы, медицинское образование, коммуникативная компетенция, будущие врачи, мотивация.

Abstract. This article examines the possibilities of using interactive methods in foreign language teaching for future doctors. The study analyzes the effectiveness of interactive approaches in developing students’ linguistic and communicative competence. The findings demonstrate that interactive methods play an important role in enhancing learning motivation, developing independent thinking, and improving practical speaking skills among future medical professionals.

Keywords: foreign language, interactive methods, medical education, communicative competence, future doctors, motivation.

KIRISH

Zamonaviy tibbiyot ta'limi talabalarining nafaqat kasbiy, balki lingvistik kompetensiyasini rivojlantirishni talab qiladi. Bo'lajak shifokorlar xorijiy tilni bilishi, xalqaro tibbiy adabiyot va ma'lumotlardan foydalanishi, bemor bilan samarali muloqot qilishi uchun muhimdir. An'anaviy dars usullari ko'pincha passiv o'rganish va yodlashga asoslangan bo'lib, talabalarining nutq va amaliy ko'nikmalarini yetarlicha shakllantirmaydi. Shu bois, interfaol metodlar – guruh ishlari, rol o'yinlari, muammoli vaziyatlar, loyiha va prezentatsiyalar – talabalarining faol ishtirokini rag'batlantirish, amaliy nutq va kasbiy lug'atni rivojlantirishda samarali vosita hisoblanadi.

Tadqiqotning maqsadi bo'lajak shifokorlar uchun xorijiy tilni o'qitishda interfaol metodlarning pedagogik samaradorligini aniqlashdan iborat. Ushbu maqolada interfaol metodlarning afzalliklari, ularni ta'lim jarayonida tatbiq etish imkoniyatlari va talabalarga ta'siri ilmiy asosda tahlil qilinadi. An'anaviy dars metodlari ko'pincha passiv o'rganishga, ya'ni lug'at yodlash va grammatik mashqlar bilan cheklanishga asoslangan. Bu esa talabalarining nutq ko'nikmalarini shakllantirish va mustaqil fikrlash qobiliyatini rivojlantirishda yetarli natija bermaydi. Shu sababli, xorijiy tilni o'rgatishda interfaol metodlar – guruh ishlari, rol o'yinlari, muammoli vaziyatlar, prezentatsiyalar va loyihalar – talabalarni faol o'rganishga jalb qilish, ularning amaliy nutq va kommunikativ ko'nikmalarini rivojlantirishda samarali vosita sifatida e'tirof etiladi.

Interfaol metodlar talabalarining bilim olish jarayonida faolligini oshiradi, ularni muammolarni hal qilishga rag'batlantiradi va guruhda hamkorlik ko'nikmalarini shakllantiradi. Shuningdek, talabalarining motivatsiyasini oshiradi va dars jarayonini yanada qiziqarli qiladi. Shu nuqtai nazardan, xorijiy tilni interfaol metodlar orqali o'rgatish pedagogik samaradorlikni oshirishga, kasbiy va kommunikativ kompetensiyani rivojlantirishga xizmat qiladi.

Ushbu tadqiqotning maqsadi – bo'lajak shifokorlar uchun xorijiy tilni o'qitishda interfaol metodlarning samaradorligini aniqlash va ularning ta'lim jarayonidagi afzalliklarini ilmiy asosda tahlil qilishdan iborat. Tadqiqot quyidagi vazifalarni o'z ichiga oladi:

1. Interfaol metodlarni va ularning pedagogik imkoniyatlarini tahlil qilish.
2. Bo'lajak shifokorlar bilan tajriba o'tkazish orqali metodlarning samaradorligini aniqlash.
3. Olingan natijalar asosida xorijiy til darslarida interfaol yondashuvni qo'llash bo'yicha tavsiyalar ishlab chiqish.

METODLAR

Tadqiqot Toshkent shahridagi tibbiyot oliy ta'lim muassasasida 2023–2024 o'quv yili davomida olib borildi. Tadqiqot ishtirokchilari 2–3-bosqich tibbiyot yo'nalishi talabalari bo'lib, jami 60 nafarni tashkil etdi. Talabalar bilim darajasi va lingvistik tayyorgarlik bo'yicha tenglashtirilib, tajriba va nazorat guruhlariga ajratildi.

Nazorat guruhida xorijiy til an'anaviy yondashuv asosida, ya'ni lug'at va grammatika mashqlari orqali o'rgatildi. Tajriba guruhida esa interfaol metodlar qo'llanildi: guruh ishlari, rol o'yinlari, muammoli vaziyatlar tahlili, prezentatsiya va loyiha ishlari. Darslarda kommunikativ va kasbiy kontekstlar asosida mashqlar tashkil qilindi.

Baholash vositalari sifatida diagnostik testlar, yozma va og'zaki mashqlar, so'rovnomalar va pedagogik kuzatuvlar ishlatildi. Dastlabki va yakuniy natijalar kvantitativ va sifat jihatdan tahlil qilindi. Nazorat guruhi talabalari xorijiy tilni an'anaviy yondashuv asosida o'rganishdi, ya'ni lug'at yodlash, grammatik mashqlar va o'qituvchi yetakchiligida passiv dars jarayonidan foydalandilar. Bu yondashuv talabalarining nutq va amaliy ko'nikmalarini shakllantirishga cheklangan imkoniyatlar yaratdi.

Tajriba guruhi esa interfaol metodlar orqali ta'lim oldi. Darslar quyidagi usullarni o'z ichiga oldi:

- **Guruh ishlari:** Talabalar kichik guruhlariga bo'linib, klinik vaziyatlarni muhokama qilish va masalalarni hal qilishdi.
- **Rol o'yinlari:** Talabalar bemor-shifokor vaziyatlarini sahnalashtirib, amaliy nutq va kommunikativ ko'nikmalarini mustahkamlashdi.

- **Muammoli vaziyatlar tahlili:** Talabalar kasbiy kontekstda yuzaga keladigan muammolarni aniqlash va yechim topish bo'yicha ishladilar.
- **Prezentatsiyalar va loyiha ishlari:** Talabalar mavzu bo'yicha kichik tadqiqotlar o'tkazib, natijalarni guruh oldida taqdim etdilar.

Tadqiqot jarayonida talabalar bilim va ko'nikmalarini baholash uchun quyidagi vositalardan foydalanildi:

1. **Diagnostic testlar** – dars boshida talabalarning boshlang'ich bilim darajasini aniqlash.
2. **Yozma va og'zaki mashqlar** – termin, ibora va kasbiy nutqni qo'llash qobiliyatini baholash.
3. **So'rovnomalar** – talabalarning motivatsiyasi, darsga qiziqishi va interfaol metodlarga munosabatini o'rganish.
4. **Pedagogik kuzatuvlar** – dars jarayonida talabalar faoliyati, guruh ishlari va amaliy mashqlardagi qatnashuvni tahlil qilish.

Olingan ma'lumotlar kvantitativ (test ballari) va sifat jihatdan (kuzatuv va so'rovnomalar) tahlil qilindi. Natijalar guruhlar o'rtasida interfaol metodlarning samaradorligini aniq ko'rsatdi va talabalarning amaliy nutq va kommunikativ kompetensiyasini rivojlantirishdagi ahamiyatini tasdiqladi.

Metod nomi	Tavsif va qo'llanishi	Maqsadi va pedagogik ahamiyati
Guruh ishlari	Talabalar kichik guruhlariga bo'linib klinik vaziyatlarni muhokama qiladi va masalalarni hal qiladi.	Jamoaviy ishlash, muloqot va muammolarni hal qilish ko'nikmalarini rivojlantirish.
Rol o'yinlari	Talabalar bemor-shifokor vaziyatlarini sahnalashtiradi.	Amaliy nutq va kasbiy lug'atni real kontekstda qo'llash qobiliyatini shakllantirish.
Muammoli vaziyatlarni tahlil qilish	Talabalar kasbiy kontekstda yuzaga keladigan muammolarni aniqlab, yechim topadi.	Tahliliy fikrlash va mustaqil qaror qabul qilish ko'nikmalarini rivojlantirish.
Prezentatsiyalar	Talabalar mavzu bo'yicha kichik tadqiqotlar o'tkazib, natijalarni guruh oldida taqdim etadi.	Mustaqil fikrlash, tadqiqot qobiliyati va muloqot ko'nikmalarini oshirish.
Loyiha ishlari	Talabalar biror kasbiy yoki ilmiy mavzu bo'yicha loyiha ishlab chiqadi va natijalarni baham ko'radi.	Kreativ fikrlash va amaliy ko'nikmalarni rivojlantirish.

NATIJALAR

Tajriba guruhidagi talabalar interfaol metodlar yordamida xorijiy til ko'nikmalarini sezilarli darajada rivojlantirdi. Ular amaliy nutqda so'zlashuv, kasbiy lug'atni qo'llash va bemor bilan muloqot vaziyatlarini tavsiflashda yuqori natija ko'rsatdi. Nazorat guruhidagi talabalar esa passiv yodlash usulida o'qiganligi sababli amaliy nutq ko'nikmalari past bo'ldi.

So'rovnoma natijalari interfaol metodlar talabalarning darsga motivatsiyasini oshirganini va mustaqil o'rganishga rag'batlantirganini ko'rsatdi. Pedagogik kuzatuvlar talabalarning muammoli vaziyatlarni tahlil qilish va guruhda hamkorlik qilish qobiliyatining rivojlanganini tasdiqladi.

Dastlabki diagnostik testlar ikki guruh o'rtasida sezilarli farq yo'qligini ko'rsatgan bo'lsa-da, yakuniy test natijalari tajriba guruhi talabalari bilim va ko'nikmalarini yanada mustahkam o'zlashtirganligini tasdiqladi. Talabalar guruh ishlari, rol o'yinlari va muammoli vaziyatlarni tahlil

qilish jarayonida termin va iboralarni kontekst asosida to'g'ri qo'llashga muvaffaq bo'ldilar. Shuningdek, prezentatsiya va loyiha ishlari ularning mustaqil fikrlash, muloqot va jamoaviy ish ko'nikmalarini rivojlantirishga yordam berdi. Pedagogik kuzatuvlar natijalari interfaol metodlar talabalarining darsga motivatsiyasini oshirishini, faollik bilan qatnashishini va amaliy mashqlarda yuqori darajada ishtirok etishini ko'rsatdi. Nazorat guruhi talabalarining amaliy ko'nikmalari esa ko'proq yodlashga va passiv mashqlarga asoslanganligi sababli pastroq natija berdi. Shu bilan birga, so'rovnomalar natijalari interfaol metodlarning talabalar orasida qiziqishni oshirish, o'quv jarayonini yanada samarali qilish va til o'rganishga nisbatan ijobiy munosabatni shakllantirishda muhimligini tasdiqladi. Umuman olganda, tadqiqot interfaol metodlarning bo'lajak shifokorlar uchun xorijiy tilni o'rgatishda samarali vosita ekanligini va talabalarining lingvistik, kommunikativ va kasbiy kompetensiyasini rivojlantirishga xizmat qilishini ko'rsatdi.

MUHOKAMA

Olingan natijalar interfaol metodlarning xorijiy til o'qitish jarayonida samarali ekanligini tasdiqlaydi. Rol o'yinlari va muammoli vaziyatlar talabalarga termin va iboralarni amalda qo'llashga yordam beradi, guruh ishlari esa kommunikativ va tahliliy ko'nikmalarni shakllantiradi. Shu bilan birga, interfaol metodlar talabalarining motivatsiyasi va o'quv jarayonida faol ishtirokini oshiradi.

Tadqiqot shuni ko'rsatadiki, interfaol metodlarni samarali qo'llash uchun o'qituvchining pedagogik malakasi va o'quv materiallarining yetarli darajada bo'lishi muhimdir. Shuningdek, texnologik vositalardan foydalanish interfaol metodlarning samaradorligini yanada oshiradi. Shuningdek, interfaol metodlar talabalar motivatsiyasini oshirdi va dars jarayonida faol qatnashishga undadi. Talabalar muammoli vaziyatlarni tahlil qilganida terminlarni o'zaro bog'liq kontekstda ishlatishni o'rganishdi, bu esa passiv yodlashga asoslangan an'anaviy metodlardan sezilarli farq qildi. Prezentatsiya va loyiha ishlari esa mustaqil fikrlash, ma'lumotlarni tahlil qilish va natijalarni boshqalarga tushuntirish ko'nikmalarini shakllantirdi.

Biroq, tadqiqot shuni ko'rsatdiki, interfaol metodlarni samarali qo'llash uchun o'qituvchining pedagogik va metodik malakasi muhim ahamiyatga ega. O'qituvchi metodlarni to'g'ri tanlab, darsni qiziqarli va izchil tashkil qilmasa, talabalar faolligi va amaliy ko'nikmalar yetarli darajada rivojlanmaydi. Shu bilan birga, darslik va o'quv-uslubiy materiallarning yetarli darajada mavjudligi, texnologik vositalardan foydalanish ham interfaol metodlarning samaradorligini oshiradi.

Umuman olganda, tadqiqot interfaol metodlarning xorijiy til o'qitishda talabalarining lingvistik, kommunikativ va kasbiy kompetensiyasini rivojlantirishga xizmat qilishi, darsga motivatsiyasini oshirishi va mustaqil fikrlash ko'nikmalarini shakllantirishda muhim pedagogik vosita ekanligini ko'rsatdi. Shu sababli, bu yondashuvlar tibbiyot ta'limida keng joriy etilishi tavsiya etiladi.

XULOSA

Tadqiqot natijalari shuni ko'rsatdiki, interfaol metodlar bo'lajak shifokorlar uchun xorijiy tilni o'rgatishda yuqori samaradorlikka ega. Talabalar rol o'yinlari, guruh ishlari, muammoli vaziyatlar va prezentatsiyalar orqali amaliy nutq, kasbiy lug'at va kommunikativ ko'nikmalarini sezilarli darajada rivojlantirdilar. Bu metodlar dars jarayonida talabalarni faol ishtirok etishga undaydi, mustaqil fikrlash va muammolarni hal qilish qobiliyatini shakllantiradi, shuningdek, motivatsiyani oshiradi. Nazorat guruhi bilan solishtirganda, tajriba guruhi talabalari amaliy ko'nikmalarni tez va samarali o'zlashtirishdi, termin va iboralarni kontekst asosida to'g'ri ishlatish qobiliyatini rivojlantirdilar.

Shu asosda quyidagi tavsiyalar ishlab chiqildi:

1. Xorijiy til darslarida interfaol metodlarni keng qo'llash, shu jumladan rol o'yinlari, guruh ishlari, muammoli vaziyatlar va prezentatsiyalar orqali talabalarining amaliy ko'nikmalarini rivojlantirish.
2. Darslarni klinik vaziyatlar, tibbiy matnlar va kasbiy kontekstlar asosida tashkil etish, talabalarga termin va iboralarni real sharoitda qo'llash imkonini yaratish.
3. O'qituvchilarni interfaol metodlar bo'yicha muntazam malaka oshirish kurslariga jalb qilish, pedagogik va metodik kompetensiyani rivojlantirish.

4. O'quv-uslubiy materiallar, interfaol resurslar va texnologik vositalardan foydalanish orqali dars jarayonini qiziqarli va samarali qilish.

5. Kelgusida interfaol metodlarning turli tibbiy mutaxassisliklar bo'yicha samaradorligini o'rganish va talabalarning individual ehtiyojlariga moslashtirish.

Umuman olganda, interfaol metodlar xorijiy tilni o'rgatishda nafaqat lingvistik va kommunikativ kompetensiyani rivojlantiradi, balki bo'lajak shifokorlarning kasbiy tayyorgarligini oshirishda muhim pedagogik vosita sifatida e'tirof etilishi lozim.

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“MA’NAVIYAT” KONSEPTINI IFODALOVCHI SAMARALI PROMPT STRUKTURALARINI SHAKLLANTIRISH

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Annotatsiya. Maqolada sun'iy intellekt vositalari xususan, katta til modellari (LLM) yordamida “ma’naviyat” konseptini lingvistik tahlil qilish uchun samarali prompt (so'rov) strukturalarini yaratish masalalari ko'rib chiqilgan. Konsept murakkab, ko'p qatlamli va madaniy-diniy qatlamga ega bo'lgani sababli, uni sun'iy intellekt vositalari orqali tahlil qilish maxsus metodologik yondashuvni talab qilmoqda. Maqolada leksik-semantik, konseptual-metaforik, kontrastiv va korpusga asoslangan prompt turlari tipologiyasi taklif etilgan hamda ularning har biri uchun amaliy namunalar keltirilgan.

Kalit so'zlar: ma'naviyat, konsept, prompt injenering, kognitiv lingvistika, korpus tadqiqoti, sun'iy intellekt, semantik maydon, konseptual metafora.

Аннотация. Статья посвящена разработке эффективных структур промптов (запросов), обеспечивающих лингвистический анализ концепта «ma'naviyat» (духовность) средствами искусственного интеллекта, в частности больших языковых моделей (LLM). Ввиду того что данный концепт характеризуется сложностью, многослойностью структуры и выраженной культурно-религиозной коннотацией, его исследование посредством инструментов искусственного интеллекта требует специального методологического подхода. В работе предложена типология промптов, включающая лексико-семантический, концептуально-метафорический, контрастивный и корпусный типы, а также представлены практические образцы для каждого из них, что позволяет обеспечить системность и воспроизводимость лингвокогнитивного анализа.

Ключевые слова: духовность (ma'naviyat), концепт, промпт-инжиниринг, когнитивная лингвистика, корпусное исследование, искусственный интеллект, семантическое поле, концептуальная метафора.

Abstract. This article examines the development of effective prompt structures for the linguistic analysis of the concept “ma'naviyat” (spirituality) using artificial intelligence tools, in

particular large language models (LLMs). Because the concept is complex, multilayered, and carries a cultural-religious dimension, analyzing it with AI tools requires a dedicated methodological approach. The article proposes a typology of prompt types - lexical-semantic, conceptual-metaphorical, contrastive, and corpus-based and provides practical models for each.

Keywords: *spirituality (ma'naviyat), concept, prompt engineering, cognitive linguistics, corpus research, artificial intelligence, semantic field, conceptual metaphor.*

So'nggi yillarda lingvistik tadqiqotlarda sun'iy intellekt vositalaridan foydalanish tobora kengaymoqda. Katta til modellari matnni tahlil qilish, semantik maydonlarni aniqlash, konseptual metaforalarni ajratish kabi vazifalarni tezkor va sifatli bajarish imkonini bermokda. Biroq bu imkoniyatlardan samarali foydalanish to'g'ri tuzilgan so'rov (prompt) matniga bog'liq. "Ma'naviyat" kabi mavhum, ko'p qirrali va milliy-madaniy o'ziga xoslikka ega bo'lgan konseptlarni tahlil qilishda prompt strukturasi aniqligi tadqiqot natijasining ilmiy qiymatini belgilaydigan asosiy omillardan biriga aylanadi. "Ma'naviyat" konsepti o'zbek tilshunosligida hali yetarlicha kompyuter lingvistikasi metodlari bilan o'rganilmagan, ayni paytda ushbu konsept pedagogika, falsafa, diniy matnshunoslik va badiiy adabiyot kesimida keng qo'llaniladi. Shu bois konseptni turli janr va uslublardagi matnlarda izchil tahlil qilish uchun standartlashtirilgan prompt strukturalarini ishlab chiqish muhim ilmiy-amaliy ahamiyat kasb etadi.

"Ma'naviyat" konseptini lingvokognitiv jihatdan tahlil qilishga xizmat qiluvchi prompt turlarini tipologiyalashtirish va ularning har biri uchun amaliy modellar taklif etish maqolaning asosiy vazifasi hisoblanadi.

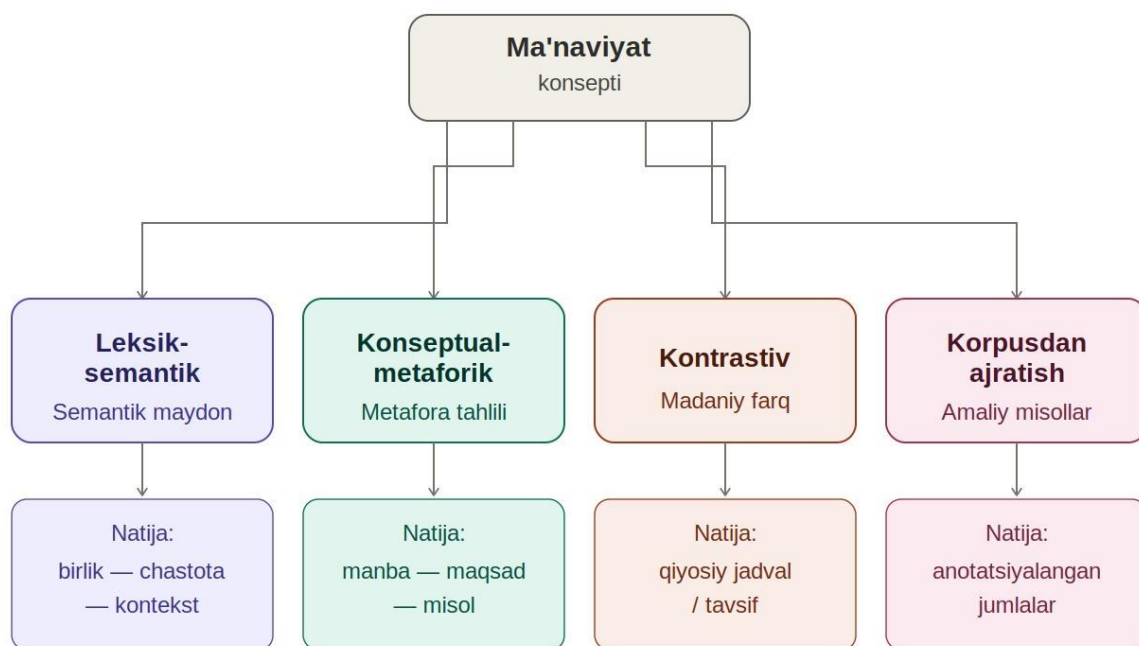
Tadqiqotda quyidagi metodlardan foydalanildi: komponent tahlil metodi (konseptning semantik komponentlarini aniqlash uchun), konseptual metafora tahlili (Lakoff va Jonson nazariyasiga asoslangan), qiyosiy-tipologik metod (o'zbek, ingliz va rus tillaridagi mos konseptlarni solishtirish uchun) hamda korpus lingvistikasi metodlari (chastota va kollokatsiya tahlili uchun). Ushbu metodlarning har biri sun'iy intellekt vositasiga yo'naltiriladigan aniq prompt strukturasi bilan bog'landi.

Ma'naviyat" konsepti o'zbek tilida bir qancha yaqin, ammo bir xil bo'lmagan tushunchalar — **ma'rifat, axloq, iymon, vijdon** bilan chambarchas bog'liq semantik maydon hosil qiladi. Bu konseptning o'zagida moddiy bo'lmagan, ichki dunyoga oid, insonning qadriyatlar tizimi bilan bog'liq ma'no komponentlari yotadi. Konseptning ko'p qatlamliligi uni faqat lug'aviy ta'rif orqali emas, balki kontekstual qo'llanish, kollokatsiya va metaforik ifoda vositalari orqali ham o'rganishni taqozo etadi.

Aynan shu ko'p qatlamlilik sabab, konseptni sun'iy intellekt vositasi orqali tahlil qilishda bitta umumiy so'rov o'rni, har bir jihatga (semantik, metaforik, qiyosiy, korpusiy) alohida yo'naltirilgan prompt strukturalaridan foydalanish maqsadga muvofiqdir.

Prompt strukturalari tipologiyasi

Quyidagi jadvalda "ma'naviyat" konseptini tahlil qilish uchun ishlab chiqilgan to'rtta asosiy prompt turi va ularning maqsadi umumlashtirilgan.



1. Leksik-semantik tahlil uchun prompt

Bu turdagi prompt konseptning sinonimik qatorini, kontekstual ma'no o'zgarishlarini va kollokatsiyalarini aniqlashga qaratilgan. Natija odatda jadval ko'rinishida — so'z birikmasi, chastota va kontekst turi ustunlari bilan taqdim etilishi tavsiya etiladi, bu esa keyingi statistik tahlilni osonlashtiradi.

2. Konseptual metafora tahlili uchun prompt

Kognitiv lingvistikada konseptlar ko'pincha metaforik proyeksiyalar orqali ifodalanadi (masalan, “ma'naviyat — yorug'lik”, “ma'naviyat — bino” kabi). Ushbu turdagi prompt sun'iy intellektga matndagi metaforalarni manba domen, maqsad domen va namuna jumla tarzida ajratishni topshiradi.

3. Qiyosiy (kontrastiv) tahlil uchun prompt

Konseptning milliy-madaniy o'ziga xosligini ochish uchun “ma'naviyat”, “spirituality” va “духовность” kabi mos tushunchalarni etimologik, konnotativ va madaniy-kontekstual jihatdan solishtiruvchi prompt strukturasi taklif etiladi.

4. Korpusdan misol ajratish uchun prompt

Bu prompt turi katta hajmdagi matnlardan konsept ishtirok etgan jummalarni avtomatik ajratib, ularning grammatik funksiyasi, semantik roli va pragmatik ohangini belgilashga xizmat qiladi. Bu, ayniqsa, dissertatsiya va ilmiy maqolalar uchun empirik material to'plashda samarali.

Taklif etilgan tipologiyani amaliyotda sinab ko'rish shuni ko'rsatdiki, prompt strukturasi aniq vazifa, kutilgan natija formati va manba matn alohida ko'rsatilganda, sun'iy intellekt vositasi tomonidan berilgan javoblarning ilmiy jihatdan foydalanish darajasi sezilarli darajada oshadi. Aksincha, umumiy va noaniq so'rovlar sirtqi, tavsiflovchi javoblarga olib kelib, ularni qo'shimcha qayta ishlovsiz ilmiy matnga kiritib bo'lmaydi. Shuningdek, prompt strukturasi aniq chiqish formatini (jadval, ro'yxat, uch ustunli tuzilma) kiritish natijalarni keyingi bosqichda — statistik yoki sifat tahlilida — qayta ishlashni ancha yengillashtirishi aniqlandi.

Xulosa qilib aytadigan bo'lsak “ma'naviyat” kabi murakkab va ko'p qatlamli konseptni sun'iy intellekt vositalari yordamida tahlil qilish uchun yagona universal prompt yetarli emas. Tadqiqot vazifasiga qarab — leksik-semantik, metaforik, kontrastiv yoki korpusiy — maxsus tuzilgan prompt turlaridan foydalanish tavsiya etiladi. Har bir prompt turida vazifa, manba matn va kutilgan natija formatining aniq ko'rsatilishi olingan natijalarning ilmiy ishonchliligini ta'minlaydi. Ishlab chiqilgan tipologiya kelgusida boshqa mavhum ma'naviy-axloqiy konseptlarni (masalan, “vijdon”, “iymon”, “or-nomus”) tahlil qilishda ham qo'llanilishi mumkin.

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SOCIOLINGUISTIC FEATURES OF UZBEK–ENGLISH BILINGUALISM IN THE CONTEXT OF GLOBALIZATION

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Abstract. *This article examines the sociolinguistic features of Uzbek–English bilingualism under conditions of globalization. The study focuses on language choice, code-switching, lexical borrowing, communicative domains, and the relationship between English use and social identity. The research is based on a qualitative review of recent scholarship on bilingualism, code-switching, digital communication, and the Uzbek linguistic context, supplemented by illustrative examples from educational, professional, and online communication. The analysis suggests that Uzbek–English bilingual practices are shaped by unequal functional distribution: Uzbek remains central to everyday interpersonal and cultural communication, while English is associated with education, technology, international mobility, and professional advancement. Code-switching is interpreted not simply as a deficiency, but as a context-sensitive communicative resource. The article argues that globalization produces both linguistic innovation and new questions concerning language maintenance, prestige, and identity. The findings may be useful for sociolinguistics, language education, and the development of culturally responsive bilingual teaching practices.*

Keywords: Uzbek–English bilingualism; sociolinguistics; globalization; code-switching; language choice; language identity; lexical borrowing.

Аннотация. В статье рассматриваются социолингвистические особенности узбекско-английского билингвизма в условиях глобализации. Основное внимание уделяется выбору языка, переключению кодов, лексическим заимствованиям, коммуникативным сферам и взаимосвязи английского языка с социальной идентичностью. Исследование основано на качественном анализе современных научных работ по билингвизму, кодовому переключению, цифровой коммуникации и узбекскому языковому контексту, а также на иллюстративных примерах из образовательной, профессиональной и интернет-коммуникации. Анализ показывает, что узбекско-английская билингвальная практика характеризуется функциональным распределением языков: узбекский сохраняет ведущую роль в повседневном и культурном общении, тогда как английский связан с образованием, технологиями, международной мобильностью и профессиональным продвижением. Кодовое переключение рассматривается не как языковой недостаток, а как коммуникативный ресурс, зависящий от ситуации. Делается вывод о том, что глобализация одновременно стимулирует языковые инновации и усиливает вопросы языкового престижа, сохранения языка и идентичности.

Ключевые слова: узбекско-английский билингвизм; социолингвистика; глобализация; кодовое переключение; языковой выбор; языковая идентичность; лексические заимствования.

Annotatsiya. Maqolada globallashuv sharoitida o'zbek–ingliz bilingvizmining sotsiolingvistik xususiyatlari tahlil qilinadi. Tadqiqotda til tanlovi, kod almashinuvi, leksik o'zlashmalar, kommunikativ sohalar hamda ingliz tilidan foydalanishning ijtimoiy identifikatsiya bilan aloqasi o'rganiladi. Ish bilingvizm, kod almashinuvi, raqamli kommunikatsiya va o'zbek til muhiti bo'yicha zamonaviy ilmiy tadqiqotlarning sifat tahliliga hamda ta'lim, kasbiy va internet muloqotidan olingan izohli misollarga asoslanadi. Tahlil natijalariga ko'ra, o'zbek–ingliz bilingval amaliyoti tillarning funksional taqsimlanishi bilan tavsiflanadi: o'zbek tili kundalik va madaniy

muloqotda asosiy o‘rinni saqlab qoladi, ingliz tili esa ta’lim, texnologiya, xalqaro mobillik va kasbiy rivojlanish bilan bog‘lanadi. Kod almashinuvi til bilishdagi kamchilik emas, balki vaziyatga mos kommunikativ resurs sifatida talqin qilinadi. Globallashuv til innovatsiyalarini kuchaytirish bilan birga til nufuzi, tilni saqlash va identifikatsiya masalalarini ham dolzarb qiladi.

Kalit so‘zlar: o‘zbek–ingliz bilingvizmi; sotsiolingvistika; globallashuv; kod almashinuvi; til tanlovi; til identifikatsiyasi; leksik o‘zlashmalar.

INTRODUCTION

Globalization has intensified contact between languages and has expanded the social functions of English in education, science, technology, employment, and digital communication. In Uzbekistan, English is increasingly connected with international academic mobility, information technologies, private education, and access to global professional networks. At the same time, Uzbek continues to function as a major language of everyday interaction, cultural expression, national communication, and social belonging. This coexistence creates a productive field for sociolinguistic research. The relevance of the present study is determined by the need to examine Uzbek–English bilingualism not only as the ability to use two linguistic systems, but also as a socially organized practice. Language choice is influenced by interlocutors, topic, setting, communicative purpose, perceived prestige, proficiency, and identity. Therefore, bilingual speech should be analyzed in relation to the social meanings attached to each language.

Recent work on code-switching emphasizes that switching between languages may perform discourse, pragmatic, and identity-related functions. Doğruöz, Sitaram, Bullock, and Toribio (2023) point out that code-switching research must consider both linguistic structure and social dimensions. Research on Uzbek–English communication published in 2025–2026 also highlights the relevance of education, social media, youth communication, and globalization to bilingual practices. However, many available studies remain descriptive, and a systematic synthesis of the main sociolinguistic dimensions is still useful.

The aim of this article is to identify the principal sociolinguistic features of Uzbek–English bilingualism in the context of globalization. The objectives are: (1) to characterize the main domains of language use; (2) to describe the functions of code-switching and lexical borrowing; (3) to discuss the relationship between bilingualism and social identity; and (4) to outline implications for language education and further empirical research.

MATERIALS AND METHODS

The study uses a qualitative, interpretive design. Its material consists of recent scholarly publications on bilingualism, code-switching, language contact, digital discourse, and Uzbek–English bilingual practices. The review prioritizes works published in 2023–2026 where accessible, while also using established theoretical works that remain foundational for the interpretation of code-switching and bilingual communication.

The analytical procedure included thematic classification of the literature into five categories: language domains, language choice, code-switching, lexical borrowing, and identity. Illustrative examples such as “deadline yaqin”, “meetingga boraman”, and “online dars” are used analytically to demonstrate hybrid Uzbek–English practices; they are not presented as results of a newly collected corpus. This limitation is important: the article is a conceptual and literature-based study rather than a claim about statistically representative speech behavior.

The interpretation follows a sociolinguistic perspective in which bilingual practices are connected with social networks, institutional settings, communicative goals, and language ideologies. The study also distinguishes between code-switching, borrowing, and broader translanguaging practices, since these concepts may overlap but are not identical.

RESULTS AND DISCUSSION

The reviewed literature suggests that Uzbek and English do not normally occupy identical social functions. Uzbek is dominant in family communication, local community interaction, cultural practices, and many informal situations. English is more strongly associated with formal education,

international communication, information technologies, academic terminology, business, and digital professional environments. This distribution should not be understood as rigid or universal. Rather, it reflects the current social value of English and the institutional strength of Uzbek in local life.

The functional distribution of languages is closely related to globalization. English provides access to international resources and may index education, mobility, technological competence, or professional ambition. Uzbek, in turn, indexes local belonging, cultural continuity, solidarity, and participation in national social life. Bilingual speakers may therefore select a language not only because of lexical availability, but also because of the social meaning they wish to communicate.

Code-switching is one of the most visible features of bilingual communication. It may occur between sentences, within a sentence, or through short discourse markers and fixed expressions. In Uzbek–English communication, English elements are particularly common in domains where English terminology is widespread, including education, technology, business, and social media.

Examples such as “deadline yaqin” (‘the deadline is near’), “meetingga boraman” (‘I will go to the meeting’), and “online dars” (‘online lesson’) illustrate different degrees of integration. English lexical items may be inserted into an Uzbek grammatical frame and receive Uzbek case or derivational markers. Such forms show that bilingual speakers adapt foreign elements to the grammatical and pragmatic requirements of Uzbek interaction.

The functions of switching are multiple. First, it may fill a lexical gap or provide a term that is more familiar in a particular professional community. Second, it may increase precision when a technical term is conventionally used in English. Third, it may mark group membership: students, IT specialists, teachers, and internationally oriented professionals may share English expressions as part of their community repertoire. Fourth, switching may express emphasis, informality, irony, or modernity. Consequently, code-switching should not automatically be classified as an error.

Globalization encourages the movement of words across linguistic boundaries. Borrowing differs from momentary code-switching because a borrowed item may become conventionalized within the receiving language. The boundary between the two is not always clear, especially in rapidly changing digital communication. Terms related to technology, education, and online interaction may circulate first as English expressions and later become adapted to Uzbek pronunciation, spelling, or morphology.

The sociolinguistic significance of borrowing lies in its connection with prestige and necessity. Some English words are used because they name new objects or practices. Others are preferred because they sound internationally recognizable or are associated with professional status. This process may enrich the Uzbek communicative repertoire, but it can also produce debates about language purity, accessibility, and the availability of Uzbek equivalents.

Bilingualism is also a resource for constructing identity. A speaker may use Uzbek to emphasize cultural affiliation and English to present an academic, professional, or globally oriented identity. These meanings are not fixed: the same speaker can use both languages to express different aspects of the self. Research on bilingual identity stresses that language choice is shaped by audience, context, attitudes, and experiences of belonging.

In Uzbekistan, the prestige of English may motivate learners to use English expressions even when Uzbek alternatives exist. This does not necessarily mean that speakers reject Uzbek. It may indicate a layered identity in which national and global orientations coexist. The central sociolinguistic issue is therefore not whether English replaces Uzbek, but how speakers negotiate the relationship between the two languages.

The findings have implications for English language teaching. Teachers should distinguish between productive bilingual practices and communication problems. Strategic use of Uzbek can support comprehension, classroom interaction, and the development of metalinguistic awareness. At the same time, students should learn when English forms are appropriate in academic, professional, and informal settings.

A culturally responsive bilingual pedagogy can include contrastive reflection, analysis of authentic digital examples, discussion of language attitudes, and tasks requiring students to explain why they choose one language rather than another. Such activities help learners understand that

bilingual competence includes pragmatic and sociolinguistic competence, not only grammatical accuracy.

CONCLUSION

Uzbek–English bilingualism in the context of globalization is characterized by functional language differentiation, flexible code-switching, lexical borrowing, and the negotiation of social identity. Uzbek remains central to local and cultural communication, while English has expanded its role in education, technology, professional life, and international interaction. The use of English elements in Uzbek discourse is therefore socially meaningful and cannot be reduced to linguistic interference. The article also demonstrates the need for empirical research based on recorded conversations, classroom interaction, interviews, and social-media corpora. Future studies should examine differences by age, region, gender, educational background, profession, and level of English proficiency. Quantitative corpus data would make it possible to test the patterns described here and to distinguish occasional switching from established borrowing. In practical terms, the study supports bilingual educational approaches that value Uzbek cultural identity while developing effective English communication.

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THE CURRENT STATE OF RESEARCH ON SOMATIC PHRASEOLOGICAL UNITS IN ENGLISH AND TURKIC LANGUAGES

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***Аннотация.** В статье рассматривается современное состояние и основные тенденции развития исследований соматических фразеологических единиц (сфе) в английской и тюркской лингвистике, с особым вниманием к узбекскому и каракалпакскому языкам. В рамках антропоцентрической парадигмы современной лингвистики соматические фразеологические единицы рассматриваются как важные языковые средства концептуализации человеческого опыта, эмоций, социальных отношений и окружающей действительности посредством наименований частей человеческого тела. В работе представлен сравнительный обзор основных теоретических и методологических подходов, определивших развитие исследований сфе в английской и тюркской лингвистических традициях. Особое внимание уделяется структурно-семантическому, когнитивному, лингвокультурологическому и лексикографическому направлениям. Анализ показывает, что исследования английских сфе всё активнее используют когнитивно-семантические, корпусные, дискурсивные и прагматические методы, тогда как тюркская фразеология традиционно сосредоточена на структурной классификации, семантической интерпретации, стилистической функции и лексикографическом описании. Вместе с тем*

современные исследования тюркских языков всё чаще обращаются к антропоцентрическому и лингвокультурологическому аспектам.

Ключевые слова: соматические фразеологические единицы, когнитивная лингвистика, лингвокультурологический анализ, английская фразеология, тюркские языки, концептуальная метафора, фразеологическая лексикография.

Annotatsiya. Mazkur maqolada ingliz va turkiy tillar, xususan, o'zbek va qoraqalpoq tillarida somatik frazeologik birliklar (sfb) tadqiqining zamonaviy holati va asosiy rivojlanish tendensiyalari tahlil qilinadi. Zamonaviy tilshunoslikning antropotsentrik paradigmasi doirasida somatik frazeologik birliklar inson tanasi qismlarining nomlari orqali inson tajribasi, hissiy holatlari, ijtimoiy munosabatlari va borliqni konseptuallashtirishning muhim lingvistik vositalaridan biri sifatida qaraladi. Tadqiqotda ingliz va turkiy tilshunoslik an'alarida somatik frazeologik birliklarni o'rganishning shakllanishiga ta'sir ko'rsatgan asosiy nazariy va metodologik yondashuvlar qiyosiy tahlil qilinadi. Xususan, strukturaviy-semantik, kognitiv, lingvokulturologik va leksikografik yondashuvlarga alohida e'tibor qaratiladi. Tahlil natijalari ingliz tilidagi somatik frazeologik birliklar tadqiqida kognitiv-semantik, korpus, diskursiv va pragmatik yondashuvlarning tobora keng qo'llanilayotganini, turkiy frazeologiyada esa strukturaviy tasniflash, semantik talqin, stilistik xususiyatlar va leksikografik tavsifga an'anaviy ravishda katta e'tibor berilganini ko'rsatadi. Shu bilan birga, zamonaviy turkiyshunoslikda antropotsentrik va lingvokulturologik tadqiqotlar ham izchil rivojlanmoqda.

Kalit so'zlar: somatik frazeologik birliklar, kognitiv tilshunoslik, lingvokulturologik tahlil, ingliz frazeologiyasi, turkiy tillar, konseptual metafora, frazeologik leksikografiya.

Abstract. This article examines the current state and major developmental trends in the study of somatic phraseological units (spus) in english and turkic linguistics, with particular attention to uzbek and karakalpak. Within the anthropocentric paradigm of modern linguistics, somatic phraseological units are regarded as important linguistic manifestations of the ways in which speakers conceptualize human experience, emotions, social relations, and the surrounding world through references to the human body. The study provides a comparative review of the principal theoretical and methodological approaches that have shaped spu research in english and turkic linguistic traditions. Particular attention is given to structural-semantic, cognitive, linguocultural, and lexicographic approaches. The analysis demonstrates that english spu research has increasingly incorporated cognitive-semantic, corpus-based, discourse-oriented, and pragmatic approaches, whereas turkic phraseological research has traditionally concentrated on structural classification, semantic interpretation, stylistic functions, and lexicographic description. At the same time, contemporary research on turkic languages increasingly emphasizes anthropocentric and linguocultural dimensions.

Keywords: somatic phraseological units, cognitive linguistics, linguocultural analysis, english phraseology, turkic languages, conceptual metaphor, phraseological lexicography.

INTRODUCTION

Phraseological units constitute one of the most culturally informative layers of a language. Unlike many neutral lexical items, idiomatic expressions frequently preserve traces of a community's historical experience, traditional values, emotional attitudes, social practices, and ways of conceptualizing reality. For this reason, phraseology has become an important area of research not only in structural linguistics but also in cognitive linguistics, linguoculturology, discourse studies, translation studies, and lexicography.

Among different types of phraseological units, somatic phraseological units occupy a particularly important position. SPUs are phraseological expressions containing lexical components that denote parts or functions of the human body, including *head, eye, hand, heart, mouth, tongue, foot, blood*, and other somatic concepts. Such units are widespread across languages because the human body represents one of the most immediate sources of human perception and experience.

The significance of somatic phraseology is therefore associated with its dual nature. On the one hand, somatic components are based on universal human experience. On the other hand, the

meanings developed from these components may be strongly determined by the cultural and historical experience of a particular speech community. Consequently, the comparison of SPUs in English and Turkic languages makes it possible to distinguish universal conceptual patterns from culturally specific models of meaning formation.

The present study focuses on the development of SPU research in English and Turkic linguistics, particularly in Uzbek and Karakalpak. Rather than attempting to provide an exhaustive description of all existing studies, the article aims to identify the principal stages, approaches, achievements, and unresolved problems in this field.

METHODOLOGY

The study employs a qualitative comparative approach based on the analysis of theoretical and descriptive works devoted to phraseology, somatic vocabulary, cognitive linguistics, and linguocultural studies.

The principal methods include comparative analysis, descriptive analysis, semantic analysis, componential analysis, linguocultural interpretation, and elements of conceptual analysis. The comparative method is used to identify similarities and differences in the treatment of SPUs in English and Turkic linguistic traditions. Semantic and componential analysis helps reveal the meanings associated with individual somatic components, while the linguocultural approach is applied to identify culturally specific associations underlying phraseological meanings.

The theoretical framework combines classical phraseological approaches with cognitive and linguocultural perspectives. The works of A. V. Kunin and A. Makkai are considered representative of structural and semantic approaches in English phraseology, while the conceptual metaphor theory developed by G. Lakoff and M. Johnson provides a basis for interpreting somatic expressions as manifestations of conceptualization. For Turkic linguistics, the works of Sh. Rahmatullayev, S. Kenesbaev, E. Berdimuratov, A. Pirniyazova, G. Aynazarova, B. Yusupova, and other scholars provide important theoretical and descriptive foundations.

The systematic study of English phraseology developed particularly actively during the twentieth century. Earlier linguistic descriptions generally treated idiomatic expressions as fixed combinations whose meanings could not always be derived directly from the meanings of their individual components. With the establishment of phraseology as a distinct field of linguistic research, scholars began to investigate the structural, semantic, grammatical, and functional characteristics of idiomatic expressions more systematically.

A significant contribution to the systematization of English phraseology was made by A. V. Kunin. His research established a detailed framework for the classification and description of English phraseological units. Kunin's *Kurs frazeologii sovremennogo angliyskogo yazyka* remains an important reference point for the structural-semantic analysis of English idiomatic expressions.

Another important contribution was made by Adam Makkai in *Idiom Structure in English* (1972). Makkai examined the internal organization of idiomatic expressions and emphasized the relationship between their structural form and semantic interpretation. His approach contributed to a more systematic understanding of idiomaticity as a linguistic phenomenon.

Within this structural-semantic tradition, somatic expressions can be analyzed according to their formal structure, semantic integrity, grammatical behavior, and degree of idiomaticity. Expressions such as *to have the upper hand*, *to learn by heart*, *to keep one's head*, and *the apple of one's eye* demonstrate how ordinary anatomical vocabulary can acquire figurative and phraseologically fixed meanings.

A significant theoretical change occurred with the development of cognitive linguistics. Lakoff and Johnson's *Metaphors We Live By* (1980; later editions) demonstrated that metaphor is not merely a stylistic device but an important mechanism of human conceptualization. From this perspective, bodily experience provides one of the fundamental sources for structuring abstract concepts.

The cognitive approach has expanded the research agenda of English phraseology. Contemporary research increasingly investigates not only what an idiom means but also how its meaning can be related to conceptual structures and embodied experience.

The expression *to have the upper hand*, for example, can be interpreted through the conceptual relationship between physical position and control. The expression *to learn by heart* associates the body with memory and internalized knowledge. Similarly, *the apple of one's eye* represents an evaluative and emotional relationship through a bodily image.

The cognitive approach also makes it possible to distinguish between potentially universal bodily experiences and language-specific conceptual mappings. The existence of similar body-based metaphors in different languages does not necessarily mean that the corresponding phraseological meanings are identical. A similar somatic component may develop different cultural associations in different linguistic communities.

The study of phraseology in Turkic languages developed largely through descriptive, structural, semantic, and lexicographic research. An important contribution to Uzbek phraseology was made by Sh. Rahmatullayev, whose research and phraseological dictionary provided a substantial foundation for the systematic description of Uzbek phraseological units.

In Kazakh linguistics, the work of S. Kenesbaev represents an important stage in the development of Turkic phraseological studies. His *Qazaq tiliniñ frazeologiyalıq sózdigi* contributed to the documentation and systematization of the phraseological resources of the Kazakh language. These studies demonstrated that phraseological units form an important component of the lexical system of Turkic languages and that somatic vocabulary represents one of the productive sources of idiomatic expression.

Somatic components such as *kóz* 'eye', *bas* 'head', *júrek* 'heart', *qol* 'hand', *awız* 'mouth', *til* 'tongue', and *bawır* 'liver' participate in numerous phraseological formations. Their meanings frequently extend beyond their direct anatomical reference and become associated with emotions, relationships, behaviour, social interaction, evaluation, and psychological states.

Thus, the Turkic phraseological tradition provides extensive material for examining the relationship between bodily experience and cultural conceptualization.

Uzbek phraseological research has developed a substantial descriptive and lexicographic foundation. The work of Sh. Rahmatullayev played an important role in identifying, classifying, and documenting Uzbek phraseological units.

Somatic phraseological units constitute a significant part of the Uzbek phraseological system. Expressions containing components such as *ko'z*, *bosh*, *yurak*, *qo'l*, *til*, *og'iz*, and *qon* demonstrate the productivity of body-related vocabulary in figurative meaning formation. For instance, the Uzbek concept *ko'z* is associated not only with physical perception but also with attention, supervision, affection, evaluation, and desire. Similarly, *yurak* frequently functions as a conceptual domain for emotions, courage, fear, and psychological states. The semantic productivity of such components indicates that somatic phraseology should not be examined exclusively from a structural perspective. The same component may participate in different conceptual domains, and its interpretation depends on the broader phraseological context. This observation creates an important connection between traditional Uzbek phraseological research and contemporary cognitive-linguistic approaches.

CONCLUSION

The study of somatic phraseological units represents an important intersection of phraseology, cognitive linguistics, linguoculturology, translation studies, and lexicography. The review presented in this article demonstrates that research traditions in English and Turkic linguistics have developed through partly different methodological trajectories.

English phraseological studies established a strong structural and semantic foundation through the works of scholars such as A. V. Kunin and A. Makkai and subsequently incorporated cognitive, discourse-based, corpus-oriented, and pragmatic approaches. The cognitive turn associated with Lakoff and Johnson provided an important theoretical basis for interpreting bodily expressions as manifestations of embodied conceptualization.

Turkic phraseological studies, including research in Uzbek, Kazakh, and Karakalpak, have likewise developed a substantial structural, semantic, stylistic, and lexicographic foundation. The works of Sh. Rahmatullayev, S. Kenesbaev, E. Berdimuratov, A. Pirniyazova, G. Aynazarova, B. Yusupova, and other scholars have contributed significantly to the documentation and analysis of Turkic phraseological systems.

At the same time, the comparative analysis indicates that structural description alone cannot fully explain the cultural and conceptual complexity of somatic phraseological units. Somatic expressions simultaneously reflect universal bodily experience and culturally specific ways of interpreting that experience. The contrast between concepts such as *eye*, *heart*, *hand*, and *liver* demonstrates that languages may employ different somatic domains to conceptualize similar emotional, social, or cognitive experiences.

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OLIY TA'LIMDA CHET TILI DARSLARINI O'QITISHNING DIGITAL VA INTERFAOL USULLARI

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Annotatsiya: Ushbu maqolada oliy ta'lim muassasalarida chet tili darslarini o'qitishda digital va interfaol usullardan foydalanishning ilmiy-pedagogik asoslari, amaliy imkoniyatlari hamda samaradorlik omillari tahlil qilinadi. Bugungi globallashuv va raqamli transformatsiya sharoitida chet tillarini o'qitish jarayoni an'anaviy yondashuvlar bilan cheklanib qolmasdan, raqamli platformalar, mobil ilovalar, virtual ta'lim muhiti, multimedia vositalari, sun'iy intellekt, onlayn test tizimlari va interfaol metodlar bilan boyitilishi zarur. Maqolada digital vositalar orqali talabalarning tinglab tushunish, gapirish, o'qish, yozish, mustaqil ta'lim va kommunikativ kompetensiyalarini rivojlantirish masalalari yoritiladi.

Tayanch so'zlar: oliy ta'lim, chet tili, digital ta'lim, interfaol metod, kommunikativ kompetensiya, raqamli platforma, mustaqil ta'lim, multimedia, sun'iy intellekt, innovatsion pedagogika.

Аннотация: В данной статье анализируются научно-педагогические основы, практические возможности и факторы эффективности использования цифровых и

интерактивных методов в преподавании иностранных языков в высших образовательных учреждениях. В условиях глобализации и цифровой трансформации процесс обучения иностранным языкам не должен ограничиваться традиционными подходами, а должен обогащаться цифровыми платформами, мобильными приложениями, виртуальной образовательной средой, мультимедийными средствами, искусственным интеллектом, онлайн-тестированием и интерактивными методами. В статье освещаются вопросы развития у студентов навыков аудирования, говорения, чтения, письма, самостоятельного обучения и коммуникативной компетенции посредством цифровых инструментов.

Ключевые слова: высшее образование, иностранный язык, цифровое обучение, интерактивный метод, коммуникативная компетенция, цифровая платформа, самостоятельное обучение, мультимедиа, искусственный интеллект, инновационная педагогика.

Abstract: This article analyzes the scientific and pedagogical foundations, practical opportunities, and effectiveness factors of using digital and interactive methods in teaching foreign languages in higher education institutions. In the context of globalization and digital transformation, foreign language teaching should not be limited to traditional approaches but should be enriched with digital platforms, mobile applications, virtual learning environments, multimedia tools, artificial intelligence, online testing systems, and interactive methods. The article discusses the development of students' listening, speaking, reading, writing, independent learning, and communicative competencies through digital tools. Special attention is paid to the integration of interactive tasks, collaborative learning, blended learning, and learner-centered approaches in foreign language classes.

Keywords: higher education, foreign language, digital learning, interactive method, communicative competence, digital platform, independent learning, multimedia, artificial intelligence, innovative pedagogy.

KIRISH

Bugungi kunda oliy ta'lim tizimi jadal raqamli transformatsiya jarayonini boshdan kechirmoqda. Ilm-fan, texnika, iqtisodiyot, xalqaro hamkorlik va madaniyatlararo muloqotning rivojlanishi chet tillarini o'rganishga bo'lgan ehtiyojni yanada oshirmoqda. Ayniqsa, ingliz tili, rus tili, nemis tili, fransuz tili, koreys tili, xitoy tili va boshqa xorijiy tillarni o'qitish oliy ta'lim muassasalarida nafaqat alohida fan sifatida, balki talabaning kasbiy kompetensiyasini shakllantiruvchi muhim vosita sifatida qaralmoqda.

Oliy ta'limda chet tili darslarining digital va interfaol usullar asosida tashkil etilishi ta'lim sifatini oshirish, talabalar motivatsiyasini kuchaytirish, mustaqil ta'lim jarayonini takomillashtirish va chet tilini amaliy egallashga xizmat qiladi. Shu bois mazkur maqolada oliy ta'limda chet tili darslarini o'qitishning digital va interfaol usullari, ularning afzalliklari, amaliy qo'llanish mexanizmlari, muammolari va samaradorlik omillari ilmiy jihatdan tahlil qilinadi.

ASOSIY QISM

Oliy ta'limda chet tilini o'qitishning asosiy maqsadi talabalarda kommunikativ kompetensiyani shakllantirishdir. Kommunikativ kompetensiya faqat grammatik qoidalarni bilish emas, balki chet tilida fikrni to'g'ri, aniq, mantiqiy va vaziyatga mos ifodalash, suhbatdosh nutqini tushunish, yozma va og'zaki muloqotda faol ishtirok etish qobiliyatini bildiradi. Ushbu kompetensiya tinglab tushunish, gapirish, o'qish, yozish, sotsiolingvistik moslashuv, madaniyatlararo muloqot va pragmatik nutq ko'nikmalarini o'z ichiga oladi [1].

Digital ta'lim vositalari chet tili darslarida aynan shu kompetensiyalarni rivojlantirish uchun keng imkoniyat yaratadi. Masalan, audio va video materiallar tinglab tushunish ko'nikmasini rivojlantiradi, onlayn suhbat platformalari gapirish amaliyotini kuchaytiradi, elektron matnlar va interaktiv topshiriqlar o'qish malakasini oshiradi, raqamli yozuv platformalari esa yozma nutqni takomillashtirishga yordam beradi.

Chet tili darslarida interfaol metodlardan "Aqliy hujum", "Klaster", "Baliq skeleti", "Insert", "Debat", "Rol o'ynash", "Juftlikda ishlash", "Kichik guruhlarda ishlash", "Keys-stadi", "Loyiha

metodi”, “Muammoli vaziyat”, “Press-konferensiya”, “Intervyu”, “Sinkveyn” kabi usullar keng qoʻllanilishi mumkin. Ushbu metodlar talabalarni chet tilida fikrlashga, oʻz pozitsiyasini asoslashga, savol berishga, javob qaytarishga, guruh oldida chiqish qilishga va oʻz nutqini mustaqil tuzishga oʻrgatadi.

Raqamli platformalar chet tili darslarida alohida oʻrin tutadi. Moodle, Google Classroom, Microsoft Teams, Zoom, Quizizz, Kahoot, Wordwall, Padlet, Nearpod, Edmodo kabi platformalar dars materiallarini joylashtirish, topshiriqlar berish, test oʻtkazish, talabalar faoliyatini kuzatish va teskari aloqa berish imkonini beradi. Bunday platformalar orqali oʻqituvchi darsdan tashqari vaqtda ham talaba bilan ishlashi, mustaqil topshiriqlarni nazorat qilishi va individual tavsiyalar berishi mumkin.

Mobil ilovalar ham chet tilini oʻrganishda muhim vositaga aylangan. Duolingo, Memrise, Quizlet, BBC Learning English, Cambridge Dictionary, Oxford Learner’s Dictionaries va boshqa ilovalar talabalarga lugʻat boyligini oshirish, talaffuzni tekshirish, grammatika mashqlarini bajarish va tinglab tushunish koʻnikmasini rivojlantirishda yordam beradi. Biroq mobil ilovalardan foydalanishda ularni asosiy taʼlimning oʻrnini bosuvchi vosita sifatida emas, balki qoʻshimcha mustaqil taʼlim resursi sifatida qoʻllash maqsadga muvofiqdir.

Chet tili darslarida loyiha metodidan foydalanish ham samarali natija beradi. Talabalar chet tilida kichik loyiha tayyorlaydilar: masalan, “My future profession”, “Digital technologies in education”, “Environmental problems”, “Tourism in Uzbekistan”, “My scientific research”, “Healthy lifestyle” kabi mavzularda taqdimot, video, poster yoki blog matni yaratadilar. Bu topshiriq jarayonida ular maʼlumot izlaydi, matn yozadi, dizayn qiladi, guruhda ishlaydi, chet tilida taqdimot qiladi va savollarga javob beradi. Natijada til koʻnikmalari bilan birga axborot madaniyati, ijodkorlik va jamoada ishlash kompetensiyalari ham rivojlanadi.

Elektron portfolio chet tili taʼlimida juda foydali vosita hisoblanadi. Talaba oʻzining yozma ishlari, audio yozuvlari, video taqdimotlari, loyiha ishlari, test natijalari va reflektiv yozuvlarini bitta raqamli papkada jamlaydi. Bu uning til oʻrganishdagi rivojlanish dinamikasini koʻrsatadi. Oʻqituvchi esa talabaning individual oʻsishini kuzatib, unga aniq tavsiyalar berishi mumkin.

Digital va interfaol metodlar chet tili darslarida inklyuziv yondashuvni ham qoʻllab-quvvatlaydi. Turli bilim darajasiga ega talabalar uchun individual topshiriqlar, moslashtirilgan materiallar, subtitrli videolar, audio matnlar, lugʻat qoʻllanmalari va qoʻshimcha mashqlar tayyorlash mumkin. Bu esa har bir talabaning oʻz imkoniyatiga mos rivojlanishini taʼminlaydi.

Biroq digital va interfaol metodlardan foydalanishda ayrim muammolar ham mavjud. Ulardan biri texnik infratuzilmaning yetarli emasligidir. Internet tezligi, kompyuterlar soni, proyektor, interaktiv doska, audio tizim va platformalarga kirish imkoniyati chet tili darslarining sifatiga taʼsir qiladi. Ikkinchi muammo — ayrim oʻqituvchilarning raqamli kompetensiyasi yetarli darajada shakllanmaganligidir. Uchinchi muammo — talabalarining raqamli vositalardan faqat koʻngilochar maqsadda foydalanishga odatlanib qolganidir. Toʻrtinchi muammo esa akademik halollik va sunʼiy intellektidan notoʻgʻri foydalanish bilan bogʻliq.

Ushbu muammolarni bartaraf etish uchun oliy taʼlim muassasalarida oʻqituvchilarning raqamli pedagogik kompetensiyasini oshirish, metodik seminarlar tashkil etish, raqamli resurslar bazasini yaratish, internet va texnik jihozlar bilan taʼminlash, talabalar uchun akademik halollik qoidalarini tushuntirish hamda digital vositalardan foydalanish madaniyatini shakllantirish zarur.

NATIJALAR VA MUHOKAMA

Oliy taʼlimda chet tili darslarining digital va interfaol usullar asosida tashkil etilishi taʼlim jarayonining mazmuni, shakli va natijalariga sezilarli taʼsir koʻrsatadi. Kuzatishlar va pedagogik tajribalar shuni koʻrsatadiki, raqamli vositalar qoʻllanilgan darslarda talabalar mavzuga nisbatan koʻproq qiziqish bildiradi, mustaqil topshiriqlarni bajarishga faolroq yondashadi va oʻz bilimini tekshirish imkoniyatiga ega boʻladi.

Interfaol metodlar esa talabalarining chet tilida gapirishga boʻlgan psixologik toʻsiqlarini kamaytiradi. Koʻplab talabalar chet tilida xato qilishdan qoʻrqadi, auditoriya oldida gapirishda tortinadi yoki lugʻat boyligi yetarli emasligi sababli muloqotdan chetlashadi. Juftlikda ishlash, kichik

guruhlar, rol o'ynash, debat va loyiha topshiriqlari bunday to'siqlarni kamaytirib, talabalarga xavfsiz va qo'llab-quvvatlovchi muhitda nutq amaliyotini bajarish imkonini beradi.

Digital usullar yordamida chet tili darslarida individual yondashuv kuchayadi. Masalan, bilim darajasi yuqori bo'lgan talabalarga murakkabroq matnlar, mustaqil loyiha yoki erkin yozma topshiriqlar berilishi mumkin. Bilim darajasi pastroq talabalar esa qo'shimcha lug'at mashqlari, qisqa audio materiallar, namunaviy dialoglar va bosqichma-bosqich topshiriqlar orqali qo'llab-quvvatlanadi. Bunday tabaqalashtirilgan yondashuv guruhdagi barcha talabalarni o'quv jarayoniga jalb etishga yordam beradi.

Chet tili darslarida digital va interfaol metodlardan foydalanish natijasida quyidagi pedagogik samaralar kuzatiladi:

Birinchidan, talabalarining darsga motivatsiyasi oshadi. Multimedia, interaktiv testlar, onlayn muhokama va amaliy vazifalar darsni qiziqarli qiladi.

Ikkinchidan, kommunikativ kompetensiya rivojlanadi. Talabalar chet tilida ko'proq gapiradi, savol beradi, munozara qiladi va real vaziyatlarga yaqin topshiriqlarni bajaradi.

Uchinchidan, mustaqil ta'lim samaradorligi ortadi. Talabalar darsdan tashqari vaqtda ham raqamli resurslar orqali o'rganishni davom ettiradi.

To'rtinchidan, baholash jarayoni shaffoflashadi. Onlayn testlar, elektron portfoliolar va raqamli rubrikalar natijalarni aniqroq ko'rsatadi.

Beshinchidan, o'qituvchi va talaba o'rtasidagi teskari aloqa kuchayadi. Talaba o'z xatosini tezroq ko'radi va uni tuzatish imkoniyatiga ega bo'ladi.

Shu bilan birga, digital va interfaol metodlarning samaradorligi bir qator shartlarga bog'liq. Bular texnik ta'minot, o'qituvchining metodik tayyorgarligi, talabalarining raqamli savodxonligi, dars maqsadining aniqligi, materiallarning sifatli tanlanishi va baholash mezonlarining adolatli ishlab chiqilishidir.

Chet tili darslarida digital va interfaol yondashuvni samarali tashkil etish uchun quyidagi metodik modelni taklif etish mumkin:

1. Diagnostik bosqich — talabalarining chet tilini bilish darajasi, ehtiyojlari, qiziqishlari va raqamli savodxonligi aniqlanadi.

2. Rejalashtirish bosqichi — dars maqsadi, digital vositalar, interfaol metodlar va baholash mezonlari belgilanadi.

3. Amaliy bosqich — raqamli materiallar, guruh ishlari, muhokama, loyiha va kommunikativ vazifalar bajariladi.

4. Nazorat bosqichi — onlayn test, og'zaki chiqish, yozma ish yoki portfolio orqali natija baholanadi.

5. Refleksiya bosqichi — talaba o'z natijasini tahlil qiladi, o'qituvchi esa keyingi rivojlanish bo'yicha tavsiya beradi.

Ushbu model chet tili darslarini tizimli, maqsadli va natijaga yo'naltirilgan tarzda tashkil etishga yordam beradi.

XULOSALAR

Xulosa qilib aytganda, oliy ta'limda chet tili darslarini digital va interfaol usullar asosida tashkil etish zamonaviy ta'lim talablariga mos keladigan muhim pedagogik yondashuvdir. Raqamli texnologiyalar chet tili ta'limini moslashuvchan, ko'rgazmali, individual va mustaqil o'rganishga yo'naltirilgan jarayonga aylantiradi. Interfaol metodlar esa talabalarining faolligini oshiradi, ularni real kommunikativ vaziyatlarda chet tilidan foydalanishga o'rgatadi.

Chet tili darslarida digital platformalar, mobil ilovalar, multimedia vositalari, sun'iy intellekt, onlayn testlar, elektron portfolio, virtual sinflar va interaktiv topshiriqlardan foydalanish tinglab tushunish, gapirish, o'qish, yozish va mustaqil ta'lim ko'nikmalarini rivojlantirishda samarali hisoblanadi.

Oliy ta'limda chet tili darslarining samaradorligini oshirish uchun quyidagi takliflarni ilgari surish mumkin:

1. Chet tili o'qituvchilarining raqamli pedagogik kompetensiyasini muntazam oshirish zarur.
2. Har bir chet tili kursi uchun raqamli resurslar, audio-video materiallar va interaktiv topshiriqlar bazasi yaratilishi kerak.
3. Darslarda kommunikativ, muammoli, loyiha va guruhli metodlar keng qo'llanishi lozim.

Umuman olganda, digital va interfaol usullar oliy ta'limda chet tili o'qitish sifatini oshirish, talabalarni global axborot makoniga tayyorlash, ularning kasbiy va kommunikativ kompetensiyalarini rivojlantirishda muhim omil bo'lib xizmat qiladi.

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NEMIS TILI GRAMMATIKASIDA BO'LISHSIZ VA INKOR GAPLARNI HOSIL QILISH USULLARI

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Annotatsiya: Ushbu maqolada inkor hodisasi, hozirgi zamon nemis tilida inkorni ifodalovchi vositalar, ularning o'rganilishi haqida so'z yuritiladi. Shuningdek, maqolada mazkur sohada taniqli nemis olimlarining xulosalari, inkor so'zlarning qo'llanilishi haqidagi ma'lumotlar keltiriladi.

Kalit so'zlar: inkor hodisasi, inkor so'zlar, inkorni ifodalovchi vositalar, inkor kategoriyasi, sintaktik kategoriya, morfologik tasnif, salbiy ma'no.

Аннотация. В данной статье рассматривается явление отрицания, средства выражения отрицания в современном немецком языке, а также их изучение. Кроме того, в статье приводятся выводы известных немецких учёных в этой области и сведения об использовании отрицательных слов.

Ключевые слова: явление отрицания, отрицательные слова, средства выражения отрицания, категория отрицания, синтаксическая категория, морфологическая классификация, негативное значение.

Abstract. This article discusses the phenomenon of negation, the means of expressing negation in modern German, and their study. In addition, the article presents the conclusions of well-known German scholars in this field and provides information on the usage of negative words.

Keywords: phenomenon of negation, negative words, means of expressing negation, category of negation, syntactic category, morphological classification, negative meaning.

Ma'lumki, tilda mavjud bo'lgan inkorni ifodalovchi vositalar salbiy ma'noni anglatib keladi. Bunda u yoki bu narsani rad etish sodir bo'ladi. Nemis olimi Ulrix Engelning ta'kidlashicha, biror narsa rad etilganda, inkor qilish orqali salbiy ma'no bildiriladi. U.Engel inkor ifodalashning quyidagi turlarini ajratib ko'rsatadi: rad etish, istisno qilish, inkor qilish. Olim tomonidan inkor qarama-qarshilik va inkor qilishga ajratib o'rganiladi.

Ta'kidlash joizki, ko'pchilik hollarda asosan dialogik matnlarda rad etish sodir bo'ladi. Dialogik nutq jarayonida so'zlovchi oldingi nutq harakati orqali bildirilgan fikr mazkur kontekstda asossiz ekanligini bildirmoqchi bo'lganida rad etish amalga oshiriladi. Bu yerda rad etish asosan, avvalgi gapning mazmuniga (yoki uning taklifiga) tegishli bo'lmaydi, balki ushbu nutq aktining turiga (illokativ) tegishli hisoblanadi. Shu nuqtay nazardan, rad etish har doim mustaqil ifodalardan tashkil topadi, ular odatda inkor etuvchi ma'nosidan tashqari nutqiy harakat tasviriy ifodani ham o'z ichiga oladi.

Tilda mavjud bo'lgan inkorni ifodalovchi so'zlar inkor kategoriyasini anglatib keladi. Ushbu kategoriya qadimgi davrlardan beri falsafiy tushuncha sifatida o'rganib kelingan. Deyarli barcha faylasuflar mazkur kategoriya haqida o'z fikr-mulohazalarini bildirib kelgan. Chunki, inkor hodisasi falsafa tarixida asosiy kategoriya va tushunchalardan biri sifatida namoyon bo'lgan. Falsafiy ta'rifga ko'ra inkor hodisasi mavhum tushunchani anglatgan.

Tilshunoslikda esa, inkor hodisasi grammatik tushuncha sifatida o'zining o'rniga ega bo'lib, ma'lum darajadagi ma'no va mazmun anglatuvchi ifoda vositalariga ega ekanligi bilan ajralib turadi. Shu o'rinda, tilshunoslikda inkor hodisasini, inkor kategoriyasini uzoq tarixga ega bo'lgan talqin qilish va tahliliy o'rganish an'anasi mavjudligini alohida ta'kidlash lozim. Dunyoning qator tillarida bo'lgani kabi hozirgi zamon nemis tili grammatikasida ham inkorni ifodalovchi til vositalari mavjud.

Inkorni ifodalash sintaksisning dolzarb muammolaridan biri bo'lib, bu sohada nisbatan kam darajada ilmiy tadqiqot ishlari olib borilgan. Inkorni ifodalovchi vositalar grammatik kategoriya sifatida amaliy jihatdan ma'lum darajada qo'llanib keladi. Uni ilmiy tomondan o'rganish ba'zi qiyinchiliklarni tug'diradi.

Inkor hodisasi muammosi taniqli tilshunos olimlar H.Albrecht, J.Buscha, G.Helbig, W.Heinemann, E.Hentschel, U.Engel kabilar tomonidan o'rganilgan. Ushbu muammo bilan shug'ullangan nemis olimlarning bildirgan fikr-mulohazalariga ko'ra, inkor ham so'z birikmasi, ham sintaksisga xos kategoriya hisoblanadi. Shu fikrlarga asosan, inkor vositalari yordamida turli darajadagi grammatik shakllarni hosil qilish mumkin. Barcha olimlar ta'kidlab o'tganidek, hozirgi zamon nemis tilida inkorni ifodalovchi universal vosita nicht inkor so'zi hisoblanadi. Nicht inkor so'zi gapda istalgan gap bo'lagiga taalluqli bo'lishi va uni inkor qilishi mumkin. Agar nicht fe'l (kesim)ni inkor etsa, gapning oxirida keladi va u holda to'liq ifoda etiladi. Garchi u gapdagi biror gap bo'lagini inkor etgudek bo'lsa, unda inkor, qisman inkor deb ataladi. Masalan: Albert kommt nicht. Albert kommt nicht allein. Nicht Albert kommt, sondern sein Vater. Alle seine Töchter sind nicht verheiratet. Nicht alle seine Töchter sind verheiratet.

Atoqli tilshunos olim Ye.I.Shendels mazkur inkor yuklamasining qo'llanilishi haqida quyidagi fikrni bildiradi: „nicht inkor so'zi besh holatda, ya'ni subyekt, harakat nomi, obyekt, aniqlovchi va ravishlardan oldin keladi (E.I.Shendels, Deutsche Grammatik, M., Высшая школа, 1988, s.274-275)“.

Ma'lumki, barcha tillarda mavjud bo'lgan so'zlar morfologik nuqtai nazardan tasnif qilinadi, ya'ni ular so'z turkumlariga ajratiladi. Biroq inkor vositalari so'z turkumi sifatida shu paytgacha e'tirof etib kelinayotgan so'z turkumlari qatoridan o'zining qat'iy o'rnini egallamagan. Biz inkor so'zlarni yo olmosh, yo ravish kabi so'z turkumlari qatoriga kiruvchi element, leksik birliklar tarzida qo'llanilishi haqidagi fikr-mulohazalarga duch kelamiz. Suningdek, nicht inkor so'zining inkor yuklama sifatida qo'llanilishi haqida tadqiqotchilarning bir xil fikrga egaligiga guvoh bo'lamiz.

Ta'kidlash joizki, inkor so'zlarning leksik-semantik qo'llanilishi, so'z yasovchi vositalar sifatidagi xususiyatlari, gap va yasama so'zlardagi o'rniga ko'ra, hamda kelib chiqishi jihatidan turli-tuman guruhlariga mansubligini ko'ramiz. Masalan, „hozirgi nemis tilida inkorni ifodalovchi so'zlarni ikki guruhga bo'lish mumkinligini ta'kidlash lozim. Birinchidan, sof nemischa inkor so'zlar (nicht, nein, kein, nie, niemand kabi olmosh va ravishlar), ikkinchidan, a-, de-, re-kabi internatsional inkor yuklamalar, boshqacha aytganda, prefikslar. Inkor yuklamalari, avvalo, so'z yasovchi vosita sifatida namoyon bo'ladi, tilning so'z boyligini orttiruvchi vosita hisoblanadi. Masalan: avitaminoz, alogizm, amoralizm, angidrid; degazatsiya, dezinfektsiya, dezinformatsiya, dezintegratsiya, dekvalifikatsiya, denominatsiya, destruktsiya, deformatsiya, detsentralizatsiya; reaktsiya, rekonstruktsiya,

remilitarizatsiya, reorganizatsiya, reproduksiya, reeksport, reemigratsiya va h.k. [A.Nurmuxamedov, A.A.Xasanov, Xorijiy filologiya. №2, 2017-yil, B.61-64]”.

Shu jihatdan, “nicht,, so'zining joylashish o'rne haqida fikr-mulohazalar bildirish alohida ahamiyat kasb etadi. Tilshunoslikda gapdan tashqari joylashuv bilan bog'liq ko'pgina muammolar mavjud. Ayrim chet elliklar ko'pincha “nicht,, inkor so'zi qacda qo'llanilishi kerakligini farqlay olmaydi. Bundan tashqari, „hech qanday“ yoki boshqa inkor so'zini ishlatish kerakmi yoki yo'qmi degan savolga javob berishda ikkilanib qolishadi, bu yerda ba'zi noaniqliklarga duch kelinadi. Bu kamchiliklarni bartaraf etish uchun juda ko'p tushuntirishlar va qoidalar mavjud bo'lib, ular ushbu muammolarni yechishga xizmat qiladi.

Umuman olganda, “nicht,, inkor so'zining joylashish o'rne masalasi har doim bahstalar muammolardan biri bo'lib kelgan va uning yechimini topish uchun tilda mavjud bo'lgan grammatik qoidalarni va ularni qo'llanish vaziyatlarini o'rganish hamda ularga to'liq amal qilish ko'zda tutiladi.

Aytish joizki, bu borada har doimgidek, bir qator istisnalar mavjudligini ko'rsatib o'tish lozim. Masalan:

Walter hat am Morgen nicht im Kaufhaus eingekauft.

Robert ist nicht zu spät ins Kino gegangen.

Marie sitzt nicht am Tisch.

Anton macht die Hausaufgaben nicht gern.

Keltirilgan misollardan ko'rinadiki, „nicht“ inkor so'zi va inkorni ifodalovchi boshqa vositalar gapda turli o'rinlarda qo'llanib, gap tarkibida ishtirok etgan bo'laklarni turli pozitsiyalarda inkor qilib keladi, shuningdek, ayrim hollarda butun bir gapning ma'nosini inkor etib kelishi mumkin.

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INGLIZ VA O'ZBEK BADIY ADABIYOTIDA ONOMASTIKONLARNING

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Annotatsiya. Maqolada ingliz va o'zbek badiiy adabiyotida qo'llanilgan onomastik birliklarning semantik va funksional xususiyatlari chog'ishtirma aspektida tadqiq etiladi. Tadqiqotning asosiy maqsadi badiiy matnlarda qo'llanuvchi atoqli otlarning lingvistik va ekstralingvistik komponentlarini aniqlash, ularning denotativ, signifikativ va pragmatik mazmunini ochib berish hamda ingliz va o'zbek tillaridagi onomastik birliklarning umumiy va farqli jihatlarini belgilashdan iborat. Tadqiqotda komponent tahlil, semantik tahlil, chog'ishtirma tahlil, kontekstual tahlil va onomastik maydon nazariyasidan foydalanildi. Tahlil natijalari antroponim va toponimlarning badiiy matnda nafaqat nominativ, balki xarakterologik, ekspressiv, milliy-madaniy va pragmatik vazifalarni ham bajarishini ko'rsatdi. Onomastik birliklarning semantik tuzilishida

yadro va periferik komponentlarning mavjudligi, shuningdek, ularning kontekst ta'sirida qo'shimcha assotsiativ ma'nolar kasb etishi aniqlandi. Ingliz va o'zbek badiiy adabiyotidagi onomastik birliklarning qiyosiy tahlili milliy-madaniy xususiyatlarni aniqlash hamda badiiy matnning lingvokulturologik mazmunini ochishda muhim ahamiyatga ega.

Kalit so'zlar: onomastika, onomastikon, onim, antroponim, toponim, semantika, komponent tahlil, chog'ishtirma tahlil, lingvomadaniyat, denotativ komponent, signifikativ komponent, pragmatik komponent, onomastik maydon.

Abstract. The article examines the semantic and functional features of onomastic units used in English and Uzbek fiction from a comparative perspective. The main objective of the study is to identify the linguistic and extralinguistic components of proper names used in literary texts, reveal their denotative, significative, and pragmatic meanings, and determine the common and distinctive features of onomastic units in English and Uzbek. The study employs componential analysis, semantic analysis, comparative analysis, contextual analysis, and the theory of the onomastic field. The findings demonstrate that anthroponyms and toponyms in literary texts perform not only nominative functions but also characterological, expressive, ethnocultural, and pragmatic functions. The study also reveals the presence of nuclear and peripheral components in the semantic structure of onomastic units, as well as their ability to acquire additional associative meanings under the influence of context. The comparative analysis of onomastic units in English and Uzbek fiction is of particular importance for identifying national and cultural characteristics and revealing the linguocultural content of literary texts.

Keywords: onomastics, onomasticon, onym, anthroponym, toponym, semantics, componential analysis, comparative analysis, linguoculture, denotative component, significative component, pragmatic component, onomastic field.

Аннотация. В статье исследуются семантические и функциональные особенности ономастических единиц, употребляемых в английской и узбекской художественной литературе, в сопоставительном аспекте. Основная цель исследования заключается в выявлении лингвистических и экстралингвистических компонентов имён собственных, используемых в художественных текстах, раскрытии их денотативного, сигнификативного и прагматического содержания, а также определении общих и отличительных особенностей ономастических единиц в английском и узбекском языках. В исследовании применяются метод компонентного анализа, семантический, сопоставительный и контекстуальный анализы, а также теория ономастического поля. Результаты исследования показывают, что антропонимы и топонимы в художественном тексте выполняют не только номинативную, но и характерологическую, экспрессивную, этнокультурную и прагматическую функции. Выявлено также наличие ядерных и периферийных компонентов в семантической структуре ономастических единиц, а также их способность приобретать дополнительные ассоциативные значения под влиянием контекста. Сопоставительный анализ ономастических единиц в английской и узбекской художественной литературе имеет важное значение для выявления национально-культурных особенностей и раскрытия лингвокультурологического содержания художественного текста.

Ключевые слова: ономастика, ономастикон, оним, антропоним, топоним, семантика, компонентный анализ, сопоставительный анализ, лингвокультура, денотативный компонент, сигнификативный компонент, прагматический компонент, ономастическое поле.

KIRISH

Onomastika zamonaviy tilshunoslikning atoqli otlarning kelib chiqishi, strukturasi, semantikasi, funksional xususiyatlari va qo'llanish qonuniyatlarini o'rganuvchi muhim yo'nalishlaridan biridir. Atoqli otlar oddiy nominativ birliklar sifatida emas, balki muayyan tarixiy, ijtimoiy, madaniy va kognitiv axborotni o'zida mujassamlashtiruvchi murakkab lingvistik birliklar sifatida namoyon bo'ladi. Ayniqsa, badiiy matnda onimlarning funksional-semantik imkoniyatlari

kengayib, ular personaj xarakterini ochish, makon va zamonni ifodalash, milliy koloritni yaratish hamda muallifning pragmatik maqsadini amalga oshirish vositasiga aylanadi.

Antroponimlarning semantik tabiati ularning apellyativ birliklardan farqli xususiyatlarini belgilaydi. Atoqli ot lingvistik va ekstralingvistik komponentlarning o'zaro munosabati asosida shakllanuvchi murakkab semantik tuzilishga ega. Lingvistik komponent tarkibiga nomning fonetik, morfologik va stilistik xususiyatlari hamda uning nutqdagi qo'llanish imkoniyatlari kirs, ekstralingvistik komponent ism egasi haqidagi ensiklopedik bilimlar, ijtimoiy mavqe, mashhurlik darajasi, tarixiy-madaniy assotsiatsiyalar va boshqa ma'lumotlarni qamrab oladi.

Shu nuqtayi nazardan, antroponim semantikasini denotativ, signifikativ va pragmatik komponentlar asosida tahlil qilish mumkin. Denotativ komponent nomning real yoki tasavvurdagi referent bilan munosabatini, signifikativ komponent nom orqali faollashadigan tushunchaviy mazmunni, pragmatik komponent esa kontekst va kommunikativ vaziyat asosida yuzaga keladigan qo'shimcha ma'no, baho va assotsiatsiyalarni ifodalaydi.

Tadqiqotning dolzarbligi ingliz va o'zbek badiiy adabiyotida qo'llanadigan onomastik birliklarning semantik tuzilishi va funksional imkoniyatlarini chog'ishtirma aspektda o'rganish zarurati bilan belgilanadi.

Tadqiqotning maqsadi — ingliz va o'zbek badiiy adabiyotida qo'llanadigan onomastik birliklarning semantik tuzilishi, lingvistik va ekstralingvistik xususiyatlarini aniqlash hamda ularning o'xshash va farqli jihatlarini chog'ishtirma tahlil qilish.

Tadqiqot vazifalari:

1. onomastik birliklarning semantik tabiatini aniqlash;
2. antroponim va toponimlarning lingvistik hamda ekstralingvistik komponentlarini tavsiflash;
3. onomastik maydonning yadro va periferik qismlarini aniqlash;
4. ingliz va o'zbek badiiy matnlaridagi onimlarning funksional-semantik xususiyatlarini tahlil qilish;
5. onomastik birliklarning milliy-madaniy va pragmatik mazmunini ochib berish;
6. ikki tildagi onomastik birliklarning umumiy va farqli jihatlarini aniqlash.

METODOLOGIYA

Tadqiqotda onomastik birliklarning semantik va funksional xususiyatlarini aniqlash uchun bir nechta lingvistik metodlardan foydalanildi.

Birinchidan, **komponent tahlil metodi** yordamida atoqli otlarning denotativ, signifikativ va pragmatik komponentlari ajratildi. Mazkur yondashuv onim semantikasining tarkibiy qismlarini tizimli ravishda tavsiflash imkonini beradi.

Ikkinchidan, **chog'ishtirma tahlil metodi** orqali ingliz va o'zbek badiiy adabiyotida uchraydigan antroponim va toponimlarning semantik-funksional xususiyatlari qiyoslandi.

Uchinchidan, **kontekstual tahlil** asosida onomastik birliklarning badiiy matndagi konkret ma'nosi va pragmatik funksiyasi aniqlandi. Chunki atoqli otning lug'aviy yoki nominativ ma'nosi bilan uning badiiy kontekstdagi semantik yuklamasi doimo bir xil bo'lavermaydi.

To'rtinchidan, **onomastik maydon nazariyasi** asosida onimlar yadro va periferik birliklarga ajratildi. V.I. Suprun konsepsiyasida onomastik maydon yadroviiy-periferik munosabatlar, semantik umumiylik, takrorlanuvchanlik va stilistik bo'yoqdorlik kabi xususiyatlar bilan tavsiflanadi.

Tadqiqotda antroponimlar va toponimlar asosiy tahlil birliklari sifatida tanlandi. Ularning semantik xususiyatlari nominativ, semantik, funksional, pragmatik va lingvomadaniy mezonlar asosida o'rganildi.

NATIJALAR

Tahlil natijasida onomastik birliklarning badiiy matndagi semantik tuzilishi uch asosiy komponent — **denotativ, signifikativ va pragmatik** komponentlardan tashkil topishi aniqlandi.

Denotativ komponent atoqli otning muayyan shaxs, joy yoki obyektning nomlash vazifasi bilan bog'liq. Masalan, *Alfred* antroponimining denotativ komponenti erkak shaxsni ifodalovchi nom sifatida namoyon bo'ladi.

Signifikativ komponent nom bilan bog‘liq tushunchaviy mazmunni ifodalaydi. Bunda nom shunchaki muayyan shaxsni belgilash vositasi bo‘lib qolmasdan, inson, ijtimoiy mavqe, tarixiy davr yoki madaniy guruh haqidagi bilimlarni faollashtirishi mumkin.

Pragmatik komponent esa badiiy kontekstda ayniqsa muhim ahamiyat kasb etadi. Muayyan antroponim o‘quvchida personajning yoshi, ijtimoiy mavqei, xarakteri, milliy mansubligi yoki tarixiy-madaniy obrazi bilan bog‘liq assotsiatsiyalarni yuzaga keltirishi mumkin.

Onomastik birliklarning yana bir muhim xususiyati ularning **yadro va periferiyaga** ajralishidir. Onomastik maydonning yadrosida keng qo‘llanadigan, umumiy madaniy ahamiyatga ega va yuqori chastotali atoqli otlar joylashadi. Periferik qatlam esa muayyan hudud, ijtimoiy guruh yoki tor kommunikativ muhit bilan bog‘liq birliklarni qamrab oladi.

Toponimik birliklar tahlili ham ushbu yadro-periferik munosabatning mavjudligini ko‘rsatadi. Masalan, mamlakat, yirik shahar va yirik geografik obyekt nomlari keng lingvomadaniy assotsiatsiyaga ega bo‘lsa, kichik qishloq, buloq, yaylov, dala yoki yo‘l nomlari asosan mahalliy aholi uchun tushunarli bo‘lgan ekstralingvistik axborotni ifodalaydi.

Shuningdek, tahlil natijalari badiiy asarlarda antroponimlarning faqat nomlash funksiyasi bilan cheklanmasligini ko‘rsatadi. Ular:

- personajni individuallashtirish;
 - xarakter yaratish;
 - ijtimoiy mavqeni ko‘rsatish;
 - milliy-madaniy koloritni ifodalash;
 - tarixiy vaqt va makonni belgilash;
 - ekspressiv-baholovchi ma‘no yaratish;
 - muallifning pragmatik munosabatini ifodalash
- kabi funksiyalarni bajaradi.

MUHOKAMA

Olingan natijalar atoqli otlarning semantik jihatdan mutlaq ma‘nosiz yoki faqat identifikatsiya vazifasini bajaruvchi birliklar sifatida talqin qilinishi yetarli emasligini ko‘rsatadi. Badiiy matn sharoitida onimlarning semantik imkoniyatlari kontekst, muallif pozitsiyasi va o‘quvchining ekstralingvistik bilimlari hisobiga kengayadi.

A.V. Superanskaya tomonidan ilgari surilgan ekstralingvistik shartlanganlik haqidagi qarashlar ham ushbu holatni izohlashga imkon beradi. Onomastik birliklarning semantik mazmuni faqat til tizimi bilan chegaralanmay, ularning real yoki tasavvurdagi referentlari, tarixiy-madaniy muhit va kommunikativ vaziyat bilan chambarchas bog‘liq.

V.I. Supruning onomastik maydon haqidagi konsepsiyasida qayd etilgan yadro va periferik munosabatlar ingliz va o‘zbek tillari materiallarini chog‘ishtirishda ham metodologik jihatdan samarali ekanligi kuzatildi. Bunda bir til uchun yadro hisoblangan birlik boshqa tilda periferik yoki madaniy jihatdan neytral birlik sifatida namoyon bo‘lishi mumkin. Demak, onomastik maydonning strukturasi universal xususiyatlar bilan bir qatorda, muayyan xalqning tarixiy va madaniy tajribasi bilan ham belgilanadi.

Ingliz va o‘zbek badiiy adabiyotidagi onomastik birliklarning chog‘ishtirma tahlili shuni ko‘rsatadiki, ikki tilda ham atoqli otlar nominativ va identifikatsion vazifadan tashqari badiiy-estetik hamda pragmatik vazifalarni bajaradi. Biroq ularning qo‘shimcha semantik yuklamasi milliy-madaniy kontekstga bog‘liq holda turlicha shakllanadi.

Shu jihatdan onomastik birliklarni o‘rganish nafaqat tilshunoslik, balki lingvomadaniyatshunoslik, kognitiv tilshunoslik va badiiy matn lingvistikasi uchun ham muhim nazariy va amaliy ahamiyatga ega.

XULOSA

Tadqiqot natijalari asosida quyidagi xulosalarga kelindi:

1. Onomastik birliklar semantik jihatdan murakkab tuzilishga ega bo‘lib, ularning mazmunini denotativ, signifikativ va pragmatik komponentlar asosida tavsiflash mumkin.

2. Badiiy matnda atoqli otlar faqat nominativ-identifikatsion vazifani emas, balki xarakterologik, ekspressiv, baholovchi, pragmatik va lingvomadaniy funksiyalarni ham bajaradi.
3. Onomastik maydon yadro va periferik qismlardan tashkil topadi. Yadro birliklari yuqori chastotasi va umumiy madaniy ahamiyati bilan ajralib tursa, periferik birliklar tor hududiy, ijtimoiy yoki kontekstual qo'llanish xususiyatiga ega.
4. Antroponim va toponimlarning semantik mazmuni ekstralingvistik omillar bilan bevosita bog'liq bo'lib, tarixiy, ijtimoiy va milliy-madaniy bilimlar asosida boyib boradi.
5. Ingliz va o'zbek badiiy adabiyotidagi onomastik birliklar umumiy funksional xususiyatlarga ega bo'lsa-da, ularning pragmatik va lingvomadaniy mazmunida milliy o'ziga xoslik namoyon bo'ladi.
6. Chog'ishtirma-semantik tahlil onomastik birliklarning universal va milliy-madaniy xususiyatlarini aniqlash, shuningdek, badiiy matnning yashirin semantik va pragmatik qatlamlarini ochib berishda samarali metod hisoblanadi.

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ORGANIZING STUDENTS' INDEPENDENT LEARNING THROUGH THE USE OF MULTIMEDIA TOOLS

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Abstract: This article examines the effective application of multimedia tools in organizing students' independent learning. It discusses the benefits of multimedia technologies in the educational process, their contribution to improving students' independent learning, and their importance in enhancing interaction between students and teachers. Furthermore, the article explores practical methods for increasing students' creativity, engagement, and active participation through the integration of multimedia tools into the learning process.

Keywords: Multimedia, self-directed learning, digital technologies, student engagement, innovative approach, skill development, educational process, knowledge acquisition, integration, software applications, learning opportunities, academic activity.

Аннотация: В данной статье рассматриваются вопросы эффективного применения мультимедийных средств в организации самостоятельного обучения студентов. Анализируются преимущества мультимедийных технологий в образовательном процессе, их возможности в совершенствовании самостоятельной учебной деятельности студентов, а также их значение в повышении взаимодействия между студентами и преподавателями. Кроме того, в статье представлены практические методы развития творческих способностей, вовлеченности и активного участия студентов в учебном процессе посредством интеграции мультимедийных средств.

Ключевые слова: Мультимедиа, самостоятельное обучение, цифровые технологии, активность студентов, инновационный подход, развитие, образовательный процесс, усвоение знаний, внедрение, программные средства, возможности обучения, образовательная деятельность.

Annotatsiya: Ushbu maqolada talabalarning mustaqil ta'limini tashkil etishda multimedia vositalaridan samarali foydalanish masalalari ko'rib chiqiladi. Ta'lim jarayonida multimedia texnologiyalarining afzalliklari, ularning talabalarning mustaqil o'quv faoliyatini takomillashtirishdagi imkoniyatlari hamda talabalar va o'qituvchilar o'rtasidagi hamkorlikni kuchaytirishdagi ahamiyati tahlil qilinadi. Shuningdek, maqolada multimedia vositalarini ta'lim jarayoniga integratsiya qilish orqali talabalarning ijodkorligi, faolligi, ta'limga jalb etilganligi va faol ishtirokini rivojlantirishga qaratilgan amaliy usullar yoritilgan.

Kalit so'zlar: Multimedia, mustaqil ta'lim, raqamli texnologiyalar, talabalar faolligi, innovatsion yondashuv, rivojlantirish, ta'lim jarayoni, bilimlarni o'zlashtirish, joriy etish, dasturiy vositalar, ta'lim imkoniyatlari, o'quv faoliyati.

INTRODUCTION

The development of digital technologies has significantly changed the organization of the educational process. Modern students have access to a wide range of digital resources that allow them to obtain, process, present, and exchange information beyond the traditional classroom. In this context, multimedia technologies have become an important component of contemporary education. Multimedia refers to the combination of different forms of information, including text, graphics, audio, video, animation, and interactive elements. The integration of these forms of information can create a more flexible and engaging learning environment and provide students with opportunities to work with educational materials according to their individual learning needs and pace. Independent learning is an important component of higher education because it encourages students to take greater responsibility for acquiring and applying knowledge. It requires learners not only to complete tasks assigned by teachers but also to search for information, select appropriate resources, analyze materials, solve problems, evaluate their own progress, and reflect on learning outcomes.

Multimedia tools can support these processes by providing students with access to diverse educational resources. For example, students can use electronic textbooks, educational videos, presentations, simulations, online tests, digital libraries, and learning platforms to study educational materials independently. Such resources can also allow learners to review difficult topics repeatedly and select materials according to their individual needs. However, the presence of technology alone does not automatically guarantee effective independent learning. The educational value of multimedia depends on how appropriately technological resources are selected, designed, integrated, and evaluated. Therefore, teachers remain important participants in the process. Their role changes from being the sole source of information to becoming an organizer, facilitator, consultant, mentor, and evaluator of students' independent learning.

The purpose of this article is to examine the pedagogical possibilities of multimedia tools in organizing students' independent learning and to systematize conceptual models that can be used for this purpose.

MATERIALS AND METHODS

The article is based on a conceptual and theoretical analysis of multimedia-supported independent learning. The analysis considers the pedagogical functions of multimedia tools and their relationship with students, teachers, learning content, educational resources, technological infrastructure, assessment, and feedback.

The methodological basis includes analysis, comparison, systematization, generalization, and conceptual modelling. These methods make it possible to identify the major components of a multimedia learning environment and to establish relationships among them.

Particular attention is paid to the organization of independent learning as a learner-centered process. In this approach, students are regarded as active participants who plan and regulate their learning activities, while teachers provide methodological support and feedback. The article does not

present the results of an experimental intervention or statistical measurement. Instead, it develops and systematizes conceptual models based on the pedagogical functions of multimedia technologies and the principles of independent learning.

THE ROLE OF MULTIMEDIA TOOLS IN INDEPENDENT LEARNING

The use of multimedia tools in the process of independent learning helps students to study more effectively and productively. By providing access to a wider range of educational resources, making learning more interactive and engaging, and allowing for personalization, multimedia tools support students in achieving their educational goals. Opportunities for using multimedia tools to increase the effectiveness of independent learning include:

- Providing students with access to a broader range of learning resources such as e-books, videos, and simulations;
- Making the learning process more interactive and engaging to enhance information retention;
- Personalizing learning by allowing students to choose content and pace according to their individual needs;

Methodology for the effective use of multimedia tools in independent learning:

- Choosing the right tools. Not all multimedia tools are created equally. When selecting tools, it is necessary to consider learning objectives, students' learning styles, and available resources.
- Using multimedia tools in moderation. Excessive use of multimedia can become boring and ineffective. Multimedia tools should complement traditional learning methods, not replace them.

In recent years, the use of multimedia tools in students' independent learning has been becoming increasingly widespread. Multimedia tools are means that combine text, graphics, audio, video, and animation to provide a more interactive and engaging learning experience. Overall, the use of multimedia tools in independent learning can offer students a more engaging and interactive learning process. It helps them better understand complex topics and concepts while providing the flexibility to learn at their own pace and in their own time.

Model 1. The conceptual model of the learning environment for students' independent learning in a multimedia setting is designed to provide a systematic framework for organizing, supporting, and evaluating students' independent educational activities. The model integrates pedagogical, technological, and organizational components that interact with one another to create an effective learning environment. The main purpose of this model is to increase students' independence, learning motivation, creativity, digital competence, and responsibility for their own learning outcomes. The proposed model consists of the following interconnected components:

Students. Students are the central and most active participants in the proposed learning model. In a multimedia learning environment, students are expected not only to complete assigned independent learning tasks but also to plan their learning activities, search for relevant information, analyze and evaluate digital resources, apply acquired knowledge, and reflect on their learning outcomes. Multimedia resources provide students with opportunities to learn at their own pace, choose appropriate learning materials, repeatedly review difficult topics, and use different forms of information such as text, graphics, audio, video, animation, and interactive content. In addition, students can develop self-regulation, critical thinking, creativity, communication, and problem-solving skills through individual and collaborative activities.

Teacher. The teacher plays the role of an organizer, facilitator, consultant, and evaluator of the independent learning process. The teacher is responsible for developing clear and meaningful independent learning tasks, selecting appropriate multimedia resources, providing methodological recommendations, monitoring students' progress, and offering timely feedback. Rather than being the sole source of information, the teacher creates conditions in which students can independently acquire, process, and apply knowledge. Teachers can also differentiate learning activities according to students' individual abilities, interests, and learning needs. Regular feedback and consultation help students identify their strengths and weaknesses and improve their learning strategies.

Multimedia and Technology. Technology represents an essential component of the proposed model because it provides the digital infrastructure and tools necessary for organizing independent learning. Multimedia technologies can include electronic textbooks, educational videos, presentations, interactive simulations, online tests, learning management systems, digital libraries, educational platforms, and other software applications. These tools facilitate access to educational resources, communication, collaboration, content creation, and assessment. The effective integration of technology makes the learning process more flexible and personalized while allowing students to interact with educational content through multiple information channels.

Learning Environment. The learning environment encompasses the pedagogical, technological, social, and organizational conditions in which students' independent learning takes place. An effective multimedia learning environment should provide students with convenient access to reliable educational resources, appropriate technological facilities, methodological guidance, and opportunities for communication and collaboration. A supportive environment also contributes to the development of students' motivation, confidence, responsibility, and active participation. The quality of the learning environment can significantly influence students' ability to organize their time, perform independent tasks, overcome learning difficulties, and achieve the expected learning outcomes.

Educational Resources. Educational resources constitute an additional important element of the model. These resources should be relevant, accessible, scientifically accurate, visually clear, and appropriate to students' educational needs. Multimedia resources can present complex concepts in an understandable form and provide opportunities for repeated practice and independent exploration. Properly designed resources should also include practical tasks, examples, self-assessment activities, and opportunities for applying theoretical knowledge.

Interaction and Feedback. Effective interaction between students and teachers, as well as among students themselves, is an important condition for successful independent learning. Multimedia technologies provide various opportunities for interaction through online discussions, collaborative projects, digital communication platforms, forums, and virtual learning activities. Continuous feedback enables students to understand their learning progress, correct mistakes, and improve the quality of their work.

Model 2. The conceptual model of organizing students' independent learning in a multimedia environment provides a structured framework for effectively planning, implementing, and supporting students' independent learning activities. The model combines pedagogical, technological, and organizational elements that contribute to the development of students' independence, motivation, and learning effectiveness. It consists of the following main components:

Students. Students are the central focus of the model and the main participants in the independent learning process. They are responsible for completing assigned tasks, searching for information, applying acquired knowledge, and evaluating their own learning progress. Multimedia resources provide students with opportunities to learn independently and at their own pace.

Teachers. Teachers are responsible for designing and implementing meaningful independent learning activities. They provide methodological guidance, learning resources, consultation, and feedback, while also monitoring students' progress and supporting them when difficulties arise.

Learning Content. Learning content includes the information and educational materials required to complete independent learning tasks. It can be presented in various multimedia formats, including text, images, presentations, audio, video, animation, and interactive materials. Such diversity helps make complex information more accessible and understandable.

Learning Tools. Learning tools refer to the technological resources required for completing independent learning activities. These may include computers, mobile devices, educational software, online platforms, electronic resources, and other digital tools. Their appropriate use facilitates access to information, communication, collaboration, and assessment.

Learning Environment. The learning environment includes the physical or virtual space where independent learning takes place, such as classrooms, libraries, computer laboratories, or

online learning platforms. A supportive and accessible environment can positively influence students' motivation, participation, and learning outcomes.

The model is flexible and adaptable to the needs of different students, teachers, subjects, and educational conditions. It can be implemented in traditional classroom settings, online courses, and blended learning environments.

The second model highlights the importance of learning content and learning tools, focusing on integrating pedagogical approaches with technological opportunities in the implementation of independent learning. It is designed to be flexible and adaptable, making it applicable in traditional, online, and blended learning environments. The third model strengthens the role of assessment and feedback mechanisms. This model allows students to self-monitor, analyze their knowledge, and make necessary adjustments for further development.

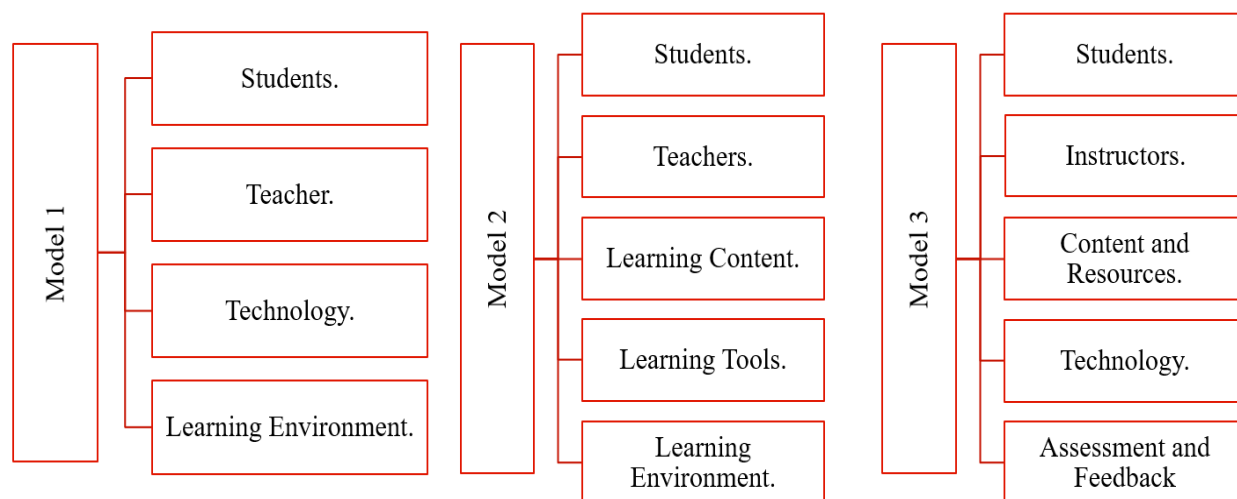


Figure 1. Three Conceptual Models for Organizing Students' Independent Learning in a Multimedia Environment

Model 1

1. Students: Students are the central actors in the learning process. Their interests, prior knowledge, motivation, and learning styles shape how effectively they can acquire and apply knowledge. A student-centered approach emphasizes active learning, critical thinking, and problem-solving.

2. Teacher: Teachers serve as facilitators, mentors, and guides rather than mere transmitters of knowledge. They design learning activities, inspire curiosity, and scaffold students' development by adapting teaching strategies to learners' needs.

3. Technology: Technology acts as an enabler that enhances accessibility, interactivity, and engagement. Tools such as e-learning platforms, multimedia, and digital simulations allow students to learn flexibly and dynamically.

4. Learning Environment: This refers to both physical and virtual learning spaces where education takes place. A positive, supportive environment encourages collaboration, creativity, and participation, which are crucial for knowledge construction.

CONCLUSION

Multimedia technologies can play an important role in organizing students' independent learning in higher education. They provide access to diverse educational resources, support interactive learning, facilitate individualized learning, encourage collaboration, and create opportunities for assessment and feedback. The analysis presented in this article has systematized three complementary conceptual models. The first model emphasizes the interaction among students, teachers, technology, and the learning environment. The second focuses on learning content and technological tools. The third emphasizes assessment, feedback, self-assessment, and reflection.

The integration of these components creates a comprehensive framework for multimedia-supported independent learning. In such an environment, students become active participants who are

responsible for planning, completing, and evaluating their learning activities, while teachers provide guidance, resources, consultation, assessment, and feedback. Therefore, the successful use of multimedia tools requires more than the introduction of digital technologies into education. It requires purposeful pedagogical planning and systematic integration of technology with educational content, teacher support, independent student activity, assessment, and reflection. The proposed conceptual framework can be adapted to different academic disciplines and educational contexts. Its implementation can contribute to the development of students' independence, digital literacy, creativity, critical thinking, problem-solving abilities, and lifelong learning skills.

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PEDAGOGICAL SOFTWARE TOOLS FOR TEACHING MULTIMEDIA TECHNOLOGIES

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Abstract: This article discusses the effective use of multimedia innovative technologies in the continuing education system of the Republic of Uzbekistan, the organization of multimedia-based innovative activities in higher education institutions, ensuring consistent cooperation between teachers and students, and implementing this process in a clearly goal-oriented manner.

Keywords: multimedia, innovation, development, goal-oriented learning, mastery, implementation, software tools, knowledge acquisition, conditions, opportunities, education and upbringing.

Аннотация: В данной статье рассматриваются вопросы эффективного использования мультимедийных инновационных технологий в системе непрерывного образования Республики Узбекистан, организации инновационной деятельности на основе мультимедиа в высших образовательных учреждениях, обеспечения последовательного взаимодействия между преподавателями и студентами, а также целенаправленной реализации данного процесса.

Ключевые слова: мультимедиа, инновация, развитие, целенаправленное обучение, усвоение, внедрение, программные средства, приобретение знаний, условия, возможности, образование и воспитание.

Annotatsiya: Mazkur maqolada O'zbekiston Respublikasining uzluksiz ta'lim tizimida multimedia innovatsion texnologiyalaridan samarali foydalanish, oliy ta'lim muassasalarida multimedia asosidagi innovatsion faoliyatni tashkil etish, o'qituvchi va talabalar o'rtasida izchil hamkorlikni ta'minlash hamda ushbu jarayonni aniq maqsadga yo'naltirilgan holda amalga oshirish masalalari yoritilgan.

Kalit soʻzlar: *multimedia, innovatsiya, rivojlanish, maqsadga yoʻnaltirilgan taʼlim, oʻzlashtirish, joriy etish, dasturiy vositalar, bilimlarni egallash, shart-sharoitlar, imkoniyatlar, taʼlim va tarbiya.*

In order to fundamentally improve the higher education system in accordance with the priority tasks of the socio-economic development of our country, radically revise the content of specialist training, and create the necessary conditions for preparing highly qualified specialists at the level of international standards, the Resolution of the President of the Republic of Uzbekistan No. PQ-2909 of April 20, 2017, “On Measures for Further Development of the Higher Education System,” identified the widespread introduction of the most modern pedagogical technologies, educational programs, and teaching-methodological materials based on international educational standards into the educational process as one of the most important tasks.

The digital transformation of the education system has become one of the important priorities of the state policy of the Republic of Uzbekistan. The rapid development of information and communication technologies (ICT), digital educational resources, and multimedia technologies creates new opportunities for improving the quality and effectiveness of the educational process. In this context, the development of a modern digital educational environment requires the systematic integration of innovative technologies into teaching and learning activities.

An important step toward the digital transformation of Uzbekistan was the adoption of the Presidential Decree of the Republic of Uzbekistan No. PF-6079 dated October 5, 2020, entitled “On Approval of the Digital Uzbekistan – 2030 Strategy and Measures for Its Effective Implementation.” The document defines strategic priorities for the development of digital technologies, improvement of digital infrastructure, introduction of modern information and communication technologies, development of electronic services, and acceleration of digital transformation in various sectors of society, including the social sphere and education.

The implementation of the “Digital Uzbekistan – 2030” Strategy creates favorable conditions for the modernization of the higher education system through the widespread use of digital technologies. In particular, the development of electronic educational resources, digital learning platforms, multimedia content, interactive learning tools, and software solutions contributes to the formation of a modern educational environment. Such an environment enables students to access educational materials regardless of time and location and provides opportunities for organizing more flexible and individualized learning. Multimedia technologies are particularly important in this process because they combine different forms of information, including text, graphics, audio, video, animation, and interactive elements. The integrated use of these components makes educational materials more visual, understandable, and engaging. Multimedia-based learning can also support students in understanding complex concepts, developing practical skills, increasing learning motivation, and strengthening the retention of acquired knowledge.

The introduction of multimedia innovative technologies also changes the traditional relationship between teachers and students. The teacher increasingly acts not only as a source of information but also as a facilitator, consultant, organizer, and coordinator of students’ learning activities. At the same time, students become more active participants in the educational process. They can independently search for information, analyze digital educational materials, complete interactive assignments, participate in virtual activities, and evaluate their own learning outcomes.

From this perspective, the effective implementation of multimedia technologies requires not only appropriate technical infrastructure but also pedagogically sound methods of their application. Teachers need to possess sufficient digital competencies and be able to select, develop, and effectively integrate multimedia resources according to educational objectives. Therefore, digitalization of education should be considered as a comprehensive pedagogical process that combines technological, methodological, organizational, and competency-based components.

The “Digital Uzbekistan – 2030” Strategy also provides an important institutional foundation for expanding the use of modern software tools and digital resources in education. The development and implementation of digital solutions can contribute to improving the accessibility of educational content, strengthening independent learning, increasing interaction between teachers and students,

and creating conditions for continuous professional and personal development. Consequently, the integration of multimedia innovative technologies into higher education can be considered one of the practical directions of digital transformation. Their purposeful use makes it possible to create a learner-centered educational environment in which students have greater opportunities for independent knowledge acquisition, creative activity, communication, and practical application of knowledge. Therefore, the effective implementation of multimedia technologies should be regarded not simply as the introduction of new technical tools, but as an important component of improving the quality, accessibility, and effectiveness of modern education.

To accomplish these urgent tasks, it is important to develop new approaches in higher education institutions for training qualified specialists. In this process, foreign experience should be used effectively and educational activities should be organized on its basis. An educational session is the main field of pedagogical creativity; therefore, it requires an appropriate and innovative approach to its organization and management. In this process, an important task for teachers is to engage learners in acquiring knowledge, working collaboratively with teachers, continuously deepening their professional knowledge and skills, and paying attention to the quality of educational activities.

The quality of educational sessions largely depends on the correct selection of their goals, objectives, content, forms, methods, technologies, and tools, as well as on mobilizing learners to master educational materials through cooperation. Each educational session should contribute to the development of learning skills and guide students toward independently finding the necessary information in textbooks, teaching manuals, and additional literature.

The quality of educational sessions is determined by the teacher's responsible approach to the topics being taught and analyzed, professional skill in communicating the content of these topics to learners, and methodological ability to organize and manage sessions in accordance with current requirements. A teacher achieves the intended goal when he or she can explain the theoretical basis of important issues and establish logical connections among ideas. For this purpose, it is important to use modern teaching tools and resources and to present the topic on the basis of the possibilities and methods of contemporary pedagogical technologies.

The Law of the Republic of Uzbekistan "On Education" and the "National Program for Personnel Training" emphasize the need to develop higher education, improve the quality of educational and upbringing activities, and develop creative abilities in future specialists. Education is a multifaceted and complex process consisting of the intellectual work, activity, and creative thinking of teachers and students. Increasing the effectiveness of educational sessions is closely connected with organizing the educational process on a scientific basis and applying new pedagogical technologies in practice.

During the years of implementing the "National Program for Personnel Training," a number of important changes took place in the education system of our republic. These changes were largely associated with the need to resolve serious contradictions between the traditional pace of education and the continuous growth of new knowledge. In order to overcome this contradiction, educational forms based on the use of innovative technologies began to be introduced.

Along with the development of the country's economy, spirituality, and culture, it is important for cities to acquire a modern appearance. Therefore, the prosperity and development of our country are directly connected with the activities of students studying in the field of construction of buildings and structures. It should be emphasized that young people who receive solid knowledge at higher education institutions, love their profession, study its principles comprehensively, and acquire sufficient professional skills can contribute significantly to the further development and improvement of our country.

Indeed, the construction of cities and buildings is carried out on the basis of projects for buildings and structures developed by specialists. Today, construction projects created by professional architects are increasingly developed with the help of computer technologies. There are currently many computer graphics programs, and they differ according to the fields in which they are used. Specialists in each field choose the graphics software that is most convenient for their professional activities.

It should be taken into account that learning the programs mentioned above and introducing them into practice is a relatively complex and relevant issue. There are several methods for learning graphics programs, among which multimedia applications are undoubtedly one of the most effective. Learning through multimedia applications, considered one of the modern methods of education, is one of the most effective approaches and is currently regarded as an important form of pedagogical software.

Tutorial pedagogical software tools guide learners toward mastering new knowledge according to their level of knowledge and interests. Examples include tutorial systems that enable learners to independently study AutoCAD and ArchiCAD, programs designed for creating architectural projects.

Figure 1. Multimedia-based pedagogical software interface presented in the original article.



The tutorial system contains video lectures and presentations for teaching AutoCAD and ArchiCAD. During the lessons, learners independently complete a number of tasks, and at the end of the lecture they can install these programs and use them in practice.

The figure presents the main interface of a multimedia-based educational resource designed to support students' independent learning activities. The resource integrates various educational components, including a glossary, independent learning assignments, a study schedule, course materials, presentations, questionnaires, tests, lectures, and image and video resources. Such an integrated structure enables students to access different types of learning materials in a convenient and interactive environment. The "Glossary" section provides explanations of key concepts and terminology, while "Independent Learning Assignments" supports students in completing individual learning activities. The "Calendar Plan" helps students organize their learning schedule and manage their time effectively. The "Collection" and "Presentation" sections provide structured educational materials and visual content. The "Questionnaire" and "Test" sections allow students to check their knowledge and assess their learning outcomes. In addition, the "Lecture" and "Image and Video" sections provide multimedia learning materials that facilitate visual and auditory perception of information.

The presented interface demonstrates the practical integration of text, visual, interactive, and assessment components within a single multimedia educational environment. This structure can contribute to increasing students' learning activity, motivation, autonomy, and opportunities for independent acquisition of knowledge. Therefore, the developed multimedia resource can be

considered an effective technological tool for organizing and supporting students' independent learning in higher education.

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BIDIRECTIONAL INTERACTION ATTENTION ACROSS UTTERANCE, WORD, AND PHONEME LEVELS FOR AUTOMATIC PRONUNCIATION ASSESSMENT

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Annotatsiya. Ushbu maqolada xorijiy til o'rganuvchilar talaffuzini avtomatik baholashda fonema, so'z va utterance darajalari o'rtasidagi ikki yo'nalishli interaction attention mexanizmi matematik nuqtai nazardan tahlil qilinadi. Klassik Goodness of Pronunciation (GOP) belgilaridan boshlab akustik embedding, darajaviy query vektorlari, self-attention, cross-attention, residual ierarxik agregatsiya hamda ko'p vazifali regressiya yagona formulalar tizimi orqali ifodalanadi. Modeldagi asosiy g'oya phoneme -> word -> utterance pastdan-yuqoriga oqimini utterance -> word -> phoneme yuqoridan-pastga kontekstual ta'siri bilan birlashtirishdan iborat. Matematik tahlil interaction koeffitsientlari har bir darajaning boshqa darajalardan keluvchi axborotni dinamik vaznlashini, residual bog'lanishlar esa lokal akustik ma'lumotning yo'qolishini kamaytirishini ko'rsatadi. Speechocean762 bo'yicha e'lon qilingan natijalar ikki yo'nalishli HIA arxitekturasi ayniqsa word-stress baholashida sezilarli ustunlik berishini ko'rsatadi. Ushbu formalizatsiya APA tizimlarida izohlanadigan, ko'p darajali va kontekstga sezgir baholashni qurish uchun matematik asos sifatida qaraladi.

Kalit so'zlar: automatic pronunciation assessment, bidirectional attention, phoneme, word, utterance, mathematical model.

Аннотация. В статье математически анализируется механизм двунаправленного interaction attention между уровнями фонемы, слова и высказывания в автоматической оценке произношения изучающих иностранный язык. Начиная с признаков Goodness of Pronunciation (GOP), акустическое представление, запросы разных гранулярностей, self-attention, cross-attention, остаточная иерархическая агрегация и многозадачная регрессия записываются в виде единой системы формул. Основная идея состоит в объединении восходящего потока phoneme -> word -> utterance с нисходящим контекстным влиянием utterance -> word -> phoneme. Коэффициенты внимания математически определяют, в какой степени каждый

уровень использует информацию других уровней, тогда как residual-связи сохраняют исходные акустические признаки при углублении иерархии. Опубликованные результаты на Speechocean762 показывают, что двунаправленная архитектура НИА особенно заметно улучшает оценивание словесного ударения, для которого контекст высказывания имеет принципиальное значение. Представленная формализация позволяет рассматривать АРА как согласованную многоуровневую задачу регрессии, а не как совокупность независимых оценок, и создает основу для интерпретируемой обратной связи изучающему язык.

Ключевые слова: автоматическая оценка произношения, двунаправленное внимание, фонема, слово, высказывание, математическая модель.

Abstract. This paper gives a mathematical analysis of bidirectional interaction attention across phoneme, word, and utterance levels in automatic pronunciation assessment (APA). Starting from Goodness of Pronunciation (GOP) evidence, acoustic embeddings, granularity-specific queries, self-attention, cross-attention, residual hierarchical aggregation, and multi-task regression are expressed in a unified set of equations. The central principle is to combine the conventional bottom-up phoneme $\rightarrow$ word $\rightarrow$ utterance flow with a top-down utterance $\rightarrow$ word $\rightarrow$ phoneme contextual influence. Attention coefficients explicitly quantify how much information each granularity receives from the other granularities, whereas residual paths preserve local acoustic evidence when the hierarchy becomes deeper. Published results on Speechocean762 indicate that the recent HIA architecture improves multi-granularity scoring and gives a particularly large gain for word-stress assessment, where utterance context is essential. The resulting formulation interprets APA as a coupled hierarchical regression problem rather than a collection of independent prediction heads. It also provides a compact mathematical basis for future systems that must generate context-sensitive and interpretable pronunciation feedback.

Keywords: automatic pronunciation assessment, bidirectional attention, phoneme, word, utterance, mathematical modeling.

INTRODUCTION

Automatic pronunciation assessment (APA) has evolved from phone-level likelihood scoring toward multi-aspect, multi-granularity modeling. GOP provides an interpretable acoustic measure [1], while Speechocean762 supplies expert annotations at phoneme, word, and utterance levels [2]. GOPT [3], 3M [4], HiPAMA [5], context-aware hierarchical modeling [6], and HierTFR [7] progressively strengthened multi-level dependencies. The 2026 HIA model explicitly introduced bidirectional interaction across the three granularities [8]. The analytical problem can therefore be stated as learning a coupled mapping

$$\mathcal{F}: \{\mathbf{o}_t, p_i\}_{t=1}^T \mapsto \{S^{phn}, S^{word}, S^{utt}\}, \quad phn \leftrightarrow word \leftrightarrow utt. \quad (1)$$

Here the objective is not only to aggregate local errors upward, but also to let global rhythm, fluency and stress context modify the interpretation of local realizations. The following formulation summarizes this interaction mathematically without treating the published HIA architecture as an uncited new method.

MATERIALS AND METHODS

For a canonical phone p_i aligned to frames $t_s^i, \dots, t_e^i$, the acoustic model first supplies posterior evidence. If s denotes an HMM/ASR state belonging to phone p , then [1,8]

$$P(p | \mathbf{o}_t) = \sum_{s \in p} P(s | \mathbf{o}_t). \quad (2)$$

The segment-level log phone posterior is

$$LPP_i(p) = \frac{1}{T_i} \sum_{t=t_s^i}^{t_e^i} \log P(p | \mathbf{o}_t), \quad T_i = t_e^i - t_s^i + 1. \quad (3)$$

Competition between a candidate phone p_j and the canonical phone p_i is represented by

$$LPR_i(p_j | p_i) = \log P(p_j | \mathbf{o}; t_s^i, t_e^i) - \log P(p_i | \mathbf{o}; t_s^i, t_e^i). \quad (4)$$

With K phone classes, the GOP vector and its contextual acoustic embedding can be written compactly as

$$\mathbf{g}_i = [LPP_i(p_1:p_K), LPR_i(p_1:p_K | p_i)], \quad \mathbf{x}_i = \text{TrEnc}(W_g \mathbf{g}_i + W_p \mathbf{e}_{p_i} + \mathbf{e}_i^{pos}). \quad (5)$$

Let $X = [\mathbf{x}_1, \dots, \mathbf{x}_n]$ and $\ell \in \{phn, word, utt\}$. Initial granularity states are obtained by level-dependent pooling and projection:

$$\mathbf{q}^\ell = W_\ell \text{Pool}_\ell(X), \quad Q = [\mathbf{q}^{phn}; \mathbf{q}^{word}; \mathbf{q}^{utt}] \in \mathbb{R}^{3 \times d}. \quad (6)$$

Bidirectional interaction is most directly visible in the normalized attention coefficient from source level m to target level ℓ :

$$\alpha_{\ell \leftarrow m} = \frac{\exp((\mathbf{q}^\ell W_Q)(\mathbf{q}^m W_K)^\top / \sqrt{d})}{\sum_{r \in \{phn, word, utt\}} \exp((\mathbf{q}^\ell W_Q)(\mathbf{q}^r W_K)^\top / \sqrt{d})}. \quad (7)$$

Thus $\alpha_{word \leftarrow utt}$ and $\alpha_{utt \leftarrow word}$, or $\alpha_{phn \leftarrow word}$ and $\alpha_{word \leftarrow phn}$, are learned separately. The interacted state is

$$\tilde{\mathbf{q}}^\ell = \sum_m \alpha_{\ell \leftarrow m} (\mathbf{q}^m W_V), \quad Q_{self} = \text{SelfAttn}(Q). \quad (8)$$

The interacted query is mapped back to acoustic evidence by cross-attention, and then split into level-specific heads [8]:

$$Q_{cross} = \text{CrossAttn}(Q_{self}, X), \quad [H^{phn}, H^{word}, H^{utt}] = \text{Proj}(\text{FFN}(Q_{cross})). \quad (9)$$

Residual hierarchical scoring preserves the original acoustic representation while injecting cross-level information. In compact form, the three scoring stages are

$$S^{phn} = R_{phn}(\text{Conv}(X + H^{phn})), \quad (10)$$

$$X^{word} = \text{Pool}_w(X) + \Phi_{pw}(S^{phn}) + H^{word}, \quad S^{word} = R_w(\text{AspectAttn}(X^{word})), \quad (11)$$

$$X^{utt} = \text{Pool}_u(X) + \Phi_{wu}(S^{word}) + H^{utt}, \quad S^{utt} = R_u(\text{TransDec}(Q^{utt}, X^{utt})). \quad (12)$$

The operators Φ_{pw} and Φ_{wu} denote phone-to-word and word-to-utterance alignment/aggregation. The residual term X prevents higher levels from depending only on already-compressed lower-level scores. For multi-aspect supervision, a generalized weighted objective is

$$\mathcal{L} = \sum_\ell \lambda_\ell \sum_{a \in \mathcal{A}_\ell} \mu_{\ell a} \frac{1}{N_{\ell a}} \sum_{i=1}^{N_{\ell a}} (\hat{y}_i^{\ell a} - y_i^{\ell a})^2, \quad \sum_\ell \lambda_\ell = 1. \quad (13)$$

This recovers the MSE-based multi-granularity training principle used in HIA [8], while explicitly showing level and aspect weights.

RESULTS AND DISCUSSION

The mathematical difference between a unidirectional hierarchy and bidirectional interaction is the admissible dependency set. A forward-only model restricts $\alpha_{phn \leftarrow word} = \alpha_{word \leftarrow utt} = 0$, whereas bidirectional attention learns all relevant $\alpha_{\ell \leftarrow m}$. This is especially important for stress: the same lexical item may receive different stress realization depending on utterance context [8].

Published Speechocean762 results support this interpretation. HIA reports phoneme PCC 0.657, word-stress PCC 0.436, word-total PCC 0.628, and utterance-total PCC 0.764 [8]. The corresponding Gradformer values are 0.646, 0.334, 0.614, and 0.756. For any metric ρ , the relative gain is

$$\Delta_{rel}(\rho) = 100 \frac{\rho_{HIA} - \rho_{base}}{\rho_{base}} \%. \quad (14)$$

Using Gradformer as the stronger preceding baseline gives approximately 1.70% for phoneme PCC, 30.54% for word-stress PCC, 2.28% for word-total PCC, and 1.06% for utterance-total PCC. The concentration of gain at word stress is consistent with the top-down term $\alpha_{word \leftarrow utt}$: global prosodic context directly participates in word-level interpretation rather than entering only after the word has already been scored.

Agreement with human ratings is commonly measured by Pearson correlation,

$$PCC(\hat{Y}, Y) = \frac{\sum_i (\hat{y}_i - \bar{\hat{y}})(y_i - \bar{y})}{\sqrt{\sum_i (\hat{y}_i - \bar{\hat{y}})^2} \sqrt{\sum_i (y_i - \bar{y})^2}}. \quad (15)$$

The remaining limitation is that high PCC does not itself guarantee pedagogically correct feedback. Alignment errors can corrupt $\mathbf{g}_i$, and errors then propagate through Φ_{pw} and Φ_{wu} . Moreover, Speechocean762 contains 5,000 read English utterances from 250 non-native speakers, so cross-L1 and spontaneous-speech generalization remains open [2]. A future interpretable APA system

should expose $\alpha_{\ell \leftarrow m}$ together with local residual evidence, enabling the learner to see both *where* an error occurs and *how* utterance context changes its severity.

CONCLUSION

APA can be formulated as a coupled hierarchical regression problem in which phoneme, word, and utterance variables are mutually dependent. GOP supplies local evidence; Transformer encoding produces contextual acoustic states; bidirectional self-attention learns cross-granularity coefficients; cross-attention reconnects those coefficients to the acoustic sequence; and residual hierarchical scoring generates level-specific outputs. The equations show why phoneme $\rightarrow$ word $\rightarrow$ utterance aggregation alone is incomplete: human-like assessment also requires utterance $\rightarrow$ word $\rightarrow$ phoneme contextual reinterpretation. Published HIA results provide empirical support, particularly for word-stress scoring. The most important next step is therefore not simply adding more attention layers, but making the learned interaction coefficients robust to alignment errors, transferable across L1 groups, and interpretable for feedback generation.

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INGLIZ TILINI O'QITISH JARAYONIDA NOMUTAXASSIS TALABALARNING TANQIDIY FIKRLASH KO'NIKMALARINI RIVOJLANTIRISH METODIKASI

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Annotatsiya. Mazkur maqolada nofilologik oliy ta'lim muassasalarida ingliz tilini nomutaxassis yo'nalishlarda tahsil olayotgan talabalarga o'qitish jarayonida tanqidiy fikrlash ko'nikmalarini shakllantirish va rivojlantirishning ilmiy-metodik asoslari kompleks tahlil qilinadi. Tadqiqot doirasida tanqidiy fikrlash tushunchasining zamonaviy pedagogik va metodik talqinlari, uning tarkibiy-komponent tuzilishi hamda xorijiy til ta'limi jarayonidagi funksional-didaktik ahamiyati yoritiladi. Shuningdek, tanqidiy fikrlashni rivojlantirishning samaradorligi alohida pedagogik metod yoki texnologiyalardan foydalanish bilangina cheklanmasligi, balki ingliz tili ta'limining mazmuni, o'quv topshiriqlari tizimi, ta'lim jarayoni subyektlarining faoliyati hamda baholash mezonlarini o'zaro uzviylik va tizimlilik tamoyillari asosida qayta tashkil etishni taqozo etishi ilmiy jihatdan asoslanadi. Bunda talabalarning mustaqil tahlil qilish, dalillash, muammoni turli nuqtayi nazardan baholash, xulosa chiqarish va o'z fikrini asosli ifodalash kompetensiyalarini rivojlantirish ingliz tilini o'qitishning muhim pedagogik natijalaridan biri sifatida talqin qilinadi.

Kalit so'zlar: ingliz tili, nomutaxassis talabalar, tanqidiy fikrlash, EFL, oliy ta'lim, metodika, muammoli ta'lim, refleksiya, hamkorlikda ta'lim, case-study.

Аннотация. В данной статье будет проведен комплексный анализ научно-методических основ формирования и развития навыков критического мышления в процессе обучения студентов, изучающих английский язык по профильным направлениям в нефилологических высших учебных заведениях. В рамках исследования освещаются современные педагогические и методические трактовки понятия критического мышления, его структурно-компонентная структура и функционально-дидактическое значение в процессе обучения иностранному языку. Также научно обосновано, что эффективность развития критического мышления не ограничивается применением отдельных педагогических методов или технологий, а требует реорганизации содержания обучения английскому языку, системы учебных заданий, деятельности субъектов образовательного процесса и критериев оценки на принципах взаимной преемственности и системности. При этом развитие у учащихся компетенции самостоятельно анализировать, доказывать, оценивать проблему с разных точек зрения, делать выводы и обоснованно выражать свое мнение трактуется как один из важнейших педагогических результатов обучения английскому языку.

Ключевые слова: английский язык, студенты-специалисты, критическое мышление, EFL, высшее образование, методология, проблемное обучение, рефлексия, совместное обучение, тематическое исследование.

Abstract. This article will conduct a comprehensive analysis of the scientific and methodological foundations for the formation and development of critical thinking skills in the process of teaching students who study English in specialized fields at non-philological higher education institutions. The study covers modern pedagogical and methodological interpretations of the concept of critical thinking, its structural and component structure, and its functional and didactic significance in the process of teaching a foreign language. It has also been scientifically substantiated that the effectiveness of developing critical thinking is not limited to the use of individual teaching methods or technologies, but requires a reorganization of the content of English language instruction, the system of learning tasks, the activities of the participants in the educational process, and the assessment criteria based on the principles of mutual continuity and systematic approach.

Keywords. English language, specialist students, critical thinking, EFL, higher education, methodology, problem-based learning, reflection, collaborative learning, case study.

KIRISH

Nofilologik oliy ta'lim muassasalarida xorijiy tilni o'rganish faqat grammatik qoidalar va lug'aviy birliklarni o'zlashtirish bilan chegaralanmaydi. Talabani ingliz tilida axborotni tushunishi, uning ishonchliligini baholashi, turli nuqtayi nazarlarni taqqoslashi, dalillar asosida xulosa chiqarishi va o'z fikrini asoslab bera olishi zamonaviy til ta'limining muhim natijalaridan biridir. Ayniqsa, nomutaxassis talabalar — ya'ni ingliz tili asosiy kasbiy mutaxassisligi bo'lmagan, biroq professional faoliyati uchun ingliz tilidan foydalanishi zarur bo'lgan talabalar bilan ishlashda ushbu masala dolzarbdir. Bunday talabalar ingliz tilini lingvistik bilim sifatida emas, balki o'z mutaxassisligi doirasida axborotni izlash, tahlil qilish va undan foydalanish vositasi sifatida o'zlashtirishi kerak.

Tanqidiy fikrlash tushunchasining ilmiy asoslaridan biri P. Facione rahbarligida olib borilgan American Philosophical Association Delphi tadqiqotiga borib taqaladi. Mazkur tadqiqotda 46 nafar mutaxassis ishtirok etgan bo'lib, tanqidiy fikrlashning asosiy kognitiv ko'nikmalari sifatida interpretatsiya, tahlil, baholash, xulosa chiqarish, izohlash va o'z-o'zini nazorat qilish ko'rsatilgan.[1:12] Shu nuqtayi nazardan, ingliz tili darsini faqat "to'g'ri javobni topish"ga yo'naltirish talabani yuqori darajadagi fikrlash faoliyatini yetarli darajada rivojlantirmaydi. Talaba "Nima uchun?", "Qanday dalil bor?", "Boshqa nuqtayi nazar mavjudmi?", "Bu xulosaga qanday keldingiz?" kabi savollar orqali fikrlash jarayonini asoslashga o'rgatilishi lozim.

ADABIYOTLAR TAHLILI

Tanqidiy fikrlash ko'pincha oddiy "tanqid qilish" tushunchasi bilan aralashtiriladi. Aslida ilmiy ma'noda tanqidiy fikrlash — ma'lumot, dalil yoki fikrni shunchaki rad etish emas, balki uni tahlil qilish, dalillarni baholash, mantiqiy xulosa chiqarish va o'z fikrini asoslash jarayonidir.

Facione Delphi tadqiqotida tanqidiy fikrlash maqsadli va o'zini nazorat qiluvchi mulohaza yuritish jarayoni sifatida tavsiflanadi. Undagi asosiy ko'nikmalarni jadval shaklida ochiqdadi. (1-jadvalga qarang)

1-Jadval. Tanqidiy fikrlash ko'nikmalarining ingliz tili darslaridagi roli

Tanqidiy fikrlash ko'nikmasi	Ingliz tili darsidagi namoyon bo'lishi:
Interpretatsiya	Matn yoki fikr mazmunini tushuntirish
Tahlil	Dalil va fikr o'rtasidagi bog'liqlikni aniqlash
Baholash	Manba yoki argument ishonchliligini aniqlash
Xulosa chiqarish	Berilgan ma'lumotlardan mantiqiy xulosa chiqarish
Izohlash	O'z javobini dalillar bilan tushuntirish
O'z-o'zini nazorat qilish	O'z fikri va xulosasini qayta ko'rib chiqish

Ushbu komponentlar ingliz tili ta'limiga bevosita integratsiya qilinishi mumkin. Masalan, talaba ingliz tilidagi matnni o'qib, faqat savollarga javob berish bilan cheklanmaydi. U matn

muallifining asosiy fikrini aniqlaydi, dalillarni topadi, ularning yetarliligini baholaydi va muqobil xulosalarni ishlab chiqadi.

D. Halpern esa tanqidiy fikrlashni o'qitish uchun to'rt komponentli modelni taklif qiladi: fikrlashga tayyorlik/dispozitsiya, tanqidiy fikrlash ko'nikmalarini bevosita o'rgatish va mashq qildirish, ko'nikmalarni boshqa vaziyatlarga ko'chirish hamda metakognitiv monitoring.[2:24] Bu model nomutaxassis talabalar uchun ingliz tili metodikasida ayniqsa muhim, chunki talaba darsda o'rgangan tahlil qilish yoki dalil keltirish ko'nikmasini keyinchalik o'z kasbiy fanlariga ham ko'chira olishi kerak.

Nomutaxassis talabalar ingliz tilini o'rganishda odatda ikki xil maqsadga ega bo'ladi:

1. umumiy kommunikativ kompetensiyani rivojlantirish;
2. ingliz tilidan kasbiy va akademik faoliyatda foydalanish. Shu sababli ularga beriladigan topshiriqlar real kasbiy va akademik vaziyatlarga yaqinlashtirilishi maqsadga muvofiq.

Masalan, tibbiyot yo'nalishidagi talabalarga:

"Is this medical information reliable? What evidence supports the claim?" kabi topshiriq berilishi mumkin.

Muhandislik talabalariga:

"Which solution is more effective? Give two reasons based on the information provided."

Iqtisodiyot yo'nalishidagi talabalarga esa:

"What factors may have caused this economic situation?" kabi savollar berilishi mumkin. Bu yerda ingliz tili maqsadning o'zi emas, balki fikrlash va kasbiy axborot bilan ishlash vositasi sifatida namoyon bo'ladi. 2026-yilda chop etilgan EFL oliy ta'limiga bag'ishlangan sistematik sharhda 47 ta tadqiqot tahlil qilingan va kritik fikrlashni rivojlantirishda o'qitish metodikasi, faol va hamkorlikka asoslangan muhit, refleksiya hamda uzoqroq davom etadigan tizimli mashg'ulotlarning ahamiyati qayd etilgan. Demak, nomutaxassis talabalar uchun tanqidiy fikrlashni rivojlantirish alohida bir mashg'ulot bilan emas, muntazam tashkil etilgan topshiriqlar tizimi orqali amalga oshirilishi kerak.

TADQIQOT METODOLOGIYASI.

Tadqiqotlar tahlili asosida nomutaxassis talabalar uchun quyidagi metodik modelni taklif qilish mumkin:

Muammoli vaziyat – Axborotni tushunish – Savol qo'yish – Tahlil – Dalillarni baholash – Muqobil fikr – Xulosa – Refleksiya

Mazkur modelning har bir bosqichi ingliz tili mashg'ulotidagi muayyan faoliyat bilan bog'lanadi.

1-bosqich. Muammoli vaziyat yaratish

Dars oddiy grammatik qoida bilan emas, talabaning fikrlashiga sabab bo'ladigan vaziyat bilan boshlanadi.

Masalan:

"Can social media information always be trusted?"

Talabalar avval o'z pozitsiyasini bildiradi.

2-bosqich. Axborotni tushunish

Talabalarga ingliz tilidagi qisqa maqola, jadval, grafik, dialog yoki video taqdim etiladi.

Bu bosqichda asosiy maqsad — interpretatsiya.

3-bosqich. Savol qo'yish

Talabalar matn asosida o'zlari savollar tuzadilar:

What is the main idea?

What evidence is given?

Is the evidence sufficient?

What information is missing?

Do you agree with the author?

Bu usul talabani tayyor savolga javob beruvchidan mustaqil fikrlovchi subyektga aylantiradi.

4-bosqich. Tahlil

Talaba fakt, fikr, taxmin va xulosani farqlaydi.

Masalan:

Fact: The study included 500 participants.
Opinion: This method is the best.
Inference: The method may be effective for similar students.

Shunday mashqlar tanqidiy fikrlash bilan birga akademik ingliz tilini ham rivojlantiradi.

5-bosqich. Dalillarni baholash

Talabalar:

manbani aniqlaydi;

dalilni topadi;

dalilning mavzuga aloqadorligini baholaydi;

qarshi dalilni izlaydi.

Bu jarayonda ingliz tilidagi akademik leksika ham tabiiy ravishda rivojlanadi.

6-bosqich. Muqobil fikr ishlab chiqish

Talaba faqat "I agree/I disagree" darajasida qolmasligi kerak.

U:

I agree with this argument because... yoki *An alternative explanation could be...*

kabi konstruksiyalar yordamida o'z fikrini asoslaydi.

7-bosqich. Xulosa chiqarish

Talaba o'z pozitsiyasini dalillar asosida shakllantiradi.

8-bosqich. Refleksiya

Dars yakunida:

What did I think before the discussion?

What did I learn?

Did my opinion change? Why?

savollari orqali metakognitiv faoliyat tashkil etiladi. Bu Halpern modelidagi metakognitiv monitoring komponenti bilan bevosita bog'liq.

NATIJALAR VA MUHOKAMA

EFL bo'yicha so'nggi sistematik tadqiqotlar tanqidiy fikrlashni rivojlantirishda bir nechta metodik elementlarning takroran uchrashini ko'rsatadi. 2023-yilgi EFL writing bo'yicha 23 empirik tadqiqotni qamrab olgan sistematik sharhda explicit CT instruction, ijtimoiy-o'quv muhiti, scaffolding, questioning, teacher/peer feedback va texnologiyalardan foydalanish asosiy metodik yo'nalishlar sifatida ko'rsatilgan [3:76].

Shunga ko'ra, quyidagi metodlar tavsiya etiladi:

4.1. Muammoli ta'lim.

Talabaga bitta aniq javobga ega bo'lmagan muammo beriladi.

Misol: *A university wants to introduce online exams. What are the advantages and disadvantages? Should the university introduce them? Why?*

Talaba fikr bildiradi, dalil keltiradi va qarshi fikrni hisobga oladi.

4.2. Case-study.

Kasbiy yo'nalishga mos real yoki realistik vaziyat beriladi.

Masalan, tibbiyot talabalari uchun:

A patient finds medical advice on social media. The information contradicts the doctor's advice. What should the patient do?

Talaba vaziyatni tahlil qilib, ingliz tilida yechim taklif qiladi.

4.3. Socratic questioning.

O'qituvchi tayyor javob bermaydi, balki savollar orqali talabani fikrlashga undaydi:

Why?

What is your evidence?

How do you know?

Can you give an example?

Is there another explanation?

Bunday savollar tanqidiy fikrlashni oddiy suhbatdan yuqori darajaga olib chiqadi.

4.4. Debate.

Debat tanqidiy fikrlash uchun foydali vosita bo'lishi mumkin, biroq uni avtomatik ravishda "eng samarali metod" deb baholash ilmiy jihatdan to'g'ri emas. 2019-yildagi sistematik sharhda debat kabi ayrim yondashuvlar bo'yicha dalillar cheklanganligi, eng yaxshi empirik dalil esa tanqidiy fikrlashni bevosita o'rgatish yondashuviga tegishli ekani qayd etilgan. Shuning uchun debatning o'zi emas, balki debat oldidan argument, dalil, qarshi dalil va xulosa tuzishni o'rgatish muhim.

Tanqidiy fikrlashni rivojlantirish uchun uni baholash mexanizmi ham o'zgartirilishi lozim. Faqat grammatik xatolar sonini hisoblash tanqidiy fikrlashni o'lchamaydi. Quyidagi mezonlardan foydalanish mumkin. 1-chizмага qarang:

1-chizma. Baholash mexanizmlari

Mezon	Ball
<i>Muammoni to'g'ri tushunish</i>	0–4
<i>Dalillardan foydalanish</i>	0–4
<i>Tahlil qilish</i>	0–4
<i>Muqobil fikrni hisobga olish</i>	0–4
<i>Xulosa chiqarish</i>	0–4
<i>Fikrni ingliz tilida asoslash</i>	0–4
<i>Refleksiya</i>	0–4
Jami	28

Bu yerda til kompetensiyasi va tanqidiy fikrlash kompetensiyasini imkon qadar alohida ko'rsatish metodik jihatdan muhim. Masalan, talaba grammatik jihatdan mukammal bo'lmagan ingliz tilida ham juda kuchli argument yaratishi mumkin. Aksincha, grammatik jihatdan to'g'ri gapirgan talabaning fikri dalilsiz bo'lishi mumkin. Shuning uchun: English proficiency $\neq$ Critical thinking ekanini metodik jihatdan hisobga olish zarur. Mazkur metodikaning muhim jihati shundaki, u faqat nazariy farazga emas, balki mavjud empirik tadqiqotlar sinteziga asoslanadi. 2019-yilgi sistematik sharh 12 ta elektron ma'lumotlar bazasidan 1794 dan ortiq ishni ko'rib chiqib, belgilangan mezonlarga javob bergan 36 ta empirik tadqiqotni tahlil qilgan. Mualliflar tanqidiy fikrlashni bevosita o'qitish uchun nisbatan kuchliroq dalillar mavjudligini, biroq mavjud tadqiqotlarning ko'pchiligi kichik miqyosli yoki metodologik cheklavlarga ega ekanini ta'kidlaydi. 2023-yilgi EFL writing bo'yicha sistematik sharh 23 empirik tadqiqotni tahlil qilib, tanqidiy fikrlashni rivojlantirishda oltita muhim texnikani ajratadi: explicit CT instruction, social learning environment, scaffolding materials, questioning, teacher/peer feedback va online technological techniques. 2026-yilgi keng qamrovli sistematik sharh esa 47 ta tadqiqotni tahlil qilib, faol va hamkorlikka asoslangan muhit, reflektiv faoliyat, self-learning, discussion, mentoring hamda blended learning kabi omillarning muhimligini ko'rsatadi. Shu dalillar asosida taklif qilinayotgan metodikaning asosiy xususiyati — bitta metodga emas, o'zaro bog'langan metodik tizimga tayanishidir.

Tanqidiy fikrlashni ingliz tili ta'limiga integratsiya qilish CEFRning zamonaviy action-oriented yondashuvi bilan ham uyg'unlashadi. Council of Europe tomonidan 2020-yilda e'lon qilingan CEFR Companion Volume til o'rganuvchini faqat til bilimlarini o'zlashtiruvchi shaxs emas, balki ijtimoiy agent sifatida ko'radi va action-oriented approach, mediation, plurilingualism hamda online interaction kabi yo'nalishlarni kengaytiradi. Bu yondashuv nomutaxassis talabalar uchun ayniqsa muhim, chunki ular ingliz tilidan real akademik va kasbiy vazifalarni bajarishda foydalanishi kerak.

Nazariy-metodik tahlil natijalari ingliz tilini nomutaxassis talabalarga o'qitishda tanqidiy fikrlashni rivojlantirish ta'lim jarayonining muhim tarkibiy qismi ekanini ko'rsatadi. Tanqidiy fikrlashga yo'naltirilgan muammoli topshiriqlar, munozaralar va case-study usuli talabalarning mustaqil fikrlashi, fikrini dalillashi hamda turli nuqtayi nazarlarni tahlil qilish imkoniyatlarini kengaytiradi. Shu bois ingliz tili mashg'ulotlarini faqat lingvistik bilimlarni o'zlashtirishga emas, balki talabalarning kognitiv va kommunikativ kompetensiyalarini rivojlantirishga yo'naltirish maqsadga muvofiq.

XULOSA

O'tkazilgan nazariy-metodik tahlil natijalari shuni ko'rsatadiki, oliy ta'lim muassasalarida ingliz tilini nomutaxassis yo'nalishlarda tahsil olayotgan talabalarga o'qitish jarayonida tanqidiy fikrlash ko'nikmalarini shakllantirish va rivojlantirish xorijiy til ta'limining qo'shimcha yoki yordamchi elementi sifatida emas, balki uning mazmuniy, didaktik va metodik tarkibiy komponentlaridan biri sifatida qaralishi lozim. Mazkur yondashuv talabalarning til kompetensiyasi bilan bir qatorda, axborotni tahlil qilish, dalillash, muammoli vaziyatlarga mustaqil yechim izlash, turli nuqtayi nazarlarni qiyosiy baholash hamda asoslangan xulosalar chiqarish kabi yuqori darajadagi kognitiv faoliyat ko'nikmalarini izchil rivojlantirishga xizmat qiladi.

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DISCOURSE AS A COMPLEX COMMUNICATIVE PHENOMENON IN MODERN LINGUISTICS

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Abstract: This article examines the concept of discourse and its development in modern linguistics. It analyzes different approaches to discourse and its relationship with text, speech, communication, and context. Particular attention is given to the views of T. A. van Dijk, Yu. N. Stepanov, V. Z. Demyankov, and V. G. Borbotko, as well as the development of discourse studies in Uzbek linguistics. The study considers discourse as a dynamic communicative phenomenon influenced by linguistic, cognitive, pragmatic, psychological, social, and cultural factors.

Key words: discourse, text, dialogic discourse, monologic discourse, communication.

Аннотация: В данной статье рассматривается понятие дискурса и его развитие в современной лингвистике. Анализируются различные подходы к изучению дискурса, а также его взаимосвязь с текстом, речью, коммуникацией и контекстом. Особое внимание уделяется взглядам Т.А. ван Дейка, Ю.Н. Степанова, В.З. Демьянкова и В.Г. Борботко, а также развитию

исследований дискурса в узбекском языкознании. В исследовании дискурс рассматривается как динамическое коммуникативное явление, формирующееся под влиянием лингвистических, когнитивных, прагматических, психологических, социальных и культурных факторов.

Ключевые слова: дискурс, текст, диалогический дискурс, монологический дискурс, коммуникация.

Annotatsiya: *Mazkur maqolada diskurs tushunchasi va uning zamonaviy tilshunoslikdagi rivojlanishi tadqiq etiladi. Unda diskursga oid turli yondashuvlar hamda uning matn, nutq, kommunikatsiya va kontekst bilan o'zaro munosabati tahlil qilinadi. Tadqiqotda T. A. van Deyk, Yu. N. Stepanov, V. Z. Demyankov va V. G. Borbotko kabi olimlarning qarashlariga, shuningdek, o'zbek tilshunosligida diskurs tadqiqotlarining rivojlanishiga alohida e'tibor qaratilgan. Ishda diskurs lingvistik, kognitiv, pragmatik, psixologik, ijtimoiy va madaniy omillar ta'sirida shakllanuvchi dinamik kommunikativ hodisa sifatida qaraladi.*

Kalit so'zlar: *diskurs, matn, dialogik diskurs, monologik diskurs, kommunikatsiya.*

INTRODUCTION

A key issue in pragmatic and cognitive linguistics, identified as a emerging trend in contemporary linguistics, is the matter of discourse. In contemporary linguistics, the initial acknowledgments concerning the term “discourse” emerged during the 1950s. In the current literature, the issue was initially regarded as a “unit with intricate syntactic nature” comprising multiple sentences. This phenomenon has been evaluated in linguistics as the link between logical syntax and spoken language. Moreover, in the past century, it has been posited within linguistics that the phenomenon of discourse pertains to spoken language, and that instances of its manifestation occur during speech through prompts, introductory phrases, and preliminary constructions, which can serve as a foundation for evaluating them as a “sophisticated syntactic mechanism”.

The issue of discourse in foreign linguistics was brought up by Z. Harris in the previous century. In the analyzed research, discourse has been understood as a single-predicate unit of spoken language. At this point, concepts like text linguistics, the connection between text studies and speech theory, applied stylistics, communication theory, language acquisition, and machine translation started appearing in academic literature. A significant accomplishment of the 1970s of the previous century is that the role of discourse in spoken language emerged as an independent area of linguistics and a distinct source for investigating the issue. Certain sources have also voiced views and concerns regarding the application of discourse in linguistics. Indeed, in 1966, N. A. Slyusarev observed in his study that the application of the term discourse by linguist R. Godel might undermine clear conclusions regarding language and speech phenomena, to which he provided a logical, scientific reply to Godel's critique.

Based on the views of the linguists discussed above, it can be argued that the concept of discourse requires consideration not only of its own characteristics but also of the concept of “text” and the relationship between these two linguistic phenomena. The study of discourse gradually developed as an interdisciplinary field, particularly during the 1960s and 1970s. Its development was influenced by research in linguistics, semiotics, psychology, anthropology, sociology, and other related disciplines. This interdisciplinary nature has contributed to a broader understanding of discourse as a phenomenon that involves not only linguistic structures but also communicative, social, cultural, and cognitive factors.

MATERIALS AND METHODS

The materials of the present study consist of theoretical and linguistic sources devoted to the interpretation and development of discourse in modern linguistics. The research is primarily based on the scientific works of prominent linguists, including T. A. van Dijk, Yu. N. Stepanov, V. Z. Demyankov, and V. G. Borbotko. In addition, works related to text linguistics, pragmatics, cognitive linguistics, psycholinguistics, sociolinguistics, semiotics, and communication theory were considered. Particular attention was paid to studies conducted in Uzbek linguistics concerning text discourse, speech forms, dialogic communication, and the structural and semantic organization of

texts. The selected materials provide a theoretical basis for examining discourse as a complex and dynamic communicative phenomenon.

The study applies a combination of descriptive, comparative, discourse-analytical, linguopragmatic, and cognitive methods. The descriptive method was used to identify and characterize the main interpretations of the concept of discourse and to describe its essential linguistic and communicative features. This method made it possible to systematize the development of the concept from its initial interpretation as a unit of connected speech or a syntactically organized linguistic structure to its contemporary understanding as a multidimensional communicative phenomenon.

The discourse analysis method was used to investigate discourse in relation to communication, context, participants, communicative intentions, and social conditions. This approach allows discourse to be examined not simply as a sequence of grammatically connected sentences, but as an active process of meaning construction and interpretation. Particular attention was paid to dialogic and monologic forms of discourse, since their organization and meaning are closely related to the communicative situation and interaction between participants.

The linguopragmatic method was applied to determine how linguistic units function according to the speaker's communicative intention and the specific context of communication. This method is important for analyzing not only what is expressed in discourse, but also why a particular linguistic form is selected, how it is used, and what communicative purpose it serves.

Elements of cognitive and sociocultural analysis were also employed to examine the influence of cognitive processes, social interaction, cultural background, and individual consciousness on discourse formation and interpretation. The interdisciplinary character of discourse studies requires the integration of linguistic and extralinguistic factors, including psychological, social, cultural, and cognitive aspects.

RESULTS AND DISCUSSION

The research was conducted in several stages. First, relevant theoretical sources were collected and reviewed. Second, the principal approaches to discourse were identified and classified. Third, the relationship between discourse, text, speech, communication, and context was analyzed. Finally, the results of the theoretical analysis were synthesized in order to determine the main characteristics of discourse as a dynamic, multidimensional, and context-dependent phenomenon. The combination of these methods provides a comprehensive methodological basis for studying discourse as a form of human communicative activity rather than merely as a finished linguistic product.

In contemporary linguistics, discourse is generally viewed as a dynamic process of language use in a particular communicative context. It includes both spoken and written forms of communication and reflects the interaction between language users, their intentions, social environment, and the situation in which communication takes place. Therefore, discourse cannot be limited to a sequence of grammatically connected sentences. It represents a complex communicative activity in which meaning is constructed and interpreted through the interaction of linguistic and extralinguistic factors.

The study of discourse also makes it possible to examine how different types of texts function in real communication. Particular attention is given to conversations, dialogues, narratives, and other forms of speech activity, since their meaning depends not only on linguistic structures but also on the context, participants, communicative purpose, and social conditions. From this perspective, discourse research provides an opportunity to investigate language as an active process rather than merely as a finished linguistic product.

Although the study of language activity has a long history, traditional linguistic approaches mainly concentrated on describing the structural features of its products. In particular, researchers often focused on grammatical, lexical, and syntactic characteristics of texts and speech. More recent approaches, however, have shifted attention toward the processes through which language is produced, understood, and interpreted in specific communicative situations. Consequently, discourse

has become an important object of modern linguistic research, connecting structural analysis with pragmatic, cognitive, psychological, and sociocultural perspectives.

The study also shows that discourse has different forms, including spoken and written communication, dialogue, and monologue. Each form has specific structural and functional features; however, they are interconnected and serve the common purpose of expressing ideas and transferring information. Spoken discourse is characterized by immediate interaction and the influence of the communicative situation, while written discourse is usually more organized and stable.

The findings confirm that modern discourse research connects linguistic analysis with pragmatic, cognitive, and sociocultural approaches. This allows researchers to examine not only the external structure of texts and speech but also the processes of meaning creation, interpretation, and communication between participants.

The analysis of discourse studies in Uzbek linguistics demonstrates that discourse-related research contributes to the understanding of text organization, speech forms, and communicative functions. It also highlights the importance of studying discourse within different cultural and social contexts.

CONCLUSION

In conclusion, the concept of discourse has undergone significant development throughout the history of modern linguistics. Initially associated primarily with connected speech or text, the term has gradually acquired a broader interpretation encompassing communication, interaction, cognition, social context, and individual consciousness. Contemporary discourse studies therefore regard discourse as a dynamic and multidimensional phenomenon that cannot be adequately investigated within the framework of linguistics alone. Its comprehensive analysis requires an interdisciplinary approach incorporating insights from psychology, cognitive science, sociology, philosophy, pragmatics, and related fields. Such an approach makes it possible to understand discourse not simply as a linguistic product, but as a form of human communicative activity shaped by linguistic, cognitive, social, and cultural factors.

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DEVELOPING THE RESEARCH COMPETENCE OF STUDENTS THROUGH ADAPTIVE EDUCATIONAL TECHNOLOGIES

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Abstract. Research competence has become a core outcome of modern higher education, yet many universities still develop it through uniform, one-size-fits-all instruction. This article examines how adaptive educational technologies (systems that adjust content, pacing, feedback, and support to individual learners) can develop students' research competence. It defines research competence as a set of interrelated components, reviews the main types of adaptive technology, and proposes a four-stage pedagogical model for integrating them into research-oriented learning. It also discusses the risks of implementation, including algorithmic bias, over-reliance on automation, data privacy, and unequal access. The article argues that adaptive technologies are most effective when they support, rather than replace, the instructor's role as research mentor.

Keywords: research competence, adaptive learning, personalized learning, higher education, self-regulated learning, learning analytics, research skill development

Аннотация. Исследовательская компетентность стала основным результатом современного высшего образования, однако многие университеты по-прежнему развивают ее с помощью единообразного, универсального для всех обучения. В этой статье рассматривается, как адаптивные образовательные технологии (системы, которые корректируют содержание, темп, обратную связь и поддержку отдельных учащихся) могут развивать исследовательскую компетентность студентов. В нем исследовательская компетентность определяется как набор взаимосвязанных компонентов, рассматриваются основные типы адаптивных технологий и предлагается четырехэтапная педагогическая модель для их интеграции в научно-ориентированное обучение. В статье также обсуждаются риски внедрения, включая предвзятость алгоритмов, чрезмерную зависимость от автоматизации, конфиденциальность данных и неравный доступ. В статье утверждается, что адаптивные технологии наиболее эффективны, когда они поддерживают, а не заменяют роль преподавателя в качестве научного руководителя.

Ключевые слова. исследовательская компетентность, адаптивное обучение, персонализированное обучение, высшее образование, саморегулируемое обучение, аналитика обучения, исследование

Annotatsiya. Tadqiqot kompetentsiyasi zamonaviy oliy ta'limning asosiy natijasi bo'ldi, ammo ko'plab universitetlar hali ham uni yagona, hamma uchun universal ta'lim orqali rivojlantirmoqda. Ushbu maqolada adaptiv ta'lim texnologiyalari (individual o'quvchilarning mazmuni, sur'ati, fikr-mulohazalari va qo'llab-quvvatlashini sozlaydigan tizimlar) talabalarning tadqiqot qobiliyatini qanday rivojlantirishi mumkinligi ko'rib chiqiladi. U tadqiqot kompetentsiyasini o'zaro bog'liq komponentlar to'plami sifatida belgilaydi, adaptiv texnologiyalarning asosiy turlarini ko'rib chiqadi va ularni ilmiy yo'naltirilgan ta'limga integratsiya qilish uchun to'rt bosqichli pedagogik modelni taklif qiladi. Maqolada, shuningdek, algoritmlarning noto'g'riligi, avtomatlashtirishga haddan tashqari bog'liqlik, ma'lumotlarning maxfiyligi va tengsiz kirish kabi amalga oshirish xavflari muhokama qilinadi. Maqolada ta'kidlanishicha, adaptiv texnologiyalar o'qituvchi rolini almashtirish o'rniga, qo'llab-quvvatlashda eng samarali hisoblanadi

Kalit so'zlar. tadqiqot kompetentsiyasi, moslashuvchan ta'lim, shaxsiylashtirilgan ta'lim, oliy ma'lumot, o'z-o'zini tartibga soluvchi ta'lim, o'rganish tahlili, tadqiqot

INTRODUCTION

Universities are expected to graduate people who can find, evaluate, and produce knowledge, not only reproduce it. Frameworks for undergraduate and postgraduate education increasingly treat

research and inquiry as central to learning across all disciplines [Healey & Jenkins, 2009; Brew, 2013]. Kuh lists undergraduate research among the “high-impact” educational practices because of its association with deeper engagement and persistence.

In practice, however, students enter research-related courses with very different levels of preparation. Some can already formulate a research question and search databases effectively, while others struggle to distinguish a source from an argument. A single lecture-based syllabus cannot serve both groups well. The result is either frustration for weaker students or boredom for stronger ones, and in both cases research competence develops unevenly.

Adaptive educational technologies offer a possible response. By continuously diagnosing what a learner knows and can do, and adjusting instruction accordingly, they approximate the individual attention that Bloom found produced substantially higher achievement than conventional classroom teaching. This article asks how such technologies can be used specifically to develop research competence, a complex, multi-component outcome that is harder to teach than factual knowledge.

What Is Research Competence?

Research competence is best understood as an integrated capacity rather than a single skill. Drawing on the Research Skill Development framework [Willison & O'Regan, 2007] and related literature, it can be described through five components:

Cognitive-analytical component: identifying a problem, formulating research questions and hypotheses, critically analyzing sources, and synthesizing evidence;

Methodological component: selecting appropriate research designs, collecting data, and applying suitable analytical methods, both qualitative and quantitative;

Information and digital component: searching, evaluating, managing, and ethically using information and digital research tools;

Communicative component: presenting findings in academic writing and oral form, and engaging in scholarly discussion;

Reflective and ethical component: monitoring one's own research process, acting with academic integrity, and evaluating the limits of one's conclusions.

Because these components develop at different rates in different students, research competence is a natural candidate for personalized support. A student may be strong in the communicative component but weak in methodology, and the ideal learning path for that student differs from that of a peer with the opposite profile.

Adaptive Educational Technologies: An Overview

Adaptive educational technologies share a common logic: they collect data on learner performance and behavior, interpret it through a learner model, and modify the learning experience accordingly. Four types are especially relevant to research education.

Intelligent tutoring systems (ITS). These provide step-by-step guidance and immediate feedback within a defined domain. Meta-analytic evidence suggests that ITS can produce learning gains comparable to, and sometimes approaching, those of human tutoring [VanLehn, 2011; Kulik & Fletcher, 2016]. They are most useful for well-structured sub-skills such as statistical reasoning or citation practice.

Adaptive learning platforms. These sequence content and assessment according to a learner's demonstrated mastery, allowing students to skip material they already know and receive extra practice where they struggle. In research courses, they can personalize modules on topics such as research design, sampling, or academic writing conventions.

Learning analytics and dashboards. By aggregating data on student activity, these tools help both students and instructors see patterns, such as delayed progress on the literature review or repeated errors in methodology exercises. They support timely intervention and self-monitoring.

AI-assisted writing, search, and feedback tools. Automated feedback systems, recommendation engines for literature, and conversational assistants can support drafting and revision. Systematic reviews of artificial intelligence in higher education note their growing use,

while also observing that pedagogical grounding and ethical reflection are often underdeveloped [Zawacki-Richter et al., 2019].

Theoretical Foundations

Three theoretical perspectives explain why adaptivity can benefit research learning.

First, Vygotsky's concept of the zone of proximal development holds that learning is most effective when tasks lie just beyond what the learner can do independently but within reach with support. Adaptive systems can operationalize this by continuously adjusting task difficulty and scaffolding.

Second, theories of self-regulated learning [Zimmerman, 2002] emphasize planning, monitoring, and reflection. Research is inherently self-directed, so tools that make progress visible and prompt reflection directly serve this competence.

Third, research on feedback shows that its effect depends on quality and timing: feedback is most powerful when it clarifies goals, indicates progress, and suggests next steps [Hattie & Timperley, 2007]. Adaptive technologies can deliver such feedback at a scale that no individual instructor could match.

A Pedagogical Model for Developing Research Competence

The following four-stage model integrates adaptive technologies into a research-oriented course. It is a design framework offered for discussion and empirical testing, not a validated instrument.

Stage 1: Diagnostic profiling. At the start of the course, students complete a diagnostic assessment covering the five components of research competence. The results form an initial learner profile that identifies strengths and gaps. This replaces the assumption that all students begin at the same point.

Stage 2: Personalized skill-building. Guided by the profile, an adaptive platform assigns targeted micro-modules, such as formulating research questions, evaluating sources, or choosing a method. Students who demonstrate mastery move on, while others receive additional examples, practice, and scaffolded feedback. In language education, for example, a student's learning path might differ depending on whether their difficulty lies in designing a survey instrument or in analyzing qualitative classroom data.

Stage 3: Authentic mini-research projects. Adaptive support is not an end in itself. Students apply their skills in small, real research projects, such as an action-research study, a literature-based review, or a small survey. During this stage, technology supports the process (literature recommendations, drafting feedback, analytics on progress), while the instructor acts as a research mentor, discussing design decisions and challenging weak reasoning.

Stage 4: Reflection and portfolio. Students assemble a research portfolio and write a reflective commentary on their development, drawing on analytics data as evidence. Repeating the diagnostic assessment at the end lets both students and instructors see change over time.

The key design principle is that technology handles routine diagnosis, practice, and formative feedback, freeing instructor time for higher-order mentoring.

Practical Recommendations for Instructors

Start with learning goals, not tools. Choose technologies only after specifying which research competence components a course is meant to develop.

Combine adaptive and collaborative learning. Research is a social practice; peer review, seminars, and group projects should complement individualized pathways.

Make the adaptivity transparent. Students should understand why they receive particular tasks or feedback and should be able to question them.

Use analytics formatively. Data should trigger supportive conversations, not serve as grounds for penalizing students.

Teach responsible use of AI tools. Explicit guidance on acknowledging AI assistance, verifying outputs, and maintaining academic integrity is part of research competence itself.

Assess authentic outputs. Final assessment should rest on research products and reflection, such as proposals, reports, and defenses, rather than on system-generated scores alone.

Challenges and Limitations

Several concerns temper any enthusiasm for adaptive technologies.

Overreliance and deskilling. If a system supplies sources, outlines, or interpretations too readily, students may not develop the independent judgment that research demands. Adaptive support should be gradually withdrawn as competence grows.

Algorithmic bias and validity. Learner models rest on assumptions and training data that may not represent all student groups. Recommendations should be audited, and human judgment should retain the final say.

Data privacy. Adaptive systems collect detailed data on learner behavior. Institutions need clear policies on consent, storage, and use of this data.

Equity and access. Unequal access to devices, connectivity, and digital literacy can widen rather than narrow gaps, especially in under-resourced settings.

Limited evidence for complex outcomes. Much of the strongest evidence for adaptive systems concerns well-structured domains. Evidence for their effect on higher-order, ill-structured competencies such as research design and critical argumentation is less developed, which makes rigorous local evaluation important.

Instructor readiness. Effective use requires training in both the technology and its pedagogy. Without it, adaptive tools risk being used as sophisticated quiz engines.

CONCLUSION

Research competence is multi-dimensional, develops unevenly across learners, and depends on sustained practice with timely feedback, conditions that conventional mass instruction struggles to provide. Adaptive educational technologies can help by diagnosing individual needs, personalizing practice, and supplying formative feedback at scale. Their value, however, depends on pedagogical design. Used within a framework that links diagnosis, targeted skill-building, authentic research tasks, and reflection, they can strengthen students' research competence. Used uncritically, they risk fostering dependence and reinforcing inequality. The instructor remains the central figure, and adaptive technology is best seen as a means of giving mentors more time for the intellectual work only they can do. Future research should test models like the one proposed here through longitudinal, discipline-specific studies that measure changes in students' actual research performance.

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INGLIZ-O‘ZBEK TERMINOLOGIYASIDA PARALLEL TERMINLARNING SHAKLLANISH MEKANIZMLARI VA ULARNI ME‘YORLASHTIRISH MEZONLARI

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Annotatsiya. Mazkur maqolada ingliz-o‘zbek terminologiyasida bir tushunchani ifodalovchi parallel terminlarning shakllanish mexanizmlari va ularni me‘yorlashtirish masalalari tadqiq etiladi. Tadqiqotning dolzarbligi zamonaviy fan, texnologiya va raqamli kommunikatsiya sohalarida ingliz tilidan o‘zbek tiliga yangi terminlarning faol kirib kelishi natijasida bir termin uchun bir nechta muqobil shakllarning parallel qo‘llanilishi bilan belgilanadi. Tadqiqotda terminlarning o‘zlashishi, transliteratsiya, kalkalash, semantik tarjima va milliy termin yaratish kabi shakllanish mexanizmlari tahlil qilinadi. Parallel terminlarni baholashda semantik aniqlik, strukturaviy moslik, terminologik ixchamlik, qo‘llanish chastotasi, tizimlilik va til me‘yorlariga muvofiqlik kabi mezonlar asos qilib olinadi. Tadqiqot natijasida ingliz tilidan o‘zbek tiliga o‘zlashtirilayotgan terminlar orasidan maqbul terminologik variantni aniqlash va ularni me‘yorlashtirishga xizmat qiluvchi lingvistik mezonlar tizimi taklif etiladi. Mazkur yondashuv ingliz-o‘zbek terminologik lug‘atlarini yaratish, terminologik birliklarni standartlashtirish va zamonaviy o‘zbek terminologiyasini takomillashtirish uchun amaliy ahamiyatga ega.

Kalit so‘zlar: terminologiya, parallel terminlar, terminologik variantlilik, termin yaratish, termin o‘zlashtirish, transliteratsiya, kalkalash, terminologik me‘yorlashtirish, ingliz tili, o‘zbek tili.

Аннотация. В статье исследуются механизмы формирования параллельных терминов, обозначающих одно и то же понятие, в англо-узбекской терминологии, а также критерии их нормализации. Актуальность исследования обусловлена активным проникновением новых терминов из английского языка в узбекский в сферах науки, технологий и цифровой коммуникации, что приводит к параллельному употреблению нескольких вариантов одного термина. В исследовании анализируются такие механизмы формирования терминов, как заимствование, транслитерация, калькирование, семантический перевод и создание национальных терминологических эквивалентов. В качестве основных критериев оценки параллельных терминов рассматриваются семантическая точность, структурная соответствие, терминологическая краткость, частотность употребления, системность и соответствие языковым нормам. В результате исследования предлагается система лингвистических критериев для определения наиболее приемлемого терминологического варианта и его нормализации при переходе терминов из английского языка в узбекский. Данный подход имеет практическое значение для составления англо-узбекских терминологических словарей, стандартизации терминологических единиц и совершенствования современной узбекской терминологии.

Ключевые слова: терминология, параллельные термины, терминологическая вариантность, терминообразование, заимствование терминов, транслитерация, калькирование, нормализация терминов, английский язык, узбекский язык.

Abstract. This article examines the mechanisms underlying the formation of parallel terms referring to the same concept in English-Uzbek terminology and the criteria for their normalization. The relevance of the study is determined by the active transfer of new terms from English into Uzbek in the fields of science, technology, and digital communication, which results in the parallel use of several alternative forms for a single concept. The study analyzes such mechanisms of term formation as borrowing, transliteration, calquing, semantic translation, and the creation of national

terminological equivalents. The evaluation of parallel terms is based on such criteria as semantic accuracy, structural compatibility, terminological conciseness, frequency of use, systematicity, and compliance with linguistic norms. The study proposes a system of linguistic criteria for identifying the most appropriate terminological variant and normalizing terms transferred from English into Uzbek. The proposed approach has practical significance for the development of English-Uzbek terminological dictionaries, the standardization of terminological units, and the further development of modern Uzbek terminology.

Keywords: terminology, parallel terms, terminological variation, term formation, term borrowing, transliteration, calquing, term normalization, English language, Uzbek language.

KIRISH

Terminologiya tilning fan, texnika, texnologiya, iqtisodiyot, tibbiyot va boshqa maxsus sohalaridagi taraqqiyotini aks ettiruvchi dinamik qatlamlaridan biridir. Globallashuv va xalqaro ilmiy-texnik aloqalarning jadallashuvi natijasida turli tillar o'rtasida terminologik birliklarning faol almashinuvi kuzatilmoqda. Ayniqsa, ingliz tili zamonaviy ilm-fan, axborot texnologiyalari, raqamli kommunikatsiya, biznes va marketing sohalarida yangi tushunchalarni ifodalovchi terminlarning asosiy manbalaridan biriga aylanmoqda. Bu jarayon o'zbek tilining zamonaviy terminologik tizimida ham sezilarli o'zgarishlarni yuzaga keltirmoqda.

Ingliz tilidan o'zbek tiliga terminlarning kirib kelishi har doim ham bitta barqaror terminologik ekvivalentning shakllanishi bilan yakunlanmaydi. Yangi tushunchalarni nomlash jarayonida bevosita o'zlashtirish, transliteratsiya, kalkalash, semantik tarjima, tavsifiy tarjima hamda o'zbek tilining ichki imkoniyatlari asosida yangi termin yaratish kabi turli usullardan foydalaniladi. Natijada bir xil maxsus tushunchani ifodalovchi ikki yoki undan ortiq terminologik birliklarning bir vaqtning o'zida qo'llanishi kuzatiladi. Mazkur birliklar ushbu tadqiqotda parallel terminlar sifatida qaraladi.

Parallel terminlarning shakllanishi, bir tomondan, tilning yangi tushunchalarni o'zlashtirish va nomlash imkoniyatlarini namoyon etsa, ikkinchi tomondan, terminologik tizimda me'yorlashuv bilan bog'liq muammolarni yuzaga keltiradi. Xususan, inglizcha terminning o'zbek tilidagi o'zlashma shakli keng qo'llanilishi mumkin, ayni paytda uning kalkalangan yoki semantik jihatdan tarjima qilingan muqobili ham faol ishlatilishi mumkin. Bunday vaziyatda terminologik birliklarning qaysi biri ma'no jihatidan aniqroq, qaysi biri o'zbek tilining so'z yasash va grammatik qonuniyatlariga ko'proq mos kelishi, qaysi biri mutaxassislar nutqida barqarorlashgani hamda qaysi variantni me'yoriy termin sifatida tavsiya etish mumkinligi masalasi dolzarb ahamiyat kasb etadi.

Mazkur tadqiqotda parallel termin tushunchasi bir xil maxsus tushunchani ifodalovchi, muayyan terminologik sohada bir vaqtning o'zida qo'llaniladigan, biroq shakliy tuzilishi, hosil bo'lish usuli yoki tilga integratsiyalashuv darajasi bilan farqlanuvchi ikki yoki undan ortiq terminologik birlikni ifodalash uchun qo'llanadi. Ushbu tushuncha terminologik variativlik, terminologik sinonimiya va terminologik dublet kabi yaqin hodisalar bilan bog'liq bo'lsa-da, tadqiqotda asosiy e'tibor aynan terminlarning sinxron mavjudligi va maxsus kommunikatsiyadagi real qo'llanishiga qaratiladi.

Terminologik parallel birliklarning mavjudligi o'z-o'zidan salbiy hodisa sifatida baholanmasligi lozim. Terminologik tizimning shakllanish bosqichida bir tushunchaning turli nomlar orqali ifodalanishi tabiiy jarayon hisoblanadi. Biroq bunday variantlarning uzoq vaqt davomida tartibsiz qo'llanishi terminologik noaniqlikni kuchaytirishi, ilmiy va kasbiy kommunikatsiyada tushunishni qiyinlashtirishi hamda ikki tilli terminologik lug'atlarni tuzishda muammolarni yuzaga keltirishi mumkin. Shu sababli parallel terminlarni aniqlash bilan bir qatorda, ularni baholash va me'yorlashtirishning aniq lingvistik mezonlarini ishlab chiqish muhimdir.

Mavjud tadqiqotlarda terminologik variativlik, sinonimiya, termin o'zlashtirish, tarjima ekvivalentligi va terminlarni standartlashtirish masalalari turli nuqtayi nazarlardan o'rganilgan. Biroq ingliz tilidan o'zbek tiliga kirib kelayotgan terminlarning qaysi mexanizmlar asosida parallel shakllarni hosil qilishi va ushbu shakllarni yagona mezonlar tizimi asosida baholash masalasi alohida kompleks yondashuvni talab etadi. Ayniqsa, terminlarning paydo bo'lish mexanizmi bilan ularni

keyingi me'yorlashtirish jarayonini yagona tadqiqot doirasida bog'lash muhim ilmiy vazifa hisoblanadi.

Shu nuqtayi nazardan, tadqiqotning asosiy maqsadi ingliz-o'zbek terminologiyasida parallel terminlarning shakllanish mexanizmlarini aniqlash hamda ularni baholash va me'yorlashtirishning lingvistik mezonlarini ishlab chiqishdan iborat.

Mazkur maqsadga erishish uchun quyidagi tadqiqot vazifalari belgilandi:

1. ingliz-o'zbek terminologiyasida parallel terminlarning shakllanishiga olib keluvchi asosiy mexanizmlarni aniqlash;
2. o'zlashma, transliteratsiya, kalkalash, semantik tarjima va milliy termin yaratish orqali hosil bo'lgan parallel birliklarni tasniflash;
3. parallel terminlarning semantik va strukturaviy xususiyatlarini aniqlash;
4. parallel terminlarni oddiy leksik sinonimlar va terminologik dubletlardan farqlash mezonlarini belgilash;
5. parallel terminlarni baholash va me'yorlashtirish uchun lingvistik mezonlar tizimini ishlab chiqish.

Tadqiqotda chog'ishtirma, tavsifiy, strukturaviy-semantik, komponent tahlili, kontekstual va statistik metodlardan foydalaniladi. Ingliz tilidagi terminlar va ularning o'zbek tilidagi muqobillari ularning shakllanish usuli, semantik aniqligi, strukturaviy xususiyatlari, qo'llanish chastotasi va terminologik tizimdagi funksional o'rni nuqtayi nazaridan tahlil qilinadi.

Tadqiqotning ilmiy yangiligi ingliz-o'zbek terminologiyasida parallel terminlarni faqat variant yoki sinonim sifatida qayd etish bilan cheklanmay, ularning shakllanish mexanizmi va me'yorlashtirish mezonlarini yagona tizim doirasida tahlil qilish bilan belgilanadi. Tadqiqot natijasida terminologik birliklarni baholashda semantik aniqlik, strukturaviy moslik, terminologik ixchamlik, qo'llanish chastotasi, tizimlilik va o'zbek adabiy tili me'yorlariga muvofiqlik kabi mezonlardan foydalanish taklif etiladi. Mazkur yondashuv ingliz-o'zbek terminologik lug'atlarini yaratish, tarjima amaliyotini takomillashtirish va zamonaviy o'zbek terminologiyasini me'yorlashtirish uchun nazariy hamda amaliy ahamiyatga ega.

TERMINOLOGIK PARALLELLIKNING NAZARIY ASOSLARI

Terminologik birliklarning shakllanishi va rivojlanishi tilning umumiy leksik tizimidan ma'lum darajada farq qiladi. Chunki termin, avvalo, muayyan fan yoki kasb sohasiga oid tushunchani aniq va imkon qadar bir ma'noli ifodalash vazifasini bajaradi. Shu sababli terminologik tizimda shakliy jihatdan turlicha, biroq bir xil tushunchani ifodalovchi birliklarning parallel ravishda qo'llanishi alohida lingvistik hodisa sifatida namoyon bo'ladi.

Terminologik parallel birliklarning yuzaga kelishi, odatda, yangi tushunchaning tilga kirib kelishi bilan boshlanadi. Dastlab yangi tushuncha manba tildagi shaklda o'zlashtirilishi mumkin. Keyinchalik ushbu tushunchaga milliy til imkoniyatlari asosida muqobil nom yaratiladi. Ayrim hollarda esa manba terminning tarkibiy qismlari bevosita tarjima qilinib, kalkalangan birlik hosil qilinadi. Natijada bir tushuncha uchun bir necha terminologik shakl mavjud bo'lishi mumkin.

Masalan, zamonaviy raqamli kommunikatsiya terminologiyasida inglizcha terminlarning o'zbek tiliga o'zlashishida bir nechta yo'nalish kuzatiladi. Content creator birikmasi *kontent-kreator* shaklida o'zlashtirilishi yoki *kontent yaratuvchi* tarzida semantik jihatdan ifodalanishi mumkin. Xuddi shuningdek, target audience termini *target auditoriya*, *maqsadli auditoriya* kabi shakllarda uchrashi mumkin. Bunday birliklar shaklan turlicha bo'lsa-da, ularning ortida bir xil yoki juda yaqin maxsus tushuncha mavjud. Shu jihatdan parallel terminlarni quyidagi uch asosiy belgi asosida aniqlash mumkin:

1. Konseptual umumiylik. Parallel birliklar bir xil maxsus tushunchani ifodalashi kerak.
2. Shakliy farqlilik. Birliklarning fonetik, morfologik, leksik yoki sintaktik shakli bir-biridan farq qiladi.
3. Sinxron qo'llanish. Turli terminlar muayyan davrda bir vaqtning o'zida real maxsus kommunikatsiyada qo'llanadi.

Demak, parallel terminlarni aniqlashda faqat lugʻatdagi mavjudlikning oʻzi yetarli emas. Ularning real nutqdagi qoʻllanishi, qanday maʼnoda ishlatilishi va bir xil tushunchaga xizmat qilishi ham tekshirilishi lozim.

Ingliz-oʻzbek terminologik tizimida parallel terminlarning yuzaga kelishiga bir nechta asosiy mexanizm sabab boʻladi. Tadqiqot natijalariga koʻra, ularni shartli ravishda besh guruhga ajratish mumkin.

1. Bevosita oʻzlashtirish. Birinchi mexanizm inglizcha terminning oʻzbek tiliga bevosita kirib kelishi bilan bogʻliq. Bunda terminning asosiy shakli saqlanadi va u oʻzbek tilidagi maxsus kommunikatsiyada ishlatila boshlaydi. Masalan: *marketing; blogger; podcast; branding; targeting; influencer*. Bunday birliklarning asosiy xususiyati shundaki, ular qisqa vaqt ichida mutaxassislar orasida ommalashishi mumkin. Biroq shu tushuncha uchun oʻzbek tilining ichki imkoniyatlari asosida muqobil birlik yaratilsa, parallel terminlar shakllanadi. Masalan: *influencer* → *influencer* / taʼsir koʻrsatuvchi. Bu holatda terminning oʻzlashgan va tarjima asosida yaratilgan shakli parallel ravishda mavjud boʻlishi mumkin.

2. Transliteratsiya va fonetik moslashtirish. Ikkinchi mexanizm inglizcha terminning oʻzbek yozuv tizimiga moslashtirilishi bilan bogʻliq. Bunda terminning mazmuni tarjima qilinmaydi, balki uning tovush yoki grafik shakli oʻzbek tilining yozuv imkoniyatlariga moslashtiriladi. Masalan: *blog* → *blog*; *podcast* → *podcast*; *content* → *content*. Bunday birliklar keyinchalik oʻzbekcha muqobil bilan parallel qoʻllanishi mumkin: *content* → *kontent* / *mazmun*. Biroq bu yerda semantik moslik alohida tekshirilishi kerak. Chunki har bir tarjima shakli avtomatik ravishda terminologik ekvivalent hisoblanmaydi.

3. Kalkalash. Parallel terminlarning shakllanishida kalkalash ham muhim mexanizmlardan biridir. Kalkalashda manba tildagi terminning tarkibiy qismlari boshqa tilda maʼnosiga koʻra tarjima qilinadi. Masalan: *target audience* → maqsadli auditoriya; *social network* → ijtimoiy tarmoq

artificial intelligence → sunʼiy intellekt; Agar shu bilan bir qatorda inglizcha yoki yarim oʻzlashgan shakl ham ishlatilsa, parallel terminologik birliklar yuzaga keladi: *target audience* → *target auditoriya* / maqsadli auditoriya. Shunday qilib, kalkalash terminologik tizimni milliyalashtirish imkonini bersa-da, uning natijasi doimo yagona standart shaklga olib kelmasligi mumkin.

4. Semantik tarjima. Baʼzi hollarda inglizcha terminning mazmuni oʻzbek tilidagi mavjud leksik birliklar yordamida qayta ifodalanadi. Bunda terminning tashqi shakli emas, uning asosiy semantik mazmuni tarjima qilinadi. Masalan: *content creator* → *kontent yaratuvchi*; *target audience* → maqsadli auditoriya. *content marketing* → *kontent marketingi*. Semantik tarjima natijasida hosil boʻlgan terminlar koʻpincha oʻzbek tilining grammatik va soʻz yasash tizimiga yaxshiroq moslashadi. Biroq ularning amaliy qoʻllanish chastotasi oʻzlashma shakllarga nisbatan past boʻlishi mumkin.

5. Milliy termin yaratish. Eng murakkab mexanizmlardan biri yangi tushunchani oʻzbek tilining ichki imkoniyatlari asosida nomlashdir. Bunda mavjud soʻzlar, soʻz yasovchi qoʻshimchalar va terminologik modellar asosida yangi birlik hosil qilinadi. Mazkur mexanizm terminologik tizimning milliy xususiyatlarini kuchaytirishga xizmat qiladi. Biroq yangi terminning muvaffaqiyatli ommalashuvi faqat uning lingvistik jihatdan toʻgʻri tuzilganiga emas, balki mutaxassislar tomonidan qabul qilinishiga va amaliy nutqda qoʻllanishiga ham bogʻliq.

Parallel terminlarning mavjudligi terminologik tizimning rivojlanish jarayonida tabiiy hodisa boʻlishi mumkin. Biroq bir tushuncha uchun haddan tashqari koʻp variantlarning mavjudligi terminologik noaniqlikni yuzaga keltiradi. Shu sababli terminologik meʼyorlashtirish jarayonida mavjud variantlarning lingvistik va kommunikativ xususiyatlarini kompleks baholash talab etiladi.

Termin tanlashda faqat uning qoʻllanish chastotasiga tayanish ham yetarli emas. Masalan, xorijiy termin mutaxassislar orasida juda keng tarqalgan boʻlishi mumkin, ammo u oʻzbek tilining fonetik, morfologik yoki soʻz yasash tizimiga toʻliq moslashmagan boʻlishi ehtimoldan xoli emas. Aksincha, yangi yaratilgan oʻzbekcha termin lingvistik jihatdan mukammal boʻlsa-da, amaliy kommunikatsiyada yetarlicha qoʻllanmasligi mumkin. Shu sababli parallel terminlarni meʼyorlashtirishda bir nechta mezonlarni birgalikda qoʻllash maqsadga muvofiq.

1. Semantik aniqlik mezon. Termin, avvalo, ifodalayotgan tushunchaning mazmunini aniq aks ettirishi kerak. Agar tarjima qilingan birlik tushunchaning faqat bir qismini ifodalasa yoki

ma'noni kengaytirib yoki toraytirib yuborsa, uni to'laqonli terminologik ekvivalent sifatida qabul qilish ehtiyotkorlikni talab qiladi.

2. Strukturaviy moslik mezon. Termin o'zbek tilining morfologik va sintaktik qonuniyatlariga mos bo'lishi kerak. Termin tarkibidagi komponentlarning o'zbek tilida qanday bog'lanishi, so'z yasash modeli va grammatik shakllanishi ham baholanishi lozim.

3. Terminologik ixchamlik. Termin imkon qadar qisqa, aniq va foydalanish uchun qulay bo'lishi kerak. Haddan tashqari uzun tavsifiy birikmalar terminning maxsus kommunikatsiyadagi samaradorligini pasaytirishi mumkin. Biroq ixchamlikni yagona mezon sifatida qo'llash ham noto'g'ri. Qisqa termin ma'noni yetarli darajada ifodalamasligi mumkin. Shuning uchun ixchamlik semantik aniqlik bilan birgalikda baholanishi lozim.

4. Qo'llanish chastotasi. Terminologik birlikning real matnlardagi qo'llanish chastotasi uning terminologik tizimda qay darajada mustahkamlanganini aniqlashga yordam beradi. Buning uchun ilmiy maqolalar, darsliklar, professional internet resurslari, terminologik lug'atlar va boshqa maxsus matnlardan foydalanish mumkin.

5. Tizimlilik mezon. Termin alohida birlik sifatida emas, balki muayyan terminologik tizimning elementi sifatida baholanishi kerak. Bir terminning shakllanish modeli shu sohadagi boshqa terminlar bilan uyg'un bo'lsa, uning tizimlilik darajasi yuqori bo'ladi.

Masalan, bir sohada barcha terminlar milliy so'z yasash modeli asosida yaratilayotgan bo'lsa, bitta terminning asossiz ravishda boshqa til shaklida qolishi tizimlilik nuqtayi nazaridan qayta ko'rib chiqilishi mumkin.

6. Til me'yorlariga muvofiqlik. Parallel terminlarni tanlashda o'zbek adabiy tilining imlo, fonetik, morfologik va sintaktik me'yorlari ham hisobga olinishi lozim. Termin xalqaro shaklda bo'lsa ham, uning o'zbek tilidagi qo'llanish shakli mavjud til me'yorlariga zid bo'lmasligi kerak.

Yuqoridagi mezonlar asosida ingliz-o'zbek terminologiyasida parallel terminlarni baholashning quyidagi modelini taklif qilish mumkin:

Parallel terminlar	Konseptual	identifikatsiya
1-bosqich:		
Bir xil tushunchani ifodalayaptimi?		
2-bosqich:	Shakllanish	mexanizmini aniqlash
O'zlashma / transliteratsiya / kalkalash / semantik tarjima / milliy termin yaratish		
3-bosqich:	Semantik	baholash
Termin tushunchani qanchalik aniq ifodalaydi?		
4-bosqich:	Strukturaviy	baholash
O'zbek tilining grammatik va so'z yasash tizimiga mosmi?		
5-bosqich:	Funksional	baholash
Real maxsus kommunikatsiyada qo'llanadimi?		
6-bosqich:	Tizimlilikni	aniqlash
Boshqa terminlar bilan terminologik tizim hosil qiladimi?		
7-bosqich:	Me'yoriy variantni	aniqlash
Muayyan soha uchun maqbul terminologik shaklni belgilash.		

Mazkur model terminni avtomatik ravishda "to'g'ri" yoki "noto'g'ri" deb baholashga emas, balki bir nechta ko'rsatkich asosida kompleks tahlil qilishga imkon beradi.

Tadqiqot doirasida parallel terminlarni ularning shakllanish mexanizmiga ko'ra quyidagicha tasniflash mumkin:

Parallel terminlarning turi	Shakllanish mexanizmi	Misol
O'zlashma–milliy	O'zlashma + milliy termin yaratish	influencer / ta'sir ko'rsatuvchi
O'zlashma–kalkalangan	O'zlashma + kalkalash	target / maqsadli
O'zlashma–tarjima	O'zlashma + semantik tarjima	content creator / kontent yaratuvchi

Parallel turi	terminlarning	Shakllanish mexanizmi	Misol
Transliteratsion–milliy		Transliteratsiya + milliy ekvivalent	blogger / blog yurituvchi
Kalkalangan–tavsifiy		Kalkalash + tavsifiy tarjima	target audience / maqsadli auditoriya

Ushbu tasnif parallel terminlarning shunchaki shakliy farqlarini emas, balki ularning qanday lingvistik jarayon natijasida yuzaga kelganini ham ko'rsatadi.

MUHOKAMA

Ingliz-o'zbek terminologiyasida parallel terminlarning shakllanishi ikki asosiy lingvistik ehtiyojning kesishish nuqtasida yuzaga keladi. Bir tomondan, yangi tushunchani imkon qadar tez nomlash ehtiyoji mavjud bo'lsa, ikkinchi tomondan, mazkur tushunchani o'zbek tilining mavjud me'yorlari va terminologik imkoniyatlari asosida ifodalash zarurati mavjud. Aynan shu ikki omil parallel terminlarning paydo bo'lishiga sharoit yaratadi.

Terminologik tizimning rivojlanishida vaqt omili ham muhim ahamiyatga ega. Yangi tushuncha dastlab xorijiy shaklda kirib kelishi, keyinchalik esa uning o'zbekcha ekvivalenti yaratilishi mumkin. Natijada ma'lum vaqt davomida ikkala shakl parallel ravishda ishlatiladi. Demak, parallel terminlarning mavjudligi terminologik tizimning shakllanish va barqarorlashuv bosqichlari bilan ham bevosita bog'liq.

Shuningdek, mutaxassislar jamoasining termin tanlashdagi roli katta. Terminologik birlikning me'yorlashuvi faqat tilshunos yoki terminolog tomonidan belgilanmaydi. Termin real professional kommunikatsiyada qabul qilinishi va ishlatilishi zarur. Shu sababli terminlarni me'yorlashtirishda lingvistik mezonlar bilan bir qatorda ularning kasbiy sohadagi funksional qo'llanishini ham hisobga olish maqsadga muvofiq.

Tadqiqot nuqtayi nazaridan, parallel terminlarning barcha holatlarida bitta variantni majburiy ravishda chiqarib tashlash zarur, degan xulosaga kelish to'g'ri emas. Ayrim hollarda o'zlashgan va milliy shakl turli kommunikativ vazifalarni bajarishi yoki turli professional guruhlarda qo'llanishi mumkin. Shuning uchun me'yorlashtirish jarayoni terminologik xilma-xillikni to'liq yo'qotish emas, balki tushuncha–termin munosabatlarini aniq va tizimli holga keltirishga qaratilishi kerak.

XULOSA

Tadqiqot natijalari ingliz-o'zbek terminologiyasida parallel terminlarning shakllanishi ingliz tilidan yangi terminlarning o'zlashtirilishi, transliteratsiya, kalkalash, semantik tarjima va o'zbek tilining ichki imkoniyatlari asosida yangi termin yaratish kabi bir qator mexanizmlar bilan bog'liqligini ko'rsatadi. Ushbu jarayon natijasida bir xil maxsus tushunchani ifodalovchi turli terminologik birliklar muayyan vaqt davomida parallel ravishda qo'llanishi mumkin.

Parallel terminlarni aniqlash uchun ularning konseptual umumiyliigi, shakliy farqliligi va sinxron qo'llanishi asosiy mezon sifatida belgilandi. Shu bilan birga, parallel terminlarni terminologik sinonim, dublet va oddiy leksik variantlardan farqlashda ularning maxsus sohadagi funksiyasi va terminologik tizimdagi o'rni hisobga olinishi lozim.

Tadqiqotda parallel terminlarni me'yorlashtirish uchun semantik aniqlik, strukturaviy moslik, terminologik ixchamlik, qo'llanish chastotasi, tizimlilik va til me'yorlariga muvofiqlik kabi asosiy mezonlar taklif etildi. Ushbu mezonlarning kompleks qo'llanishi termin tanlashda faqat bitta omilga tayanishning oldini oladi va terminologik birlikni kengroq lingvistik hamda funksional nuqtayi nazardan baholash imkonini beradi. Shunday qilib, ingliz-o'zbek terminologiyasidagi parallel terminlar til tizimining beqaror yoki tasodifiy elementi sifatida emas, balki yangi tushunchalarning o'zlashtirilishi va terminologik tizimning shakllanish jarayonini aks ettiruvchi tabiiy lingvistik hodisa sifatida qaralishi mumkin. Biroq ularning uzoq muddatli parallel qo'llanishi terminologik noaniqlikni keltirib chiqarishi mumkinligi sababli, ularni ilmiy asosda baholash va me'yorlashtirish mexanizmlarini ishlab chiqish muhimdir. Taklif etilgan mezonlar tizimi ingliz-o'zbek terminologik lug'atlarini tuzish, terminologik ma'lumotlar bazalarini shakllantirish, tarjima amaliyotini

takomillashtirish hamda yangi terminlarni me'yorlashtirish jarayonlarida qo'llanishi mumkin. Kelgusidagi tadqiqotlarda ushbu modelni aniq sohaviy korpuslar asosida sinovdan o'tkazish, terminlarning chastotaviy ko'rsatkichlarini statistik jihatdan tahlil qilish va turli terminologik sohalar bo'yicha qiyosiy natijalarni ishlab chiqish maqsadga muvofiq.

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ЦИФРОВИЗАЦИЯ ОБРАЗОВАНИЯ И КАЧЕСТВО ОБРАЗОВАНИЯ

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Аннотация. Общая тенденция цифровизации общества обуславливает необходимость детального изучения вопросов, связанных с применением цифровых технологий в сфере образования, в том числе в педагогической науке. В статье рассматривается ряд взаимосвязанных задач: уточняется содержание понятия «цифровое образование» в современном научном дискурсе; выделяются наиболее значимые аспекты цифровизации, вызывающие интерес у общественности, исследователей и педагогов-практиков; анализируется опыт цифровизации системы образования Казахстана в международном контексте; раскрываются актуальные (временные) и имманентные (внутренне присущие) проблемы цифрового образования на современном этапе.

Ключевые слова: цифровизация образования, цифровое образование, информационно-коммуникационные технологии, утрата коммуникативных навыков, поколение Z.

Abstract. The general trend toward the digitalization of society highlights the need for a detailed study of issues related to the use of digital technologies in education, including their application in pedagogical research. This article addresses several interrelated objectives: to clarify the concept of “digital education” in contemporary academic discourse; to identify the most significant aspects of digitalization that are of particular concern to the public, researchers, and education practitioners; to analyze Kazakhstan’s experience in the digitalization of its education system within an international context; and to examine the current (temporary) and immanent (inherently characteristic) challenges of digital education at the present stage of its development.

Keywords: digitalization of education, digital education, information and communication technologies, loss of communication skills, Generation Z.

Annotatsiya. Jamiyatni raqamlashtirishning umumiy tendensiyasi ta’lim sohasida, jumladan, pedagogika fanida raqamli texnologiyalardan foydalanish bilan bog’liq masalalarni batafsil o’rganish zaruratini yuzaga keltirmoqda. Mazkur maqolada o’zaro bog’liq bir qator vazifalar ko’rib chiqiladi: zamonaviy ilmiy diskursda «raqamli ta’lim» tushunchasining mazmuniga aniqlik kiritiladi; jamoatchilik, tadqiqotchilar va amaliyotchi pedagoglarning qiziqishini uyg’otayotgan raqamlashtirishning eng muhim jihatlari ajratib ko’rsatiladi; Qozog’iston ta’lim tizimini raqamlashtirish tajribasi xalqaro kontekstda tahlil qilinadi; zamonaviy bosqichda raqamli ta’limning dolzarb (vaqtinchalik) hamda immanent (ichki xususiyatga ega) muammolari ochib beriladi.

Kalit so’zlar: ta’limni raqamlashtirish, raqamli ta’lim, axborot-kommunikatsiya texnologiyalari, kommunikativ ko’nikmalarning yo’qolishi, Z avlodi.

ВВЕДЕНИЕ

Термин «цифровое образование» имеет множество значений. Под ним понимается использование «компьютерных средств и информационных технологий в различных образовательных контекстах» [1, с. 14]; «совокупность образовательных интерфейсов цифрового мира» [2]; «цифровой контент, цифровые ресурсы» [3, с. 6]; «среда, открывающая новые возможности для обучения в любое время» [4, с. 108].

В педагогике цифровое образование рассматривается также как процесс организации взаимодействия преподавателей и обучающихся в цифровой образовательной среде или в условиях перехода к современным образовательным технологиям. Этот процесс основывается на сочетании технологий традиционной классно-урочной системы и электронного обучения с использованием новых дидактических возможностей, предоставляемых информационно-коммуникационными технологиями и современными средствами обучения [5].

Таким образом, в настоящее время единого определения понятия «цифровое образование» не существует. Его трактовка во многом зависит от профессиональной сферы авторов, рассматривающих данное явление: педагогики, экономики, информационных технологий, менеджмента и др.

ОСНОВНАЯ ЧАСТЬ

Исследователи сходятся во мнении, что парадигма цифровизации характеризуется как положительными, так и отрицательными последствиями. В отечественном педагогическом информационном пространстве к основным преимуществам цифрового образования относят:

- повышение доступности образования за счёт преодоления территориальных барьеров, поскольку обучение может осуществляться в онлайн-режиме;
- отсутствие жёстких временных ограничений, поскольку цифровые образовательные ресурсы доступны пользователям в удобное для них время;
- возможность преодоления ряда ограничений традиционного обучения: регулирования темпа освоения образовательных программ, выбора форм и методов обучения, а также построения индивидуальной образовательной траектории;
- возможность получать знания у высококвалифицированных преподавателей из разных стран мира, а также доступ к информации, которая ранее была преимущественно доступна профессиональному и научному сообществу.

Вместе с тем внедрение цифровых технологий в образовательный процесс имеет ряд недостатков:

- формирование чрезмерной зависимости обучающихся от экранных устройств; снижение способности запоминать информацию, особенно при механическом использовании приёмов копирования и вставки (Ctrl-C + Ctrl-V) [6];

- трудности восприятия сложных предложений и объёмных текстов, проявления клипового мышления;

- снижение уровня коммуникативных навыков: обучающиеся нередко не читают найденную в Интернете информацию полностью, а просматривают её фрагментарно; в непосредственном общении им бывает трудно длительное время удерживать нить разговора, вследствие чего они часто предпочитают письменное общение в мессенджерах, например WhatsApp [6];

- «примитивизация компетенций» [7, с. 8]. Эта проблема в определённой степени изначально связана с использованием подобных технологий. Электронные устройства и программные средства, лежащие в основе цифрового образования, берут на себя выполнение ряда интеллектуальных операций. В результате при чрезмерной зависимости от них может снижаться самостоятельность в выполнении отдельных учебных действий, а также интенсивность мыслительной и творческой деятельности. Постепенно у обучающихся может ослабевать привычка самостоятельно искать, отбирать и систематизировать знания, что затрудняет формирование целостного восприятия мира;

- активно используемые планшеты, смартфоны, iPad и другие цифровые устройства в отдельных исследованиях рассматриваются как недостаточно изученные с точки зрения их долгосрочного воздействия [7]. Некоторые исследователи обращают внимание на возможное негативное влияние длительного использования мультимедийных устройств на физическое состояние человека, в частности на зрение и опорно-двигательную систему. М. Шпитцер также рассматривает проблему негативного влияния чрезмерного использования цифровых технологий на когнитивные способности молодых людей [8, с. 3].

Кроме того, продолжается изучение возможных последствий длительного воздействия электромагнитного излучения.

Приведённые аргументы заслуживают внимания, поскольку затрагивают вопросы здоровья населения. На наш взгляд, эти аспекты должны более последовательно учитываться органами управления образованием и общественностью.

Известно, что педагогическое сознание по своей природе достаточно консервативно. Однако необходимо учитывать очевидный факт: современная молодёжь относится к поколению, выросшему в цифровой среде («поколение Z»). Поэтому цифровизация образования является объективным процессом, к которому образовательная система должна своевременно адаптироваться.

ОБСУЖДЕНИЕ

Исходя из этого, рассмотрим актуальные проблемы цифровизации образования в Казахстане в контексте мирового опыта.

1. Поздний выход на мировой рынок цифрового образования.

Образовательная среда развивается достаточно интенсивно. Высокая конкуренция стимулирует постоянное совершенствование цифровых продуктов, разработку их новых версий и регулярное обновление цифрового образовательного контента. В XXI веке конкуренция за обучающихся происходит уже не только между ведущими учебными заведениями одной страны, но и на международном уровне [10].

2. Языковой барьер.

Для пользователей, хорошо владеющих английским языком, доступны современные электронные ресурсы, библиотечные фонды ведущих университетов мира, лекции известных специалистов и профессоров. Современный глобальный рынок демонстрирует высокие темпы развития искусственного интеллекта. Поэтому можно ожидать дальнейшего

совершенствования систем автоматического перевода, способных значительно облегчить коммуникацию между носителями разных языков.

3. Недостаточное финансирование сферы образования.

Не все отечественные университеты располагают необходимой технической базой для полноценного внедрения цифрового обучения. Во многих из них сохраняются проблемы с широкополосным доступом к Интернету, а также недостаточно оборудования для проведения видеоконференций, использования веб-камер, микрофонов и интерактивных SMART-досок.

Необходимо учитывать и материальные возможности обучающихся: далеко не каждый студент располагает современным многофункциональным цифровым устройством.

4. Трансформация традиционных методов обучения.

По мере развития цифровизации университеты будут всё активнее привлекать преподавателей к созданию и совершенствованию цифрового образовательного контента. Вместе с тем будут сохраняться и развиваться различные формы смешанного обучения [11].

Что касается имманентных, то есть внутренне присущих цифровому образованию проблем, можно выделить два основных аспекта, требующих обсуждения.

Прежде всего, коммуникация в интернет-пространстве не может полностью заменить непосредственное взаимодействие между людьми. Цифровое обучение сокращает возможности личного общения преподавателя и обучающихся.

Классическое обучение предполагает не только передачу информации. Важнейшей его составляющей является непосредственное общение участников педагогического процесса. Личность преподавателя, его отношение к обучающемуся, внимание к его индивидуальным особенностям и внутреннему миру, атмосфера доверия и доброжелательности — всё это играет значительную роль в образовательном процессе и не всегда может быть в полной мере воспроизведено в цифровом формате.

С этой проблемой непосредственно связана ещё одна особенность: цифровая форма обучения ограничивает возможности передачи так называемого неявного знания [8]. Непосредственное общение остаётся одним из наиболее эффективных способов передачи практического опыта, навыков и знаний, которые трудно формализовать и представить исключительно в цифровом виде.

Для эффективности образовательного процесса важно, чтобы преподаватель не только исправлял допущенные обучающимся ошибки, но и мог оценить нестандартность его мышления, своеобразие подхода к решению определённых задач, увидеть его склонности, способности и творческий потенциал.

Ещё одной важной формой образовательного взаимодействия является групповая работа. Командное взаимодействие формируется и развивается, в частности, посредством непосредственного общения участников различных форумов, выставок, научных конференций и других совместных мероприятий.

ЗАКЛЮЧЕНИЕ

Цифровое образование представляет собой сложное и многогранное явление. Развитие цифровых технологий в сфере образования является объективным процессом и одной из ведущих мировых тенденций. Как в Казахстане, так и за рубежом цифровизация рассматривается как один из факторов повышения доступности и качества образовательных услуг.

Вместе с тем этот процесс сопровождается рядом проблем. Одни из них имеют временный характер и могут решаться посредством последовательной государственной политики в области образования. Другие обусловлены самой спецификой цифрового формата. К числу последних относится, в частности, ограниченность непосредственного социального взаимодействия и возможностей индивидуального подхода в образовательном процессе.

Таким образом, с учётом преимуществ и существующих ограничений наиболее перспективным направлением развития образования представляется интеграция различных

подходов: активное использование цифровых технологий и новых методов обучения должно сочетаться с сохранением наиболее эффективных форм традиционного образования.

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LESSON PLANS AS THE DRIVING FORCE OF TBLT IN ESP: A CLASSROOM-BASED STUDY FROM UZBEKISTAN

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Abstract. *English for Specific Purposes (ESP) courses prepare learners to communicate in concrete professional situations; Task-Based Language Teaching (TBLT) is therefore a natural methodological fit because it organizes learning around purposeful tasks rather than isolated form practice. Yet TBLT succeeds in classrooms only when robust lesson plans orchestrate inputs, task design, cognitive load, participation structures, and assessment. This article reports a classroom-based study in an Uzbek higher-education ESP setting and examines how lesson plans function as the central mechanism that makes TBLT teachable and assessable. Two task cycles—contract negotiation and budget proposal—were integrated into regular instruction. Data included lesson plans, student artefacts, observation notes, and peer/self-assessment reflections. Thematic and descriptive analyses indicate that well-sequenced plans which front-load genre and pragmatic resources in the pre-task stage support more coherent, audience-aware performance during task work and richer language focus in post-task reflection. Blended supports redistributed cognitive load and preserved process evidence for feedback. The discussion connects these outcomes to international TBLT scholarship and to local reform priorities, and it offers practical implications for teachers, programs, and assessment. The conclusion argues that, in ESP contexts, high-quality lesson plans are the driving force that turns TBLT principles into consistent, assessable classroom performance.*

Keywords: Task-Based Language Teaching; ESP; lesson plan; communicative competence; assessment; Uzbekistan; blended learning

Annotatsiya. Maxsus maqsadlar uchun ingliz tili (ESP) kurslari ta'lim oluvchilarni muayyan kasbiy vaziyatlarda samarali muloqot qilishga tayyorlaydi. Shu sababli, maqsadli vazifalarni alohida til shakllarini mashq qilishdan ko'ra o'quv jarayonining markaziga qo'yadigan vazifaga asoslangan til o'qitish (TBLT) yondashuvi ESP uchun tabiiy metodik moslikni namoyon etadi. Biroq TBLTning ta'lim jarayonidagi samaradorligi faqat puxta ishlab chiqilgan dars rejalari orqali kirish materiallari, topshiriq dizayni, kognitiv yuklama, ishtirok etish shakllari va baholash jarayonlari uyg'un ravishda tashkil etilgandagina ta'minlanadi. Mazkur maqolada O'zbekiston oliy ta'lim tizimidagi ESP sharoitida olib borilgan sinf amaliyotiga asoslangan tadqiqot natijalari yoritilib, dars rejasining TBLTni amaliyotga tatbiq etish va baholash imkonini beruvchi asosiy mexanizm sifatidagi o'rni tahlil qilinadi. Muntazam ta'lim jarayoniga ikkita vazifa sikli — shartnoma muzokarasi va byudjet taklifi — integratsiya qilindi. Tadqiqot ma'lumotlarini dars rejalari, talabalarining bajargan ishlari, kuzatuv qaydlari hamda o'zaro va o'z-o'zini baholashga oid refleksiv fikr-mulohazalar tashkil etdi. Tematik va tavsifiy tahlil natijalari shuni ko'rsatdiki, oldindan bajariladigan vazifa bosqichida janrga xos hamda pragmatik resurslarni izchil taqdim etishga asoslangan puxta tuzilgan dars rejalari vazifa jarayonida yanada izchil, auditoriyaga yo'naltirilgan nutqiy faoliyatni shakllantirishga va vazifadan keyingi refleksiya jarayonida tilga e'tibor qaratishning yanada samarali tashkil etilishiga yordam beradi. Aralash ta'lim vositalari kognitiv yuklamani qayta taqsimlash hamda fikr-mulohaza bildirish uchun zarur bo'lgan o'quv jarayoni dalillarini saqlab qolish imkonini berdi. Muhokama qismida mazkur natijalar TBLT bo'yicha xalqaro ilmiy tadqiqotlar hamda O'zbekistondagi ta'lim sohasidagi islohotlarning ustuvor yo'nalishlari bilan bog'lanadi va o'qituvchilar, ta'lim dasturlari hamda baholash jarayonlari uchun amaliy tavsiyalar beriladi. Xulosa sifatida ESP sharoitida yuqori sifatli dars rejalari TBLT tamoyillarini izchil va baholash mumkin bo'lgan sinfdagi nutqiy faoliyatga aylantiruvchi asosiy harakatlantiruvchi mexanizm ekanligi ta'kidlanadi.

Kalit so'zlar: Vazifaga asoslangan til o'qitish (TBLT); maxsus maqsadlar uchun ingliz tili (ESP); dars rejasi; kommunikativ kompetensiya; baholash; O'zbekiston; aralash ta'lim.

Аннотация. Курсы английского языка для специальных целей (ESP) направлены на подготовку обучающихся к эффективному общению в конкретных профессиональных ситуациях. В связи с этим обучение иностранному языку на основе задач (TBLT), организующее учебный процесс вокруг целенаправленных коммуникативных задач, а не изолированной практики языковых форм, является естественно подходящим методическим решением для ESP. Однако эффективность TBLT в аудитории обеспечивается только в том случае, если тщательно разработанные планы занятий согласованно организуют учебные материалы, дизайн заданий, когнитивную нагрузку, формы участия обучающихся и оценивание. В данной статье представлены результаты исследования, проведенного в условиях ESP в системе высшего образования Узбекистана, с акцентом на анализ роли плана занятия как центрального механизма, обеспечивающего практическую реализацию и оценивание TBLT. В рамках регулярного учебного процесса были интегрированы два цикла заданий — переговоры по заключению контракта и подготовка бюджетного предложения. Данные исследования включали планы занятий, учебные работы студентов, записи наблюдений, а также рефлексивные материалы, полученные в процессе взаимного и самооценивания. Тематический и описательный анализ показал, что тщательно структурированные планы занятий, предусматривающие предварительное представление жанровых и прагматических ресурсов на предзадачном этапе, способствуют более последовательному и ориентированному на аудиторию выполнению коммуникативных задач, а также более содержательной работе над языковыми аспектами на этапе постзадачной рефлексии. Использование средств смешанного обучения позволило перераспределить когнитивную нагрузку и сохранить свидетельства учебного процесса, необходимые для предоставления обратной связи. В статье полученные результаты соотносятся с международными исследованиями в области TBLT и приоритетными направлениями

образовательных реформ в Узбекистане, а также предлагаются практические рекомендации для преподавателей, образовательных программ и систем оценивания. В заключении подчёркивается, что в условиях ESP качественно разработанные планы занятий являются ключевым механизмом, превращающим принципы TBLT в последовательную и поддающуюся оцениванию коммуникативную деятельность в аудитории.

Ключевые слова: обучение иностранному языку на основе задач (TBLT); английский язык для специальных целей (ESP); план занятия; коммуникативная компетентность; оценивание; Узбекистан; смешанное обучение.

INTRODUCTION

ESP courses emphasize what learners must do with language in professional settings: lead a meeting, negotiate terms, summarize data for non-specialists, or write audience-appropriate follow-up emails. TBLT aligns with these aims by organizing instruction around meaningful tasks and by encouraging attention to form at moments that serve meaning—particularly in pre-task preparation and post-task reflection (Ellis, 2003; Nunan, 2004; Willis & Willis, 2007; Long, 2015). In practice, however, TBLT can falter without rigorous planning. Time is limited, proficiency levels are heterogeneous, and poorly calibrated task complexity can overwhelm learners or leave target language under-developed. This makes the lesson plan the pivotal instrument of TBLT: it coordinates inputs, sequences tasks, calibrates cognitive demands, and anchors assessment to observable performance.

In Uzbekistan, current reforms emphasize communicative pedagogy, outcome-based instruction, and blended learning. In ESP settings, these priorities translate into the need to rehearse workplace-proximal genres and interactions in class. This article examines how TBLT lesson plans operate in that environment and addresses two questions: (1) How do structured plans bind task execution, purposeful language use, and assessment into a workable classroom system? (2) Across two different ESP tasks, what observable shifts emerge in discourse organization, pragmatics, and professional register? By answering these questions, the study traces a practical bridge between policy-level aspirations and classroom realities.

METHODS

This investigation adopted a design-informed classroom case approach to document how TBLT lesson plans function during real instruction. The context was a Business/Finance ESP module in which two task cycles were embedded. Participants were an intact, for-credit cohort with heterogeneous A2+–B1 profiles typical of ESP groups preparing for professional communication. All activities formed part of normal teaching. Materials used for analysis were anonymized; participation in reflective components was voluntary. A brief needs analysis preceded instruction and triangulated (a) a learner survey eliciting target communication scenarios (negotiating, pitching, writing follow-ups), (b) a review of program outcomes, and (c) a diagnostic case discussion. Recurrent demands were negotiation strategies, data-based justification, and concise written follow-ups. These results informed the selection of two focal tasks: contract negotiation and budget proposal.

Planning followed the canonical pre-task → task → post-task sequence. Pre-task work provided genre models and pragmatic resources—polite refusal, proposing alternatives, conditional concessions—via short video clips, trimmed email threads, and simple tables of indicators. The task stage specified roles, success criteria, and deliverables: in Cycle 1, reach an agreement and write a summarizing email; in Cycle 2, deliver a short pitch with Q&A and revise an executive summary. Post-task work targeted noticing and consolidation: learners compared successful excerpts, reformulated key stretches with teacher mediation, and logged action items for subsequent attempts (Willis & Willis, 2007). Assessment was aligned from the outset. An analytic rubric targeted four domains: Task Fulfilment; Discourse & Pragmatics; Accuracy & Range; Professional Register (Bachman & Palmer, 1996). The instructor completed rubric notes during performances; peers used a simplified checklist; students wrote immediate self-appraisals. The data set comprised lesson plans and teacher memos, student written products (follow-up emails, executive summaries), slides or speaking notes, anonymized observation notes, and short LMS reflections submitted within twenty-

four hours. With consent, a subset of performances was audio-recorded to verify observations; any excerpts used in reporting were paraphrased to protect anonymity.

Analysis proceeded in two layers. A descriptive layer mapped typical trajectories across pre-task rehearsal, task execution, and post-task revision. A qualitative thematic analysis then coded artifacts and reflections for recurrent features aligned with rubric domains—stance marking, conditional concessions, cost-benefit framing, and audience orientation—using a codebook developed deductively from the rubric and inductively from classroom evidence. To support trustworthiness, coding was refined across two passes; discrepancies were resolved through discussion and reference to recordings when available. Because ecological validity was prioritized, no control group or inferential statistics were used; findings are presented as a robust practice-based account rather than as causal claims.

RESULTS

Classroom evidence showed that when pre-task work front-loaded genre and pragmatic scaffolds, task-stage performances became more goal-directed, coherent, and audience-aware, and post-task reflection yielded more focused language work. During the negotiation cycle, early performances often relied on blunt refusals or unelaborated claims; later performances displayed more frequent use of softening and conditional moves (e.g., framing counter-offers with shared-cost conditions) and clearer “summarize-the-deal” closings. In the budget-proposal cycle, pitches incorporated explicit signposting (“First...”, “In terms of cost...”, “As a result...”), quantified benefits, and tone adjustments for non-specialist listeners; revised executive summaries exhibited tighter cohesion and a consistent recommendation pattern (“brief reason → specific, quantified proposal”). Written products showed a shift from general assertions to concise, evidence-anchored statements (“projected saving in Q3,” “break-even under Scenario B,” “risk offset through staged delivery”), with connective devices (“therefore,” “however,” “in addition”) deployed in logically appropriate positions. Learners increasingly balanced necessary terminology with brief glosses, improving readability for mixed-expertise audiences.

The feedback culture evolved alongside performance. Peer comments moved from surface features toward rubric-anchored, genre-specific advice (“quantify the trade-off,” “soften the counter-offer,” “front-load the benefit statement”). Self-appraisals shifted from generic difficulty statements to concrete process plans (e.g., shortening the opening framing, adding a conditional clause to a concession, preparing mitigation language in advance). These changes suggest growing assessment literacy and metacognitive control tied to the rubric.

Blended components demonstrably redistributed cognitive load. Learners who completed phrasebank and micro-tasks before class entered live sessions with ready-to-use language, adopted roles more quickly, and asked more content-level questions. LMS drafts and planning notes provided traceable evidence for post-task comparison and revision, enabling teacher feedback to be justified with artifacts rather than impression. At the same time, improvements in grammatical accuracy lagged behind gains in discourse organization and pragmatics. Minor tense or agreement errors persisted in spontaneous speech but were often corrected during reformulation and writing. This pattern is compatible with the expectation that accuracy consolidates over longer arcs, while discourse and register respond more quickly to genre-focused scaffolding (Long, 2015).

Group-level dynamics also mattered. When roles were explicitly allocated, quieter students reliably contributed discrete yet pivotal parts—summarizing benefits, formulating an alternative, or managing Q&A—which distributed responsibility more fairly. Instances of over-talking in early pairings diminished after post-task agreements about turn-taking (“I’ll summarize; you present the numbers”). Signals of “stakeholder awareness” (gratitude, acknowledgement, shared-risk language) appeared more frequently toward the end of cycles, indicating greater pragmatic sensitivity.

Finally, lesson plans that were treated not as static checklists but as “living documents” produced steadier results. Minute adjustments to timing, input order, and feedback format—documented in teacher memos—improved subsequent performances. For example, allocating a short

pre-pitch oral rehearsal of key numbers raised the quality of Q&A that followed. Overall, findings indicate that TBLT lesson plans help calibrate task complexity, connect form to meaning at teachable moments, and ground assessment in performance, producing tangible benefits in an ESP classroom.

DISCUSSION

The results converge with international TBLT research: meaning-focused tasks generate learning when planning ensures principled attention to form through pre-task modeling and post-task reflection (Ellis, 2003; Willis & Willis, 2007). The fastest gains emerged in discourse organization, pragmatics, and professional register—precisely the dimensions most directly influenced by genre exemplars and phrasebank rehearsal—whereas grammatical accuracy improved more gradually, aligning with accounts of incremental consolidation (Long, 2015; Nunan, 2004). The study also underscores the role of assessment literacy: when analytic rubrics and peer/self-feedback are co-introduced, students shift from a right/wrong mindset to criteria such as goal attainment, evidencing, and audience fit, echoing performance-based assessment principles (Bachman & Palmer, 1996). Blended infrastructure further supports TBLT by moving rehearsal out of class, freeing live time for high-value interaction, and creating artifact trails that make feedback more transparent.

These observations harmonize with local scholarship emphasizing ESP's alignment with professional contexts and the value of task-centered, genre-faithful practice in Uzbek higher education (Azizova, 2024; Djurayeva, 2025). In this light, the TBLT lesson plan becomes not only a classroom mechanism but also an operational expression of system-level priorities: it offers teachers a clear sequence and decision matrix, and it provides programs with collectable performance evidence—recordings, transcripts, and genre-appropriate writing—for monitoring outcomes (Richards & Rodgers, 2014). Limitations warrant caution. The study is a single-site, practice-based account without a control group or inferential statistics. Accuracy gains lagged behind discourse/pragmatic gains, which suggests the need for longer time frames and additional cycles. The instructor-researcher's dual role may have shaped decisions and interpretations; triangulation across plans, artifacts, observations, and rubric-anchored commentary partially mitigated this risk. Future work should include longer-running, multi-cohort designs with pre/post measures, inter-rater reliability checks, and external validity via employer or domain-expert review across diverse ESP fields (law, IT, medicine).

Practically, the implications are multi-layered. At the teacher level, adopt a shared TBLT planning template and maintain it as a versioned, living document with your class. At the program level, curate genre corpora and phrasebanks and distribute rubrics together with annotated exemplars to accelerate assessment literacy. At the institutional level, sustain blended infrastructures (LMS, collaborative documents, video libraries) that support pre-class rehearsal and post-task reflection. At the policy level, foreground performance-based evidence—talks, negotiations, and genre-faithful writing—when monitoring communicative outcomes. Within this ecology, the TBLT lesson plan coordinates teacher and learner decisions and anchors assessment to meaning, consistent with local calls to align ESP instruction with professional realities (Azizova, 2024; Djurayeva, 2025).

CONCLUSION

First, in ESP contexts, the effectiveness of TBLT depends directly on the quality of the lesson plan. By making the pre-task → task → post-task sequence explicit and by “pre-activating” genre and pragmatic resources, the plan supports meaning-focused interaction during tasks and principled attention to form during reflection, producing stable gains in discourse organization, register, and social-pragmatic strategies. Accuracy consolidates more slowly and benefits from additional cycles. Second, an ecosystem of rubric-linked feedback—teacher, peer, and self—moves learners beyond error-spotting toward criteria of goal achievement, evidencing, and audience fit, which strengthens revision and leads to more credible workplace-proximal performance (pitches, negotiations, follow-up emails). Blended components distribute cognitive load, free live time for interaction, and ground feedback in artifacts. Third, in Uzbekistan, TBLT lesson plans function as a bridge between policy and practice: they provide teachers with clear sequences and programs with monitorable performance evidence.

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A PEDAGOGICAL PERSPECTIVE ON THE GAP BETWEEN ENGLISH LANGUAGE KNOWLEDGE AND ORAL COMMUNICATION

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Abstract. *Many English language learners have a basic understanding of grammar and vocabulary but struggle to communicate effectively orally. This disparity between language knowledge and speaking performance is one of the most persistent issues in current language instruction. The current article investigates the key pedagogical and psychological barriers that prohibit learners from converting passive language knowledge into active communication. Fear of making mistakes, a lack of meaningful engagement, teacher-centered training, an overemphasis on precision, and poor learner confidence are all addressed. The article also suggests practical pedagogical alternatives, such as building psychologically safe classrooms, increasing student talk time, employing authentic communicative tasks, providing supportive feedback, and adding technology-assisted speaking practice.*

Keywords: *speaking skills, language learning, pedagogy, communication, learner confidence, student talk time, speaking anxiety*

Аннотация. *Многие изучающие английский язык обладают базовыми знаниями грамматики и лексики, однако испытывают значительные трудности при использовании языка для эффективного устного общения. Данное несоответствие между языковыми знаниями и навыками говорения остаётся одной из наиболее актуальных проблем современного языкового образования. В статье рассматриваются ключевые педагогические и психологические барьеры, препятствующие преобразованию пассивных языковых знаний в активную коммуникативную компетенцию. Особое внимание уделяется страху допущения ошибок, недостатку содержательного речевого взаимодействия, преобладанию преподавателюцентрированного подхода, чрезмерной ориентации на языковую точность и низкой уверенности учащихся в собственных коммуникативных способностях. Наряду с этим предлагаются практические педагогические решения, направленные на преодоление указанных трудностей, включая создание психологически безопасной образовательной среды, увеличение времени речевой активности учащихся, использование аутентичных коммуникативных заданий, предоставление поддерживающей обратной связи, а также интеграцию технологий в процесс развития устной речи.*

Ключевые слова: *навыки говорения, изучение английского языка, педагогика, коммуникация, уверенность учащихся, речевая активность учащихся, тревожность при говорении.*

Annotatsiya. *Ko'plab ingliz tilini o'rganuvchilar grammatika va lug'at bo'yicha yetarli darajada boshlang'ich bilimlarga ega bo'lsalar-da, ushbu bilimlarni samarali og'zaki muloqot jarayonida qo'llashda sezilarli qiyinchiliklarga duch keladilar. Til bilimi va og'zaki nutq ko'nikmalari o'rtasidagi ushbu tafovut zamonaviy til ta'limining eng dolzarb muammolaridan biri bo'lib qolmoqda. Mazkur maqolada o'rganuvchilarning passiv til bilimlarini faol kommunikativ kompetensiyaga aylantirishiga to'sqinlik qiluvchi asosiy pedagogik va psixologik omillar tahlil qilinadi. Xususan, xato qilishdan qo'rqish, mazmunli nutqiy muloqotning yetishmasligi, o'qituvchiga yo'naltirilgan ta'lim yondashuvining ustunligi, tilning grammatik va lingvistik aniqligiga haddan tashqari e'tibor qaratish hamda o'quvchilarning o'z kommunikativ qobiliyatlariga bo'lgan ishonchining pastligi kabi muammolarga alohida e'tibor qaratiladi. Shuningdek, mazkur muammolarni bartaraf etishga qaratilgan amaliy pedagogik yechimlar, jumladan, psixologik jihatdan xavfsiz ta'lim muhitini yaratish, o'quvchilarning nutqiy faolligi uchun ajratiladigan vaqtni oshirish, autentik kommunikativ topshiriqlardan foydalanish, qo'llab-quvvatlovchi fikr-mulohazalarni taqdim etish hamda og'zaki nutqni rivojlantirish jarayoniga zamonaviy texnologiyalarni integratsiya qilish kabi usullar taklif etiladi.*

Kalit so'zlar: *gapirish ko'nikmalari, ingliz tilini o'rganish, pedagogika, kommunikatsiya, o'quvchi ishonchi, o'quvchilarning nutqiy faolligi, gapirishdagi xavotir.*

INTRODUCTION

A persistent challenge in English language education is the discrepancy between learners' knowledge of the language and their ability to use it effectively in oral communication. Many students demonstrate an adequate understanding of grammatical rules, possess a considerable range of vocabulary, and successfully comprehend written and spoken texts; however, they frequently experience difficulties when required to express their own ideas spontaneously in English. This discrepancy indicates that linguistic knowledge alone does not necessarily result in effective communicative performance.

Speaking is a complex productive skill that requires the simultaneous activation of multiple linguistic and cognitive processes. Unlike controlled grammar exercises, oral communication requires learners to retrieve appropriate vocabulary and grammatical structures rapidly, formulate and organize ideas, respond to interlocutors, maintain conversational coherence, and adjust their speech according to the communicative context. These processes must often occur within a limited period of time, which makes spontaneous speaking particularly demanding for foreign language learners.

The development of speaking competence is therefore influenced by a combination of linguistic, psychological, social, and pedagogical factors. Limited vocabulary and insufficient grammatical automaticity may restrict learners' ability to formulate utterances fluently. At the same time, psychological factors such as speaking anxiety, fear of making mistakes, low self-confidence, and concern about negative evaluation can discourage students from participating actively in classroom communication. In teacher-centered learning environments, learners may also have insufficient opportunities to engage in meaningful interaction, resulting in an imbalance between receptive language practice and productive language use.

Another important factor is the distinction between controlled and spontaneous language production. Students may perform successfully in exercises where the linguistic form is predetermined, but they may struggle when they need to independently select appropriate linguistic resources during authentic communication. Consequently, successful performance in grammar or vocabulary exercises should not automatically be interpreted as evidence of communicative competence.

Addressing this knowledge-performance gap requires a shift from predominantly form-focused instruction toward communicative and learner-centered practices. Classroom activities such as pair work, role plays, information-gap tasks, problem-solving activities, discussions, debates,

simulations, and task-based speaking exercises can provide learners with opportunities to use English for meaningful purposes. Repeated exposure to such activities can facilitate the development of automaticity, fluency, interactional competence, and confidence.

Teachers also play a significant role in creating a supportive speaking environment. Instead of focusing exclusively on grammatical accuracy during oral production, teachers can initially prioritize fluency and communicative effectiveness and provide more detailed corrective feedback after the speaking activity. Establishing a classroom atmosphere in which mistakes are viewed as a natural part of the learning process may reduce anxiety and encourage students to participate more actively.

In addition, speaking instruction should incorporate gradual progression from controlled practice to freer communication. Learners can first work with model expressions and guided dialogues, then move toward semi-controlled tasks, and finally participate in spontaneous communicative activities. Such scaffolding enables students to build linguistic confidence while gradually reducing their dependence on predetermined language patterns.

The inability of some English learners to speak fluently despite possessing substantial linguistic knowledge represents a multidimensional educational problem rather than a simple lack of vocabulary or grammar. Effective speaking requires learners to transform declarative knowledge into accessible and automatic communicative resources. Therefore, English language instruction should provide systematic opportunities for meaningful interaction, reduce psychological barriers, promote learner autonomy, and balance accuracy with fluency. A communicative, task-oriented, and supportive classroom environment can contribute significantly to narrowing the gap between what learners know about English and what they are able to do with it in real-life communication.

MATERIALS AND METHODS

The present study examines the major factors that contribute to the gap between students' knowledge of English and their ability to communicate orally. Particular attention is given to psychological, pedagogical, and classroom-related factors that may influence learners' willingness and ability to participate in spoken interaction. The analysis focuses on five major issues: fear of making errors, limited opportunities for meaningful communication, teacher-centered classroom practices, excessive emphasis on accuracy, and low confidence and speaking anxiety.

1. **Fear of Making Errors.** Fear of making linguistic errors is one of the most significant barriers to students' oral participation. Learners may hesitate to speak because they are concerned about using incorrect vocabulary, grammatical structures, or pronunciation. Negative reactions from teachers or peers may further increase this hesitation and encourage students to remain silent rather than participate in classroom interaction. Although linguistic accuracy is an important component of language learning, excessive correction during speaking activities may negatively affect learners' willingness to communicate. When students constantly monitor their grammatical accuracy while speaking, they may devote more attention to avoiding mistakes than to expressing their intended meaning. As a result, excessive error monitoring can reduce fluency, spontaneity, and confidence.

2. **Limited Opportunities for Meaningful Communication.** Insufficient opportunities for authentic oral interaction represent another important factor affecting speaking development. In some English language classrooms, a substantial amount of instructional time is devoted to grammar explanation, written exercises, vocabulary memorization, and teacher-fronted activities. Consequently, learners may acquire considerable receptive and declarative knowledge without receiving sufficient opportunities to apply that knowledge in communicative situations. Speaking is a practical skill that develops through regular use. Learners need frequent opportunities to formulate ideas, respond to questions, negotiate meaning, express opinions, and interact with other speakers. Without systematic speaking practice, students may experience difficulties in developing the speed, flexibility, automaticity, and confidence required for spontaneous communication.

3. **Teacher-Centered Classroom Practices.** The organization of classroom interaction can also have a considerable influence on students' speaking development. In highly teacher-centered classrooms, the teacher may dominate most classroom communication, while students primarily

perform the role of listeners or passive recipients of information. Consequently, even lessons specifically designed to develop speaking skills may provide learners with relatively limited opportunities for actual oral production. A communicative approach requires a corresponding change in the teacher's role. Rather than functioning primarily as the source of linguistic information, the teacher can act as a facilitator who organizes meaningful interaction, provides appropriate support, monitors learner performance, and creates opportunities for students to use English independently. Increasing learner participation can consequently contribute to greater speaking practice and improved communicative competence.

4. **Excessive Emphasis on Accuracy.** Another factor influencing speaking performance is the excessive prioritization of grammatical accuracy over communicative effectiveness. Accuracy is undoubtedly an essential component of language proficiency; however, treating every oral error as a serious failure may discourage learners from taking communicative risks.

Effective communication does not necessarily require grammatically perfect speech. Speakers need to be able to express ideas, clarify information, negotiate meaning, respond appropriately to others, and maintain interaction even when minor linguistic errors occur. Therefore, speaking instruction should establish an appropriate balance between accuracy and fluency. During fluency-oriented activities, teachers may initially prioritize successful communication and address recurring language problems through delayed or selective feedback.

5. **Low Confidence and Speaking Anxiety.** Low self-confidence and speaking anxiety can significantly restrict learners' oral performance. A student may understand a question and possess the necessary vocabulary and grammatical knowledge but nevertheless fail to respond because of nervousness, fear of negative evaluation, or uncertainty about their own abilities. Such psychological barriers may prevent learners from demonstrating their actual level of linguistic competence. The problem may become more pronounced when students compare their performance with that of more proficient classmates. Such comparisons can increase feelings of inadequacy and reduce willingness to participate. A supportive classroom environment in which mistakes are treated as a natural component of language development can help reduce anxiety and encourage greater participation.

To examine these factors, the study adopts a qualitative classroom-based approach. The analysis considers students' participation in speaking activities, their responses during classroom interaction, and the pedagogical conditions under which oral communication takes place. Particular attention is paid to students' willingness to participate, frequency of oral production, fluency, confidence, and reactions to corrective feedback.

The study also considers the relationship between instructional practices and students' speaking performance. Classroom activities are analyzed in terms of the amount and quality of communicative interaction they provide. Activities that require students to exchange information, express personal opinions, solve problems, negotiate meaning, and perform realistic communicative tasks are considered particularly relevant to speaking development.

Overall, the methodological framework is based on the assumption that speaking ability cannot be developed effectively through linguistic knowledge alone. Instead, successful oral development requires the interaction of linguistic competence, regular communicative practice, psychological readiness, learner confidence, and supportive pedagogical conditions. Therefore, the development of speaking skills should address the learner as a whole rather than focus exclusively on the acquisition of language information.

RESULTS AND DISCUSSION

The development of students' speaking ability is closely associated with the psychological, pedagogical, and interactional conditions established in the language classroom. The findings suggest that students' difficulties in oral communication cannot be explained solely by insufficient grammatical or lexical knowledge. Rather, speaking performance is influenced by the extent to which learners feel psychologically secure, receive opportunities for meaningful interaction, and are supported by appropriate instructional practices. Based on the analysis, five interrelated pedagogical strategies emerge as particularly important for improving students' speaking performance.

1. Establishing a Safe and Supportive Speaking Environment. One of the key findings is the importance of creating a classroom environment in which students feel comfortable using English without excessive fear of making mistakes. A psychologically supportive environment can encourage learners to participate more actively and take communicative risks. When students perceive mistakes as a natural and necessary part of language development rather than as evidence of failure, they are more likely to experiment with language and participate in spontaneous interaction. The findings also indicate that the timing and manner of corrective feedback are important. Immediate interruption may disrupt the learner's communicative flow and increase anxiety, particularly during fluency-oriented activities. Allowing students to complete their ideas before providing feedback can help preserve the continuity of communication while still addressing linguistic problems. Thus, effective speaking instruction requires a balance between correction and communicative freedom.

2. Increasing Student Talk Time. The analysis further demonstrates the importance of maximizing learners' opportunities to produce spoken language. Traditional teacher-fronted interaction may result in a considerable proportion of classroom communication being controlled by the teacher, thereby limiting the amount of language students actually produce. Increasing student talk time can provide learners with more opportunities to retrieve vocabulary, construct sentences, respond to others, and develop greater fluency. Pair work, small-group discussions, information-gap activities, interviews, and role-playing can distribute speaking opportunities more equally among learners. However, increased speaking time alone does not necessarily guarantee effective language development. The quality and purpose of interaction are equally important. Communicative activities should require learners to exchange information, express personal viewpoints, solve problems, or achieve a specific communicative objective. In this way, speaking becomes a purposeful activity rather than simple repetition of linguistic forms.

3. Integrating Authentic and Meaningful Communicative Tasks. Another important finding concerns the role of authenticity in speaking instruction. Activities that reflect situations learners may encounter beyond the classroom can provide a meaningful context for applying linguistic knowledge. Rather than practicing isolated grammatical structures, students can be engaged in simulated job interviews, customer-service interactions, academic discussions, presentations, decision-making activities, and everyday problem-solving situations. The use of meaningful tasks may also reduce learners' excessive concentration on grammatical perfection. When students have a clear communicative objective, their primary attention is directed toward conveying and understanding meaning. At the same time, authentic tasks require learners to select appropriate vocabulary, organize ideas, respond spontaneously, and adapt their speech to the interlocutor. Consequently, such activities can contribute to the development of both fluency and interactional competence.

4. Implementing Supportive and Selective Feedback. The findings indicate that the effectiveness of corrective feedback depends not only on what is corrected but also on how and when correction is provided. Correcting every linguistic error may interrupt communication and reinforce students' fear of making mistakes. A more selective approach allows teachers to focus on errors that substantially affect meaning, recur frequently, or represent important learning targets. Delayed feedback appears particularly appropriate for fluency-oriented speaking activities.

5. Integrating Digital Technologies into Speaking Practice. The analysis also highlights the potential contribution of digital technologies to the development of speaking skills. Digital platforms, voice-recording applications, online discussion environments, and AI-supported conversational tools can provide learners with additional opportunities to practice English beyond the physical classroom. Such technologies may be particularly useful for learners who require additional practice or feel reluctant to speak in front of the whole class.

Technology can also facilitate individualized practice by allowing students to record their speech, review their performance, repeat speaking tasks, and receive immediate or automated feedback. These opportunities can increase the frequency of oral practice and support learner autonomy. However, the findings suggest that technology should complement rather than replace teacher-led pedagogical support. Digital tools cannot independently determine whether a speaking activity is relevant to learners' communicative needs, educational objectives, or proficiency levels.

Teachers therefore remain responsible for selecting appropriate technological resources, designing meaningful tasks, interpreting feedback, and integrating digital practice into the broader learning process.

Taken together, the findings demonstrate that improvement in speaking ability requires a comprehensive pedagogical approach rather than reliance on a single instructional technique. A safe classroom environment can reduce learners' fear of errors; increased student talk time can provide greater opportunities for oral production; authentic communicative tasks can connect classroom learning with real-world communication; selective feedback can maintain an appropriate balance between fluency and accuracy; and digital technologies can extend speaking practice beyond the classroom.

The results further suggest that linguistic knowledge alone does not automatically develop effective speaking performance. Students may possess adequate vocabulary and grammatical knowledge but still experience difficulties when required to formulate and communicate ideas spontaneously. The transition from language knowledge to actual speaking performance therefore depends on repeated communicative practice, psychological readiness, meaningful interaction, and appropriate pedagogical support.

Consequently, speaking instruction should be designed as an integrated process in which linguistic accuracy, fluency, confidence, interactional competence, and learner autonomy are developed simultaneously. Such an approach can help narrow the gap between what students know about English and what they are able to do with English in actual communication.

CONCLUSION

The difficulties many students have speaking English cannot be explained solely by a lack of vocabulary or grammatical competence. A variety of psychological, educational, and classroom-related factors contribute to the gap between comprehending and speaking English. Fear of making mistakes, restricted contact, teacher-centered training, excessive concern for accuracy, and a lack of confidence can all inhibit students from activating their prior knowledge. As a result, successful speaking education should go beyond simply transmitting language knowledge and instead focus on facilitating meaningful conversation. Psychologically secure classrooms, greater student conversation time, authentic assignments, supportive feedback, and carefully chosen technology can all help close the knowledge-performance gap.

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ETYMOLOGICAL FEATURES OF OIKONYMS IN THE UZBEK LANGUAGE

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Abstract : This article examines the origins, formation factors, and semantic features of toponyms from a scientific perspective. Toponyms are interpreted as important indicators reflecting the historical life, cultural values, and linguistic development of a people. The study analyzes both ancient and modern Uzbek toponyms from an etymological viewpoint, highlighting the role of Turkic, Persian-Tajik, Arabic, and local lexical layers. Furthermore, the article explores the semantic groups of place names and the natural, ethnic, and historical factors that shape them

Keywords: syntactic sign, areal linguistics, linguoesthetics, ethnolinguistics, noun.

Annotatsiya: Ushbu maqolada toponimlarning kelib chiqishi, shakllanish omillari va semantik xususiyatlari ilmiy nuqtai nazardan tahlil qilinadi. Toponimlar xalqning tarixiy hayoti, madaniy qadriyatlari va til taraqqiyotini aks ettiruvchi muhim ko'rsatkichlar sifatida talqin etiladi. Tadqiqotda qadimiy va zamonaviy o'zbek toponimlari etimologik jihatdan o'rganilib, turkiy, fors-tojik, arab hamda mahalliy leksik qatlamlarning o'rni yoritib beriladi. Bundan tashqari, maqolada joy nomlarining semantik guruhlari va ularni shakllantiruvchi tabiiy, etnik hamda tarixiy omillar tadqiq etiladi.

Kalit so'zlar: sintaktik belgi, areal lingvistika, lingvoestetika, etnolingvistika, ot.

Аннотация: В данной статье с научной точки зрения рассматриваются происхождение, факторы формирования и семантические особенности топонимов. Топонимы интерпретируются как важные показатели, отражающие историческую жизнь, культурные ценности и языковое развитие народа. В исследовании древние и современные узбекские топонимы анализируются с этимологической точки зрения, подчёркивается роль тюркского, персидско-таджикского, арабского и местного лексических слоёв. Кроме того, в статье исследуются семантические группы топонимов, а также природные, этнические и исторические факторы, их формирующие.

Ключевые слова: синтаксический знак, ареальная лингвистика, лингвоэстетика, этнолингвистика, имя существительное.

INTRODUCTION

Oikonyms are place names formed in the language of the people, and they serve not only to designate geographical objects but also to reflect national culture, historical events, and the development of the language. The origin and formation factors of each oikonym are closely connected with its linguistic, ethnolinguistic, and cultural layers. Research shows that oikonyms have developed under the influence of various languages and peoples, embodying Turkic, Persian-Tajik, Arabic, and local lexical layers.

Therefore, studying oikonyms is important not only from geographical and linguistic perspectives but also for understanding the historical memory, cultural values, and social life of the people. This article analyzes the origins of oikonyms, their semantic features, and the natural-geographical, ethnic, and historical factors that shape them, as well as the uniqueness of place names as a linguistic system.

Oikonyms, or place names, originate from various sources, and their formation depends on multiple factors. The main sources include natural-geographical objects, historical events, ethnic groups, famous individuals, and cultural values. These diverse sources provide oikonyms not only with phonetic and semantic characteristics but also with information about the historical, cultural, and social development of the region.

Bukhara is an ancient city name that developed as a historical and cultural center. This name reflects the city's connection with ancient trade routes and its scientific and cultural heritage.

At the same time, the name *Bukhara* represents the historical memory and cultural ties of the Uzbek people and neighboring nations.

Qorako'l is a name based on natural-geographical features and means "black lake." This oikonym serves as a symbol reflecting the landscape and natural conditions of the area, as well as the connection between geographical objects and human activity.

Samarkand is an ancient city name believed to derive from the Persian words "*Samar*" (assistance) and "*qand*" (sugar). Through this name, one can learn about the region's historical trade routes and economic activity. These examples show that oikonyms serve not only to mark a place but also to reflect the historical, cultural, and geographical characteristics of the region.

Oikonyms also provide information about the ancient worldview of the people, their social and cultural life, as well as the process of language development. In addition, the diverse origins of oikonyms allow them to be classified and analyzed etymologically. For example, oikonyms derived from natural-geographical sources are mostly connected with names of landscapes, water sources, mountains, and steppes, while those based on historical or ethnic origins are associated with ancient cities, battles, ethnic groups, and individuals. This shows the importance of considering historical and cultural context when studying oikonyms.

CONCLUSION

This article analyzed the origins, formation factors, and semantic features of oikonyms in the Uzbek language. Oikonyms are interpreted not only as means of designating geographical objects but also as important elements reflecting the historical memory, cultural values, and social life of the people. The results of the study show that oikonyms were formed under the influence of Turkic, Persian-Tajik, Arabic, and local lexical layers, and their semantic groups are closely connected with natural-geographical, ethnic, and historical factors.

Furthermore, oikonyms, as a linguistic system, have a complex structure consisting of phonetic, morphological, semantic, and syntactic components. This requires their study from ethnolinguistic, linguistic-aesthetic, and areal linguistic perspectives. Overall, it has been confirmed that the study of oikonyms is of great scientific importance not only in linguistics but also in cultural studies and historiography.

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NEMIS TILIDA YOZMA NUTQNI RIVOJLANTIRISH STRATEGIYALARI

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Annotatsiya. Ushbu maqolada nemis tilini chet tili sifatida o'rganuvchilarda yozma nutqni rivojlantirish strategiyalari IMRAD tuzilmasi asosida tadqiq etilgan. Maqolada yozma nutqni shakllantirishning nazariy asoslari, jarayonga yo'naltirilgan yozuv (process writing), namunaga asoslangan yozuv (genre-based writing) va hamkorlikdagi yozuv (collaborative writing) kabi asosiy pedagogik yondashuvlar tavsiflangan hamda ularning turli darajadagi (B1-B2) o'quvchilar uchun samaradorligi qiyosiy tahlil qilingan. Tadqiqot uchun oliy ta'lim muassasasida nemis tilini o'rganuvchi 80 nafar talaba ishtirokida 12 haftalik pedagogik eksperiment o'tkazilgan: birinchi guruh jarayonga yo'naltirilgan yondashuv (qoralama — fikr-mulohaza — qayta ishlash tsikli), ikkinchi guruh namunaga asoslangan yondashuv (matn namunalarini tahlil qilish va taqlid qilish) asosida, uchinchi (nazorat) guruh esa an'anaviy usulda o'qitilgan. Natijalar shuni ko'rsatdiki, jarayonga yo'naltirilgan yondashuv qo'llanilgan guruh yakuniy insho baholarida nazorat guruhiga nisbatan o'rtacha 18 foizga, namunaga asoslangan yondashuv guruhi esa 13 foizga yuqori natija ko'rsatgan. Ayniqsa matn tuzilmasi va bog'lovchi vositalardan (Konnektoren) foydalanish ko'rsatkichlari bo'yicha farq sezilarli bo'lgan. Maqola yakunida nemis tilida yozma nutqni samarali rivojlantirish bo'yicha amaliy tavsiyalar berilgan.

Kalit so'zlar: yozma nutq, nemis tili, jarayonga yo'naltirilgan yozuv, namunaga asoslangan yozuv, hamkorlikdagi yozuv, chet tilini o'qitish metodikasi, insho yozish ko'nikmasi.

Annotation. This article investigates strategies for developing written speech (writing skills) among learners of German as a foreign language within the IMRAD framework. The article describes the theoretical foundations of writing skill development and key pedagogical approaches — process writing, genre-based writing, and collaborative writing — comparatively analyzing their effectiveness for learners at different levels (B1-B2). For the study, a 12-week pedagogical experiment was conducted with 80 students learning German at a higher education institution: the first group was taught using the process writing approach (draft-feedback-revision cycle), the second group using the genre-based approach (analyzing and imitating model texts), and the third (control) group through traditional methods. The results show that the process writing group scored on average 18 percent higher on final essay assessments compared to the control group, while the genre-based writing group scored 13 percent higher. The difference was particularly notable in text structure and the use of connecting devices (Konnektoren). The article concludes with practical recommendations for effectively developing writing skills in German.

Key words: written speech, German language, process writing, genre-based writing, collaborative writing, foreign language teaching methodology, essay writing skills.

Аннотация. В данной статье в рамках структуры IMRAD исследуются стратегии развития письменной речи у изучающих немецкий язык как иностранный. В статье рассматриваются теоретические основы формирования навыков письма и основные педагогические подходы — процессуальное письмо (process writing), письмо на основе жанровых образцов (genre-based writing) и совместное письмо (collaborative writing) — с сравнительным анализом их эффективности для учащихся разных уровней (B1-B2). Для исследования проведён 12-недельный педагогический эксперимент с участием 80 студентов, изучающих немецкий язык в высшем учебном заведении: первая группа обучалась по процессуальному подходу (цикл черновик-обратная связь-переработка), вторая группа — по жанровому подходу (анализ и имитация образцовых текстов), третья (контрольная) группа — традиционным способом. Результаты показывают, что группа процессуального письма набрала в среднем на 18% больше баллов по итоговому сочинению по сравнению с контрольной группой, а группа жанрового подхода — на 13% больше. Особенно заметной была разница по показателям структуры текста и использования связующих средств

(Konnektoren). В заключение статьи даны практические рекомендации по эффективному развитию навыков письма на немецком языке.

Ключевые слова: письменная речь, немецкий язык, процессуальное письмо, жанровый подход, совместное письмо, методика обучения иностранному языку, навыки написания сочинений.

KIRISH

Yozma nutq chet tilini o'rganishning eng murakkab ko'nikmalaridan biri hisoblanadi, chunki u leksik va grammatik bilimni matn tuzilmasi, uslub va mantiqiy izchillik bilan birgalikda qo'llashni talab qiladi. Nemis tilida yozma nutqni rivojlantirish, ayniqsa uning murakkab grammatik tuzilmalari (masalan, so'z tartibi qoidalari, ergash gaplar, kelishik tizimi) tufayli, o'quvchilar uchun alohida qiyinchilik tug'diradi.

An'anaviy yozma nutqni o'qitish usullari ko'pincha faqat yakuniy mahsulotga (tugallangan matnga) e'tibor qaratib, yozish jarayonining o'zini (rejalashtirish, qoralama tayyorlash, qayta ko'rib chiqish) e'tiborsiz qoldiradi. So'nggi o'n yilliklarda chet tili o'qitish metodikasida jarayonga yo'naltirilgan (process-oriented) va namunaga asoslangan (genre-based) yondashuvlar yozma nutqni samarali rivojlantirishning muqobil usullari sifatida keng tarqaldi.

Tadqiqotning maqsadi — nemis tilida yozma nutqni rivojlantirishda qo'llaniladigan asosiy pedagogik strategiyalarning samaradorligini empirik tarzda baholash hamda ularni amaliyotga joriy etish bo'yicha tavsiyalar ishlab chiqishdan iborat. Tadqiqot vazifalari: 1) yozma nutqni shakllantirishning nazariy asoslari va asosiy pedagogik yondashuvlarni yoritish; 2) pedagogik eksperiment orqali turli yondashuvlar bilan o'qitilgan guruhlar natijalarini qiyoslash; 3) matn sifatining turli jihatlari (tuzilma, grammatika, lug'at, bog'lovchi vositalar) bo'yicha farqlarni tahlil qilish; 4) natijalar asosida amaliy tavsiyalar shakllantirish.

MATERIAL VA METODLAR

Tadqiqot uchun oliy ta'lim muassasasida nemis tilini B1-B2 darajasida o'rganuvchi 80 nafar talaba tanlab olindi va ular tasodifiy tanlov asosida uchta guruhga ajratildi (har birida taxminan 26-27 nafardan). Birinchi guruh 12 hafta davomida jarayonga yo'naltirilgan yozuv (process writing) yondashuvi asosida o'qitildi, unda har bir insho qoralama tayyorlash, o'qituvchi va tengdoshlardan fikr-mulohaza olish hamda matnni qayta ko'rib chiqish bosqichlaridan iborat siklik jarayon sifatida tashkil etildi. Ikkinchi guruh namunaga asoslangan yozuv (genre-based writing) yondashuvi asosida o'qitildi, unda o'quvchilar turli janrlardagi (rasmiy xat, argumentativ insho, hisobot) namunaviy matnlarni tahlil qilib, ularning tuzilmaviy va uslubiy xususiyatlarini o'zlashtirgan holda mustaqil matn yaratishgan. Uchinchi (nazorat) guruh an'anaviy usulda — faqat yakuniy topshiriq va o'qituvchi tomonidan xatolarni tuzatish asosida — o'qitildi.

Tadqiqot boshida va oxirida barcha respondentlar bir xil mavzudagi argumentativ insho yozish topshirig'ini bajarishdi. Insholar ikkita mustaqil ekspert (nemis tili o'qituvchilari) tomonidan standartlashtirilgan baholash mezonlari — mazmun, matn tuzilmasi, leksik boylik, grammatik to'g'rilik va bog'lovchi vositalardan (Konnektoren) foydalanish — bo'yicha 100 balllik shkalada baholandi. Ekspertlar o'rtasidagi kelishuv darajasi Kendall kelishuv koeffitsienti ($W=0,84$) orqali tekshirildi.

NATIJALAR

Dastlabki test natijalari uchala guruh o'rtasida statistik ahamiyatga ega farq mavjud emasligini ko'rsatdi ($p>0,05$). 12 haftalik eksperiment yakunida esa sezilarli farqlar aniqlandi: jarayonga yo'naltirilgan yondashuv qo'llanilgan guruhning o'rtacha yakuniy bali (100 balllik shkalada 76,8) nazorat guruhining o'rtacha baliga (65,1) nisbatan statistik ahamiyatli darajada ($p<0,05$) yuqori bo'lib, bu taxminan 18 foizlik farqni tashkil etdi. Namunaga asoslangan yondashuv guruhining o'rtacha bali esa 73,6 ball bo'lib, nazorat guruhiga nisbatan 13 foizga yuqori bo'ldi.

Mezonlar bo'yicha batafsil tahlil shuni ko'rsatdiki, jarayonga yo'naltirilgan yondashuv guruhi ayniqsa matn tuzilmasi (kirish-asosiy qism-xulosa mantiqiy izchilligi) va bog'lovchi vositalardan (masalan, "jedoch", "außerdem", "deshalb" kabi Konnektoren) foydalanish bo'yicha eng yuqori

o'sishni (mos ravishda 24% va 29%) ko'rsatdi. Namunaga asoslangan yondashuv guruhi esa janrga xos uslubiy xususiyatlarni (masalan, rasmiy xat formatining to'g'ri saqlanishi) o'zlashtirishda alohida ustunlikka ega bo'ldi.

Grammatik to'g'rilik bo'yicha farq nisbatan kamroq bo'ldi (barcha guruhlarda o'sish 8-14% oralig'ida), bu esa grammatik ko'nikmalarning yozma nutq strategiyasidan ko'ra maxsus grammatik mashqlarga ko'proq bog'liq ekanligini ko'rsatishi mumkin. Respondentlar bilan o'tkazilgan qo'shimcha so'rovnoma natijasida jarayonga yo'naltirilgan guruh a'zolarining 82 foizi tengdoshlar bilan fikr-mulohaza almashish (peer feedback) jarayonini o'zlarining yozish ko'nikmalarini oshirishda "juda foydali" deb baholadi.

MUHOKAMA

Olingan natijalar jarayonga yo'naltirilgan yozuv yondashuvining nemis tilida yozma nutqni rivojlantirishda, ayniqsa matn tuzilmasi va bog'lovchi vositalardan foydalanish nuqtai nazaridan, an'anaviy usulga nisbatan sezilarli ustunlikka ega ekanligini tasdiqlaydi. Bu xulosa xalqaro chet tili o'qitish metodikasi bo'yicha tadqiqotlar bilan mos keladi, ularda ham qoralama-fikr-mulohaza-qayta ishlash tsikli yozma nutqni chuqur va barqaror rivojlantirishning samarali vositasi sifatida tan olingan.

Namunaga asoslangan yondashuvning janrga xos uslubiy xususiyatlarni o'zlashtirishdagi ustunligi, ayniqsa rasmiy va amaliy yozishmalar (masalan, ariza, rasmiy xat) o'rgatishda, alohida amaliy ahamiyatga ega. Bu ikki yondashuvni birgalikda — masalan, avval namuna matnlar bilan tanishtirish, so'ngra jarayonga yo'naltirilgan tsikl orqali mustaqil matn yaratishni tashkil etish — qo'llash yanada samarali natija berishi mumkinligini ko'rsatadi.

Grammatik to'g'rilikdagi nisbatan kichik farq shuni ko'rsatadiki, yozma nutq strategiyalari birinchi navbatda matnni tashkil etish va kommunikativ samaradorlikka ta'sir qiladi, grammatik aniqlik esa alohida maqsadli mashqlar va tuzatishlarni talab qiladi. Shu sababli, samarali yozma nutq o'qitish dasturi yozish strategiyasini grammatikaga yo'naltirilgan qo'shimcha mashqlar bilan uyg'unlashtirishi lozim.

XULOSA

O'tkazilgan tadqiqot natijasida quyidagi xulosalarga kelindi:

1. Jarayonga yo'naltirilgan yozuv (process writing) yondashuvi nemis tilida yozma nutqni rivojlantirishda an'anaviy usulga nisbatan sezilarli yuqori (18%) natija beradi, ayniqsa matn tuzilmasi va bog'lovchi vositalardan foydalanish bo'yicha.

2. Namunaga asoslangan yozuv (genre-based writing) yondashuvi janrga xos uslubiy xususiyatlarni o'zlashtirishda alohida samaradorlik ko'rsatadi va rasmiy yozishmalar o'rgatishda tavsiya etiladi.

3. Tengdoshlar bilan fikr-mulohaza almashish (peer feedback) jarayoni o'quvchilarning yozish ko'nikmalarini rivojlantirishda muhim va ijobiy baholanadigan omil hisoblanadi.

4. Grammatik to'g'rilik yozma nutq strategiyasidan ko'ra maxsus grammatik mashqlarga ko'proq bog'liq bo'lib, samarali dastur ikkala yo'nalishni birgalikda qamrab olishi lozim.

5. Jarayonga yo'naltirilgan va namunaga asoslangan yondashuvlarni birgalikda qo'llash nemis tilida yozma nutqni rivojlantirishning eng maqbul strategiyasi sifatida tavsiya etiladi.

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KONSEPTUAL - KOGNITIV TASVIR VA UNING AMALIYOTDAGI ROLI

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Annotatsiya. Mazkur maqolada konseptual-kognitiv tasvir tushunchasi, uning kognitiv lingvistika doirasidagi nazariy asoslari hamda inson tafakkuri va til faoliyatidagi amaliy ahamiyati yoritiladi. Konseptual-kognitiv tasvir insonning borliqni idrok etishi, qayta ishlashi, kategoriyalarga ajratishi va til vositalari orqali ifodalashi jarayonida shakllanadigan mental tuzilma sifatida talqin qilinadi. Tadqiqotda konseptualizatsiya, kognitiv model, obraz-sxema, freym, prototip, konseptual metafora va tajribaga asoslangan bilish kabi tushunchalarning o'zaro aloqasi tahlil qilinadi. Kognitiv lingvistika nuqtayi nazaridan til faqat axborotni yetkazish vositasi emas, balki insonning olam haqidagi bilimlarini shakllantirish va ifodalash mexanizmi sifatida namoyon bo'ladi. Konseptual-kognitiv tasvirning til o'rgatish, tarjima, diskurs tahlili, madaniyatlararo kommunikatsiya, terminologiya va sun'iy intellekt kabi sohalaridagi amaliy imkoniyatlari ham ko'rib chiqiladi. Tadqiqot natijalari konseptual-kognitiv yondashuv til va tafakkur o'rtasidagi murakkab munosabatlarni tushuntirishda samarali nazariy va amaliy vosita ekanligini ko'rsatadi.

Kalit so'zlar: konseptual-kognitiv tasvir, konseptualizatsiya, kognitiv lingvistika, konsept, tafakkur, obraz-sxema, freym, prototip, konseptual metafora, mental tasvir, til va tafakkur, madaniyatlararo kommunikatsiya.

Аннотация. В данной статье рассматривается понятие концептуально-когнитивного представления, его теоретические основы в рамках когнитивной лингвистики, а также его практическое значение в процессе человеческого мышления и речевой деятельности. Концептуально-когнитивное представление трактуется как ментальная структура, формирующаяся в процессе восприятия человеком окружающей действительности, обработки информации, категоризации явлений и их выражения посредством языковых средств. В исследовании анализируется взаимосвязь таких понятий, как концептуализация, когнитивная модель, образ-схема, фрейм, прототип, концептуальная метафора и основанное на опыте познание. С точки зрения когнитивной лингвистики язык рассматривается не только как средство передачи информации, но и как механизм формирования и выражения знаний человека о мире. Также рассматриваются практические возможности применения концептуально-когнитивного представления в обучении языкам, переводе, дискурсивном анализе, межкультурной коммуникации, терминологии и искусственном интеллекте. Результаты исследования показывают, что концептуально-когнитивный подход является эффективным теоретическим и практическим инструментом для объяснения сложных взаимосвязей между языком и мышлением.

Ключевые слова: концептуально-когнитивное представление, концептуализация, когнитивная лингвистика, концепт, мышление, образ-схема, фрейм, прототип, концептуальная метафора, ментальное представление, язык и мышление, межкультурная коммуникация.

Abstract. This article examines the concept of conceptual-cognitive representation, its theoretical foundations within cognitive linguistics, and its practical significance in human cognition and language activity. Conceptual-cognitive representation is interpreted as a mental structure formed in the process of perceiving reality, processing information, categorizing phenomena, and expressing them through linguistic means. The study analyzes the interrelationship between such concepts as conceptualization, cognitive model, image schema, frame, prototype, conceptual metaphor, and experience-based cognition. From the perspective of cognitive linguistics, language is viewed not only as a means of transmitting information but also as a mechanism for shaping and expressing human knowledge about the world. The practical applications of conceptual-cognitive representation in language teaching, translation, discourse analysis, intercultural communication,

terminology, and artificial intelligence are also considered. The findings demonstrate that the conceptual-cognitive approach serves as an effective theoretical and practical tool for explaining the complex relationship between language and thought.

Keywords: *conceptual-cognitive representation, conceptualization, cognitive linguistics, concept, cognition, image schema, frame, prototype, conceptual metaphor, mental representation, language and thought, intercultural communication.*

KIRISH

Zamonaviy tilshunoslikda tilni faqat grammatik va strukturaviy tizim sifatida o'rganishdan tashqari, uning inson tafakkuri, idroki, tajribasi va madaniy faoliyati bilan bog'liq jihatlarini tadqiq etishga katta e'tibor qaratilmoqda. Shu nuqtayi nazardan kognitiv lingvistika til birliklarining ma'nosini insonning borliqni qanday idrok etishi va konseptuallashtirishi bilan bog'liq holda o'rganadi. Langackerning kognitiv grammatika nazariyasida ma'no konseptualizatsiya bilan bevosita bog'lanadi va grammatik tuzilma ham konseptual mazmunni tashkil etish hamda ramzlashtirish vositasi sifatida qaraladi. Konseptual-kognitiv tasvir inson ongida ma'lum bir obyekt, hodisa, harakat yoki vaziyat haqidagi bilim va tajribaning umumlashgan shaklda namoyon bo'lishidir. Bunday tasvir faqat vizual obraz bilan chegaralanmaydi. U insonning hissiyoti, tajribasi, bilimlari, assotsiatsiyalari, madaniy qarashlari va oldingi tajribasi bilan bog'liq ko'p qatlamli mental tuzilmani tashkil etadi. Kognitiv lingvistika vakillari til ma'nosini insonning tajribasi va konseptual tuzilmalari bilan chambarchas bog'laydi. Masalan, konseptualizatsiya bir xil vaziyatni turli nuqtayi nazarlardan tasavvur qilish va ifodalash imkonini beradi. Bunda kuzatuvchi nuqtayi nazari, diqqatning yo'nalishi, aniqlik darajasi va figura-fon munosabati muhim ahamiyat kasb etadi. Shu sababli konseptual-kognitiv tasvirni o'rganish til birliklarining mazmunini chuqurroq tushunish, turli tillardagi konseptual farqlarni aniqlash hamda samarali kommunikatsiya mexanizmlarini ishlab chiqish uchun muhim nazariy va amaliy ahamiyatga ega.

“Konseptual-kognitiv tasvir” tushunchasini inson ongida muayyan obyekt yoki hodisa haqidagi bilimlarning mental tarzda tashkil topishi sifatida izohlash mumkin. Inson tashqi olamni bevosita va to'liq shaklda emas, balki o'zining sezgi organlari, tajribasi, bilimlari va mavjud kognitiv strukturalari orqali qabul qiladi. Konseptualizatsiya jarayonida inson real voqelikning ayrim jihatlariga e'tibor qaratadi, ularni ajratadi, umumlashtiradi va ma'lum kategoriya tarkibiga kiritadi. Natijada obyekt yoki hodisa ongda muayyan konseptual tasvir sifatida shakllanadi. Langacker konseptual tuzilmaning perseptiv va kognitiv asoslarini alohida ta'kidlaydi. Uning yondashuvida bir xil vaziyat turli usullar bilan konseptuallashtirilishi mumkin. Demak, til birliklarining ma'nosi obyektiv voqelikning oddiy nusxasi emas, balki insonning ushbu voqelikni muayyan usulda talqin qilishi bilan bog'liq.

Masalan, ingliz tilidagi “The book is on the table” va “The table supports the book” kabi ifodalarda bir xil vaziyat turli konseptual nuqtayi nazardan ifodalanishi mumkin. Birinchi holatda diqqat kitobning joylashuviga, ikkinchi holatda esa stolning tayanch vazifasiga qaratiladi. Bu esa tilning voqelikni turlicha konseptualizatsiya qilish imkoniyatini ko'rsatadi.

Konseptual-kognitiv tasvir bir nechta o'zaro bog'liq kognitiv mexanizmlardan tashkil topadi. Ularning asosiylari quyidagilardir:

Konsept. Konsept inson ongida ma'lum obyekt, hodisa yoki tushuncha haqidagi bilimlarning umumlashgan shaklidir. Konseptning mazmuni faqat lug'aviy ma'no bilan chegaralanmaydi, balki madaniy va tajribaviy ma'lumotlarni ham o'z ichiga olishi mumkin.

Kognitiv model. Kognitiv model muayyan obyekt yoki hodisani tushunish uchun ongda mavjud bo'lgan bilimlar tizimidir.

Freym. Freym ma'lum bir vaziyat yoki hodisa bilan bog'liq bilimlarning strukturaviy modeli hisoblanadi. Masalan, “restoran” konsepti mijoz, ofitsiant, menyu, buyurtma, taom, to'lov kabi elementlarni o'z ichiga olishi mumkin.

Obraz-sxema (image schema). Obraz-sxemalar insonning takroriy jismoniy va sensor tajribalaridan shakllanadigan nisbatan abstrakt kognitiv tuzilmalardir. Masalan, CONTAINER,

SOURCE–PATH–GOAL, UP–DOWN, NEAR–FAR kabi sxemalar ko‘plab konkret va abstrakt tushunchalarni tashkil etishda ishtirok etadi.

Prototip. Prototip kategoriya uchun eng xarakterli yoki tipik namuna sifatida namoyon bo‘ladi. Inson ko‘plab obyektlarni qat’iy chegaralar orqali emas, balki ularning prototipik xususiyatlari asosida kategoriyalashtirishi mumkin.

Konseptual metafora. Abstrakt tushunchalarni konkret tajriba asosida anglash konseptual metafora orqali amalga oshadi. Masalan, vaqtni harakat yoki makon orqali tasavvur qilish inson tafakkurida keng tarqalgan konseptual mexanizmlardan biridir.

Til insonning konseptual tizimini ifodalashning asosiy vositalaridan biridir. Inson o‘z tajribasi va bilimlarini so‘zlar, grammatik konstruksiyalar, metaforalar, frazeologizmlar va diskurs orqali ifodalaydi. Kognitiv yondashuvda lingvistik ma’no insonning konseptual bilimlaridan ajratib qaralmaydi. Til birliklarining ma’nosi ensiklopedik bilimlar bilan bog‘langan bo‘lib, ularning mazmunini tushunish uchun kontekst, tajriba va madaniy bilimlar ham muhim hisoblanadi.

Masalan, ingliz tilidagi “heart” so‘zi faqat anatomik organ ma’nosini anglatmaydi. Kontekstga qarab u sevgi, jasorat, hissiyot yoki markaz kabi konseptual mazmunlarni ham ifodalashi mumkin. O‘zbek tilida ham “yurak” leksemasi “yuragi keng”, “yuragi dov bermadi”, “yuragiga yaqin olmoq” kabi birikmalarda turli konseptual mazmunlarni yuzaga chiqaradi. Bu holat til birliklarining ma’nosi insonning konseptual tajribasi bilan chambarchas bog‘liq ekanligini ko‘rsatadi.

Insonning konseptual tizimi uning hayotiy tajribasi bilan uzviy bog‘liq. Ayniqsa, bolalik davridan boshlab insonning atrof-muhit bilan jismoniy va ijtimoiy munosabati muayyan konseptual strukturalarning shakllanishiga zamin yaratadi. Obraz-sxema nazariyasida ham takroriy jismoniy tajriba kognitiv strukturalarning shakllanishida muhim manba sifatida qaraladi. Insonning makonda harakatlanishi, obyektlarni ushlashi, ichiga kirishi yoki undan chiqishi, yuqoriga va pastga harakatlanishi kabi tajribalar keyinchalik abstrakt tushunchalarni anglash uchun ham ishlatilishi mumkin.

Masalan, “He is in trouble” jumlasida ingliz tilidagi IN predlogi jismoniy “ichida bo‘lish” tajribasidan kelib chiqqan obraz-sxema asosida abstrakt holatni ifodalashga xizmat qiladi. Ya’ni “muammo ichida bo‘lish” konseptual jihatdan muayyan holatni makoniy tajriba orqali anglash imkonini beradi.

Konseptual-kognitiv tasvirning amaliy ahamiyati bir qator sohalarda namoyon bo‘ladi.

Til o‘qitishda. Chet tilini o‘rgatishda so‘zlarning faqat lug‘aviy tarjimasini berish o‘rniga ularning ortida turgan konseptual mazmunni tushuntirish samarali bo‘lishi mumkin. Ayniqsa, ko‘p ma’noli so‘zlar, frazeologizmlar va metaforalarni o‘rgatishda kognitiv yondashuv talabani ma’noni chuqurroq anglashga yordam beradi.

Tarjimada. Tarjimon faqat so‘zlarni bir tildan ikkinchi tilga almashtirmaydi. U manba tildagi konseptual mazmunni maqsad tilida tabiiy va tushunarli shaklda qayta yaratishi kerak. Shu sababli turli tillarda bir konseptning qanday ifodalanishini o‘rganish tarjima sifatini oshirishga xizmat qiladi.

Madaniyatlararo kommunikatsiyada. Turli xalqlarning dunyoqarashi, qadriyatlari va tajribasi konseptual tizimda aks etadi. Shu sababli bir xil til birligi turli madaniyatlarda turlicha assotsiativ mazmun kasb etishi mumkin. Konseptual-kognitiv tahlil bunday tafovutlarni aniqlashga yordam beradi.

Diskurs tahlilida. Siyosiy, ilmiy, ommaviy axborot va badiiy diskurslarda muayyan konseptlarning qanday shakllantirilishi va auditoriyaga qanday taqdim etilishini o‘rganish mumkin. Bunda metafora, freym va konseptual nuqtayi nazar muhim tahlil vositalari hisoblanadi.

Terminologiyada. Ilmiy va texnik terminlarning shakllanishi ham insonning mavjud bilimlarni yangi tushunchalar bilan bog‘lash jarayonini aks ettiradi. Konseptual tahlil yangi terminlarning mazmunini tuzilishini aniqlashga yordam beradi.

Sun’iy intellekt va tabiiy tilni qayta ishlashda. Inson tilidagi ma’noni kompyuter orqali modellashtirishda konseptlar, semantik munosabatlar, freymlar va boshqa kognitiv strukturalarni hisobga olish muhim yo‘nalishlardan biridir. Konseptual modellashtirish tabiiy tilni tushunish tizimlarida ma’no munosabatlarini yaxshiroq ifodalash imkonini beradi.

Ingliz va o'zbek tillari turli til oilalariga mansub bo'lib, ularning grammatik va leksik tizimlarida muayyan farqlar mavjud. Shu bilan birga, insonning umumiy tajribasi asosida shakllangan ayrim konseptual strukturalar ikki tilda ham uchrashi mumkin.

Masalan, TIME IS MONEY konseptual metaforasi ingliz tilida "save time", "spend time", "waste time" kabi birikmalarda namoyon bo'ladi. O'zbek tilida ham "vaqtni tejamoq", "vaqtni sarflamoq", "vaqtni behuda o'tkazmoq" kabi birliklarda vaqtning resurs sifatidagi konseptual tasviri kuzatiladi. Bunday misollar inson tajribasining umumiy jihatlarini turli tillarda o'xshash konseptual modellarni yuzaga keltirishi mumkinligini ko'rsatadi. Biroq ularning lingvistik ifodasi, assotsiativ mazmuni va madaniy talqini turlicha bo'lishi mumkin. Shuning uchun ingliz va o'zbek tillarini qiyosiy-kognitiv jihatdan o'rganish nafaqat grammatik yoki leksik farqlarni, balki ikki xalqning borliqni konseptuallashtirish usullaridagi o'xshashlik va farqlarni aniqlash imkonini beradi.

XULOSA

Konseptual-kognitiv tasvir insonning borliqni idrok etishi, tajribani umumlashtirishi, bilimlarni tizimlashtirishi va ularni til orqali ifodalashi jarayonida shakllanadigan murakkab mental tuzilma hisoblanadi. Kognitiv lingvistika doirasida til va tafakkur bir-biridan ajralgan tizimlar sifatida emas, balki o'zaro uzviy bog'liq hodisalar sifatida talqin qilinadi. Konseptualizatsiya jarayonida insonning tajribasi, idroki, tasavvuri, madaniy bilimlari va jismoniy faoliyati muhim rol o'ynaydi. Konsept, freym, prototip, obraz-sxema va konseptual metafora kabi kognitiv mexanizmlar insonning murakkab voqelikni tushunishi va uni til orqali ifodalashini ta'minlaydi. Konseptual-kognitiv tasvirning amaliy ahamiyati ayniqsa chet tilini o'qitish, tarjima, madaniyatlararo kommunikatsiya, diskurs tahlili, terminologiya va tabiiy tilni qayta ishlash kabi sohalarda yaqqol namoyon bo'ladi. Shu jihatdan konseptual-kognitiv yondashuv til birliklarining yuzaki lug'aviy ma'nosidan tashqari, ularning inson tafakkuridagi chuqur mazmuniy va tajribaviy asoslarini aniqlash imkonini beradi.

Umuman olganda, konseptual-kognitiv tasvirni o'rganish til, tafakkur, tajriba va madaniyat o'rtasidagi munosabatlarni kompleks tarzda tushuntirishga xizmat qiladi. Kelgusidagi tadqiqotlarda ingliz va o'zbek tillaridagi muayyan konseptlarning metaforik, frazeologik va grammatik vositalar orqali ifodalanishini qiyosiy o'rganish mazkur yo'nalishning ilmiy va amaliy imkoniyatlarini yanada kengaytirishi mumkin.

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THE POETICS OF CHOICE AND FEMALE AGENCY IN JANE AUSTEN'S PRIDE AND PREJUDICE

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Abstract. This conference paper examines the representation of the new female image in Jane Austen's *Pride and Prejudice* through the interconnected categories of female agency, family role, social class, education, and marriage choice. Drawing on qualitative literary analysis and a documentary study of six female characters in the novel, the paper focuses particularly on Elizabeth Bennet as a heroine whose judgement, refusal, self-correction, and consent become central to the narrative structure. The analysis combines socio-historical contextualization with close reading of dialogue, irony, focalization, and selected marriage-related episodes. The study demonstrates that Austen's representation of female agency does not depend on complete social independence. Instead, agency emerges through the ability to evaluate social expectations, refuse an unsuitable marriage, reconsider previously held assumptions, and make consequential choices within the constraints of early nineteenth-century society. The paper argues that the new female image in Austen's novel is constructed through a poetics of reflective choice in which intellectual judgement and self-correction are as important as resistance to social pressure. Thus, Elizabeth Bennet's significance lies not simply in her rejection of conventional expectations but in the narrative authority given to her capacity to judge, revise, and consent.

Keywords: Jane Austen, *Pride and Prejudice*, female agency, new female image, marriage, social class, education, Elizabeth Bennet, narrative irony, focalization.

Аннотация. В данной конференционной статье исследуется репрезентация нового женского образа в романе Джейн Остин «Гордость и предубеждение» через взаимосвязанные категории женской субъектности, семейной роли, социального класса, образования и выбора брака. Основываясь на качественном литературном анализе и документальном исследовании шести женских персонажей романа, статья сосредоточена прежде всего на образе Элизабет Беннет как героини, чьи суждения, способность к отказу, самокоррекции и осознанному согласию становятся центральными элементами повествовательной структуры. Анализ сочетает социально-исторический контекстуальный подход с методами внимательного прочтения диалогов, иронии, фокализации и отдельных эпизодов, связанных с браком. Исследование показывает, что репрезентация женской субъектности у Остин не основывается на полной социальной независимости. Напротив, субъектность проявляется в способности оценивать социальные ожидания, отвергать неподходящий брак, пересматривать ранее сформировавшиеся представления и принимать значимые решения в условиях социальных ограничений начала XIX века. В статье утверждается, что новый женский образ в романе Остин формируется посредством поэтики рефлексивного выбора, в которой интеллектуальное суждение и способность к самокоррекции имеют такое же значение, как и сопротивление социальному давлению. Таким образом, значимость Элизабет Беннет заключается не только в её неприятии традиционных ожиданий, но и в том, что повествование наделяет её способностью самостоятельно судить, пересматривать свои взгляды и осознанно давать согласие.

Ключевые слова: Джейн Остин, «Гордость и предубеждение», женская субъектность, новый женский образ, брак, социальный класс, образование, Элизабет Беннет, повествовательная ирония, фокализация.

Annotatsiya. Mazkur konferensiya maqolasida Jeyn Ostinning "G'urur va xurofot" romanida yangi ayol obrazining ifodalanishi ayol subyektligi, oiladagi roli, ijtimoiy tabaqa, ta'lim va nikoh tanlovi kabi o'zaro bog'liq kategoriyalar asosida tadqiq etiladi. Romandagi olti nafar ayol obrazining sifat jihatidan adabiy tahlili va hujjatli tadqiqotiga tayangan holda, maqolada, ayniqsa, hukm chiqarish qobiliyati, rad eta olish, o'z xulosalarini qayta ko'rib chiqish va ongli roziligi syujet-

narrativ tuzilmaning muhim unsurlariga aylangan qahramon — *Elizabet Bennet* obraziga e'tibor qaratiladi. Tadqiqot ijtimoiy-tarixiy kontekstualizatsiyani dialoglar, kinoya, fokalizatsiya va nikoh bilan bog'liq tanlangan epizodlarni chuqur tahlil qilish usuli bilan uyg'unlashtiradi. Tadqiqot natijalari Ostin ijodida ayol subyektivligining ifodalanishi to'liq ijtimoiy mustaqillikka asoslanmasligini ko'rsatadi. Aksincha, subyektivlik ijtimoiy kutilmalarni baholash, nomaqbul nikohni rad etish, ilgari shakllangan qarashlarni qayta ko'rib chiqish va XIX asr boshidagi ijtimoiy cheklovlar sharoitida muhim qarorlar qabul qilish qobiliyati orqali namoyon bo'ladi. Maqolada Ostin romanidagi yangi ayol obrazi refleksiv tanlov poetikasi asosida shakllanishi, bunda intellektual mushohada va o'z qarashlarini qayta ko'rib chiqish qobiliyati ijtimoiy bosimga qarshilik ko'rsatish kabi muhim ahamiyat kasb etishi ta'kidlanadi. Shu jihatdan, *Elizabet Bennet* obrazining ahamiyati faqat an'anaviy kutilmalarga qarshi chiqishida emas, balki asar narrativida uning mustaqil fikrlash, o'z qarashlarini qayta baholash va ongli ravishda rozilik bildirish qobiliyatiga muhim o'rin berilganidir.

Kalit so'zlar: *Jeyn Ostin*, "G'urur va xurofot", ayol subyektivligi, yangi ayol obrazi, nikoh, ijtimoiy tabaqa, ta'lim, *Elizabet Bennet*, narrativ kinoya, fokalizatsiya.

INTRODUCTION

Jane Austen's *Pride and Prejudice*, first published in 1813, presents female characters within an early nineteenth-century English society in which marriage, property, inheritance, social reputation, and family connections significantly influenced women's social and economic prospects. The novel's treatment of these conditions has generated extensive literary discussion concerning gender, marriage, class, and female subjectivity. A 2023 qualitative documentary study by Melani Jhuridia Nenjer Morillo examines six female characters in *Pride and Prejudice*—Mrs Bennet, Jane Bennet, Elizabeth Bennet, Lydia Bennet, Catherine Bennet, and Mary Bennet—through the categories of family role, social class, education, and economic and social expectations. The study places the female characters within the socio-historical conditions of nineteenth-century England and identifies Elizabeth as the character who most clearly challenges certain conventional expectations.

This approach provides a useful social and contextual basis for examining the female characters. However, the present study shifts the emphasis from social roles alone to their poetic and narrative construction. The central question is not simply whether Elizabeth behaves differently from the other women in the novel, but how Austen's narrative form makes Elizabeth's judgement, refusal, error, and eventual consent structurally significant.

The expression "new female image" is used in this paper in a historically cautious sense. It does not refer to the later nineteenth-century concept of the "New Woman," which emerged in a substantially different social and literary context. Instead, it denotes a female literary character whose individual judgement, right to refuse, and capacity for self-correction are represented as legitimate elements of personal choice.

The novelty of this representation therefore lies not in complete emancipation from social structures, but in the heroine's ability to exercise self-authorized judgement within social constraint.

Marriage in *Pride and Prejudice* cannot be separated from the economic circumstances of the Bennet family. The Longbourn estate is entailed away from the Bennet daughters, meaning that the daughters cannot inherit it under the existing arrangement. Consequently, marriage has both emotional and material significance for the family.

Mrs Bennet's persistent concern with securing husbands for her daughters is presented comically, but her anxiety also reflects the economic vulnerability created by inheritance arrangements and the limited opportunities available to women of her social position. Austen therefore constructs an important tension between marriage as social and economic necessity and marriage as personal choice.

This tension is particularly important for understanding Elizabeth's agency. Elizabeth does not reject marriage as an institution. Rather, she rejects the assumption that economic security or social advantage alone should determine her consent.

Her refusal of Mr Collins provides the clearest early example. Collins offers a socially and economically practical marriage, especially considering the future inheritance of Longbourn. Elizabeth nevertheless refuses because she does not believe that material security can compensate for the absence of personal compatibility.

The episode establishes an important principle of the novel's gender poetics: although marriage is socially consequential, the woman who enters the marriage must retain a meaningful role in deciding whether that marriage is acceptable.

In this study, female agency refers to the represented capacity of a female character to form a judgement, act upon or refuse to act upon that judgement, and revise it when subsequent evidence requires reconsideration.

This definition distinguishes agency from unrestricted social freedom. Elizabeth does not possess complete economic independence, political power, or freedom from social expectations. Her agency is therefore exercised within existing structures rather than outside them.

This distinction is particularly relevant to feminist interpretations of Austen. Johnson (1988), Kirkham (1983), and Poovey (1984), among others, have examined the relationship between women's social position, domestic ideology, and Austen's literary representation.

Elizabeth's agency is consequently not best understood as simple rebellion. She does not reject every social convention surrounding marriage and family. Instead, she questions whether those conventions should determine individual moral judgement.

The poetics of choice in the novel is therefore based on three interconnected processes:

1. evaluation of social circumstances;
2. refusal when a proposed choice conflicts with personal judgement;
3. revision when new evidence challenges previous assumptions.

These three processes constitute the central movement of Elizabeth's development.

Education is another important category in the construction of the female image. In the social world of the novel, female accomplishment is associated with reading, music, drawing, manners, conversation, and cultivated taste.

However, Austen distinguishes between social accomplishment and interpretive competence.

The Bingley sisters, for example, associate female accomplishment with refinement and elite cultural performance. Mary Bennet frequently seeks intellectual distinction through quotations and moral observations. Elizabeth, by contrast, is not represented as the most formally accomplished woman in the novel. Her distinctive quality lies in her ability to observe, interpret, question, and respond.

This distinction is significant for the concept of the new female image. Austen's heroine is not constructed primarily through the accumulation of socially approved accomplishments. Instead, her development depends upon her ability to interpret human behaviour and reconsider her interpretations.

METHODOLOGY

The study employs a qualitative literary-interpretive methodology combining socio-historical contextualization, close reading, and structural analysis.

Four analytical categories are adapted from Nenjer Morillo's documentary study: family role, social class, education, and economic dependence. These categories are treated as contextual conditions rather than fixed characteristics. A fifth category, decision-making agency, is added to examine how female characters form, defend, reject, or revise consequential judgements. The analysis proceeds through three stages.

First, Elizabeth is considered alongside Mrs Bennet, Jane, Lydia, Catherine, and Mary in order to identify the social expectations shared by the women of the Bennet family.

Second, selected scenes involving marriage, refusal, class, and judgement are analyzed. Particular attention is given to Mr Collins's proposal, Darcy's first proposal, Elizabeth's confrontation with Lady Catherine, and the later transformation of Elizabeth's understanding of Darcy and Wickham.

Third, the narrative presentation of these episodes is examined through dialogue, irony, focalization, and the changing relationship between the heroine's perception and the narrator's perspective.

The study is interpretive rather than quantitative. It does not attempt to calculate the frequency of themes or linguistic features. Instead, it examines how selected episodes contribute to the construction and transformation of the female protagonist.

DISCUSSION

1. Refusal as a Form of Female Agency

Elizabeth's rejection of Mr Collins is one of the clearest representations of female choice in the novel.

From a purely economic perspective, Collins's proposal is practical. He is expected to inherit Longbourn, and marriage to him could provide Elizabeth with social and material security. Mrs Bennet therefore interprets Elizabeth's refusal as irrational.

Elizabeth, however, refuses to separate marriage from personal judgement. Her decision demonstrates that economic practicality does not automatically create moral or emotional legitimacy.

The significance of the episode lies in the fact that Elizabeth's refusal is treated as consequential rather than merely rebellious. The narrative recognizes her authority to reject a socially advantageous proposal.

2. Darcy's Proposal and the Conflict between Love and Social Class

Darcy's first proposal creates a more complex test of Elizabeth's agency.

His declaration of love is accompanied by an awareness of the social obstacles created by Elizabeth's family connections and lower social position. Consequently, the proposal contains both affection and class consciousness.

Elizabeth's rejection is therefore directed not only toward Darcy's personal behaviour but also toward the social assumptions embedded in his proposal.

The dialogue becomes a contest between competing interpretations. Darcy interprets his conduct through his social position and emotional struggle, whereas Elizabeth interprets his behaviour through the effects of pride, arrogance, and his treatment of Wickham.

The scene therefore demonstrates that female agency can operate through interpretation and verbal resistance, not only through physical or social rebellion.

3. Social Class as a Continuing Constraint

Elizabeth's agency does not eliminate the importance of social class.

Her family connections continue to affect how others perceive her. Lady Catherine's opposition to a possible marriage between Elizabeth and Darcy demonstrates the continuing authority of inherited status and social hierarchy.

At the same time, Austen does not reduce Elizabeth's eventual change of feeling toward Darcy to his wealth.

Elizabeth's revised judgement develops through evidence. Darcy's letter challenges her interpretation of Wickham; his later behaviour toward the Gardiners and his intervention in Lydia's crisis provides further evidence of his character.

The transformation of Elizabeth's attitude therefore occurs through a process of observation, interpretation, and revision.

This distinction is essential: her final choice is not simply a response to wealth or social status but follows a change in her understanding of Darcy's character.

4. Self-Correction as a Dimension of Agency

Elizabeth's recognition of her own error is arguably as significant as her earlier refusals.

Her confidence in Wickham and her prejudice against Darcy reveal that independence can coexist with mistaken judgement. When Elizabeth recognizes the limitations of her interpretation, she does not surrender her autonomy. Instead, she exercises it more critically.

This creates a reflexive model of agency.

Elizabeth does not merely resist the judgements of others; she becomes capable of questioning her own judgements. Consequently, the development of the new female image involves both resistance and self-revision.

CONCLUSION

Pride and Prejudice constructs a distinctive female image through the interaction of social constraint, individual judgement, refusal, self-correction, and reflective choice. Elizabeth Bennet remains situated within the economic and patriarchal structures of early nineteenth-century English society, but the narrative gives her judgement considerable authority in determining the course of her personal life. The study identifies three interconnected dimensions of this poetics. First, social class and economic dependence establish the seriousness of marriage without completely determining the heroine's choice. Second, education is represented not merely as the possession of accomplishments but as the development of interpretive competence, particularly the ability to evaluate character and social behaviour. Third, irony and focalization make self-correction central to female subjectivity. Elizabeth's agency is not demonstrated only by her ability to say "no"; it is also demonstrated by her ability to reconsider her own assumptions without surrendering her capacity for independent judgement. Thus, the new female image in Austen's *Pride and Prejudice* can be understood as a woman who exercises meaningful choice within social constraint. Elizabeth does not escape her historical circumstances, reject marriage as an institution, or acquire complete economic independence. Instead, Austen makes her judgement indispensable to the legitimacy of marriage. The poetics of choice therefore transforms marriage from an externally imposed social destination into a relationship that requires reflection, mutual recognition, and personal consent.

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GALLISIZMLAR INGLIZ TILI LUG‘AT TARKIBINING TARIXIY MANBAYI SIFATIDA

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Annotatsiya. Ushbu maqolada gallsizmlarning ingliz tili lug‘at tarkibini boyitishdagi tarixiy va funksional o‘rni tahlil qilinadi. Gallsizm tushunchasiga nisbatan mavjud tor va keng yondashuvlar ko‘rib chiqiladi, fransuzcha o‘zlashmalarining ingliz tiliga kirib kelish sabablari (nominativ ehtiyoj, uslubiy differentsiatsiya, ijtimoiy nufuz) va ularning tematik tasnifi (huquq, siyosat, harbiy ish, madaniyat, gastronomiya, moda) yoritiladi. Alohida e‘tibor fransuzcha-germancha sinonimik dubletlar (*freedom/liberté*, *begin/commence* kabi) orqali yuzaga kelgan uslubiy tabaqalanishga hamda gallsizmlarning fonetik, morfologik va semantik adaptatsiya jarayonlariga qaratiladi.

Kalit soʻzlar: *gallisizm, leksik oʻzlashtirish, sinonimik dublet, semantik adaptatsiya, tematik tasnif, uslubiy tabaqalanish.*

Abstract. *This article examines the historical and functional role of Gallicisms in enriching the vocabulary of the English language. It reviews the narrow and broad approaches to defining the term “Gallicism”, and discusses the reasons behind French borrowings entering English (nominative need, stylistic differentiation, social prestige) along with their thematic classification (law, politics, military affairs, culture, gastronomy, fashion). Particular attention is paid to the stylistic stratification arising from French–Germanic synonymic doublets (such as freedom/liberty, begin/commence), as well as to the phonetic, morphological and semantic adaptation of Gallicisms.*

Keywords: *Gallicism, lexical borrowing, synonymic doublet, semantic adaptation, thematic classification, stylistic stratification.*

Аннотация. *В данной статье анализируется историческая и функциональная роль галлицизмов в обогащении словарного состава английского языка. Рассматриваются существующие узкие и широкие подходы к определению понятия «галлицизм», а также освещаются причины проникновения французских заимствований в английский язык, включая номинативную потребность, стилистическую дифференциацию и социальный престиж. Особое внимание уделяется тематической классификации галлицизмов в таких сферах, как право, политика, военное дело, культура, гастрономия и мода. Отдельно рассматривается стилистическая дифференциация, сформировавшаяся на основе франко-германских синонимических дублетов (freedom/liberty, begin/commence и др.), а также процессы фонетической, морфологической и семантической адаптации галлицизмов в английском языке.*

Ключевые слова: *галлицизм, лексическое заимствование, синонимический дублет, семантическая адаптация, тематическая классификация, стилистическая дифференциация.*

KIRISH

Gallisizmlar ingliz tili leksik tizimining shakllanishida muhim oʻrin egallaydigan oʻzlashma qatlamlardan biri hisoblanadi. Ular nafaqat tarixiy, balki funksional-semantik xususiyatlari jihatidan ham alohida tadqiqot obyekti sifatida qaraladi: zamonaviy ingliz tilida fransuz tilidan qabul qilingan leksik birliklar turli tematik sohalarida faol qoʻllanib, tilning nominativ, kommunikativ va uslubiy imkoniyatlarini kengaytirishga xizmat qiladi.

Tilshunoslikda gallsizm tushunchasiga nisbatan yagona yondashuv mavjud emas. Tor maʼnoda gallsizm deb bevosita fransuz tilidan qabul qilingan soʻzlarga nisbatan ishlatiladi; keng maʼnoda esa fransuz tili vositasida boshqa tillardan kirgan yoki fransuz madaniyati taʼsirida shakllangan til birliklari ham mazkur tushuncha doirasiga kiritiladi. Tadqiqotchilarning fikricha, ingliz tilining umumiy lugʻat tarkibida roman tillari asosida kelib chiqishiga ega boʻlgan leksemalar ulushi germancha qatlamdan ham yuqori boʻlishi mumkin, garchi kundalik muloqotda eng faol qoʻllanadigan soʻzlarning katta qismi germancha kelib chiqishiga ega boʻlsa-da.

ASOSIY QISM

Leksik oʻzlashtirish jarayoni hech qachon tasodifiy hodisa boʻlmaydi — har qanday til birligi muayyan ijtimoiy, madaniy yoki kommunikativ ehtiyoj natijasida qabul qilinadi. Fransuzcha oʻzlashmalarning ingliz tiliga kirib kelishida siyosiy hukmronlik, madaniy nufuz, iqtisodiy munosabatlar va ijtimoiy prestij kabi omillar hal qiluvchi ahamiyat kasb etgan. Tilshunoslikda soʻz oʻzlashtirish jarayonining asosiy sabablari sifatida *nominativ ehtiyoj, uslubiy differentsiatsiya va ijtimoiy nufuz* omillari koʻrsatiladi. Masalan, davlat boshqaruvi, huquq va saroy madaniyati bilan bogʻliq koʻplab tushunchalar anglo-sakson jamiyati uchun yangi boʻlganligi sababli ular fransuzcha nomlari bilan qabul qilingan; ayrim holatlarda esa mavjud inglizcha soʻzlar bilan bir qatorda fransuzcha variantlar ham oʻzlashtirilib, ular oʻrtasida keyinchalik uslubiy farqlanish yuzaga kelgan.

Fransuz tilidan qabul qilingan birliklar jamiyat hayotining deyarli barcha sohalarida uchraydi. **Huquq sohasi** gallsizmlar eng koʻp uchraydigan yoʻnalishlardan biri hisoblanadi — bu holat toʻgʻridan-toʻgʻri Norman istilosi oqibatlari bilan bogʻliq: XII–XIV asrlarda Angliyada sud ishlari asosan fransuz tilida olib borilgan, natijada *court, judge, jury, justice, attorney, appeal, evidence,*

verdict, prison, crime, plaintiff, defendant kabi atamalar ingliz huquqiy terminologiyasining ajralmas qismiga aylangan.

Siyosiy va davlat boshqaruvi sohasida *parliament, government, authority, sovereign, minister, state, council* kabi leksemalarning aksariyati fransuzcha manbaga ega. **Harbiy terminologiyada** esa *captain, lieutenant, sergeant, battalion, regiment, army, enemy* kabi atamalar o'rta asrlardagi fransuz harbiy an'analari ta'sirida qabul qilingan.

Madaniyat va san'at sohasida *literature, beauty, elegance, genre, portrait, ballet, critique, artist* kabi so'zlar fransuz madaniyatining ingliz jamiyatidagi nufuzini aks ettiradi. **Gastronomik gallsizmlar** (*restaurant, cuisine, menu, chef, omelette, mayonnaise, soufflé, champagne*) va **moda sohasi gallsizmlari** (*boutique, chic, couture, ensemble, lingerie, silhouette*) alohida mahsuldor guruhlarni tashkil etadi — bunda ko'p so'zlar fransuzcha grafik shaklini qisman saqlab qolgan, bu ularning madaniy nufuzi bilan izohlanadi.

Fransuzcha o'zlashmalar ingliz tilining sinonimik zaxirasini sezilarli darajada boyitgan. Ko'p hollarda bir tushuncha uchun germancha va fransuzcha kelib chiqishga ega ikki yoki undan ortiq variant shakllangan: *ask/question, begin/commence, help/assist, freedom/liberté, hearty/cordial, wedding/marriage* kabi juftliklar buning yaqqol namunasidir. Bunday juftliklarda fransuzcha variant ko'pincha rasmiy yoki kitobiy uslubga mansub bo'lsa, germancha variant kundalik nutqda faolroq qo'llanadi. Aynan shu hodisa ingliz tilining uslubiy tabaqalanishini shakllantirishda muhim rol o'ynagan va bir xil ma'noni turli kommunikativ sharoitlarda ifodalash imkoniyatini yaratgan.

O'zlashtirishning muvaffaqiyati qabul qilingan birlikning qabul qiluvchi til normalariga qay darajada moslasha olishi bilan belgilanadi. **Fonetik adaptatsiya** jarayonida ko'plab so'zlar (*government, parliament, justice, courage*) vaqt o'tishi bilan ingliz talaffuz va urg'u qoidalariga moslashgan — fransuz tilida urg'u odatda so'z oxiriga yaqin joylashgan bo'lsa, ingliz tilida erkin xarakterga ega bo'lgani sababli ko'plab gallsizmlarda urg'u o'rni o'zgargan.

Morfologik adaptatsiya natijasida qabul qilingan so'zlar ingliz grammatik qoidalariga moslashib, yangi hosila shakllar yasagan (*government → governmental; nation → national, nationally, nationalism*). Ayrim fransuzcha affiksalar (*-age, -ance, -ence, -ment, -ity*) ingliz tilida mahsuldor so'z yasovchi vositalarga aylangan. **Semantik adaptatsiya** esa yanada murakkab jarayon bo'lib, qabul qilingan so'zlar (*entrepreneur, liaison, regime, elite*) ko'pincha ingliz tilida mustaqil semantik rivojlanish yo'lini bosib o'tgan — ularning ma'nosi torayishi, kengayishi yoki uslubiy jihatdan qayta taqsimlanishi mumkin.

Zamonaviy ingliz tilida fransuzcha kelib chiqishga ega birliklar rasmiy, ilmiy, publitsistik va badiiy uslubda faol qo'llanadi. Ayniqsa badiiy adabiyotda gallsizmlar personaj nutqini individuallashtirish, ijtimoiy muhitni tasvirlash va muayyan madaniy koloritni yaratish vazifasini bajaradi — bu jihat, xususan, Uilyam Somers Moem ijodi misolida yaqqol kuzatiladi, uning asarlarida fransuzcha kelib chiqishga ega birliklar nafaqat leksik element, balki muayyan uslubiy-estetik vosita sifatida namoyon bo'ladi.

XULOSA

O'tkazilgan tahlil shuni ko'rsatadiki, gallsizmlar ingliz tili lug'at tarkibining eng muhim tashqi manbalaridan biri hisoblanadi. Ularning ko'p asrlik taraqqiyot jarayoni davomida fonetik, morfologik va semantik jihatdan adaptatsiyalashuvi mazkur birliklarning til tizimida mustahkam o'rin egallashiga olib kelgan. Fransuzcha o'zlashmalar nafaqat ingliz tilining leksik boyligini oshirgan, balki uning uslubiy va funksional imkoniyatlarini, xususan sinonimik tizim va uslubiy tabaqalanishni ham sezilarli darajada kengaytirgan. Shu sababli gallsizmlarni o'rganish ingliz tili tarixi, leksikologiyasi va badiiy matn tilini tadqiq qilishda muhim nazariy ahamiyatga ega bo'lib qolmoqda.

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TOPONYMS AS LINGUISTIC UNITS

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Abstract: *Toponyms, or place names, are not only geographical identifiers but also linguistic, cultural, and historical markers. They encapsulate valuable information about the language, culture, and environment of the people who named them. This paper explores the nature of toponyms as linguistic units by analyzing their etymology, morphology, semantics, and sociolinguistic significance. Furthermore, it discusses their importance in preserving linguistic heritage, their transformations over time, and their role in multilingual societies. Through detailed case studies and scholarly references, the study underlines the value of toponyms in understanding human history, identity, and communication patterns.*

Keywords: *Toponym, semantics, cultural semantics, linguoculturology, geographic names, lexical layer*

Аннотация: *Топонимы, или географические названия, являются не только географическими идентификаторами, но и лингвистическими, культурными и историческими маркерами. Они содержат ценную информацию о языке, культуре и окружающей среде народа, который дал им эти названия. В данной статье рассматривается природа топонимов как языковых единиц посредством анализа их этимологии, морфологии, семантики и социолингвистической значимости. Кроме того, обсуждается их значение для сохранения языкового наследия, их трансформация с течением времени, а также их роль в многоязычных обществах. На основе подробных тематических исследований и научных источников подчёркивается ценность топонимов для понимания истории человечества, идентичности и моделей коммуникации.*

Ключевые слова: *топоним, семантика, культурная семантика, лингвокультурология, географические названия, лексический слой.*

Annotatsiya: *Toponimlar, ya'ni joy nomlari, nafaqat geografik identifikatorlar, balki lingvistik, madaniy va tarixiy belgilar ham hisoblanadi. Ular ushbu nomlarni bergan xalqning tili, madaniyati va atrof-muhitiga oid qimmatli ma'lumotlarni o'zida mujassam etadi. Mazkur maqolada toponimlarning etimologiyasi, morfologiyasi, semantikasi va sotsiolingvistik ahamiyatini tahlil qilish orqali ularning til birliklari sifatidagi tabiati o'rganiladi. Shuningdek, toponimlarning lingvistik merosni saqlashdagi ahamiyati, vaqt o'tishi bilan yuz beradigan o'zgarishlari hamda ko'p tilli jamiyatlardagi roli muhokama qilinadi. Batafsil misollar va ilmiy manbalar asosida toponimlarning insoniyat tarixi, o'zlikni anglash va kommunikatsiya shakllarini tushunishdagi ahamiyati yoritib beriladi.*

Kalit so'zlar: *toponim, semantika, madaniy semantika, lingvomadaniyatshunoslik, geografik nomlar, leksik qatlam.*

INTRODUCTION

Toponymy, the study of place names, serves as a gateway into the interplay between language and geography. Toponyms function as essential elements of linguistic landscapes, contributing to identity formation, historical continuity, and geographic orientation. Each toponym carries a story — about colonization, migration, mythology, political power, or environmental characteristics — making them powerful symbols of human activity across time and space.

The etymology of toponyms can uncover the roots of languages and civilizations. Toponyms often originate from indigenous languages, ancient dialects, or colonial tongues, providing insight into historical population movements and cultural interactions. For instance, many English toponyms such as “Oxford” (a ford for oxen) or “Cambridge” (a bridge over the River Cam) denote practical features relevant to early settlers. Similarly, in Central Asia, names such as “Samarkand” (Samar – a personal name, kand – city) showcase Persian influences.

Toponyms range from single-word units to compound formations and are shaped by language-specific morphological rules. They often include prefixes, suffixes, or compounding elements:

- Prefix-based: “New York” (where “New” indicates a new version of York)
- Suffix-based: “Karakum” (Turkic root “kara” meaning black and “kum” meaning sand)
- Compound: “Springfield” (combining “spring” and “field”)

Their morphology often reflects linguistic productivity, including derivation and borrowing processes. The use of honorifics (e.g., “St. Petersburg”), natural descriptors (e.g., “Greenland”), and occupation-related terms (e.g., “Bakersfield”) show socio-economic aspects embedded in naming.

Toponyms can be semantically categorized based on what they signify:

- Descriptive: Reflecting geographic features (e.g., “Rocky Mountains”)
- Associative: Related to local flora, fauna, or activities (e.g., “Buffalo”)
- Incident-related: Named after historical events (e.g., “Bloody Ridge”)
- Possessive: Reflecting ownership or founders (e.g., “Jamestown”)
- Commemorative: Honoring individuals or entities (e.g., “Washington”)
- Manufactured: Created for branding or tourism (e.g., “Dreamland”)

Toponyms often mirror social and political dynamics. Changes in place names can signify shifts in ideology, power structures, or cultural reclamation. Examples include:

- Post-colonial renaming: “Ceylon” to “Sri Lanka”
- Indigenous restoration: “Ayers Rock” to “Uluru”
- Political renaming: “Stalingrad” to “Volgograd”

Toponymic changes are not just cosmetic; they reflect deeper efforts at identity reconstruction, decolonization, and historical redress.

Toponyms and Language Preservation. In many regions, especially where minority languages are endangered, toponyms are crucial for linguistic survival. Place names retain phonological and grammatical features that may no longer exist in daily speech. For example, in New Zealand, Māori toponyms like “Aotearoa” preserve pre-colonial language and heritage. Language revitalization programs often use toponyms as educational tools.

Case Studies Uzbekistan: Uzbek place names reflect a Turkic linguistic base with Persian and Russian overlays. Cities like “Tashkent” (Stone City) and “Namangan” (Salty Mine) reveal ecological and historical features.

Canada: Many place names, including “Toronto” and “Saskatchewan,” derive from Indigenous languages, serving as reminders of the First Nations heritage.

India: A complex toponymic landscape, with names in Sanskrit, Persian, Urdu, and English — e.g., “Bangalore” renamed to “Bengaluru.”

South Africa: Post-apartheid name revisions (e.g., “Pietersburg” to “Polokwane”) Toponyms also function symbolically and cognitively. They create mental maps and emotional connections to places. For example, “home” and “homeland” derive strong sentimental value from place names. National anthems, folk songs, and literature often embed toponyms as symbols of pride, resistance, or nostalgia.

CONCLUSION

Toponyms are more than just names; they are living linguistic artifacts that connect language with land, identity, and history. Their study provides crucial insights into how humans interpret, interact with, and transform their environments through language. In a globalizing world where languages and identities are increasingly under threat, preserving and understanding toponyms remains a vital scholarly and cultural endeavor.

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KOMPYUTER ILOVALARI ORQALI INGLIZ TILINI MUSTAQIL O'RGANISHNI TASHKIL ETISH

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Annotatsiya. Ushbu maqolada kompyuter ilovalari yordamida ingliz tilini mustaqil o'rganishni tashkil etish masalasi IMRAD tuzilmasi asosida tadqiq etilgan. Maqolada kompyuter yordamida til o'rganish (Computer-Assisted Language Learning, CALL) tushunchasi, uning nazariy asoslari hamda Rosetta Stone, English Discoveries, Tell Me More va Cambridge English platformasidagi masofaviy kurslar kabi ingliz tilini o'rgatuvchi kompyuter ilovalarining didaktik imkoniyatlari qiyosiy tahlil qilingan. Tadqiqot uchun oliy ta'lim muassasasida ingliz tilini o'rta (B1) darajada o'rganayotgan 70 nafar talaba ishtirokida 8 haftalik pedagogik eksperiment o'tkazilgan bo'lib, ular tanlangan kompyuter ilovalari yordamida mustaqil ta'lim olishgan. Natijalar shuni ko'rsatdiki, kompyuter ilovalaridan muntazam foydalangan talabalarning tinglab tushunish ko'nikmasi 8 hafta ichida o'rtacha 21 foizga, lug'at boyligi esa 26 foizga oshgan. Shu bilan birga, talabalarning yozma va og'zaki nutq ko'nikmalarini rivojlantirishda kompyuter ilovalarining o'zi yetarli emasligi, ularni o'qituvchi rahbarligidagi mashg'ulotlar bilan uyg'unlashtirish zarurligi aniqlangan. Maqola yakunida kompyuter ilovalarini ingliz tili ta'limiga integratsiya qilish bo'yicha amaliy tavsiyalar berilgan.

Kalit so'zlar: kompyuter yordamida til o'rganish, ingliz tili, mustaqil ta'lim, CALL, kompyuter ilovasi, chet tilini o'rganish, til ko'nikmalari.

Annotation. This article investigates the organization of independent English language learning through computer applications within the IMRAD framework. The article examines the concept of Computer-Assisted Language Learning (CALL), its theoretical foundations, and comparatively analyzes the didactic potential of computer applications for learning English, such as Rosetta Stone, English Discoveries, Tell Me More, and distance courses on the Cambridge English platform. For the study, an 8-week pedagogical experiment was conducted with 70 students learning English at the intermediate (B1) level at a higher education institution, who engaged in independent learning using selected computer applications. The results show that students who regularly used the computer applications improved their listening comprehension by an average of 21 percent and their vocabulary by 26 percent over 8 weeks. At the same time, it was found that computer applications alone are insufficient for developing writing and speaking skills, and need to be integrated with teacher-led instruction. The article concludes with practical recommendations for integrating computer applications into English language teaching.

Key words: computer-assisted language learning, English language, independent learning, CALL, computer application, foreign language acquisition, language skills.

Аннотация. В данной статье в рамках структуры IMRAD исследуется организация самостоятельного изучения английского языка с помощью компьютерных приложений. В статье рассматривается понятие обучения языку с помощью компьютера (Computer-Assisted Language Learning, CALL), его теоретические основы, а также проведён сравнительный анализ дидактического потенциала компьютерных приложений для изучения английского языка, таких как Rosetta Stone, English Discoveries, Tell Me More и дистанционные курсы платформы Cambridge English. Для исследования проведён 8-недельный педагогический эксперимент с участием 70 студентов, изучающих английский язык на среднем уровне (B1) в высшем учебном заведении, которые самостоятельно обучались с использованием выбранных компьютерных приложений. Результаты показывают, что студенты, регулярно использовавшие компьютерные приложения, улучшили навыки восприятия на слух в среднем на 21% и словарный запас на 26% за 8 недель. Вместе с тем было установлено, что компьютерные приложения сами по себе недостаточны для развития навыков письма и говорения и должны сочетаться с занятиями под руководством преподавателя. В заключение статьи даны практические рекомендации по интеграции компьютерных приложений в обучение английскому языку.

Ключевые слова: обучение языку с помощью компьютера, английский язык, самостоятельное обучение, CALL, компьютерное приложение, изучение иностранного языка, языковые навыки.

KIRISH

Ingliz tili xalqaro muloqot, ilm-fan va biznes sohasidagi yetakchi til sifatida o'zining ahamiyatini saqlab qolmoqda, bu esa uni samarali o'rganish usullarini takomillashtirishni doimiy dolzarb masalaga aylantiradi. Kompyuter texnologiyalarining ta'lim sohasiga kirib kelishi bilan "Computer-Assisted Language Learning" (CALL) — kompyuter yordamida til o'rganish — yo'nalishi mustaqil ilmiy-amaliy soha sifatida shakllandi.

Rosetta Stone, English Discoveries, Tell Me More kabi maxsus dasturiy ta'minotlar, shuningdek Cambridge English, British Council kabi tashkilotlarning onlayn platformalari orqali ingliz tilini mustaqil o'rganish imkoniyati sezilarli darajada kengaydi. Bunday vositalar interaktiv mashqlar, ovozli tanish tizimlari va shaxsiylashtirilgan o'quv trayektoriyalari orqali an'anaviy darslik asosidagi o'qitishga muqobil yondashuvni taklif etadi. Biroq bunday mustaqil o'rganish usulining haqiqiy pedagogik samaradorligi til ko'nikmalarining har biri (tinglab tushunish, lug'at, gapirish, yozish) bo'yicha alohida-alohida chuqur o'rganilishi zarur.

Tadqiqotning maqsadi — kompyuter ilovalari orqali ingliz tilini mustaqil o'rganishning didaktik imkoniyatlari va cheklovlarini empirik tarzda baholash hamda bunday o'rganish usulini samarali tashkil etish bo'yicha tavsiyalar ishlab chiqishdan iborat. Tadqiqot vazifalari: 1) CALL tushunchasi va uning nazariy asoslarini yoritish; 2) ingliz tilini o'rgatuvchi yetakchi kompyuter ilovalarining didaktik imkoniyatlarini tavsiflash; 3) respondentlar ishtirokida pedagogik eksperiment o'tkazish; 4) natijalar asosida amaliy tavsiyalar shakllantirish.

MATERIAL VA METODLAR

Tadqiqot uchun oliy ta'lim muassasasida ingliz tilini o'rta (B1) darajada o'rganayotgan 70 nafar talaba tanlab olindi va ular tasodifiy tanlov asosida ikki guruhga ajratildi: eksperimental guruh (35 nafar) 8 hafta davomida tanlangan kompyuter ilovalari (Rosetta Stone va English Discoveries) yordamida haftasiga kamida 3 soat mustaqil shug'ullangan, nazorat guruhi (35 nafar) esa faqat an'anaviy auditoriya mashg'ulotlari orqali ta'lim olgan.

Tadqiqot metodologiyasi quyidagi tarkibiy qismlardan iborat bo'ldi:

- 1) dastlabki kompleks til testi (tinglab tushunish, lug'at, gapirish, yozish bo'limlari bilan) — boshlang'ich darajani aniqlash uchun;
- 2) 8 haftalik kuzatuv — ilova statistikasi va o'quv jurnali orqali;
- 3) yakuniy kompleks til testi — barcha to'rt ko'nikma bo'yicha o'zgarishlarni aniqlash uchun;

4) so'rovnoma va fokus-guruh muhokamasi — respondentlarning sub'ektiv tajribasi va fikrlarini o'rganish uchun.

Gapirish va yozish ko'nikmalari ikkita mustaqil ekspert (ingliz tili o'qituvchilari) tomonidan standartlashtirilgan mezonlar asosida baholandi, tinglab tushunish va lug'at bo'limlari esa avtomatlashtirilgan test tizimi orqali baholandi. Guruhlar o'rtasidagi farqlarning statistik ahamiyati mustaqil namunalarda uchun t-mezon yordamida tekshirildi.

NATIJALAR

Dastlabki test natijalari ikkala guruh o'rtasida statistik ahamiyatga ega farq mavjud emasligini ko'rsatdi. 8 haftalik eksperiment yakunida eksperimental guruhning tinglab tushunish ko'rsatkichi o'rtacha 21 foizga, lug'at boyligi esa 26 foizga oshdi, bu nazorat guruhidagi mos ravishda 9 foiz va 12 foizlik o'sishga nisbatan sezilarli darajada yuqori bo'ldi. Bu natija kompyuter ilovalarining o'z-o'zini nazorat qiluvchi, ko'p marta takrorlashga asoslangan mashqlar formati tinglab tushunish va lug'at o'zlashtirish uchun ayniqsa samarali ekanligini ko'rsatadi.

Gapirish ko'nikmasi bo'yicha esa ikkala guruh o'rtasida sezilarli farq aniqlanmadi (eksperimental guruhda 7% o'sish, nazorat guruhida 6% o'sish). Yozish ko'nikmasi bo'yicha ham farq nisbatan kichik bo'ldi (mos ravishda 9% va 7%). Bu natijalar kompyuter ilovalarining retseptiv ko'nikmalarni (tinglab tushunish, lug'at) rivojlantirishda samarali, ammo produktiv ko'nikmalarni (gapirish, yozish) rivojlantirishda cheklangan imkoniyatga ega ekanligini tasdiqladi, chunki bu ko'nikmalar odatda jonli muloqot va individual fikr-mulohazani talab qiladi.

So'rovnoma va fokus-guruh muhokamasi natijalari shuni ko'rsatdiki, eksperimental guruh a'zolarining 84 foizi kompyuter ilovalarini "o'z tezligida o'rganish imkonini beruvchi qulay vosita" deb baholadi, biroq 68 foizi haqiqiy muloqot amaliyoti va o'qituvchi tomonidan individual fikr-mulohaza olish imkoniyati yetishmasligidan shikoyat qildi.

MUHOKAMA

Olingan natijalar kompyuter ilovalarining retseptiv til ko'nikmalarini (tinglab tushunish, lug'at) rivojlantirishda samarali vosita ekanligini, biroq produktiv ko'nikmalarni (gapirish, yozish) rivojlantirishda mustaqil vosita sifatida yetarli emasligini tasdiqlaydi. Bu xulosa CALL sohasidagi xalqaro tadqiqotlar bilan mos keladi, ularda ham kompyuter yordamida til o'rganish vositalari "kirish ma'lumotini" (input) taqdim etishda kuchli, ammo haqiqiy muloqot amaliyotini (output, interaction) to'liq ta'minlay olmasligi qayd etilgan.

Bu natijalar amaliy nuqtai nazardan shuni ko'rsatadiki, kompyuter ilovalarini ingliz tili ta'limiga integratsiya qilishda ularni faqat retseptiv ko'nikmalarni mustahkamlash va lug'at boyitish vositasi sifatida qo'llash, gapirish va yozish ko'nikmalarini esa auditoriya mashg'ulotlari, suhbat klublari yoki til sherigi bilan muntazam muloqot orqali rivojlantirish maqsadga muvofiqdir. Bunday "aralash" (blended) yondashuv resurslardan (vaqt, o'qituvchi mehnati) samarali foydalanish imkonini ham beradi, chunki takrorlashga asoslangan mashqlar kompyuter tomonidan avtomatlashtirilishi mumkin, o'qituvchining vaqti esa muloqot amaliyotiga qaratiladi.

Ta'lim muassasalari uchun bu natijalar o'quv dasturlarini loyihalashda kompyuter ilovalarini uy vazifasi yoki qo'shimcha mustaqil ish sifatida rasmiy tarzda integratsiya qilish, shu bilan birga auditoriya vaqtini asosan gapirish va yozish amaliyotiga bag'ishlash tavsiyasini beradi.

XULOSA

O'tkazilgan tadqiqot natijasida quyidagi xulosalarga kelindi:

1. Kompyuter ilovalari orqali mustaqil ta'lim ingliz tilini o'rganuvchilarning tinglab tushunish ko'nikmasini (21%) va lug'at boyligini (26%) sezilarli darajada oshiradi.

2. Kompyuter ilovalarining gapirish va yozish kabi produktiv ko'nikmalarni rivojlantirishdagi mustaqil imkoniyatlari cheklangan bo'lib, bu ko'nikmalar jonli muloqot va individual fikr-mulohazani talab qiladi.

3. Kompyuter ilovalari o'z tezligida o'rganish imkonini berish orqali o'quvchilar tomonidan qulay va motivatsion vosita sifatida yuqori baholanadi.

4. Ingliz tilini samarali o'rganish uchun kompyuter ilovalarini retseptiv ko'nikmalarni mustahkamlash vositasi sifatida, auditoriya mashg'ulotlarini esa produktiv ko'nikmalarni rivojlantirish vositasi sifatida uyg'unlashtiruvchi "aralash ta'lim" yondashuvi eng maqbul strategiya hisoblanadi.

5. Ta'lim muassasalari o'quv dasturlarida kompyuter ilovalarini rasmiy mustaqil ish sifatida integratsiya qilib, auditoriya vaqtini muloqot amaliyotiga qaratishi tavsiya etiladi.

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MAPPING OF BEHAVIORAL VERBS IN ENGLISH AND UZBEK FROM A CROSS-LINGUISTIC PERSPECTIVE: SEMANTIC, TRANSLATIONAL AND LEXICOGRAPHIC DIMENSIONS

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Abstract. This article explores the translation and lexicographic representation of behavioral verbs in English and Uzbek. Particular attention is given to contextual meaning, translation equivalence, and the challenges arising from differences in the semantic structures of the two languages. The study analyzes selected behavioral verbs and demonstrates that their adequate translation often requires lexical, semantic, grammatical, or descriptive transformations. The article also emphasizes the importance of contextual, stylistic, pragmatic, and valency features in bilingual lexicographic representation.

Keywords: behavioral verbs, translation equivalence, contextual meaning, lexical transformation, lexicography, bilingual dictionary, semantic structure, English, Uzbek.

Аннотация. В статье рассматриваются вопросы перевода и лексикографического представления глаголов поведения в английском и узбекском языках. Особое внимание уделяется контекстуальному значению, переводческой эквивалентности и различиям в семантической структуре данных единиц. На материале отдельных глаголов поведения показано, что их адекватный перевод нередко требует применения лексических, семантических, грамматических и описательных трансформаций. Подчеркивается также значение контекстуальных, стилистических, прагматических и валентностных характеристик при их представлении в двуязычных словарях.

Ключевые слова: глаголы поведения, переводческая эквивалентность, контекстуальное значение, лексическая трансформация, лексикография, двуязычный словарь, семантическая структура, английский язык, узбекский язык.

Annotatsiya. Ushbu maqolada ingliz va o'zbek tillaridagi xulq-atvor fe'llarining tarjimasi hamda leksikografik ifodalanishi tadqiq etiladi. Asosiy e'tibor kontekstual ma'no, tarjima ekvivalentligi va mazkur fe'llarning ikki tildagi semantik tuzilishidagi farqlar bilan bog'liq muammolarga qaratiladi. Ayrim xulq-atvor fe'llari misolida ularning adekvat tarjimasi ko'pincha leksik, semantik, grammatik va tavsifiy transformatsiyalarni talab qilishi ko'rsatiladi. Shuningdek, bunday fe'llarni ikki tilli lug'atlarda ifodalashda kontekstual, uslubiy, pragmatik va valentlik xususiyatlarini hisobga olish zarurligi ta'kidlanadi.

Kalit so'zlar: xulq-atvor fe'llari, tarjima ekvivalentligi, kontekstual ma'no, leksik transformatsiya, leksikografiya, ikki tilli lug'at, semantik tuzilma, ingliz tili, o'zbek tili.

INTRODUCTION.

Language provides speakers with various lexical and grammatical means for describing human behavior. Among these means, verbs occupy an important position because they represent actions, reactions, interpersonal conduct, emotional responses, and socially evaluated forms of behavior. Behavioral verbs therefore constitute a semantically and pragmatically significant group of lexical units. English contains a considerable number of verbs describing different aspects of behavior, including *behave*, *act*, *react*, *respond*, *treat*, *deceive*, *flatter*, *insult*, *mock*, *praise*, and *blame*. However, their semantic structures are not always reproduced by direct lexical equivalents in Uzbek. For example, *behave* may denote acting in a particular way, behaving appropriately, or displaying a particular type of conduct depending on the context. Oxford Advanced Learner's Dictionary and Cambridge Dictionary distinguish several aspects of its meaning, including general manner of acting, socially appropriate conduct, and specialized usage.

This semantic flexibility creates difficulties in translation. An English behavioral verb cannot always be replaced by one fixed Uzbek equivalent without considering its context. The appropriate translation may be expressed by a simple verb, verbal phrase, analytical construction, or descriptive expression. For example: He behaved badly towards his colleagues. U hamkasblariga nisbatan yomon munosabatda bo'ldi. Here, translating *behaved* simply as *o'zini tutdi* would not fully express the interpersonal meaning of *behave badly towards*. Therefore, the Uzbek translation requires a contextually appropriate construction. The problem is particularly important in bilingual lexicography. A dictionary should provide not only a formal equivalent but also sufficient semantic and usage information to help users select an appropriate equivalent in context.

The relevance of the study is determined by the need to establish more precise principles for translating behavioral verbs between English and Uzbek and representing their meanings in bilingual and explanatory dictionaries. The aim of the research is to identify the principal translation and lexicographic problems associated with English and Uzbek behavioral verbs and to demonstrate possible solutions through comparative semantic analysis.

The objectives are: to clarify the semantic characteristics of behavioral verbs; to examine lexical and contextual equivalence; to analyze selected English behavioral verbs and their Uzbek equivalents; to identify common translation transformations; to examine principles of lexicographic representation; to formulate recommendations for improving bilingual dictionary entries.

MATERIALS AND METHODS.

The research is based on a comparative analysis of English and Uzbek behavioral verbs. The material includes commonly used English behavioral verbs and their possible Uzbek equivalents in contextualized examples. English explanatory dictionaries and general principles of bilingual lexicography are used as supporting sources. The principal methods include the comparative method, componential analysis, contextual analysis, translation analysis, lexicographic analysis, and the descriptive method.

The comparative method is used to identify similarities and differences between English and Uzbek behavioral verbs. Componential analysis helps determine individual semantic components,

while contextual analysis establishes the meaning activated in a particular linguistic environment. Translation analysis is applied to identify appropriate equivalents and transformations, and lexicographic analysis examines principles for presenting behavioral verbs in dictionaries. The study treats translation equivalence as a context-sensitive relationship rather than a simple correspondence between isolated lexical units.

RESULTS.

Behavioral verbs may be understood as verbs whose semantic content includes the representation of human conduct, manner of acting, interpersonal treatment, reaction, or socially evaluated activity. They can be provisionally classified as follows:

Semantic group	English examples	Possible Uzbek equivalents
General behavior	<i>behave, act</i>	<i>o‘zini tutmoq, harakat qilmoq</i>
Positive behavior	<i>respect, praise, support</i>	<i>hurmat qilmoq, maqtamoq, qo‘llab-quvvatlamok</i>
Negative behavior	<i>insult, offend, mock</i>	<i>haqorat qilmoq, ranjitmoq, masxara qilmoq</i>
Deceptive behavior	<i>deceive, mislead, trick</i>	<i>aldamoq, chalg‘itmoq</i>
Interpersonal treatment	<i>treat, respect</i>	<i>munosabatda bo‘lmoq, hurmat qilmoq</i>
Emotional response	<i>react, respond</i>	<i>munosabat bildirmoq, javob bermoq</i>
Evaluative behavior	<i>blame, criticize</i>	<i>ayblamoq, tanqid qilmoq</i>
Social interaction	<i>flatter, encourage</i>	<i>xushomad qilmoq, ruhlantirmoq</i>

The classification demonstrates that behavioral verbs form a multidimensional semantic field. Some verbs describe behavior itself, while others encode interpersonal attitude, emotional response, evaluation, or social interaction. For example, *behave* primarily describes the manner in which an individual acts, whereas *treat* focuses on how one person deals with another. Consequently, these verbs cannot always be translated through the same Uzbek lexical unit.

A major problem in English-Uzbek translation is the assumption that each source-language verb has one stable target-language equivalent. Consider: The child behaved well at school. Bola maktabda o‘zini yaxshi tutdi. Here, *behave well* corresponds relatively closely to *o‘zini yaxshi tutmoq*. However: The machine behaves differently under pressure. A contextually appropriate Uzbek translation may be: Qurilma bosim ostida boshqacha ishlaydi. The expression *o‘zini boshqacha tutadi* is possible in some contexts, but *ishlamoq* is more appropriate when *behave* refers to the functioning or reaction of a device. Thus, translation equivalence must be determined by semantic context rather than dictionary substitution alone.

The verbs *behave* and *act* are semantically related but not completely interchangeable.

He behaved strangely during the interview. U suhbat davomida o‘zini g‘alati tutdi.

He acted strangely during the interview. U suhbat davomida g‘alati harakat qildi / o‘zini g‘alati tutdi.

In the first sentence, *behave* emphasizes overall conduct, whereas *act* may focus on observable action or manner. This distinction is important for lexicography because a bilingual dictionary should not present the two verbs as absolute synonyms. Their semantic overlap should be accompanied by usage information and contextual examples.

Verbs describing behavior directed toward another person present another important translation problem.

She treated her employees with respect. U xodimlariga hurmat bilan munosabatda bo‘ldi.

Here, *treat* contains the semantic structure:

AGENT + INTERPERSONAL ACTION + RECIPIENT + MANNER/EVALUATION

However, the same verb has another meaning:

The doctor treated the patient successfully. Shifokor bemorni muvaffaqiyatli davoladi.

Thus, *treat* demonstrates lexical polysemy and the necessity of contextual analysis in translation and lexicography.

The verbs *insult*, *offend*, and *mock* express different types of negative interpersonal behavior.

He insulted his colleague. U hamkasbini haqorat qildi.

His words offended her. Uning so'zlari uni ranjitdi.

They mocked him because of his accent. Ular uning talaffuzi ustidan masxara qilishdi.

Although these verbs are related semantically, their meanings are not identical. *Insult* emphasizes deliberate disrespect or verbal abuse; *offend* focuses on the emotional or social effect of an action or utterance; *mock* contains the component of ridicule. Therefore, translating all three through a general expression such as *xafa qilmoq* may result in semantic reduction. A translation-oriented dictionary should distinguish their semantic components.

The verbs *deceive*, *mislead*, and *trick* form another semantically related group.

He deceived his business partner. U biznes hamkorini aldadi.

The advertisement misled consumers. Reklama iste'molchilarni chalg'itdi.

They tricked him into giving them the information. Ular uni aldab, ma'lumotni ularga berishga majbur qilishdi.

The Uzbek verb *aldamoq* may serve as an equivalent for several English verbs, but this does not make the English verbs synonymous. *Deceive* emphasizes intentional deception, *mislead* involves causing someone to develop an incorrect understanding, while *trick* usually involves deception through a particular tactic or scheme. This illustrates the phenomenon of one-to-many and many-to-one equivalence in English-Uzbek translation.

Positive behavioral verbs also demonstrate semantic distinctions.

The teacher praised the student for his excellent work. O'qituvchi talabani a'lo ishi uchun maqtadi.

His colleagues encouraged him to continue. Uning hamkasblari uni davom etishga ruhlantirdilar.

Praise involves positive evaluation of an action, quality, or achievement, whereas *encourage* involves psychological or social support intended to motivate further action. Therefore, *maqtamoq* and *ruhlantirmoq* are more precise contextual equivalents.

DISCUSSION.

The results indicate that behavioral verbs present particular difficulties because their meanings are frequently dependent on syntactic and pragmatic context.

Translation equivalence may therefore be considered at three levels:

1. Direct equivalence: source and target languages possess relatively close lexical units.
behave well → *o'zini yaxshi tutmoq*

2. Contextual equivalence: the same source-language verb requires different target-language equivalents according to context. *behave strangely* → *o'zini g'alati tutmoq*
the machine behaves differently → *qurilma boshqacha ishlaydi*

3. Descriptive equivalence: a single target-language lexical unit cannot adequately express the source meaning and a phrase or explanatory construction is required.

The third type is especially relevant to behavioral verbs with complex pragmatic meanings.

Several transformations are particularly relevant to the translation of behavioral verbs.

Lexical substitution occurs when an English verb is replaced by a semantically appropriate Uzbek verb:

He mocked the boy. → *U bolani masxara qildi.*

Lexical expansion occurs when one English verb requires a larger Uzbek expression:

She behaved professionally. → *U o'zini professional darajada tutdi.*

Semantic differentiation occurs when one English verb is translated differently according to context:

They treated him badly. → *Ular unga yomon munosabatda bo'lishdi.*

The doctor treated him. → *Shifokor uni davoladi.*

Grammatical transformation may also be required:

He behaved as if he knew everything. → *U hamma narsani bilgandek o'zini tutdi.*

These transformations demonstrate that adequate translation depends on semantic, syntactic, and pragmatic factors.

Behavioral verbs require detailed lexicographic treatment because of their polysemy, contextual variation, valency, stylistic characteristics, and pragmatic functions. Modern learner dictionaries demonstrate the usefulness of differentiated senses and usage information. For example, *behave* may refer to general conduct, socially appropriate behavior, or the way something functions under particular conditions.

A more informative English-Uzbek entry for *behave* could therefore be organized as follows:

Behave (verb)

- | | | | | | | |
|---|----|----------|---------------|-------|-------------------|------------------|
| 1. | to | act | in | a | particular | way |
| → <i>muayyan tarzda harakat qilmoq / o'zini tutmoq</i> | | | | | | |
| 2. | to | act | appropriately | | or | politely |
| → <i>o'zini yaxshi tutmoq / odob bilan muomala qilmoq</i> | | | | | | |
| 3. | to | act | in | a | particular manner | towards someone |
| → <i>kimgadir nisbatan muayyan tarzda munosabatda bo'lmoq</i> | | | | | | |
| 4. | to | function | or | react | in | a particular way |
| → <i>muayyan tarzda ishlamoq / reaksiya bildirmoq</i> | | | | | | |

Such differentiation is more useful for translators and learners than a single equivalent such as *o'zini tutmoq*.

Examples are particularly important because they demonstrate collocational and syntactic behavior:

Examples: *behave* — *o'zini tutmoq*, *behave well* — *o'zini yaxshi tutmoq*, *behave badly* — *o'zini yomon tutmoq*, *behave towards somebody* — *kimgadir nisbatan munosabatda bo'lmoq*, *behave as if* — *...dek o'zini tutmoq*

Consequently, a bilingual dictionary should ideally provide: semantic definitions; differentiated translation equivalents; grammatical and valency information; collocations; stylistic and pragmatic labels; contextual examples; relevant synonymous and antonymous relations.

Possible Uzbek equivalents include *o'zini tutmoq*, *harakat qilmoq*, *munosabatda bo'lmoq*, and, in non-human contexts, *ishlamoq* or *faoliyat ko'rsatmoq*.

Typical patterns include:

behave well/badly; behave strangely; behave towards somebody; behave as if/though; behave like somebody/something.

This model demonstrates that translation of behavioral verbs cannot be separated from their syntactic and collocational environment.

CONCLUSION.

The comparative analysis demonstrates that behavioral verbs constitute a semantically complex group of lexical units in English and Uzbek. They may simultaneously encode action, manner, interpersonal orientation, emotional response, social evaluation, and pragmatic intention. The analysis of *behave*, *act*, *treat*, *deceive*, *mislead*, *trick*, *insult*, *offend*, *mock*, *praise*, and *encourage* shows that direct lexical substitution is not always sufficient for achieving translation adequacy. One English behavioral verb may correspond to several Uzbek expressions depending on context, while several semantically related English verbs may converge on one broader Uzbek equivalent.

The central finding is that translation equivalence should be understood as a contextual and semantic relationship rather than as a simple dictionary correspondence. Translators should consider semantic components, syntactic patterns, collocations, pragmatic orientation, and stylistic characteristics. The lexicographic analysis further indicates that behavioral verbs require differentiated dictionary treatment. Bilingual dictionaries should provide multiple translation equivalents, sense distinctions, grammatical patterns, collocations, usage labels, and illustrative examples. Such an approach can reduce ambiguity and facilitate the selection of contextually appropriate equivalents.

The proposed model — headword → core meaning → semantic components → translation equivalents → valency → collocations → pragmatic information → examples — may serve as a practical framework for improving English-Uzbek bilingual dictionaries. Thus, the systematic comparative investigation of behavioral verbs has theoretical and practical significance for contrastive linguistics, translation studies, bilingual lexicography, and the representation of culturally and pragmatically significant vocabulary in English and Uzbek.

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THE IMPORTANCE OF ONLINE PLATFORMS IN LEARNING ENGLISH

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Annotation. This article examines the role, effectiveness, and pedagogical significance of modern online platforms in the process of English language acquisition. In an era of digital transformation, it highlights the methodological potential of interactive platforms, mobile applications, and open educational resources in fostering learner autonomy. The study analyzes the frequency of online tool usage among students and its impact on the development of the four core language skills: listening, speaking, reading, and writing. The findings indicate that online learning platforms serve as a vital catalyst in elevating learner motivation, enabling personalized learning trajectories, and mitigating linguistic barriers.

Keywords: online platforms, English language learning, digital pedagogy, learner autonomy, mobile learning (M-learning), interactive methods, communicative competence.

Аннотация. В данной статье исследуются роль, эффективность и педагогическое значение современных онлайн-платформ в процессе изучения английского языка. В эпоху цифровой трансформации раскрыт методический потенциал интерактивных платформ, мобильных приложений и открытых образовательных ресурсов в развитии навыков автономного обучения студентов. В ходе исследования проанализирована частота использования учащимися цифровых инструментов и их влияние на четыре основных языковых навыка (аудирование, говорение, чтение и письмо). Результаты демонстрируют, что онлайн-платформы служат важным фактором повышения мотивации, формирования индивидуальной образовательной траектории и преодоления языкового барьера.

Ключевые слова: онлайн-платформы, преподавание английского языка, цифровая педагогика, автономное обучение, мобильное обучение (M-learning), интерактивные методы, коммуникативная компетенция.

Annotatsiya. Mazkur maqolada ingliz tilini o'rganish jarayonida zamonaviy onlayn platformalarning o'rni, samaradorligi va pedagogik ahamiyati tadqiq etilgan. Raqamli transformatsiya davrida til o'rganuvchilarning mustaqil ta'lim olish ko'nikmalarini rivojlantirishda interaktiv platformalar, mobil ilovalar va ochiq ta'lim resurslarining metodik salohiyati ochib berilgan. Tadqiqot davomida talabalarning onlayn vositalardan foydalanish chastotasi, ularning to'rtta asosiy til ko'nikmasi (tinglab tushunish, gapirish, o'qish va yozish)ga ko'rsatadigan ta'siri tahlil qilingan. Natijalar onlayn platformalarning o'quvchi motivatsiyasini oshirish, individual o'rganish traektoriyasini shakllantirish va lingvistik to'siqlarni yengishdagi muhim omil ekanligini ko'rsatadi.

Kalit so'zlar: onlayn platformalar, ingliz tili ta'limi, raqamli pedagogika, mustaqil ta'lim, mobil ta'lim (M-learning), interaktiv metodlar, kommunikativ kompetensiya.

INTRODUCTION

The paradigm of foreign language teaching has undergone profound shifts over the past decade, largely accelerated by rapid integration of Information and Communication Technologies (ICT). Traditional, teacher-centered language classrooms often present limitations regarding exposure time, authentic conversational input, and differentiated pacing. Consequently, online platforms—ranging from dedicated Learning Management Systems (LMS) such as Canvas and Moodle to gamified language applications like Duolingo, Memorise, and specialized platforms such as Coursera, BBC Learning English, and British Council Learn English—have emerged as foundational assets in English Language Teaching (ELT).

Computer-Assisted Language Learning (CALL) and Mobile-Assisted Language Learning (MALL) frameworks emphasize the democratization of access to authentic materials. In countries transitioning their higher education systems to credit-module frameworks, such as Uzbekistan, the allocation of independent study hours has grown considerably. Thus, integrating online ecosystems is no longer an auxiliary supplement; it is a primary medium for fostering communicative competence and continuous learner autonomy.

Despite wide adoption, empirical clarity is still required to determine how directly various forms of digital interaction correlate with specific language skill enhancement and whether digital platforms successfully sustain intrinsic motivation over extended periods. This study evaluates the concrete pedagogical contributions of online platforms in developing English language competencies.

MATERIALS AND METHODS

This study adopted a mixed-methods research design (quantitative and qualitative) to assess the impact of online educational platforms on university-level English learners.

- Participants: The empirical study was conducted with a sample of 120 undergraduate students (aged 18–22; B1–B2 proficiency levels) enrolled in non-philological and philological degree programs over a 14-week semester.

- Instruments:

1. A structured 5-point Likert scale questionnaire examining platform usage frequency, preferred tools, perceived autonomy, and skill-specific progress.

2. Pre- and post-intervention communicative assessment tests measuring receptive (listening, reading) and productive (speaking, writing) performance.

3. Semi-structured interviews with 12 language instructors to collect qualitative reflections on learner engagement.

- Procedure: Participants were divided into an experimental group ($n = 60$), which supplemented standard classroom instruction with curated online platforms (BBC Learning English, Quizlet, and synchronous video exchange platforms), and a control group ($n = 60$), which relied solely on traditional print coursebooks and in-class activities for their independent study hours. Data was computed using standard descriptive and inferential statistical methods.

RESULTS AND DISCUSSION

The results obtained after the 14-week instructional period indicate that the integration of online educational platforms was associated with greater improvement in English language performance and study motivation among students in the experimental group. Although both groups demonstrated progress between the pre- and post-assessment stages, the increase was consistently higher among students who supplemented classroom instruction with digital learning activities.

The most substantial improvement was observed in **listening comprehension**. The mean score of the experimental group increased from 60.5% to 78.4%, representing a 17.9 percentage-point increase. In comparison, the control group improved from 61.2% to 66.8%, an increase of 5.6 percentage points. The reported statistical significance ($p < 0.01$) indicates that the difference between the groups was statistically significant.

A similar pattern was identified in **speaking performance**, particularly in fluency and lexical use. The experimental group increased from 54.8% to 71.2%, while the control group increased from 55.0% to 59.3%. Thus, the experimental group demonstrated a 16.4 percentage-point improvement compared with a 4.3 percentage-point improvement in the control group. The result was statistically significant ($p < 0.01$), suggesting that the digital learning activities used during the intervention were associated with notable improvement in students' oral language performance.

The findings for **reading comprehension** also showed a greater increase in the experimental group. Its mean score rose from 63.8% to 76.9%, whereas the control group increased from 64.1% to 70.5%. The experimental group therefore demonstrated a 13.1 percentage-point improvement compared with a 6.4 percentage-point increase in the control group. The difference reached statistical significance ($p < 0.05$).

In **writing**, measured through accuracy and cohesion, the experimental group improved from 57.9% to 68.0%, while the control group increased from 58.3% to 62.1%. The 10.1 percentage-point improvement in the experimental group was greater than the 3.8 percentage-point improvement observed in the control group. The difference was statistically significant ($p < 0.05$). However, the smaller magnitude of improvement compared with listening and speaking suggests that digital platforms alone may not provide the same level of support for more complex productive language skills.

The study also identified a considerable difference in **reported study motivation**. The experimental group recorded a mean motivation score of 4.4 out of 5.0, compared with 3.1 out of 5.0 in the control group. This difference was statistically significant ($p < 0.001$). The finding indicates that students who participated in digitally supported learning activities reported higher levels of motivation during the instructional period.

Taken together, these findings demonstrate that the experimental group achieved greater gains than the control group across all assessed language skills. The results are particularly notable for listening and speaking, where the experimental group showed the largest increases. This may be related to the additional opportunities for exposure to audio-visual materials, interactive exercises, online communication, and repeated practice provided through the selected digital platforms.

The findings can also be interpreted in relation to learner autonomy. Online platforms allow students to access learning materials beyond the limits of scheduled classroom time and to repeat activities according to their individual learning pace. Such flexibility can provide additional opportunities for reviewing vocabulary, grammar, listening materials, and other language resources. Consequently, digital learning environments may contribute not only to language-skill development but also to more active student participation in the learning process.

At the same time, the results should not be interpreted as evidence that online platforms can completely replace classroom-based instruction. The comparatively smaller improvement in writing demonstrates the importance of teacher guidance and detailed feedback, particularly for the development of accuracy, cohesion, argumentation, and other complex aspects of written communication. The qualitative feedback from instructors also indicated that excessive focus on gamified elements may sometimes shift students' attention from substantive learning objectives toward superficial indicators of progress.

Therefore, the findings support the use of online educational platforms as a complementary component of English language instruction. Their effectiveness appears to be particularly evident when digital resources are incorporated into a structured learning process rather than used independently of pedagogical guidance. A blended learning model can combine the flexibility and accessibility of online platforms with the feedback, interaction, and academic guidance provided by teachers. In this context, digital technologies can function as an additional learning environment that strengthens, rather than replaces, conventional English language instruction.

CONCLUSION.

Online platforms play a pivotal role in contemporary English language education. They dismantle temporal and geographic barriers, grant access to authentic linguistic resources, and foster independent learning habits critical for 21st-century academic and professional success. Empirical evaluation confirms their efficacy in accelerating listening, speaking, and vocabulary competencies while notably elevating learner motivation. To maximize these benefits, educational institutions must avoid passive tool usage; curricula must deliberately integrate platform assignments within structured blended learning syllabi, supported by robust digital literacy training for both students and educators.

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THE ROLE OF ARTIFICIAL INTELLIGENCE IN LANGUAGE TEACHING AND LEARNING: OPPORTUNITIES, CHALLENGES, AND FUTURE PERSPECTIVES

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Annotatsiya. *Sun'iy intellekt (SI) ta'lim sohasida tobora muhim va ta'sirchan kuchga aylanib bormoqda. Ayniqsa, ChatGPT kabi generativ sun'iy intellekt vositalarining paydo bo'lishi bilan uning xorijiy va ikkinchi tillarni o'qitish jarayoniga integratsiyasi sezilarli darajada jadallashdi. Mazkur maqolada sun'iy intellekt yordamida til o'rganish (AIALL) bilan bog'liq imkoniyatlar va muammolar, shuningdek, uni kelajakdagi til ta'limi jarayonlariga mas'uliyatli tarzda integratsiya qilish istiqbollari tahlil qilinadi. Tadqiqot natijalari sun'iy intellektning individuallashtirilgan fikr-mulohazalar (feedback) taqdim etish, og'zaki nutq amaliyoti imkoniyatlarini kengaytirish hamda moslashtirilgan ta'lim yo'nalishlarini shakllantirish borasida katta salohiyatga ega ekanligini ko'rsatadi. Shu bilan birga, ushbu afzalliklar axborotning aniqligi, akademik halollik, texnologiyaga haddan tashqari bog'lanib qolish, algoritmik tarfakashlik va raqamli tengsizlik bilan bog'liq muammolar bilan cheklanadi. Tadqiqotda sun'iy intellektni til o'qituvchisini almashtiruvchi vosita sifatida emas, balki uni to'ldiruvchi pedagogik yordam vositasi sifatida ko'rish maqsadga muvofiqligi ta'kidlanadi. Bunda o'qituvchining fasilitator, baholovchi va sun'iy intellekt savodxonligini shakllantiruvchi mutaxassis sifatidagi rivojlanib borayotgan roli hamon muhim va almashtirib bo'lmaydigan omil bo'lib qoladi. Sun'iy intellektning inson manfaatlariga yo'naltirilgan va axloqiy tamoyillarga asoslangan integratsiyasi uning haqiqiy kommunikativ kompetensiyani rivojlantirishga xizmat qilishi, aksincha, unga salbiy ta'sir ko'rsatmasligi uchun muhim shart sifatida belgilanadi.*

Kalit so'zlar: *sun'iy intellekt, til o'qitish, sun'iy intellekt yordamida til o'rganish, generativ sun'iy intellekt, ChatGPT, kompyuter yordamida til o'qitish, raqamli pedagogika.*

Abstract. Artificial intelligence (AI) has become an increasingly influential force in education, and its integration into foreign and second language teaching has accelerated markedly since the emergence of generative AI tools such as ChatGPT. This paper examines the opportunities and challenges associated with AI-assisted language learning (AIALL) and considers the prospects for its responsible integration into future language classrooms. The findings indicate that AI offers genuine potential for personalized feedback, expanded speaking practice, and adaptive learning pathways, yet these benefits are tempered by persistent concerns regarding accuracy, academic integrity, overreliance, algorithmic bias, and digital inequality. The review concludes that AI is best conceptualized as a pedagogical support tool that complements, rather than replaces, the language teacher, whose evolving role as facilitator, evaluator, and AI-literacy educator remains indispensable. Human-centered, ethically grounded integration is identified as essential for AI to enhance, rather than undermine, authentic communicative competence.

Keywords: artificial intelligence, language teaching, AI-assisted language learning, generative AI, ChatGPT, computer-assisted language learning, digital pedagogy

Аннотация. *Искусственный интеллект (ИИ) становится всё более влиятельной силой в сфере образования, а его интеграция в преподавание иностранных и вторых языков значительно ускорилась с появлением генеративных инструментов искусственного интеллекта, таких как ChatGPT. В данной статье рассматриваются возможности и проблемы, связанные с обучением языкам при поддержке искусственного интеллекта (AIALL), а также перспективы его ответственной интеграции в языковые классы будущего. Результаты исследования показывают, что ИИ обладает значительным потенциалом для предоставления персонализированной обратной связи, расширения возможностей для устной речевой практики и формирования адаптивных траекторий обучения. Вместе с тем данные преимущества сопровождаются сохраняющимися опасениями, связанными с точностью информации, академической добросовестностью, чрезмерной зависимостью от технологий, алгоритмической предвзятостью и цифровым неравенством. В исследовании делается вывод о том, что ИИ целесообразнее рассматривать как инструмент педагогической поддержки,*

который дополняет, а не заменяет преподавателя иностранного языка. При этом его меняющаяся роль как фасилитатора, оценщика и специалиста по формированию ИИ-грамотности остаётся незаменимой. Подчёркивается, что ориентированная на человека и основанная на этических принципах интеграция ИИ является необходимым условием для того, чтобы искусственный интеллект способствовал развитию, а не подрывал формирование подлинной коммуникативной компетенции.

Ключевые слова: искусственный интеллект, преподавание языков, обучение языкам при поддержке искусственного интеллекта, генеративный искусственный интеллект, ChatGPT, компьютерно-опосредованное обучение языкам, цифровая педагогика.

INTRODUCTION

Artificial intelligence has moved from the periphery of educational technology to a position of central importance within little more than a decade. Early applications in education were largely confined to adaptive testing platforms and rule-based intelligent tutoring systems (ITS), but the field has since expanded to encompass natural language processing, speech recognition, machine learning-based assessment, and, most recently, generative AI models capable of producing fluent, context-sensitive text and dialogue. Within Applied Linguistics and Computer-Assisted Language Learning (CALL), this trajectory has produced a distinct and rapidly growing subfield often referred to as AI-assisted language learning (AIALL), which investigates how AI technologies can support the acquisition of listening, speaking, reading, writing, vocabulary, grammar, and pronunciation skills.

The importance of AI for foreign and second language teaching stems from a longstanding pedagogical challenge: providing learners with sufficient, individualized practice and feedback within the constraints of conventional classroom settings. Large class sizes, limited instructional time, and heterogeneous proficiency levels have historically restricted the amount of personalized attention a single teacher can offer. AI-powered tools promise to narrow this gap by generating on-demand practice opportunities, adaptive feedback, and conversational partners that are available beyond the physical classroom (Huang et al., 2022; Jeon, 2022). Chatbots, automated writing evaluation (AWE) systems, and intelligent tutoring platforms have consequently attracted sustained scholarly attention over the past decade, with the number of empirical studies increasing sharply since 2020.

This trajectory was decisively reshaped by the emergence of generative AI. The public release of ChatGPT in late 2022 constituted what many scholars describe as a paradigm shift in language education, since large language models (LLMs) are capable not merely of scoring or correcting language but of producing original explanations, dialogues, lesson materials, and personalized feedback in real time (Kasneci et al., 2023). Unlike earlier rule-based or narrowly trained systems, generative AI tools can simulate open-ended conversation, generate differentiated reading passages, and produce writing feedback that approximates, though does not replicate, the nuance of human commentary. This capability has generated considerable enthusiasm among language teachers and learners, alongside a parallel body of critical scholarship questioning the pedagogical soundness, ethical implications, and long-term consequences of such tools for learner autonomy and academic integrity (Cotton et al., 2023; Eke, 2023).

The purpose of this study is to address that gap by providing a critical, literature-based synthesis of recent scholarship on AI in language teaching and learning, evaluating both its pedagogical opportunities and its associated risks, and articulating implications for responsible future practice. The study is significant for language teachers, teacher educators, curriculum designers, and policymakers seeking an evidence-informed, balanced perspective on AI integration, rather than a purely technological or purely skeptical account. Accordingly, the study addresses the following research questions:

1. How can AI technologies enhance the effectiveness of language teaching and learning?
2. What pedagogical and ethical challenges arise from the integration of AI into language education?
3. What are the prospects for responsible and effective AI integration in future language teaching?

LITERATURE REVIEW

Research on AI in education more broadly provides the foundation for AIALL scholarship. Early systematic reviews of AI-supported learning environments emphasized applications such as automated assessment and learning analytics, noting that AI's capacity to generate rapid, data-driven feedback constituted its principal pedagogical value (González-Calatayud et al., 2021). As AI techniques matured, this generic literature gradually differentiated into domain-specific strands, of which language education has become one of the most active. Bibliometric analyses of AI in second language (L2) teaching and applied linguistics document a marked acceleration in publication output after 2020, with an especially sharp increase following the release of generative AI tools in late 2022 (Kartal & Yeşilyurt, 2024). This growth trajectory is corroborated by systematic reviews of empirical generative AI research in language learning, which report the number of published studies increasing several-fold within only two years, reflecting the speed with which the academic community has responded to this technological shift.

Within AIALL, intelligent tutoring systems and automated writing evaluation (AWE) constitute two of the most extensively researched applications. AWE platforms use natural language processing to score written texts and generate feedback on grammar, lexical range, and organization. Empirical findings on their instructional value are notably mixed. Link et al. (2022) found that combining AWE with teacher feedback did not significantly increase the quantity of higher-level feedback teachers provided, complicating the assumption that AWE automatically frees teachers to focus on content and organization while the technology handles surface-level errors. This finding is important because it counters a widespread but under-examined assumption in earlier AWE literature and illustrates the value of empirically testing, rather than presuming, the pedagogical benefits of automation. Other studies similarly caution that AWE feedback, while useful for local, sentence-level correction, is less reliable for macro-level dimensions of writing such as coherence and argumentation, and that its effectiveness depends heavily on how teachers scaffold and mediate its use rather than on the technology in isolation. Taken together, this body of research suggests that AWE is best understood not as a substitute for teacher feedback but as a complementary resource whose value is contingent on pedagogical integration. A further important strand of literature addresses automated and AI-supported assessment. Reviews of AI-based student assessment highlight its capacity to deliver rapid, consistent scoring at scale, while also raising concerns about the transparency and fairness of algorithmic scoring criteria, particularly for open-ended or creative language production (González-Calatayud et al., 2021). This tension between efficiency and fairness recurs throughout the literature on AI-supported assessment and mirrors broader debates about algorithmic bias in educational technology.

Running parallel to this technologically oriented literature is a substantial and rapidly growing body of scholarship addressing the ethical and academic-integrity implications of generative AI in education. Cotton et al. (2023) were among the first to document how the availability of ChatGPT complicated the assessment of authentic student work, prompting institutions to reconsider assignment design. Subsequent research has extended this concern, documenting the difficulty of reliably detecting AI-generated text (Eke, 2023), the need for revised assessment strategies and institutional policy (Evangelista, 2025), and calls for a coherent research agenda addressing academic integrity in the generative AI era (Bittle & El-Gayar, 2025). Systematic reviews of the ethical and regulatory landscape further emphasize the need for a human-centered approach that safeguards data privacy, mitigates bias, and protects learner agency (García-López & Trujillo-Liñán, 2025), a position that closely mirrors international policy guidance issued by UNESCO (Miao & Holmes, 2023; Sabzalieva & Valentini, 2023).

METHODOLOGY

This study adopts a qualitative, literature-based narrative review design rather than an empirical or experimental approach. This design was selected because the research questions concern the synthesis, comparison, and critical evaluation of an already substantial and rapidly evolving body of scholarship, rather than the generation of new primary data. A narrative rather than a fully

systematic PRISMA-based review was chosen because the study's aim is thematic and interpretive-identifying convergences, contradictions, and gaps across several distinct but related strands of research-rather than exhaustively cataloguing every published study on a narrowly defined intervention.

Sources were identified through targeted searches of academic databases and publisher platforms, including ScienceDirect, Wiley Online Library, SAGE, Frontiers, Springer, Emerald, Cambridge Core, and ERIC, using combinations of keywords such as “artificial intelligence,” “language learning,” “language teaching,” “generative AI,” “ChatGPT,” “chatbot,” “automated writing evaluation,” “intelligent tutoring system,” and “academic integrity.” Reference lists of relevant systematic reviews and meta-analyses were additionally consulted to identify further pertinent sources, following a citation-tracking approach common in narrative reviews.

Inclusion criteria were as follows: (a) peer-reviewed journal articles, academic books, or reports from recognized international organizations; (b) publication between 2020 and 2026, with a small number of earlier sources retained where they provided seminal theoretical or historical grounding; (c) direct relevance to AI applications in language teaching, learning, or assessment, or to the ethical and policy dimensions of AI in education; and (d) availability of verifiable bibliographic information. Exclusion criteria included non-peer-reviewed blog posts, promotional or vendor-produced materials, studies focusing exclusively on AI applications unrelated to language education (e.g., mathematics or medical education) unless directly relevant to a cross-cutting theme such as academic integrity, and sources whose authorship or publication details could not be verified.

DISCUSSION

A recurring claim across the reviewed literature is that AI's principal pedagogical contribution lies in its capacity for personalization. Adaptive systems can, in principle, adjust the difficulty of reading texts, the pacing of grammar instruction, and the type of corrective feedback offered according to an individual learner's demonstrated proficiency and error patterns. This promise is grounded in longstanding pedagogical concerns about differentiated instruction, which conventional classrooms-constrained by fixed curricula, limited time, and mixed-proficiency groupings-have historically struggled to fulfil (Huang et al., 2022). Meta-analytic evidence on informal digital English learning environments has associated adaptive AI-supported use with measurable gains in proficiency, motivation, and self-regulation (Guan et al., 2024), lending empirical weight to the personalization argument. However, the literature also cautions against treating personalization as an automatic or guaranteed outcome of AI deployment; adaptive algorithms are only as effective as the pedagogical logic and data underlying them, and poorly designed systems risk producing narrow, repetitive practice rather than genuinely responsive instruction. Consequently, personalization should be understood as a potential afforded by AI rather than an inherent property of any AI tool. Privacy and data protection represent a further significant challenge, since many AI-based language tools collect and process learner data, including speech recordings and written submissions, raising questions about consent, data governance, and compliance with regulatory frameworks-concerns explicitly foregrounded in UNESCO's guidance on generative AI in education, which calls for stringent data-protection safeguards and, where appropriate, age-appropriate access restrictions (Miao & Holmes, 2023). Algorithmic bias is similarly documented as a risk, insofar as AI models trained predominantly on standard varieties of a target language may inadequately represent, or even penalize, learners' regional or non-standard language varieties, with implications for equity in assessment and feedback (García-López & Trujillo-Liñán, 2025).

Digital inequality compounds these concerns: access to reliable internet connectivity, current devices, and, in some cases, subscription-based premium AI tools is unevenly distributed both within and across countries, meaning that the benefits of AI-assisted learning are not equally available to all learners. This is compounded by a lack of AI literacy among many teachers, who may be unprepared to critically evaluate, adapt, or troubleshoot AI tools within their instructional practice (Halaweh, 2023; Perkins, 2023). Copyright issues also arise, particularly regarding the training data underlying generative AI models and the ownership status of AI-assisted or AI-generated

instructional materials, an area in which policy and legal frameworks remain unsettled. Finally, several scholars raise a more fundamental pedagogical concern: that extensive reliance on AI-mediated interaction risks weakening learners' capacity for authentic, unmediated human communication, since AI conversational partners-however responsive-cannot fully replicate the unpredictability, cultural specificity, and social stakes of genuine human interlocutors.

CONCLUSION

This review set out to examine how AI technologies can enhance language teaching and learning, what pedagogical and ethical challenges accompany their integration, and what prospects exist for responsible future practice. Regarding the first research question, the synthesized literature indicates that AI-through automated writing evaluation, conversational chatbots, intelligent tutoring functions, and generative tools-can meaningfully expand personalized feedback, increase speaking and writing practice opportunities, and support differentiated instruction, particularly for skills historically constrained by classroom time and class size. Regarding the second research question, the review identified a substantial cluster of pedagogical and ethical challenges, including output inaccuracy and hallucination, threats to academic integrity, risks of learner overdependence, privacy and data-governance concerns, algorithmic bias, digital inequality, and uneven AI literacy among educators. Regarding the third research question, the literature converges on a cautiously optimistic but firmly human-centered vision of future integration: one in which AI functions as a pedagogical support tool operating under the sustained guidance, verification, and ethical oversight of language teachers, rather than as an autonomous substitute for instruction.

The principal findings of this review can therefore be summarized as follows: AI holds genuine, empirically supported potential to enrich language pedagogy, particularly in personalization and practice provision, but this potential is neither automatic nor unconditional, and it is inseparable from significant ethical and pedagogical risk. The benefits of AI integration are most fully realized when technology is embedded within thoughtful pedagogical design and sustained teacher mediation, whereas unregulated or uncritical adoption risks eroding academic integrity, learner autonomy, and equitable access. Correspondingly, the limitations of AI-particularly its unreliability in nuanced linguistic and cultural judgment-underscore why human teachers remain central rather than peripheral to language education in the AI era.

Human-centered AI integration is therefore not merely an ethical preference but a pedagogical necessity. Language learning is fundamentally a social and communicative process, and technologies that support this process must be evaluated according to whether they enhance authentic communication and learner agency, rather than by their technical sophistication alone. Future research should prioritize longitudinal and mixed-methods studies capable of establishing the durable effects of generative AI use on language proficiency and learner autonomy, comparative research examining AI integration across diverse linguistic, cultural, and socioeconomic contexts, and further empirical investigation of effective teacher-training models for AI literacy. Additional scholarly attention to algorithmic bias in underrepresented language varieties and to equitable access frameworks would further strengthen the evidence base needed to guide responsible, effective, and ethically sound AI integration in language education.

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CONTEXTUAL MEANING AND SEMANTIC VARIATION OF LEGAL TERMS IN ENGLISH AND UZBEK

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Abstract. *This article examines the contextual meaning and semantic variation of legal terms in English and Uzbek from a comparative linguistic perspective. Legal terminology represents a specialized component of language whose meaning is closely associated with legal concepts, institutional practices, historical development, and communicative context. The study focuses on how the meaning of legal terms may change or acquire additional semantic nuances depending on the linguistic and legal context in which they are used. Particular attention is paid to polysemy, semantic extension, semantic restriction, contextual modification, and terminological variation in English and Uzbek legal discourse. The research employs comparative, descriptive, contextual, and lexico-semantic methods to identify similarities and differences in the functioning of legal terms in the two languages. Examples drawn from English and Uzbek legal texts are analyzed to demonstrate the relationship between lexical form, conceptual meaning, and contextual interpretation. The findings indicate that although many legal terms demonstrate functional and conceptual correspondence, significant differences may arise due to distinct legal systems, cultural traditions, historical developments, and terminological conventions. The study also highlights the importance of contextual analysis for achieving accurate interpretation and translation of legal terminology. The research contributes to comparative legal linguistics and may be useful for legal translation, terminology development, lexicography, and the teaching of legal English and Uzbek.*

Keywords: semantic meaning, contextual meaning, legal terms, concept, lexical unit, legislation, conceptual meaning

Annotatsiya. *Ushbu maqolada ingliz va o'zbek tillaridagi yuridik terminlarning kontekstual ma'nosi hamda semantik o'zgaruvchanligi qiyosiy-lingvistik nuqtayi nazardan tadqiq etiladi. Yuridik terminologiya tilning ixtisoslashgan tarkibiy qismi bo'lib, uning ma'nosi huquqiy tushunchalar, institutsional amaliyot, tarixiy taraqqiyot va kommunikativ kontekst bilan uzviy bog'liqdir. Tadqiqotda yuridik terminlar qo'llaniladigan lingvistik va huquqiy kontekstga qarab, ularning ma'nosi qanday o'zgarishi yoki qo'shimcha semantik ma'no nozikliklariga ega bo'lishi tahlil qilinadi. Ingliz va o'zbek yuridik diskursidagi ko'pma'nolilik, ma'noning kengayishi, ma'noning torayishi, kontekstual modifikatsiya va terminologik variantlilikka alohida e'tibor qaratiladi. Ikki tilda yuridik terminlarning qo'llanishidagi o'xshashlik va farqlarni aniqlash maqsadida qiyosiy, tavsifiy, kontekstual va leksik-semantik metodlardan foydalaniladi. Ingliz va o'zbek tillaridagi yuridik matnlardan olingan misollar leksik shakl, konseptual ma'no va kontekstual talqin o'rtasidagi munosabatni ochib berish maqsadida tahlil qilinadi. Tadqiqot natijalari shuni ko'rsatadiki, ko'plab yuridik terminlar funksional va konseptual jihatdan o'zaro muvofiqlik namoyon etsa-da, turli huquqiy tizimlar, madaniy an'analar, tarixiy taraqqiyot va terminologik me'yorlar sababli ular o'rtasida sezilarli farqlar yuzaga kelishi mumkin. Tadqiqotda, shuningdek, yuridik terminologiyani to'g'ri talqin va tarjima qilishda kontekstual tahlilning muhimligi ta'kidlanadi. Mazkur tadqiqot qiyosiy yuridik lingvistika rivojiga hissa qo'shadi hamda yuridik tarjima, terminologiyani rivojlantirish, leksikografiya, shuningdek, yuridik ingliz va o'zbek tillarini o'qitishda foydali bo'lishi mumkin.*

Kalit so‘zlar: *semantik ma’no, kontekstual ma’no, yuridik terminlar, konsept, leksik birlik, qonunchilik, konseptual ma’no.*

Аннотация. В данной статье рассматриваются контекстуальное значение и семантическая вариативность юридических терминов в английском и узбекском языках с позиции сопоставительного языкознания. Юридическая терминология представляет собой специализированный компонент языка, значение которого тесно связано с правовыми понятиями, институциональной практикой, историческим развитием и коммуникативным контекстом. Исследование сосредоточено на том, каким образом значение юридических терминов может изменяться или приобретать дополнительные семантические оттенки в зависимости от языкового и правового контекста их употребления. Особое внимание уделяется полисемии, расширению и сужению значения, контекстуальной модификации и терминологической вариативности в английском и узбекском юридическом дискурсе. Для выявления сходств и различий в функционировании юридических терминов в двух языках применяются сопоставительный, описательный, контекстуальный и лексико-семантический методы. Примеры, отобранные из английских и узбекских юридических текстов, анализируются с целью демонстрации взаимосвязи между лексической формой, понятийным значением и контекстуальной интерпретацией. Результаты исследования показывают, что, несмотря на функциональное и понятийное соответствие многих юридических терминов, между ними могут возникать существенные различия, обусловленные особенностями правовых систем, культурных традиций, исторического развития и терминологических норм. В исследовании также подчёркивается важность контекстуального анализа для обеспечения точной интерпретации и перевода юридической терминологии. Работа вносит вклад в развитие сопоставительной юридической лингвистики и может быть полезна для юридического перевода, развития терминологии, лексикографии, а также преподавания юридического английского и узбекского языков.

Ключевые слова: *семантическое значение, контекстуальное значение, юридические термины, концепт, лексическая единица, законодательство, понятийное значение.*

INTRODUCTION

The introduction will establish the relevance of studying legal terminology as one of the most specialized and socially significant layers of vocabulary in English and Uzbek. Legal language serves as an essential instrument for formulating legislation, regulating social relations, defining rights and obligations, and communicating legal concepts. Consequently, legal terms require particular linguistic precision because even minor differences in meaning may influence the interpretation of legal provisions. The article will emphasize that the study of legal terminology is especially important in the context of increasing international cooperation, legal reforms, globalization, and the growing need for accurate English–Uzbek legal translation.

Special attention will be given to the relationship between lexical meaning and contextual meaning. A legal term does not always demonstrate an absolutely fixed semantic interpretation in every communicative situation. Its meaning can be influenced by the surrounding lexical units, grammatical structure, type of legal document, area of law, and broader legal context. For example, a particular term may acquire different semantic nuances when used in constitutional, criminal, civil, administrative, or international legal discourse. Therefore, contextual analysis provides an important basis for identifying semantic variation in legal vocabulary.

The introduction will also formulate the main aim and objectives of the research. The principal aim is to investigate how contextual factors influence the meaning and semantic variation of legal terms in English and Uzbek and to identify similarities and differences between the two terminological systems. The objectives include identifying major types of semantic variation, analyzing context-dependent meanings, comparing corresponding legal terms, and determining factors responsible for semantic differences.

The research will employ comparative, descriptive, contextual, and lexico-semantic methods. English and Uzbek legal texts will serve as the primary linguistic material. The comparative approach

will make it possible to identify both universal characteristics and language-specific features of legal terminology. The significance of the research lies in its potential contribution to comparative linguistics, legal linguistics, terminology studies, translation theory, and legal lexicography.

THEORETICAL FOUNDATION

This section will provide the theoretical basis for analyzing contextual meaning and semantic variation in English and Uzbek legal terminology. First, the concept of a legal term will be examined from linguistic and terminological perspectives. Legal terms can generally be understood as lexical units that designate specific concepts, institutions, procedures, persons, legal relationships, rights, obligations, or actions within a legal system. Unlike ordinary vocabulary, legal terminology is closely connected with professional knowledge and institutionalized legal concepts.

The section will discuss the principal characteristics of legal terms, including semantic precision, systematicity, conceptual specificity, functional stability, terminological relevance, and dependence on a particular legal system. However, despite the requirement for precision, legal terms may demonstrate semantic flexibility when functioning in different contexts. This creates an important distinction between the potential meaning of a term and the meaning that it realizes in a particular legal text.

Legal terminology will subsequently be considered as a specialized lexical system rather than an isolated collection of individual words. Terms are interconnected through semantic relationships such as synonymy, antonymy, hyponymy, hyperonymy, meronymy, and lexical derivation. In both English and Uzbek, legal vocabulary contains native lexical formations as well as borrowed, international, and historically established terms. These elements reflect the development of national legal systems and their interaction with other legal and linguistic traditions (Garzone, 2000).

The subsection on lexical and semantic features will examine such phenomena as polysemy, synonymy, semantic extension, semantic restriction, terminological differentiation, and semantic transformation. Particular attention will be paid to cases where a lexical unit has a general-language meaning but acquires a specialized legal meaning. Conversely, some legal terms may extend beyond their original specialized meaning and become widely used in administrative, political, economic, or everyday discourse.

Finally, the section will establish the theoretical relationship between context and meaning in legal discourse. Context will be understood as an essential factor in determining the precise interpretation of a legal term. Linguistic context includes the words, phrases, sentences, and textual structures surrounding a term, whereas extralinguistic context may involve the relevant legal system, legislation, institutional environment, historical circumstances, and communicative purpose. This theoretical framework will provide the foundation for the subsequent comparative analysis of contextual meaning and semantic variation in English and Uzbek legal texts.

RESULTS AND DISCUSSION

The contextual meaning of legal terms constitutes one of the most important aspects of legal linguistics because the semantic interpretation of a term is not always determined exclusively by its dictionary definition. In legal discourse, the meaning of a lexical unit is frequently specified, restricted, extended, or modified by the linguistic and legal environment in which it occurs. This characteristic is particularly significant in comparative studies of English and Uzbek legal terminology, as the two languages reflect different historical traditions, legal institutions, conceptual systems, and terminological practices. Therefore, the analysis of legal terms requires consideration not only of their lexical forms but also of the contexts in which they function.

Contextual meaning can generally be understood as the particular meaning that a lexical unit acquires or realizes in a specific linguistic or communicative environment. While the lexical meaning of a term represents its relatively stable conceptual content, contextual meaning reflects the way that content is interpreted within a particular text or communicative situation. In legal language, this distinction is especially important because legal terminology is expected to convey precise concepts, yet the precise interpretation of a term may depend on the surrounding text.

For example, the English term **action** may have a general meaning referring to an activity or process. However, within legal discourse, **action** may refer specifically to a legal proceeding initiated by one party against another. The phrase **bring an action** therefore has a specialized legal interpretation that cannot be adequately understood from the general meaning of **action** alone. Similarly, the term **party** in ordinary English may refer to a person or group participating in an activity, while in a legal contract or court proceeding it may designate a person, organization, or institution that has a defined legal position in relation to the agreement or dispute (Mattila, 2013).

A comparable phenomenon can be observed in Uzbek legal terminology. The term “**tomon**” may have the general meaning of a side or participant, but in a legal context it may designate a legally recognized party to a contract, dispute, proceeding, or other legal relationship. Thus, the surrounding legal context determines which aspect of the term's semantic potential becomes relevant (Tursunov, 2016).

Contextual meaning is consequently not necessarily a completely new meaning. In many cases, it represents **the actualization of one component of a term's semantic structure**. A term may possess several potential semantic features, while the context selects the feature required for a particular communicative purpose. This process is particularly evident in polysemous legal vocabulary and in terms that overlap with general-language words.

The contextual interpretation of legal terms can therefore be viewed as the interaction of three major components: **lexical form, conceptual meaning, and textual context**. The lexical form provides the linguistic expression, the conceptual meaning establishes the underlying legal concept, and the context determines how that concept should be interpreted in a particular situation. This relationship is essential for understanding semantic variation in both English and Uzbek.

Legal terms are frequently interpreted according to their immediate textual environment. A term that appears semantically straightforward in isolation may become more specific when combined with particular nouns, verbs, adjectives, prepositions, or other terminological units. Consequently, legal terminology cannot always be analyzed successfully through isolated lexical items.

In English legal discourse, for instance, the term **charge** demonstrates considerable contextual variation. In criminal law, **charge** may refer to a formal accusation that a person has committed an offence, as in **criminal charge**. In another legal context, the same lexical item can refer to a financial claim or security interest over property, as **in charge over assets**. Its interpretation is therefore determined by the legal field and the lexical environment in which it occurs (Sager, 1990).

The term **claim** provides another example. In general usage, it can mean an assertion that something is true or a demand for something. In legal discourse, however, it may refer to a formal demand for a legal remedy, compensation, or recognition of a right. The exact interpretation becomes clearer through collocations such as **claim for damages, insurance claim, claimant's claim, or claim to property** (Cao, 2007).

Uzbek legal terminology demonstrates similar contextual dependence. The term “**da'vo**” is strongly associated with a legal demand or claim, but its precise interpretation depends on the surrounding legal structure. Expressions such as “**da'vo arizasi**”, “**da'vo talabi**”, and “**da'vogar**” activate related but conceptually distinct elements of the legal process. The first identifies a procedural document, the second refers to the substantive demand made by a claimant, and the third denotes the person who brings the claim. The semantic relationship between these units demonstrates that legal meaning is often constructed through a network of contextual and terminological relations (Karimov, 2021).

Another relevant example is the English term **sentence**. In ordinary language, **sentence** may denote a grammatical construction, whereas in criminal law it refers to the punishment or judicial determination imposed on a convicted person. The phrase **the court imposed a sentence** clearly activates the legal meaning. Uzbek provides a comparable example with “**hukm**”, which in ordinary historical and broader usage may be associated with a judgment or authoritative decision, while in criminal procedural contexts it functions as a specific legal term referring to a court's decision concerning the guilt and punishment of a defendant.

These examples demonstrate that context acts as a semantic regulator. It helps distinguish between different possible interpretations and establishes the legally relevant meaning of a lexical unit. This is particularly important for translation, because a translator who relies solely on dictionary equivalents may select an inappropriate translation if the contextual meaning has not been identified.

For the analysis of legal terminology, it is useful to distinguish between **linguistic context** and **legal context**. Linguistic context refers to the verbal environment surrounding a term, including words, phrases, sentences, paragraphs, and broader textual structures. Legal context, in contrast, involves the legal system, institution, area of law, legislative framework, procedural circumstances, and conceptual relationships that determine the interpretation of a term.

Linguistic context can be divided into several levels. At the lexical level, neighboring words can clarify the meaning of a legal term. For example, **criminal liability**, **civil liability**, and **administrative liability** demonstrate that the term **liability** receives different specifications depending on the modifying element. Similarly, Uzbek expressions such as “**jinoiy javobgarlik**”, “**fuqaroviy javobgarlik**”, and “**ma’muriy javobgarlik**” illustrate the role of lexical combination in establishing semantic specificity (Mengliyev, 2018).

At the syntactic level, the grammatical structure of a sentence can influence interpretation. Legal texts frequently employ passive constructions, modal verbs, conditional clauses, and complex noun phrases. Expressions such as **shall be liable**, **may be terminated**, or is **entitled to carry** particular legal implications that depend on their syntactic organization. In Uzbek legal texts, constructions involving “**-ishi shart**”, “**-ishi mumkin**”, “**-ga haqli**”, and “**-dan ozod etiladi**” similarly contribute to the interpretation of legal obligations, permissions, rights, and exemptions (Azimov, 2019).

At the textual level, a term may be defined earlier in a document and subsequently used in a specialized sense. This is common in legislation and contracts. A law may explicitly define a term in an initial provision and then employ that definition consistently throughout the document. Consequently, the meaning of the term cannot always be established through general dictionaries; the document itself may function as an important terminological source.

In Uzbek legal language, contextual differences can likewise occur across branches of law. A term used in civil legislation may have a narrower or more specific interpretation when it appears in criminal, administrative, procedural, or constitutional texts. This demonstrates that legal terminology is embedded within a system of legal concepts, rather than functioning as an independent collection of words.

Influence of Surrounding Words and Textual Structures on Meaning

The semantic interpretation of legal terms is strongly influenced by collocation and textual structure. Legal discourse contains numerous stable combinations in which the meaning of an individual term is reinforced or restricted by neighboring lexical units. Such combinations are particularly important because legal concepts are frequently expressed through multiword terminology rather than isolated words.

For example, the English term **right** occurs in numerous legal combinations: **human rights**, **property rights**, **contractual rights**, **right to appeal**, and **right of ownership**. Although the central conceptual element remains related to a legally recognized entitlement, each combination identifies a different legal relationship. The Uzbek equivalent “**huquq**” demonstrates similar variation in expressions such as “**inson huquqlari**”, “**mulk huquqi**”, “**meros huquqi**”, and “**shikoyat qilish huquqi**” (Mahmudov, 2013).

Verbs also contribute significantly to the interpretation of legal nouns. Expressions such as **exercise a right**, **waive a right**, **enforce a right**, and **violate a right** demonstrate different legal relations associated with the same basic concept. Uzbek combinations such as “**huquqni amalga oshirish**”, “**huquqdan voz kechish**”, “**huquqni himoya qilish**”, and “**huquqni buzish**” perform comparable semantic functions (Khujakulov, 2025).

The textual structure of legal documents further contributes to meaning. Definitions, qualifications, exceptions, conditions, references, and cross-references may significantly restrict the interpretation of a term. For example, a statutory definition introduced by “**For the purposes of this**

Act...” establishes a specific meaning applicable within the relevant legislation. Uzbek legislation may similarly introduce specialized definitions through formulations such as **“ushbu Qonunda ... deganda ... tushuniladi”**. Such constructions explicitly establish the contextual and terminological boundaries of a legal concept (Khujakulov, 2024).

Therefore, contextual meaning in legal discourse is often the result of interaction between individual lexical units and larger textual structures. This interaction demonstrates that legal semantics is relational and context-sensitive, even though legal terminology generally strives for conceptual stability.

Overall, contextual analysis shows that legal terminology in English and Uzbek exhibits both stability and variation. The stability derives from the specialized conceptual function of legal terms, while variation emerges from linguistic context, branch of law, textual structure, legal institutions, and differences between national legal systems. Consequently, the interpretation of a legal term should always consider its immediate linguistic environment as well as the broader legal framework in which it operates.

In this respect, contextual meaning provides an essential methodological basis for comparative legal linguistics. It enables researchers to move beyond isolated dictionary definitions and examine how legal concepts are actually represented and interpreted in authentic legal discourse. For English and Uzbek, such an approach is particularly valuable because it reveals the points at which the two terminological systems correspond, diverge, or require contextual adaptation. It also provides a reliable foundation for investigating semantic variation, translation equivalence, terminological development, and semantic transformation in subsequent stages of the research.

CONCLUSION

The analysis of legal terminology in English and Uzbek demonstrates that legal language represents a dynamic and highly specialized system in which lexical development and semantic transformation are closely connected with changes in society, legislation, legal institutions, and international communication. Legal terms do not function as isolated lexical units; their meanings are determined by the legal system in which they are used, as well as by linguistic, textual, and contextual factors. Therefore, a comparative study of English and Uzbek legal terminology provides valuable insights into both the common tendencies and language-specific characteristics of legal discourse.

The study has shown that the lexical development of legal terminology in the two languages occurs through several major processes, including borrowing, internationalization, derivation, translation, calquing, abbreviation, and semantic extension. English legal terminology has been strongly influenced by Latin, French, and other European languages, while Uzbek legal vocabulary has developed through interaction with Turkic linguistic traditions, Russian, Arabic-Persian vocabulary, and contemporary international legal terminology. The increasing globalization of legal communication has further contributed to the appearance and dissemination of international legal terms in Uzbek and English.

Particular attention has been given to semantic transformation. Legal terms may acquire new meanings, develop additional semantic components, undergo specialization or generalization, and change their interpretation depending on the legal and linguistic context. Consequently, the same lexical form may demonstrate different meanings in general language and in specialized legal discourse. Context plays a particularly important role in determining the precise meaning of a legal term because surrounding lexical units, grammatical structures, legal documents, and the relevant area of law can significantly influence interpretation.

The comparative analysis also reveals both similarities and differences between English and Uzbek legal terminology. Similarities are particularly evident in internationally recognized legal concepts, procedural terminology, institutional vocabulary, and Latin legal expressions. At the same time, differences arise from the distinct historical development of the two legal systems, their linguistic structures, terminological traditions, and approaches to legal regulation. These differences create challenges for translation and require not only linguistic competence but also an understanding of the relevant legal concepts and contexts.

Overall, the findings confirm that legal terminology should be examined as a continuously developing lexical-semantic system rather than as a fixed collection of specialized words. Understanding the relationship between lexical form, semantic change, and contextual interpretation is essential for accurate legal translation, terminology management, comparative linguistics, legal education, and professional legal communication. The study therefore contributes to a deeper understanding of English and Uzbek legal vocabulary and demonstrates the importance of combining lexical-semantic, contextual, and comparative approaches in the investigation of legal terminology.

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INGLIZ VA O‘ZBEK TILLARIDA SINONIMIK QATORLAR: SEMANTIK VA KOLLOKATSION ASIMMETRIYANING QIYOSIY TAHLILI

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Annotatsiya. Mazkur maqolada ingliz va o‘zbek tillaridagi sinonimik qatorlarning semantik hamda kollokatsion xususiyatlari qiyosiy jihatdan tadqiq etilgan. Tadqiqotning asosiy maqsadi sinonimik birliklarning umumiy semantik yadrosi, differensial belgilari, registr xususiyatlari va kollokatsion imkoniyatlarini aniqlash hamda ikki til o‘rtasidagi semantik va kollokatsion asimmetriyalarni ochib berishdan iborat. Tadqiqotda qiyosiy-chog‘ishtirma, komponent, distributiv, kollokatsion va kontekstual tahlil usullaridan foydalanildi. Tahlil jarayonida ask – request – inquire, begin – start – commence, big – large – huge – enormous kabi inglizcha hamda so‘ramoq – iltimos qilmoq – talab qilmoq, katta – yirik – ulkan – bahaybat, chiroyli – go‘zal – ko‘rkam kabi o‘zbekcha sinonimik qatorlar tahlil qilindi. Natijalar sinonimik birliklar umumiy semantik komponentga ega bo‘lsa-da, ularning ma‘no hajmi, uslubiy registri, kollokatsion profili va pragmatik xususiyatlari jihatidan farqlanishini ko‘rsatdi. Tadqiqot natijalari sinonimlarni tarjima qilish, ikki tili lug‘atlar tuzish va chet tilini o‘qitish amaliyoti uchun ahamiyatlidir.

Kalit so‘zlar: sinonimiya, sinonimik qator, semantik asimmetriya, kollokatsion asimmetriya, semantik yadro, differensial belgi, kollokatsion profil, qiyosiy tahlil.

Аннотация. В статье проводится сопоставительное исследование семантических и коллокационных особенностей синонимических рядов в английском и узбекском языках. Основная цель исследования заключается в выявлении общего семантического ядра, дифференциальных признаков, стилистического регистра и коллокационных возможностей синонимических единиц, а также в определении семантической и коллокационной асимметрии

между двумя языками. В исследовании применены сопоставительно-сравнительный, компонентный, дистрибутивный, коллокационный и контекстуальный методы анализа. В качестве материала рассмотрены такие английские синонимические ряды, как *ask – request – inquire, begin – start – commence, big – large – huge – enormous*, а также узбекские ряды *so‘ramoq – iltimos qilmoq – talab qilmoq, katta – yirik – ulkan – bahaybat, chiroyli – go‘zal – ko‘rkam*. Результаты показывают, что, несмотря на наличие общего семантического компонента, синонимические единицы различаются по объёму значения, стилистическому регистру, коллокационному профилю и прагматическим характеристикам. Полученные результаты имеют теоретическое и практическое значение для перевода, составления двуязычных словарей и преподавания иностранных языков.

Ключевые слова: синонимия, синонимический ряд, семантическая асимметрия, коллокационная асимметрия, семантическое ядро, дифференциальный признак, коллокационный профиль, сопоставительный анализ.

Abstract. This article presents a comparative study of the semantic and collocational features of synonymic series in English and Uzbek. The main aim of the study is to identify the common semantic core, differential features, register characteristics, and collocational patterns of synonymous units and to reveal semantic and collocational asymmetries between the two languages. The study employs comparative-contrastive, componential, distributional, collocational, and contextual methods of analysis. The research examines English synonymic series such as *ask – request – inquire, begin – start – commence, big – large – huge – enormous*, as well as Uzbek series such as *so‘ramoq – iltimos qilmoq – talab qilmoq, katta – yirik – ulkan – bahaybat, chiroyli – go‘zal – ko‘rkam*. The findings demonstrate that although synonymous units share a common semantic component, they differ in semantic scope, stylistic register, collocational profile, and pragmatic characteristics. The study shows that semantic similarity does not necessarily ensure complete collocational equivalence between synonymous units. The findings are relevant to translation studies, bilingual lexicography, and foreign language teaching.

Keywords: synonymy, synonymic series, semantic asymmetry, collocational asymmetry, semantic core, differential feature, collocational profile, comparative analysis.

KIRISH

Sinonimiya tilning leksik-semantik tizimida muhim o‘rin tutuvchi hodisalardan biri bo‘lib, bir umumiy ma‘no doirasida birlashgan, biroq semantik, uslubiy, kollokatsion va pragmatik xususiyatlari bilan farqlanuvchi birliklar munosabatini ifodalaydi. Sinonimik qatorlar til lug‘at tarkibining boyligi va ifoda imkoniyatlarini namoyon etib, fikrni turli ma‘no nozikliklari va uslubiy vositalar orqali ifodalash imkonini beradi.

Ingliz va o‘zbek tillaridagi sinonimik qatorlarni qiyosiy o‘rganish mazkur tillarning umumiy va o‘ziga xos leksik-semantik xususiyatlarini aniqlash imkonini beradi. Ayniqsa, sinonimlarning faqat lug‘aviy ma‘nosini emas, balki ularning kollokatsion imkoniyatlari, uslubiy xususiyatlari va kontekstual qo‘llanishini hisobga olish muhimdir. Chunki semantik jihatdan yaqin bo‘lgan birliklar nutqda bir xil so‘zlar bilan birika olmaydi va har doim ham o‘zaro to‘liq almashina olmaydi.

Shu nuqtai nazardan, ingliz va o‘zbek tillaridagi sinonimik qatorlarda semantik va kollokatsion asimetriya masalasi alohida ahamiyat kasb etadi. Bunday asimetriya sinonimlarning ma‘no ko‘lami, differensial semantik belgilari, registri, tipik kollokatsiyalari va pragmatik xususiyatlaridagi farqlar orqali namoyon bo‘ladi.

Tadqiqotning maqsadi – ingliz va o‘zbek tillaridagi sinonimik qatorlarning semantik va kollokatsion xususiyatlarini qiyosiy tahlil qilish hamda ular o‘rtasidagi asimmetrik munosabatlarni aniqlash.

MATERIALLAR VA USULLAR

Tadqiqot materiali sifatida ingliz va o‘zbek tillaridagi sinonimik qatorlar hamda ularning badiiy, media, ilmiy va ommaviy nutqdagi qo‘llanish namunalari tanlandi. Shuningdek, sinonimlarning semantik va kollokatsion xususiyatlarini aniqlashda izohli va sinonimik lug‘atlar, shuningdek, til korpuslari materiallaridan foydalanildi.

Tadqiqotda qiyosiy-chog'ishtirma, komponent, distributiv, kollokatsion va kontekstual tahlil usullaridan foydalanildi. Qiyosiy-chog'ishtirma metod orqali ingliz va o'zbek tillaridagi sinonimik birliklarning umumiy va farqli jihatlari aniqlandi. Komponent tahlil yordamida sinonimlarning umumiy semantik yadrosi hamda ularni farqlovchi differensial belgilar belgilandi. Distributiv va kollokatsion tahlil asosida sinonimlarning turli leksik birliklar bilan birikish xususiyatlari va tipik kollokatsiyalari o'rganildi. Kontekstual tahlil esa sinonimik birliklarning real nutqdagi ma'no va funksional xususiyatlarini aniqlashga xizmat qildi.

Sinonimik qatorlarni tahlil qilishda dominanta, integral semantik belgi, differensial semantik belgi, registr, kollokatsion profil va pragmatik kuch asosiy mezonlar sifatida belgilandi. Dominanta sinonimik qatorning semantik jihatdan markaziy birligini, integral belgi umumiy ma'noni, differensial belgi esa birliklar o'rtasidagi ma'noviy farqni ifodalaydi. Registr birliklarning rasmiy, norasmiy yoki neytral qo'llanishini, kollokatsion profil esa ularning tipik leksik birikmalarini ko'rsatadi. Pragmatik kuch orqali sinonimlarning kommunikativ va ekspressiv xususiyatlari baholandi.

Shunday qilib, mazkur metod va mezonlar ingliz hamda o'zbek tillaridagi sinonimik qatorlarning semantik va kollokatsion asimmetriyasini kompleks tarzda aniqlash imkonini berdi.

NATIJALAR VA MUHOKAMA

Tadqiqot natijalari ingliz va o'zbek tillaridagi sinonimik qatorlar umumiy semantik komponent asosida shakllanishini, biroq ularning differensial semantik belgilari, registri, kollokatsion imkoniyatlari va pragmatik xususiyatlari jihatidan farqlanishini ko'rsatdi. Xususan, *ask – request – inquire, begin – start – commence, big – large – huge – enormous, beautiful – pretty – lovely – gorgeous* kabi inglizcha sinonimik qatorlar hamda *so'ramoq – iltimos qilmoq – talab qilmoq, katta – yirik – ulkan – bahaybat, chiroyli – go'zal – ko'rkam* kabi o'zbekcha qatorlarda umumiy semantik yadro mavjud bo'lsa-da, har bir birlikning qo'llanish doirasi bir xil emas.

Masalan, *ask – request – inquire* qatorida umumiy semantik komponent "ma'lumot yoki biror narsani so'rash" bilan bog'liq. Biroq *ask* nisbatan neytral va keng qo'llanadigan birlik bo'lsa, *request* rasmiyroq, *inquire* esa ko'proq rasmiy va axborot olish bilan bog'liq kontekstlarda qo'llanadi. O'zbek tilidagi *so'ramoq – iltimos qilmoq – talab qilmoq* qatorida ham umumiy semantik asos mavjud, ammo birliklar o'rtasidagi pragmatik va funksional farqlar ularning to'liq sinonimik almashinuvini cheklaydi.

Qiyosiy tahlil natijalari semantik asimmetriya ikki tildagi sinonimik qatorlarning ma'no hajmi va differensial belgilarida yaqqol namoyon bo'lishini ko'rsatdi. Ayrim hollarda bir tildagi sinonimik birlik boshqa tilda aynan bir xil semantik va funksional xususiyatga ega ekvivalent bilan ifodalanmaydi. Shu sababli sinonimlarni qiyoslashda faqat lug'aviy ma'noga emas, balki ularning kontekstual va funksional xususiyatlariga ham e'tibor berish zarur.

Tadqiqotda kollokatsion asimmetriya ham muhim omil sifatida aniqlandi. Masalan, ingliz tilidagi *strong* va *powerful* birliklari umumiy "kuchli" semantik komponentiga ega bo'lsa-da, ularning kollokatsion imkoniyatlari farqlanadi: *strong argument, strong evidence, strong influence, powerful engine, powerful speech, powerful impact* kabi birikmalar ushbu birliklarning turli leksik muhitlarda faol qo'llanishini ko'rsatadi. Demak, semantik yaqinlik har doim ham kollokatsion tenglikni anglatmaydi.

Begin – start – commence qatori ham semantik va kollokatsion asimmetriyaning yaqqol namunasidir. Ushbu birliklarning umumiy semantik yadrosi "boshlanish" tushunchasiga asoslangan bo'lsa-da, *begin* va *start* kengroq va neytral qo'llanishga ega, *commence* esa nisbatan rasmiy registr bilan chegaralanadi. Bu farq ularning kollokatsion muhiti va turli diskurslardagi qo'llanish chastotasida ham namoyon bo'ladi.

XULOSA

Tahlil natijalari sinonimik birliklarning badiiy, media, ilmiy va ommaviy nutq kabi turli diskurslarda bir xil darajada ishlatilmasligini ham ko'rsatadi. Neytral birliklar kengroq diskurs doirasida qo'llansa, rasmiy yoki ekspressiv xususiyatga ega sinonimlarning qo'llanish sohasi nisbatan

chegaralangan bo'lad. Shu jihatdan sinonimlarning diskursdagi taqsimoti ularning semantik, uslubiy va kollokatsion xususiyatlari bilan bevosita bog'liq.

Umuman, qiyosiy tahlil sinonimik qatorlarda semantik yaqinlik va funksional nomoslik bir vaqtning o'zida mavjud bo'lishi mumkinligini ko'rsatdi. Ayniqsa, kollokatsion cheklovlar sinonimlarning real nutqda bir-birining o'rnini to'liq egallashiga to'sqinlik qiladi. Shuning uchun ingliz va o'zbek tillaridagi sinonimik qatorlarning ekvivalentligini aniqlashda semantik yadro bilan bir qatorda differensial belgi, registr, kollokatsion profil va pragmatik kuch ham hisobga olinishi lozim.

Olingan natijalar sinonimik birliklarni tarjima qilish, ikki tilli lug'atlar tuzish va chet tilini o'qitishda muhim ahamiyatga ega. Ayniqsa, kollokatsion xususiyatlarni hisobga olish tarjimada tabiiy va kontekstga mos ekvivalentlarni tanlash imkonini beradi.

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INGLIZ TILI FANIDAN MASOFAVIY TA'LIM SHAROITIDA TALABALARNING O'ZLASHTIRISH KO'RSATKICHLARINI OSHIRISH

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Annotatsiya. Ushbu maqolada oliy ta'lim muassasalarida ingliz tili fanini masofaviy ta'lim sharoitida o'qitish jarayonida talabalarning o'zlashtirish ko'rsatkichlarini oshirish masalalari tahlil qilingan. Tadqiqot davomida masofaviy ta'lim platformalari (LMS, Zoom, Moodle) yordamida tashkil etilgan mashg'ulotlarning samaradorligi, talabalar motivatsiyasi va bilim sifatiga ta'siri o'rganildi. Pedagogik eksperiment natijalari interfaol topshiriqlar, aralash ta'lim (blended learning) elementlari va muntazam qaytar aloqa (feedback) tizimidan foydalanish talabalarning o'zlashtirish darajasini sezilarli darajada oshirishini ko'rsatdi. Maqola so'ngida masofaviy ta'lim sifatini yaxshilash bo'yicha amaliy tavsiyalar keltirilgan.

Kalit so'zlar: masofaviy ta'lim, ingliz tili, o'zlashtirish ko'rsatkichi, LMS platforma, aralash ta'lim, motivatsiya, raqamli kompetensiya, qaytar aloqa.

Annotation. This article analyzes ways to improve students' academic achievement in learning English as a foreign language under distance education conditions at higher education institutions. The study examines the effectiveness of classes organized through distance learning platforms (LMS, Zoom, Moodle) and their impact on student motivation and the quality of knowledge acquisition. The results of a pedagogical experiment demonstrate that the use of interactive tasks, elements of blended learning, and a systematic feedback mechanism significantly increases students' learning outcomes. The article concludes with practical recommendations for enhancing the quality of distance English language education.

Keywords: distance learning, English language, academic achievement, LMS platform, blended learning, motivation, digital competence, feedback.

Аннотация. В данной статье анализируются пути повышения показателей успеваемости студентов при изучении английского языка в условиях дистанционного обучения в высших учебных заведениях. В ходе исследования изучена эффективность занятий, организованных с помощью платформ дистанционного обучения (LMS, Zoom, Moodle), их влияние на мотивацию студентов и качество усвоения знаний. Результаты педагогического

эксперимента показали, что использование интерактивных заданий, элементов смешанного обучения и системы регулярной обратной связи значительно повышает уровень успеваемости студентов. В конце статьи представлены практические рекомендации по улучшению качества дистанционного обучения английскому языку.

Ключевые слова: дистанционное обучение, английский язык, показатель успеваемости, LMS платформа, смешанное обучение, мотивация, цифровая компетентность, обратная связь.

KIRISH

So'nggi yillarda raqamli texnologiyalarning jadal rivojlanishi va pandemiya davrida yuzaga kelgan zarurat oliy ta'lim tizimida masofaviy o'qitish shakllarining keng joriy etilishiga sabab bo'ldi. Ingliz tili fani, xususan, amaliy ko'nikmalarni (og'zaki nutq, tinglab tushunish, yozma nutq) talab qiluvchi fan sifatida masofaviy ta'lim sharoitida bir qator metodik qiyinchiliklarni yuzaga keltiradi. An'anaviy auditoriya sharoitida qo'llaniladigan interfaol usullarni virtual muhitga moslashtirish, talabalarning mustaqil ishlash ko'nikmalarini rivojlantirish va o'qituvchi-talaba o'rtasidagi samarali qaytar aloqani ta'minlash dolzarb muammolardan biriga aylandi.

Xorijiy tadqiqotchilar (Warschauer, Healey, 1998; Bax, 2011; Hockly, 2015) kompyuter yordamida til o'rgatishning (CALL) samaradorligi texnologiyaning o'zidan emas, balki uni pedagogik jihatdan to'g'ri loyihalashtirishdan kelib chiqishini ta'kidlaydilar. O'zbek olimlari ham (Karimova, 2021; Yusupova, 2022; Rahimov, 2020) milliy ta'lim tizimi sharoitida masofaviy o'qitishning o'ziga xos jihatlari, jumladan talabalarning raqamli savodxonlik darajasi, internet infratuzilmasi va motivatsion omillarni tadqiq qilishgan.

Ushbu tadqiqotning maqsadi — ingliz tili fanini masofaviy ta'lim sharoitida o'qitishda talabalarning o'zlashtirish ko'rsatkichlarini oshirishga xizmat qiluvchi pedagogik-metodik omillarni aniqlash va ularning samaradorligini eksperimental tarzda asoslashdir.

Tadqiqot vazifalari quyidagilardan iborat: 1) masofaviy ta'lim sharoitida ingliz tili o'qitish jarayonining mavjud holatini tahlil qilish; 2) o'zlashtirish ko'rsatkichlariga ta'sir etuvchi asosiy omillarni aniqlash; 3) interfaol platformalar va aralash ta'lim elementlaridan foydalangan holda pedagogik eksperiment o'tkazish; 4) natijalarni statistik tahlil qilish va amaliy tavsiyalar ishlab chiqish.

TADQIQOT MATERIALLARI VA METODLARI

Tadqiqot 2024–2025 o'quv yilida oliy ta'lim muassasasining 2-kurs talabalari (n=64) ishtirokida olib borildi. Talabalar ikki guruhga bo'lindi: nazorat guruhi (n=32) an'anaviy masofaviy usulda (faqat video ma'ruzalar va yozma topshiriqlar orqali), tajriba guruhi (n=32) esa Moodle LMS platformasi asosida tashkil etilgan interfaol topshiriqlar, sinxron Zoom mashg'ulotlari, gamifikatsiya elementlari va muntazam individual qaytar aloqa tizimi asosida o'qitildi.

Tadqiqotda quyidagi metodlardan foydalanildi: pedagogik kuzatuv, so'rovnoma (Likert shkalasi asosida), pedagogik eksperiment (oldindan va keyingi test — pre-test/post-test dizayni), shuningdek olingan ma'lumotlarni statistik tahlil qilish uchun Student t-testi qo'llanildi. O'zlashtirish darajasi Umumevropa til kompetensiyalari (CEFR) mezonlariga mos test topshiriqlari orqali baholandi.

Eksperiment 14 hafta davom etdi. Har ikki guruhda ham dastur mazmuni bir xil bo'lib, farq faqat ta'lim texnologiyalari va metodik yondashuvda edi. Tajriba guruhida har bir mavzudan so'ng qisqa formativ testlar, video-fikr-mulohaza (video-feedback) va hamkorlikdagi loyihaviy topshiriqlar qo'llanildi.

NATIJALAR

Eksperiment boshida ikkala guruhning boshlang'ich bilim darajasi orasida statistik jihatdan sezilarli farq aniqlanmadi ($p>0,05$), bu esa guruhlarining boshlang'ich holati teng ekanligini tasdiqladi. Eksperiment yakunida o'tkazilgan yakuniy test natijalariga ko'ra, tajriba guruhida o'rtacha ball 62,4 dan 81,7 ballgacha (19,3 ballga) oshgan bo'lsa, nazorat guruhida bu ko'rsatkich 61,8 dan 69,2 ballgacha (7,4 ballga) o'sdi.

So'rovnoma natijalari shuni ko'rsatdiki, tajriba guruhi talabalarining 78 foizi interfaol topshiriqlar va muntazam qaytar aloqa ularning o'quv motivatsiyasini oshirganini qayd etdi. Shuningdek, mustaqil ishlash ko'nikmalari va vaqtni boshqarish borasida tajriba guruhi talabalar nazorat guruhiga nisbatan yuqori ko'rsatkichlarni namoyon etdi. Gamifikatsiya elementlari (ball to'plash tizimi, reyting jadvali) talabalar faolligini oshirishga ijobiy ta'sir ko'rsatgani aniqlandi.

Styudent t-testi natijalariga ko'ra guruhlar orasidagi farq statistik jihatdan ishonchli ekanligi tasdiqlandi ($t=6,42$; $p<0,01$), bu esa qo'llanilgan metodik yondashuvning yuqori samaradorligini ko'rsatadi.

MUHOKAMA

Olingan natijalar xorijiy tadqiqotchilarning (Hockly, 2015; Godwin-Jones, 2021) masofaviy til o'qitishda interfaollik va shaxsga yo'naltirilgan yondashuvning muhimligi haqidagi xulosalarini tasdiqlaydi. Shu bilan birga, tadqiqot davomida bir qator muammolar ham aniqlandi: internet aloqasining beqarorligi, ba'zi talabalarining raqamli vositalardan foydalanish ko'nikmalari yetarli emasligi hamda og'zaki nutq ko'nikmalarini masofaviy sharoitda rivojlantirishning nisbatan murakkabligi.

Bu natijalar shuni ko'rsatdiki, masofaviy ta'limning samaradorligi faqat texnik vositalarning mavjudligiga emas, balki ularning pedagogik jihatdan puxta loyihalashtirilgan metodika asosida qo'llanilishiga bog'liq (Bax, 2011). Shu sababli o'qituvchilarning raqamli pedagogik kompetensiyasini oshirish, kurs mazmunini interfaol formatda tayyorlash va talabalar bilan muntazam individual aloqani ta'minlash masofaviy ta'lim sifatini oshirishning asosiy sharti hisoblanadi.

XULOSA

O'tkazilgan tadqiqot natijalari shuni ko'rsatdiki, ingliz tili fanini masofaviy ta'lim sharoitida o'qitishda talabalarining o'zlashtirish ko'rsatkichlarini oshirish uchun quyidagi omillar muhim ahamiyatga ega: interfaol LMS platformalaridan tizimli foydalanish, aralash ta'lim elementlarini joriy etish, muntazam va sifatli qaytar aloqa mexanizmini ta'minlash hamda gamifikatsiya orqali talabalar motivatsiyasini oshirish. Tajriba guruhida qo'lga kiritilgan yuqori natijalar (o'rtacha o'zlashtirish ko'rsatkichining 19,3 ballga oshishi) taklif etilgan metodikaning amaliy samaradorligini isbotladi.

Kelgusida masofaviy ta'lim sifatini yanada oshirish uchun quyidagilar tavsiya etiladi: 1) o'qituvchilar uchun raqamli pedagogika bo'yicha malaka oshirish kurslarini tashkil etish; 2) og'zaki nutq ko'nikmalarini rivojlantirish uchun kichik guruhli video-suhbat mashg'ulotlarini ko'paytirish; 3) talabalarining o'zini o'zi baholash va mustaqil ishlash ko'nikmalarini rivojlantiruvchi topshiriqlar tizimini takomillashtirish; 4) ta'lim muassasalarida barqaror texnik infratuzilmani ta'minlash.

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THE APPLICATION AND THEORETICAL FOUNDATIONS OF ETHNOGRAPHISMS IN ENGLISH AND UZBEK LINGUISTICS

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Abstract. *Ethnographisms — lexical units denoting culture-bound realia such as dress, dwelling, kinship, ritual and social hierarchy — occupy a marginal position in general dictionaries yet a central one in translation and intercultural communication. This article examines the theoretical status of ethnographisms within English and Uzbek linguistic traditions and proposes an applied model for their lexicographic description. Drawing on a seven-field entry structure (headword, word class, thematic group, linguo-cultural commentary, English equivalent, illustrative example, source) and material excerpted from Abdulla Qodiriy's novels "O'tkan kunlar" and "Mehrobdan chayon", the study classifies ethnographisms into thematic domains and evaluates the translation strategies available for rendering them in English — transliteration, descriptive paraphrase, functional analogy and calque. The findings suggest that no single strategy is universally adequate; the choice depends on the communicative function of the text and the degree of cultural specificity of the referent. The article argues for treating ethnographisms as a distinct lexicological category rather than a subtype of realia in general, and it outlines the practical value of a bilingual ethnographic glossary for translators, lexicographers and literary scholars.*

Keywords: *ethnographism, realia, culture-specific vocabulary, lexicography, translation strategy, Uzbek linguistics, comparative linguistics, Abdulla Qodiriy.*

Annotatsiya. *Etnografizmlar — kiyim-kechak, turar joy, qarindoshlik munosabatlari, marosimlar va ijtimoiy iyerarxiya kabi muayyan madaniyatga xos realialarni ifodalovchi leksik birliklar bo'lib, umumiy lug'atlarda nisbatan cheklangan o'rin egallasa-da, tarjima va madaniyatlararo kommunikatsiyada muhim ahamiyatga ega. Mazkur maqolada ingliz va o'zbek tilshunosligi an'analari etnografizmlarning nazariy maqomi tadqiq etilib, ularni leksikografik tavsiflashning amaliy modeli taklif etiladi. Tadqiqotda yetti tarkibiy qismdan iborat lug'aviy maqola modeli (bosh so'z, so'z turkumi, tematik guruh, lingvomadaniy izoh, ingliz tilidagi ekvivalent, illyustrativ misol, manba) asosida Abdulla Qodiriyning "O'tkan kunlar" va "Mehrobdan chayon" romanlaridan olingan materiallar tahlil qilinadi. Etnografizmlar tematik sohalarga tasniflanib, ularni ingliz tiliga tarjima qilishda qo'llaniladigan transliteratsiya, tavsifiy perifraz, funksional analogiya va kalka usullari baholanadi. Natijalar shuni ko'rsatadiki, barcha holatlar uchun yagona tarjima strategiyasi maqbul emas; strategiyani tanlash matnning kommunikativ vazifasi va ifodalanayotgan realianing madaniy o'ziga xoslik darajasiga bog'liq. Maqolada etnografizmlarni umumiy realialarning bir turi sifatida emas, balki alohida leksikologik kategoriya sifatida qarash taklif etiladi hamda tarjimonlar, leksikograflar va adabiyotshunoslar uchun ikki tilli etnografik lug'atning amaliy ahamiyati yoritiladi.*

Kalit so'zlar: *etnografizm, realiya, madaniyatga xos leksika, leksikografiya, tarjima strategiyasi, o'zbek tilshunosligi, qiyosiy tilshunoslik, Abdulla Qodiriy.*

Аннотация. *Этнографизмы — лексические единицы, обозначающие реалии, характерные для определённой культуры, такие как одежда, жилище, родственные отношения, обряды и социальная иерархия. Несмотря на относительно ограниченное представление в общеупотребительных словарях, они занимают важное место в переводе и межкультурной коммуникации. В данной статье исследуется теоретический статус*

этнографизмов в английской и узбекской лингвистических традициях и предлагается практическая модель их лексикографического описания. В исследовании на основе семипольной структуры словарной статьи (заголовочное слово, часть речи, тематическая группа, лингвокультурологический комментарий, английский эквивалент, иллюстративный пример, источник) анализируется материал, отобранный из романов Абдуллы Кадыри «Минувшие дни» («O‘tkan kunlar») и «Скорпион из алтаря» («Mehrobdan chayon»). Этнографизмы классифицируются по тематическим областям, а также рассматриваются стратегии их передачи на английский язык, включая транслитерацию, описательную перифразу, функциональную аналогию и калькирование. Результаты показывают, что ни одна стратегия не является универсально применимой; её выбор зависит от коммуникативной функции текста и степени культурной специфичности обозначаемой реалии. В статье предлагается рассматривать этнографизмы как самостоятельную лексикологическую категорию, а не как разновидность реалий в широком понимании. Также обозначается практическая ценность двуязычного этнографического глоссария для переводчиков, лексикографов и исследователей художественной литературы.

Ключевые слова: этнографизм, реалия, культурно-специфическая лексика, лексикография, переводческая стратегия, узбекская лингвистика, сопоставительная лингвистика, Абдулла Кадыри.

INTRODUCTION

Every national language accumulates a layer of vocabulary that names objects, customs and social roles peculiar to the material and spiritual culture of its speakers. Such units are commonly discussed under the labels “realia”, “cultural words” or “ethnographisms”, depending on the linguistic school. In Slavic and Central Asian linguistic traditions the term ethnographism (etnografizm) is typically reserved for words that name elements of traditional everyday life — clothing, housing, food, kinship terms, titles and ritual practices — and that resist direct, one-word translation into a typologically distant language. In Anglo-American translation studies the closely related notion of “culture-specific items” or “cultural words” performs a similar function, though the theoretical boundaries between realia, exoticisms and ethnographisms are drawn differently across traditions.

The comparative study of ethnographisms in English and Uzbek is motivated by three considerations. First, Uzbek fiction of the late nineteenth and early twentieth centuries — most notably the historical prose of Abdulla Qodiriy — is densely populated with ethnographic vocabulary describing a way of life that has since changed or disappeared, making these texts a rich and finite corpus for lexicological analysis. Second, the growing volume of literary translation from Uzbek into English has exposed a persistent gap in bilingual lexicography: general-purpose dictionaries rarely provide adequate equivalents for culturally loaded items, leaving translators to improvise ad hoc solutions. Third, ethnographisms offer a useful test case for broader theoretical questions about lexical equivalence, untranslatability and the limits of componential analysis across unrelated language families.

This article pursues two aims: theoretically, it clarifies the place of ethnographisms within the broader category of culture-specific vocabulary and argues for their treatment as a discrete lexico-semantic class defined by referential, not merely stylistic, criteria. Practically, it presents and illustrates a seven-field lexicographic model designed to capture the semantic, grammatical, cultural and translational properties of ethnographisms drawn from Qodiriy’s “O‘tkan kunlar” and “Mehrobdan chayon”, with a view to their eventual compilation into a specialised English–Uzbek glossary.

MATERIALS AND METHODS

The primary material consists of ethnographic lexical units excerpted from two novels by Abdulla Qodiriy: “O‘tkan kunlar” (“Bygone Days”) and “Mehrobdan chayon” (“Scorpion from the Altar”). These works were selected because they are set in nineteenth-century Turkestan and describe domestic, social and ceremonial life in ethnographic detail, while also being the two Qodiriy novels

most frequently rendered into English, which allows existing translations to be consulted as a secondary point of comparison.

Lexical units were identified through continuous sampling of the source texts, retaining nouns and nominal phrases that denote culturally specific referents without a ready single-word equivalent in English. Each unit was then analysed according to a seven-field model: (1) headword, (2) part of speech, (3) thematic group, (4) linguo-cultural commentary explaining the referent and its cultural connotations, (5) a proposed English equivalent or translation strategy, (6) a verbatim example sentence quoted from the source novel, and (7) the source novel (abbreviated O.K. for “O‘tkan kunlar” and M.CH. for “Mehrobdan chayon”).

The study combines componential analysis, used to isolate the culturally specific semantic components of each headword, with comparative-contrastive analysis of the English and Uzbek lexical systems, used to establish the degree of equivalence achievable for each item. Translation strategies attested in the material were classified following the established typology of transliteration/transcription, calque, descriptive (explanatory) translation, functional analogy and hybrid solutions combining transliteration with a gloss.

RESULTS

The analysed ethnographisms cluster into a small number of recurrent thematic groups: clothing and personal adornment, dwelling and household objects, kinship and social hierarchy, ritual and ceremony, and food and hospitality. Table 1 illustrates the seven-field model with a representative sample of entries.

Table 1

Headword	Part of speech	Thematic group	Linguo-cultural commentary	English equivalent	Example (source text)	Source
chapan	noun	clothing / attire	a long, wadded, wrap-front coat traditionally worn by Central Asian men, often signalling age, rank or festivity	chapan (loanword) / quilted robe (descriptive)	... eskicha kiyingan, uzun cho‘zma yoqali chapan kiygan...	O.K.
paranji	noun	clothing / social custom	an outer veiling garment worn by women before the unveiling reforms; carries strong socio-historical connotation	paranji (loanword) / horsehair-veiled cloak	... paranji-chachvonini yopingan xotin...	O.K.
supa	noun	dwelling / household	a raised, often shaded platform in a courtyard used for sitting, eating or resting	supa (loanword) / raised courtyard platform	... hovlidagi supada choy ichib o‘tirishardi...	M.CH.
mahalla	noun	social organisation	a self-governing residential community unit with its own customs of	mahalla (loanword) / neighbourhood community	... mahalla oqsoqoli kelib...	O.K.

Headword	Part of speech	Thematic group	Linguo-cultural commentary	English equivalent	Example (source text)	Source
			mutual aid and conflict resolution			
oqsoqol	noun	titles / social hierarchy	an elected or informally recognised elder who mediates community affairs	oqsoqol (loanword) / community elder	... oqsoqol maslahat berdi...	M.CH.

Three patterns emerge from the classification. First, items denoting clothing and dwelling (chapan, paranji, supa) are almost invariably handled in existing English translations through direct borrowing, sometimes accompanied by a brief in-text gloss, because no functional equivalent exists in Anglophone material culture. Second, items denoting social hierarchy and organisation (mahalla, oqsoqol) admit both borrowing and functional analogy (“neighbourhood community”, “community elder”), with the choice depending on whether the translator prioritises cultural authenticity or reader accessibility. Third, no single strategy dominates across the whole ethnographic layer: the more central a referent is to a vanished way of life, the more translators favour borrowing over paraphrase, since a paraphrase risks domesticating a concept that the source text presents as unfamiliar even to modern Uzbek readers.

DISCUSSION

The results support treating ethnographisms as a category defined primarily by referential specificity rather than by register or literary function. Unlike historicisms, which are distinguished by their obsolescence, or exoticisms, which are distinguished by their foreignness to the recipient culture, ethnographisms are distinguished by naming a real, describable element of a people’s material or social life; a word may be simultaneously an ethnographism and a historicism, as is the case with paranji, whose referent has both a specific cultural form and a specific historical period of use.

From a translation-theoretical standpoint, the data confirm that equivalence for ethnographisms is rarely achieved at word level and is better modelled as a cline running from maximal source-orientation (borrowing, calque) to maximal target-orientation (functional analogy, generalisation). The seven-field entry structure proposed here operationalises this cline by requiring the lexicographer to record both a culturally faithful commentary and a translation proposal side by side, so that a translator can select the strategy appropriate to a given communicative situation — literary translation aimed at preserving foreignness, versus a pedagogical or tourist-oriented text aimed at immediate comprehensibility.

The findings also bear on Uzbek lexicography specifically. Existing Uzbek explanatory dictionaries record many ethnographisms but rarely provide translation equivalents, while bilingual English–Uzbek dictionaries tend to omit ethnographic vocabulary altogether as too narrowly cultural for general use. A dedicated ethnographic glossary compiled from literary sources such as Qodiriy’s novels would therefore fill a genuine gap between monolingual cultural lexicography and general bilingual lexicography, with direct applications in literary translation, translator training and the teaching of Uzbek culture to foreign learners.

The study has evident limitations. The material is restricted to two novels by a single author, which constrains the range of thematic groups represented and cannot capture regional or diachronic variation in ethnographic vocabulary across Uzbek dialects. The proposed English equivalents are illustrative rather than normative and would benefit from validation against a wider set of published literary translations and, where possible, native-speaker informant judgements.

CONCLUSION

Ethnographisms constitute a coherent and linguistically motivated category of culture-specific vocabulary that deserves systematic lexicographic treatment distinct from general bilingual dictionary practice. The seven-field model developed and illustrated in this article - headword, part of speech, thematic group, linguo-cultural commentary, English equivalent, example and source — offers a replicable format for documenting such vocabulary and for making explicit the translation strategies it requires. Applied to Abdulla Qodiriy's "O'tkan kunlar" and "Mehrobdan chayon", the model reveals that clothing, dwelling and social-hierarchy terms behave differently under translation, with borrowing dominating where no target-culture referent exists at all. Future research should extend the material to additional authors and genres, incorporate corpus-based frequency data, and test the proposed equivalents with professional translators and target-language readers in order to move from an illustrative to a fully validated bilingual ethnographic dictionary.

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A COMPARATIVE PILOT FRAMEWORK FOR MULTIMODAL METAPHOR IN ENGLISH AND UZBEK EDUCATIONAL DISCOURSE

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Abstract. This article develops and tests a compact comparative framework for analysing multimodal metaphor in English and Uzbek educational discourse. Its purpose is to show how verbal and visual modes jointly activate source-to-target mappings and how language-specific grammatical and cultural resources influence the realization of shared conceptual models. The study uses a qualitative contrastive design. A researcher-constructed pilot set of twelve paired educational-media scenarios was coded for target domain, source domain, verbal cue, visual cue, mode distribution, cross-modal relation, grammatical packaging, and cultural marking. The examples were designed around recurrent educational models such as EDUCATION IS A JOURNEY, KNOWLEDGE IS LIGHT, LEARNING IS GROWTH, and EDUCATION IS CONSTRUCTION; therefore, they test the analytical procedure rather than represent population frequencies. The results show substantial conceptual overlap between English and Uzbek, but systematic differences in linguistic packaging and cultural salience. English scenarios favour compact noun phrases, compounds, slogans, and visually autonomous symbols, whereas Uzbek scenarios more often employ possessive-predicative constructions, derivational morphology, and culturally resonant images such as *yo'l* (road), *poydevor* (foundation), *nur* (light), and *ko'ngil/yurak* (inner self/heart). The visual mode usually specifies the source domain, while the verbal mode anchors the educational target and guides

interpretation. The proposed framework separates conceptual equivalence from modal and linguistic equivalence and offers a replicable basis for future corpus studies of English-Uzbek social-media communication.

Keywords: multimodal metaphor, English, Uzbek, educational discourse, contrastive linguistics, visual mode.

Аннотация. В статье разрабатывается и апробируется компактная сопоставительная модель анализа мультимодальной метафоры в англоязычном и узбекоязычном образовательном дискурсе. Цель исследования — показать, как вербальный и визуальный модусы совместно активизируют перенос признаков из сферы-источника в сферу-цель и как языковые и культурные ресурсы влияют на выражение общих концептуальных моделей. Применён качественный контрастивный метод. Составлена экспериментальная выборка из двенадцати парных сценариев образовательных медиатекстов; каждый пример кодировался по сферам источника и цели, вербальным и визуальным маркерам, распределению модусов, межмодальной связи, грамматическому оформлению и культурной маркированности. Материал построен вокруг моделей ОБРАЗОВАНИЕ — ПУТЕШЕСТВИЕ, ЗНАНИЕ — СВЕТ, ОБУЧЕНИЕ — РОСТ и ОБРАЗОВАНИЕ — СТРОИТЕЛЬСТВО, поэтому результаты проверяют аналитическую процедуру, а не отражают частотность в генеральной совокупности. Выявлено значительное концептуальное сходство при различиях в языковом оформлении: английские примеры тяготеют к компактным именным группам, сложным словам и слога-нам, а узбекские — к аффиксации, посессивно-предикативным формам и культурно значимым образам *yo'l*, *poydevor*, *nur*, *ko'ngil/yurak*. Визуальный модус преимущественно задаёт сферу-источник, а вербальный называет образовательную цель и ограничивает интерпретацию. Предложенная модель разграничивает концептуальную, модальную и языковую эквивалентность.

Ключевые слова: мультимодальная метафора, английский язык, узбекский язык, образовательный дискурс, сопоставительная лингвистика, визуальный модус.

Annotatsiya. Maqolada ingliz va o'zbek ta'lim diskursidagi multimodal metaforalarni tahlil qilish uchun ixcham qiyosiy model ishlab chiqiladi va sinovdan o'tkaziladi. Tadqiqotning maqsadi verbal hamda vizual moduslarning manba sohadan maqsad sohaga proyeksiyani birgalikda qanday faollashtirishini, shuningdek, tilga va madaniyatga xos vositalar umumiy konseptual modellar ifodasiga qanday ta'sir qilishini ko'rsatishdir. Si-fatga asoslangan qiyosiy-kontrastiv usul qo'llanildi. Ta'limga oid media matnlarning tadqiqotchi tomonidan tuzilgan o'n ikki juft tajriba ssenariysi maqsad sohasi, manba sohasi, verbal va vizual ko'rsatkichlar, moduslarning taqsimlanishi, moduslararo munosabat, grammatik shakllanish hamda madaniy xoslanish mezonlari bo'yicha kodlandi. Misollar TA'LIM — SAYOHAT, BILIM — YORUG'LIK, O'RGANISH — O'SISH va TA'LIM — QURILISH kabi muntazam modellarga tayangan; shu sababli natijalar ommaviy chastotani emas, tahlil ja-rayonining ishlashini ko'rsatadi. Natijalar ikki tilda konseptual umumiylik kuchli ekanini, biroq lingvistik shakllanish va madaniy salohiyatda tizimli farqlar mavjudligini ko'rsatdi. Inglizcha ssenariylarda ixcham ot birikmalari, qo'shma so'zlar, shiorlar va mustaqil vizual ramzlar ustun bo'lsa, o'zbekcha ssenariylarda egalik-predikativ qurilmalar, derivatsion vositalar hamda *yo'l*, *poydevor*, *nur* va *ko'ngil/yurak* kabi madaniy jihatdan faol obrazlar ko'proq namoyon bo'ladi. Vizual modus odatda manba sohani aniqlashtiradi, verbal modus esa ta'limiy maqsadni nomlab, talqinni yo'naltiradi. Model kelgusidagi korpus tadqiqotlariga asos bo'la oladi.

Kalit so'zlar: multimodal metafora, ingliz tili, o'zbek tili, ta'lim diskursi, qiyosiy tilshunoslik, vizual modus.

INTRODUCTION

Metaphor is not restricted to decorative language. In conceptual metaphor theory, it is understood as a systematic mapping through which a relatively concrete source domain organizes a more abstract target domain (Lakoff and Johnson, 1980). This view has made it possible to study metaphor not only in words but also in pictures, gesture, sound, typography, spatial arrangement, and combinations of modes. Forceville (2006) defines a multimodal metaphor as one in which the target,

source, or features to be mapped are represented or cued in at least two different sign systems. Thus, a photograph of a road combined with the words *Begin your learning journey* is not merely an illustrated sentence: the road is visually presented, education is verbally anchored, and their interaction realizes *EDUCATION IS A JOURNEY*.

Digital educational communication is a productive environment for such interaction. Universities, schools, training centres, and public agencies regularly combine short captions with photographs, icons, colour, layout, and animation. These compositions compress complex claims: education opens doors, knowledge illuminates, learners grow, teachers build futures, and institutions provide pathways. The metaphor is often incomplete in either mode alone. An image of a key may be ambiguous, while the caption *Unlock your potential* selects ability or education as the target. Conversely, a conventional phrase may become more vivid when the visual mode materially depicts a lock opening onto a campus.

Research on pictorial and multimodal metaphor has established that meaning depends on conceptual mapping, formal organization, genre, and context (El Refaie, 2003; Forceville and Urios-Aparisi, 2009; Pérez-Sobrino, 2016). Social-semiotic analysis additionally explains how salience, framing, gaze, information value, and colour organize visual meaning (Kress and van Leeuwen, 2006). However, English-Uzbek comparison remains insufficiently operationalized. A shared conceptual label does not guarantee equivalent expression. English is comparatively analytic and frequently packages promotional meanings in noun compounds and compressed imperatives. Uzbek, an agglutinative language, can distribute stance and person relations through suffixes, possessive marking, and predicative forms. Cultural conventionality also affects which source images are immediately interpretable.

The study asks three questions: (1) Which conceptual models can be represented comparably in English and Uzbek educational media? (2) How are source and target domains distributed across verbal and visual modes? (3) Which grammatical and cultural resources create language-specific realizations? The aim is not to claim corpus frequencies from a small artificial set, but to validate a transparent coding framework that can later be applied to authentic comparable corpora.

MATERIALS AND METHODS

The research follows a qualitative comparative-contrastive design. The material is a researcher-constructed pilot set of twelve paired scenarios (twelve English and twelve Uzbek realizations). Each pair represents the same broad communicative purpose, such as inviting applications, encouraging persistence, presenting institutional development, or celebrating graduation. Constructed scenarios were chosen at this stage to control the target concept and test whether the coding categories discriminate between conceptual similarity and formal difference. They are analytical prompts, not quotations from universities and not evidence of real-world prevalence. This limitation is important: the pilot supports methodological refinement, while a later study must sample dated posts from identified official accounts and report frequency and intercoder agreement.

The set covers four models, with three paired scenarios for each: *EDUCATION IS A JOURNEY*, *KNOWLEDGE IS LIGHT*, *LEARNING IS GROWTH*, and *EDUCATION IS CONSTRUCTION*. These models were selected because their source domains are concrete enough to be visualized and their educational targets are conventional enough to support cross-linguistic comparison. Typical controlled cues included a road or footsteps, a lamp or sunrise, a seedling or tree, and bricks or a foundation. The verbal components included English constructions such as *learning pathway*, *bright future*, *grow your skills*, and *build your future*, alongside Uzbek constructions such as *ta'lim yo'li*, *bilim nuri*, *bilimingizni rivojlantiring*, and *kelajak poydevorini yarating*.

Identification proceeded in five stages. First, the analyst established the contextual target: education, knowledge, learning, learner development, or future achievement. Second, potentially incongruous source-domain material was located in the words and image. Third, a mapping was formulated as *TARGET IS SOURCE* and expressed through correspondences rather than superficial resemblance. For example, a route has a starting point, direction, obstacles, stages, and destination;

these properties can structure learning as enrolment, guidance, difficulty, progression, and graduation. Fourth, the modes realizing source and target were coded. Fifth, linguistic packaging and culturally salient cues were recorded.

The coding sheet contained eight fields: (1) target domain; (2) source domain; (3) verbal cue; (4) visual cue; (5) mode configuration; (6) intermodal relation; (7) grammatical packaging; and (8) cultural marking. Mode configuration was classified as V→I when the source was mainly verbal and the target visual, I→V when the source was mainly visual and the target verbal, or V+I when both domains were jointly cued across modes. Intermodal relations were classified as an-choring, reinforcement, elaboration, or productive tension. Anchoring narrows an ambiguous im-age; reinforcement repeats the same mapping; elaboration adds source-domain properties; produc-tive tension creates a deliberately unexpected relation.

Analysis combined conceptual-metaphor interpretation with visual grammar. Salience was evaluated through size, contrast, focus, and placement; framing indicated whether elements were presented as integrated or separate; vectors and perspective suggested movement, direction, or viewer involvement (Kress and van Leeuwen, 2006). Linguistic comparison examined compound-ing, modification, imperative clauses, affixation, possessive marking, and predicative construc-tions. Cultural marking was coded only when a cue had a plausible language-community associa-tion and was not automatically inferred from translation. For example, yo‘l is productive in Uzbek expressions of life direction and development, but its presence alone does not make every road image uniquely Uzbek.

To increase procedural reliability, each scenario was coded twice after a one-week interval, and disagreements were resolved by revisiting the explicit domain and mode criteria. This within-coder check cannot replace independent intercoder reliability, but it exposes unstable categories before larger-scale annotation. The unit of analysis was the whole post-like composition rather than the sentence or image in isolation.

RESULTS AND DISCUSSION

The pilot confirms that conceptual correspondence and semiotic correspondence must be treated separately. All four models could be instantiated in both languages, demonstrating broad conceptual comparability. Yet equivalent mappings were not necessarily cued by equivalent grammar, visual autonomy, or cultural resonance. The most stable relation was between the road image and education as staged progress. The least stable was LEARNING IS GROWTH, because a plant can signal institutional expansion, personal maturity, ecological values, or knowledge accu-mulation unless the verbal text anchors the intended target.

Table 1. Comparative realization of four pilot models

Model	English tendency	Uzbek tendency	Modal function
EDUCATION IS A JOURNEY	pathway, step forward;	compact nouns	ta’lim yo’li,
yo‘ldan borish;	possessive forms	Road supplies stages and direction	
KNOWLEDGE IS LIGHT	bright future, illuminate ideas	bilim nuri, ma’rifat ziy-osi	
Light adds value, clari-ty, hope			
LEARNING IS GROWTH	grow skills, learning ecosystem	bilimni	rivojlantirmoq,
kamol topmoq	Plant image depicts gradual change		
EDUCATION IS CONSTRUCTION	build skills/future, foundation	ta’lim	
poydevori, ke-lajakni qurmoq	Structure cues stability and agency		

In English realizations, compression was prominent. Noun compounds and attributive groups—learning pathway, knowledge gateway, future-ready skills—allow source and target cues to occupy a small caption. Imperatives such as Build your future or Grow your potential leave the educational agent implicit and address the viewer directly. Because the slogan is semantically compact, the image often carries much of the source-domain detail: steps become levels of study, a key becomes access, or a seedling becomes developing competence. The visual can therefore operate relatively autonomously while the caption provides a memorable action frame.

Uzbek realizations preserved the same mappings but often made interpersonal and relational meanings more explicit. Possessive and person markers in forms such as *kelajagingiz*, *bilimingiz*, and *yo‘lingiz* connect the target directly to the addressee. Derivational and verbal constructions can unfold the change process: *rivojlanmoq* and *rivojlantirmoq* distinguish developing from causing development; *yoritmoq* profiles illumination as an action; *poydevor yaratmoq* pre-sents the foundation as an intentional result. These are not merely longer translations of English slogans. They redistribute agency, ownership, and process within the clause.

The cultural findings require caution. *Yo‘l* and *poydevor* are readily available in both English and Uzbek metaphor systems, so difference lies in conventional combinations and pragmatic force rather than exclusive ownership. *Nur/ziyo* can connect knowledge with enlightenment and moral-intellectual value, while *ko‘ngil* and *yurak* can localize motivation, sincerity, or inner development more richly than a literal one-to-one use of English heart. A visual heart paired with *ta’limga mehr* may therefore activate affection and commitment, whereas follow your heart foregrounds personal choice. The conceptual domains overlap, but the culturally preferred inferences diverge.

Across the pilot set, the visual source plus verbal target (I→V) was the clearest configuration. When both modes independently repeated the same mapping, reinforcement increased accessibility but sometimes reduced interpretive richness. Elaboration was more analytically valuable: a winding road added difficulty and persistence to a caption about progress; several bricks labelled with skills decomposed the foundation metaphor into components. These observations support El Refaie’s (2003) argument that visual metaphor cannot be explained through formal substitution alone. Context and mode-specific affordances determine which properties are transferred.

A further result concerns asymmetry in translation. If an English caption is transferred word for word while its original image is retained, the conceptual mapping may remain intelligible but the pragmatic effect can change. Unlock your potential combined with a key is concise and conventional in English; a literal Uzbek equivalent may be understandable, yet *imkoniyatlaringiz-ni ro‘yobga chiqaring* or a context-sensitive formulation may sound more idiomatic even though it weakens the lock mechanism. Conversely, *bilim nuri* maps smoothly onto knowledge as light, but the light of knowledge may sound elevated or literary in an English institutional post. Multi-modal translation must therefore coordinate metaphor conventionality, register, grammar, and image, rather than treating the caption as an isolated verbal string.

The framework also clarifies the boundary between monomodal and multimodal metaphor. A metaphoric phrase accompanied by a merely decorative photograph is not automatically multi-modal. Both modes must contribute to the source-target relation or to the selection of mapped features. Likewise, a picture containing both domains can be monomodal pictorial metaphor if the verbal caption does not participate in the mapping. This distinction prevents over-identification and is essential when building an annotated corpus.

For a full study, authentic English and Uzbek posts should be collected from comparable institutional types, platforms, periods, and communicative functions. Sampling must control differences in audience size, campaign genre, and platform affordances. Annotation should be conducted by at least two trained coders; agreement can be calculated for metaphor presence, domain labels, mode configuration, and intermodal relation. Frequency data should then be normalized by the number of posts or visual-verbal units. The present pilot categories provide the codebook architecture for that next stage.

CONCLUSION

This study proposed a comparative procedure for English-Uzbek multimodal metaphor and tested it on a controlled set of educational-media scenarios. The analysis demonstrates that shared conceptual models do not entail identical multimodal realizations. English tends toward compressed noun groups, compounds, direct imperatives, and images that carry source-domain structure with limited verbal explanation. Uzbek tends to exploit agglutinative morphology, possessive-predicative relations, and culturally resonant lexical images that can foreground belonging, process, and moral-

intellectual value. In both languages, the visual mode commonly supplies the concrete source while the verbal mode anchors the educational target; nevertheless, anchoring, reinforcement, elaboration, and productive tension create different degrees of interpretive work.

The main methodological contribution is the separation of three levels of equivalence: conceptual equivalence (the same source-target model), modal equivalence (the same distribution across image and language), and linguistic-cultural equivalence (comparable grammatical and pragmatic effects). This distinction makes it possible to describe partial correspondence without forcing literal translation. The pilot is limited by its small, constructed sample and single-analyst coding, so its findings are procedural rather than statistical. Even so, it supplies a transparent foundation for a comparable corpus of authentic English and Uzbek educational social-media posts and for research on culturally appropriate multimodal translation and institutional communication.

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STEM TA'LIM YO'NALISHIDA INGLIZ TILINI O'QITISHNING INTEGRATSIYALASHGAN METODIKASI

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Annotatsiya. Ushbu maqolada STEM (Science, Technology, Engineering, Mathematics) yo'nalishida ta'lim olayotgan talabalarga ingliz tilini o'qitishning integratsiyalashgan (mazmun va til birgalikda o'qitiladigan — CLIL) metodikasi tahlil qilingan. Tadqiqotda til va fan mazmunini birlashtirgan mashg'ulotlar, terminologik leksikani o'zlashtirish strategiyalari hamda loyihaviy-amaliy topshiriqlarning talabalar til va fan kompetensiyalariga ta'siri o'rganildi. Pedagogik eksperiment natijalari integratsiyalashgan yondashuvning an'anaviy usulga nisbatan ham til, ham fan bo'yicha o'zlashtirish ko'rsatkichlarini sezilarli darajada oshirishini isbotladi. Maqola yakunida STEM yo'nalishlarida ingliz tilini samarali o'qitish bo'yicha amaliy tavsiyalar berilgan.

Kalit so'zlar: STEM ta'lim, ingliz tili, integratsiyalashgan o'qitish, CLIL, terminologik leksika, loyihaviy o'qitish, fanlararo bog'liqlik, kasbiy yo'naltirilgan til.

Annotation. This article analyzes the integrated methodology (Content and Language Integrated Learning — CLIL) of teaching English to students majoring in STEM (Science, Technology, Engineering, Mathematics) fields. The study examines lessons that combine language and subject content, strategies for acquiring technical terminology, and the impact of project-based practical tasks on students' language and subject competencies. The results of a pedagogical experiment prove that the integrated approach significantly increases both language and subject-matter achievement compared to the traditional method. The article concludes with practical recommendations for effectively teaching English within STEM programs.

Keywords: STEM education, English language, integrated learning, CLIL, technical terminology, project-based learning, interdisciplinary connection, English for specific purposes.

Аннотация. В данной статье анализируется интегрированная методика (предметно-языковое интегрированное обучение — CLIL) преподавания английского языка студентам, обучающимся по направлениям STEM (наука, технологии, инженерия, математика). В исследовании изучены занятия, объединяющие языковое и предметное содержание, стратегии усвоения терминологической лексики, а также влияние проектно-практических заданий на языковую и предметную компетентность студентов. Результаты педагогического эксперимента доказали, что интегрированный подход значительно повышает показатели успеваемости как по языку, так и по предмету по сравнению с традиционным методом. В конце статьи представлены практические рекомендации по эффективному преподаванию английского языка в рамках направлений STEM.

Ключевые слова: STEM-образование, английский язык, интегрированное обучение, CLIL, терминологическая лексика, проектное обучение, междисциплинарная связь, английский язык для специальных целей.

KIRISH

Zamonaviy jahon ta'lim tizimida STEM yo'nalishlari — aniq va tabiiy fanlar, texnologiya, muhandislik va matematika — innovatsion iqtisodiyotni shakllantirishning asosiy omili sifatida e'tirof etilmoqda. Ushbu yo'nalishlarda tahsil olayotgan talabalar uchun ingliz tili nafaq umumiy muloqot vositasi, balki xalqaro ilmiy-texnik adabiyotlarni o'qish, tadqiqot natijalarini taqdim etish va global loyihalarda ishtirok etish uchun zaruriy kasbiy vositadir. Shu sababli STEM yo'nalishlarida ingliz tilini alohida, umumlashtirilgan fan sifatida emas, balki fan mazmuni bilan uzviy bog'liq holda o'qitish g'oyasi — Content and Language Integrated Learning (CLIL) — dolzarb metodik yondashuvga aylanmoqda.

Xorijiy tadqiqotchilar (Coyle, Hood & Marsh, 2010; Dalton-Puffer, 2011; Mehisto, Marsh & Frigols, 2008) CLIL metodikasining ikki tomonlama — ham til, ham fan bo'yicha — samaradorligini ko'rsatib berishgan. O'zbek olimlari (Nazarova, 2022; G'aniyev, 2021; Sattorova, 2020) esa milliy oliy ta'lim tizimida texnik va muhandislik yo'nalishlarida kasbiy yo'naltirilgan ingliz tilini (ESP) o'qitishning metodik asoslarini tadqiq qilishgan.

Tadqiqotning maqsadi — STEM yo'nalishi talabalari uchun ingliz tili va fan mazmunini integratsiyalashgan holda o'qitish metodikasini ishlab chiqish va uning samaradorligini eksperimental tarzda asoslashdir.

Tadqiqot vazifalari: 1) STEM yo'nalishlarida ingliz tili o'qitishning mavjud holati va muammolarini tahlil qilish; 2) CLIL metodikasi asosida integratsiyalashgan darslar tizimini ishlab chiqish; 3) terminologik leksika va loyihaviy topshiriqlarning o'zlashtirishga ta'sirini eksperimental tekshirish; 4) natijalarni statistik tahlil qilib, amaliy tavsiyalar shakllantirish.

TADQIQOT MATERIALLARI VA METODLARI

Tadqiqot 2024–2025 o'quv yilida texnika yo'nalishidagi oliy ta'lim muassasasining 2-bosqich talabalari (n=58, muhandislik va axborot texnologiyalari yo'nalishlari) ishtirokida olib borildi. Talabalar tajriba guruhi (n=29) va nazorat guruhiga (n=29) bo'lindi. Nazorat guruhida ingliz tili an'anaviy umumiy dastur asosida, mustaqil fan sifatida o'qitildi. Tajriba guruhida esa CLIL metodikasi asosida ishlab chiqilgan integratsiyalashgan dastur qo'llanildi: mashg'ulotlar mazmuni talabalar egallayotgan mutaxassislik fanlari (dasturlash, matematik modellash, muhandislik chizmachiligi) mavzulari bilan uyg'unlashtirildi.

Tajriba guruhida quyidagi metodik vositalardan foydalanildi: ikki tilli (fan-til) glossariylar, STEM mavzularidagi autentik matnlar va videomateriallar, laboratoriya va loyihaviy topshiriqlarni ingliz tilida taqdim etish (presentation), fanlararo integratsiyalashgan case-study'lar. Tadqiqotda pedagogik kuzatuv, so'rovnoma, pre-test/post-test eksperiment dizayni hamda Student t-testi statistik metodi qo'llanildi. Til bo'yicha o'zlashtirish CEFR mezonlari asosida, fan bo'yicha o'zlashtirish esa mutaxassislik kafedra ishlab chiqqan test topshiriqlari asosida baholandi.

Eksperiment 15 hafta davom etdi, dastur mazmuni har ikki guruhda bir xil bo'lib, farq faqat o'qitish metodikasida bo'ldi.

NATIJALAR

Eksperiment boshida ikkala guruhning til va fan bo'yicha boshlang'ich ko'rsatkichlari orasida statistik jihatdan sezilarli farq aniqlanmadi ($p > 0,05$). Eksperiment yakunidagi natijalarga ko'ra, tajriba guruhida ingliz tili bo'yicha o'rtacha ball 58,6 dan 79,4 ballgacha (20,8 ballga), fan bo'yicha esa 64,1 dan 80,3 ballgacha (16,2 ballga) oshdi. Nazorat guruhida esa til bo'yicha ko'rsatkich 57,9 dan 66,5 ballgacha (8,6 ballga), fan bo'yicha 63,7 dan 70,9 ballgacha (7,2 ballga) o'sdi.

So'rovnomaga natijalariga ko'ra tajriba guruhi talabalarining 82 foizi integratsiyalashgan darslar ularga mutaxassislik terminologiyasini yaxshiroq o'zlashtirishga yordam berganini, 75 foizi esa ingliz tilida kasbiy matnlarni o'qish va taqdimot qilish borasidagi ishonchlari oshganini qayd etishdi. Shuningdek, loyihaviy topshiriqlar talabalarining nafaqat lug'at boyligini, balki tanqidiy fikrlash va jamoaviy ishlash ko'nikmalarini ham rivojlantirgani kuzatildi.

Styudent t-testi natijalariga ko'ra guruhlar orasidagi farq statistik jihatdan ishonchli ekanligi aniqlandi (til bo'yicha $t=6,84$; $p < 0,01$; fan bo'yicha $t=5,17$; $p < 0,01$), bu esa CLIL asosidagi integratsiyalashgan metodikaning yuqori samaradorligini tasdiqlaydi.

MUHOKAMA

Olingan natijalar xorijiy tadqiqotchilarning (Coyle, Hood & Marsh, 2010; Dalton-Puffer, 2011) CLIL metodikasi til va fan bo'yicha bir vaqtning o'zida yuqori natijalarga erishishga imkon berishi haqidagi xulosalarini tasdiqlaydi. Shu bilan birga, tadqiqot jarayonida bir qator qiyinchiliklar ham aniqlandi: o'qituvchilarning ikki yo'nalish (til va fan) bo'yicha yetarli tayyorgarlikka ega emasligi, integratsiyalashgan dars materiallarini ishlab chiqish uchun ko'p vaqt talab etilishi hamda mutaxassislik kafedralari bilan hamkorlikni tashkil etishdagi murakkabliklar.

Mehisto, Marsh va Frigols (2008) ta'kidlaganidek, CLIL metodikasining samaradorligi o'qituvchi va mutaxassis o'qituvchilar o'rtasidagi hamkorlikka, shuningdek dars materiallarining aniq kognitiv va lingvistik maqsadlar asosida loyihalashtirilishiga bog'liq. Bu O'zbekiston oliy ta'lim tizimida STEM yo'nalishlarida ingliz tili o'qituvchilarini mutaxassislik fanlari bo'yicha malaka oshirish zaruratini yana bir bor ko'rsatadi.

XULOSA

O'tkazilgan tadqiqot STEM yo'nalishi talabalari uchun ingliz tilini fan mazmuni bilan integratsiyalashgan holda o'qitish metodikasi an'anaviy usulga nisbatan ham til, ham mutaxassislik bo'yicha o'zlashtirish ko'rsatkichlarini sezilarli darajada oshirishini ko'rsatdi. Terminologik glossariylar, autentik STEM matnlari va loyihaviy-amaliy topshiriqlardan foydalanish talabalarining kasbiy yo'naltirilgan til kompetensiyasini shakllantirishda muhim rol o'ynaydi.

Kelgusida quyidagilar tavsiya etiladi: 1) STEM yo'nalishlari uchun ingliz tili o'qituvchilarini mutaxassislik fanlari asoslaridan xabardor qilish maqsadida malaka oshirish kurslarini tashkil etish; 2) til va mutaxassislik kafedralari o'rtasida integratsiyalashgan dastur va materiallarni birgalikda ishlab chiqish amaliyotini yo'lga qo'yish; 3) baholash tizimiga til va fan kompetensiyalarini birgalikda o'lchovchi mezonlarni joriy etish; 4) talabalar uchun ingliz tilida STEM loyihalari va konferensiyalarda ishtirok etish imkoniyatlarini kengaytirish.

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INGLIZ TILI DARSLARIDA AUTENTIK MATERIALLARDAN (FILMLAR, PODKASTLAR) FOYDALANISH SAMARADORLIGI

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Annotatsiya. Ushbu maqolada ingliz tili darslarida autentik materiallar — badiiy va hujjatli filmlar, podkastlar — dan foydalanishning talabalarning tinglab tushunish, lug'at boyligi va nutqiy ravonlik ko'nikmalariga ta'siri tahlil qilingan. Tadqiqotda autentik audiovizual materiallar asosida tuzilgan mashg'ulotlar tizimi ishlab chiqilib, uning an'anaviy darslik matnlariga asoslangan usulga nisbatan samaradorligi eksperimental tarzda tekshirildi. Natijalar autentik materiallardan tizimli va metodik jihatdan to'g'ri foydalanish talabalarning tinglab tushunish qobiliyati, real muloqot vaziyatlariga moslashuvi va til o'rganishga bo'lgan qiziqishini sezilarli darajada oshirishini ko'rsatdi. Maqola so'ngida autentik materiallarni dars jarayoniga samarali joriy etish bo'yicha amaliy tavsiyalar keltirilgan.

Kalit so'zlar: autentik material, ingliz tili, film, podkast, tinglab tushunish, nutqiy ravonlik, lug'at boyligi, motivatsiya.

Annotation. This article analyzes the impact of using authentic materials — feature and documentary films, podcasts — in English language lessons on students' listening comprehension, vocabulary range, and speaking fluency. The study developed a system of lessons based on authentic audiovisual materials and experimentally examined its effectiveness compared to the traditional textbook-based method. The results show that the systematic and methodologically sound use of authentic materials significantly improves students' listening comprehension ability, adaptability to real communicative situations, and interest in language learning. The article concludes with practical recommendations for effectively integrating authentic materials into the lesson process.

Keywords: authentic material, English language, film, podcast, listening comprehension, speaking fluency, vocabulary, motivation.

Аннотация. В данной статье анализируется влияние использования аутентичных материалов — художественных и документальных фильмов, подкастов — на занятиях по английскому языку на навыки аудирования, словарный запас и беглость речи студентов. В исследовании разработана система занятий на основе аутентичных аудиовизуальных материалов, экспериментально проверена её эффективность по сравнению с традиционным методом, основанным на текстах учебника. Результаты показали, что систематическое и методически грамотное использование аутентичных материалов значительно повышает способность студентов к пониманию речи на слух, адаптацию к реальным коммуникативным ситуациям и интерес к изучению языка. В конце статьи приведены практические рекомендации по эффективному внедрению аутентичных материалов в учебный процесс.

Ключевые слова: аутентичный материал, английский язык, фильм, подкаст, аудирование, беглость речи, словарный запас, мотивация.

KIRISH

Chet tilini o'qitishning zamonaviy metodikasida talabalarni nafaqat grammatik qoidalar va darslik matnlari bilan, balki tilning jonli, tabiiy muhitda qanday qo'llanilishi bilan tanishtirish muhim ahamiyat kasb etadi. Darslik uchun maxsus soddalashtirilgan matnlardan farqli o'laroq, autentik materiallar — ona tilida so'zlashuvchilar uchun yaratilgan filmlar, podkastlar, yangiliklar va boshqa media mahsulotlar — tilning tabiiy intonatsiyasi, so'zlashuv lug'ati, madaniy kontekst va real muloqot vaziyatlarini o'zida mujassam etadi.

Xorijiy tadqiqotchilar (Gilmore, 2007; Richards, 2001; Rogerson-Revell, 2015) autentik materiallarning til o'rganuvchilarni real til muhitiga tayyorlashdagi ahamiyatini alohida ta'kidlaydilar, biroq ularni to'g'ri tanlash va pedagogik jihatdan moslashtirish zarurligini ham qayd etishadi. O'zbek metodistlari (Xolmatova, 2022; Sodiqova, 2021; Ne'matov, 2020) esa mahalliy ta'lim sharoitida autentik materiallardan foydalanishning amaliy jihatlarini, jumladan talabalar tayyorgarlik darajasiga mos material tanlash muammosini tadqiq qilishgan.

Tadqiqotning maqsadi — ingliz tili darslarida filmlar va podkastlar kabi autentik materiallardan foydalanishning talabalarining tinglab tushunish va nutqiy ko'nikmalariga ta'sirini aniqlash va uning samaradorligini eksperimental tarzda asoslashdir.

Tadqiqot vazifalari: 1) autentik materiallardan foydalanishning nazariy-metodik asoslarini tahlil qilish; 2) filmlar va podkastlar asosida darslar tizimini (pre-, while-, post-watching/listening bosqichlari asosida) ishlab chiqish; 3) pedagogik eksperiment o'tkazib, natijalarni statistik tahlil qilish; 4) amaliy tavsiyalar shakllantirish.

TADQIQOT MATERIALLARI VA METODLARI

Tadqiqot 2024–2025 o'quv yilida oliy ta'lim muassasasi filologiya yo'nalishi 2-kurs talabalari (n=60) ishtirokida olib borildi. Talabalar tajriba guruhi (n=30) va nazorat guruhiga (n=30) bo'lindi. Nazorat guruhida darslar an'anaviy darslik matnlari va audio mashqlari asosida tashkil etildi. Tajriba guruhida esa har hafta qisqa metrajli filmlar parchalari, hujjatli filmlar va turli mavzudagi podkastlar (ijtimoiy, ilmiy-ommabop, madaniy mavzularda) asosida tuzilgan maxsus dars tizimi qo'llanildi.

Har bir mashg'ulot uch bosqichda tashkil etildi: tomosha/tinglashdan oldingi (pre-watching/listening) — lug'at va kontekstga tayyorgarlik; tomosha/tinglash davomidagi (while-watching/listening) — asosiy g'oyani va tafsilotlarni aniqlash topshiriqlari; tomosha/tinglashdan keyingi (post-watching/listening) — muhokama, rolli o'yinlar va yozma ijodiy topshiriqlar. Tadqiqotda pedagogik kuzatuv, so'rovnoma, pre-test/post-test eksperiment dizayni va Styudent t-testi statistik metodi qo'llanildi. Tinglab tushunish va nutqiy ko'nikmalar CEFR mezonlariga mos standartlashtirilgan testlar orqali baholandi.

Eksperiment 12 hafta davom etdi, ikkala guruhda ham dastur mavzulari bir xil bo'lib, farq faqat qo'llanilgan material turi va metodikasida bo'ldi.

NATIJALAR

Eksperiment boshida ikkala guruhning tinglab tushunish va nutqiy ko'rsatkichlari orasida statistik jihatdan sezilarli farq aniqlanmadi ($p > 0,05$). Eksperiment yakunida tajriba guruhida tinglab tushunish bo'yicha o'rtacha ball 56,3 dan 78,9 ballgacha (22,6 ballga), nutqiy ravonlik bo'yicha esa 54,7 dan 74,2 ballgacha (19,5 ballga) oshdi. Nazorat guruhida tinglab tushunish ko'rsatkichi 55,8 dan 64,1 ballgacha (8,3 ballga), nutqiy ravonlik esa 55,1 dan 62,4 ballgacha (7,3 ballga) o'sdi.

So'rovnoma natijalariga ko'ra tajriba guruhi talabalarining 85 foizi autentik filmlar va podkastlar tinglash orqali real so'zlashuv lug'ati va idiomalarni yaxshiroq eslab qolishlarini, 70 foizi esa turli talaffuz va aksentlarga (aksanlarga) moslashish qobiliyati oshganini qayd etishdi. Shuningdek, tajriba guruhi talabalarida darsga qiziqish va faollik darajasi nazorat guruhiga nisbatan yuqori bo'lgani kuzatildi.

Styudent t-testi natijalariga ko'ra guruhlar orasidagi farq statistik jihatdan ishonchli ekanligi tasdiqlandi (tinglab tushunish bo'yicha $t=7,12$; $p < 0,01$; nutqiy ravonlik bo'yicha $t=6,05$; $p < 0,01$), bu esa autentik materiallardan foydalanish metodikasining yuqori samaradorligini ko'rsatadi.

MUHOKAMA

Olingan natijalar xorijiy tadqiqotchilarning (Gilmore, 2007; Rogerson-Revell, 2015) autentik materiallar til o'rganuvchilarni real muloqot vaziyatlariga tayyorlashda darslik matnlariga nisbatan ancha samarali ekanligi haqidagi xulosalarini tasdiqlaydi. Shu bilan birga, tadqiqot davomida ba'zi qiyinchiliklar ham aniqlandi: past darajadagi talabalar uchun ba'zi autentik materiallarning murakkabligi, mos material tanlash va uni dars maqsadlariga moslashtirish uchun o'qituvchidan qo'shimcha vaqt va metodik tayyorgarlik talab etilishi.

Richards (2001) ta'kidlaganidek, autentik materiallardan foydalanishning samaradorligi materialning o'zidan emas, balki uni talabalar darajasiga mos ravishda pedagogik jihatdan qanday tayyorlash va topshiriqlar bilan qo'llab-quvvatlashga bog'liq. Shu sababli o'qituvchilarning material tanlash va moslashtirish bo'yicha metodik kompetensiyasini oshirish autentik materiallardan foydalanish samaradorligini ta'minlashning muhim sharti hisoblanadi.

XULOSA

O'tkazilgan tadqiqot ingliz tili darslarida filmlar va podkastlar kabi autentik materiallardan tizimli va pedagogik jihatdan to'g'ri tashkil etilgan holda foydalanish talabalarning tinglab tushunish va nutqiy ravonlik ko'rsatkichlarini an'anaviy usulga nisbatan sezilarli darajada oshirishini ko'rsatdi. Uch bosqichli (pre-, while-, post-) dars tuzilishi materialni samarali o'zlashtirishga va uni amaliy muloqotga tatbiq etishga xizmat qildi.

Kelgusida quyidagilar tavsiya etiladi: 1) talabalar darajasiga mos autentik materiallar bankini (filmlar, podkastlar ro'yxati) shakllantirish; 2) o'qituvchilar uchun autentik materiallarni dars maqsadlariga moslashtirish bo'yicha metodik seminarlar tashkil etish; 3) har bir mashg'ulotda pre-, while- va post- bosqichlarini izchil qo'llash; 4) talabalarning mustaqil tinglash va tomosha qilish faoliyatini rag'batlantiruvchi topshiriqlar (jurnal yuritish, qisqa taqriz yozish) tizimini joriy etish.

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ENHANCING FOREIGN LANGUAGE TEACHING METHODOLOGY: INSIGHTS FROM NATIONAL AND INTERNATIONAL PRACTICES

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Annotatsiya. Mazkur maqolaning maqsadi O'zbekistonda xorijiy tillarni o'qitish metodikasini takomillashtirish yo'llarini milliy islohotlar va xalqaro tajriba asosida aniqlashdan iborat. Tadqiqotda qiyosiy-sifat yondashuvi qo'llanib, ta'lim siyosatiga oid hujjatlar, ilmiy maqolalar, CEFR talablari hamda UNESCO va OECD materiallari tahlil qilindi. Finlandiya, Singapur va Buyuk Britaniyaning til ta'limi tajribasi o'qituvchi tayyorlash, o'quv dasturi, raqamli texnologiyalar va baholash mezonlari nuqtayi nazaridan qiyoslandi. Tahlil natijalari O'zbekistonda kommunikativ va talaba markazidagi yondashuvlarni kuchaytirish, o'qituvchilarning uzluksiz kasbiy rivojlanishini tizimlashtirish, refleksiv amaliyot va hamkor-likdagi professional hamjamiyatlarni rivojlantirish zarurligini ko'rsatadi. Shuningdek, raqamli vositalardan maqsadli foy-dalanish, baholashni real kommunikativ ko'nikmalar bilan uyg'unlashtirish va o'quv dasturlarini CEFR mezonlariga ya-qinlashtirish muhim yo'nalishlar sifatida ajratildi. Xulosa sifatida xalqaro tajribani to'g'ridan-to'g'ri ko'chirish emas, balki uni O'zbekistonning institutsional va pedagogik sharoitlariga moslashtirish barqaror metodik yangilanishning asosiy sharti ekani ta'kidlanadi.

Kalit so'zlar: xorijiy til o'qitish, metodika, o'qituvchi tayyorlash, kommunikativ yondashuv, raqamli pedagogika, xalqaro tajriba, o'quv dasturi islohoti.

Аннотация. Цель статьи состоит в определении путей совершенствования методики преподавания иностранных языков в Узбекистане на основе национальных реформ и международного опыта. В исследовании использован сравнительно-качественный подход: проанализированы документы образовательной политики, научные публикации, требования CEFR, а также материалы UNESCO и OECD. Опыт Финляндии, Сингапура и Великобритании сопоставлен по таким направлениям, как подготовка преподавателей, проектирование учебных программ, цифровая интеграция и оценивание. Результаты анализа показывают необходимость более последовательного перехода к коммуникативному и личностно-ориентированному обучению, системного непрерывного профессионального развития преподавателей, внедрения рефлексивной практики и профессиональных сообществ сотрудничества. В качестве значимых направлений также выделяются целенаправленное использование цифровых инструментов, согласование оценивания с реальными коммуникативными умениями и дальнейшее сближение учебных программ с критериями CEFR. Сделан вывод о том, что эффективная модернизация требует не механического переноса зарубежных моделей, а их адаптации к институциональным, культурным и педагогическим условиям Узбекистана. Такой подход может способствовать устойчивому повышению качества языкового образования и развитию практической коммуникативной компетенции обучающихся.

Ключевые слова: преподавание иностранных языков, методика, подготовка преподавателей, коммуникативный подход, цифровая педагогика, международный опыт, реформа учебных программ.

Abstract. This article examines ways to improve foreign language teaching methodology in Uzbekistan by comparing national reform priorities with selected international practices. A comparative qualitative approach is used to synthesize education policy documents, peer-reviewed research, CEFR-related principles, and reports from UNESCO and the OECD. Practices in Finland, Singapore, and the United Kingdom are reviewed with particular attention to curriculum design, teacher education, digital integration, professional development, and assessment. The analysis indicates that methodological reform in Uzbekistan would benefit from a more consistent shift toward communicative and learner-centered instruction, stronger systems of continuous professional learning, reflective teaching practices, and collaborative professional communities. It also highlights the importance of purposeful digital integration, assessment aligned with real-life

language use, and closer curriculum alignment with CEFR principles. The study concludes that international models should not be transferred mechanically; their value lies in adapting relevant elements to Uzbekistan's institutional and pedagogical context. Such contextual adaptation can support sustainable improvement in teaching quality and learners' practical communicative competence.

Keywords: foreign language teaching, methodology, teacher training, communicative approach, digital pedagogy, international comparison, curriculum reform.

INTRODUCTION

In an increasingly interconnected world, the ability to communicate in foreign languages – particularly English – has become critical for academic and professional success. Uzbekistan has initiated major educational reforms to enhance foreign language instruction, especially since the adoption of the Presidential Decree No. PF-6108 (2020), which calls for strengthening language proficiency and international standards in education. However, the transition from traditional to modern methodologies remains uneven, especially in secondary and higher education sectors.

Global trends emphasize learner-centered, communicative, and digitally supported language teaching models. In contrast, many classrooms in Uzbekistan continue to rely on outdated grammar-translation methods that fail to develop real-world communication skills (Kurbanova, 2023). To address this, it is essential to draw on both national experiences and international models to shape more effective, context-sensitive foreign language teaching practices.

RESEARCH METHODS AND MATERIALS

This study applies a comparative qualitative approach, synthesizing national education policy documents, peer-reviewed studies, and international frameworks such as the Common European Framework of Reference for Languages (CEFR) and UNESCO's Futures of Education report (2021). Case studies from Finland, Singapore, and the United Kingdom were chosen due to their strong track records in language pedagogy and teacher development. The data sources include official reports from Uzbekistan's Ministry of Higher and Secondary Specialized Education, policy publications from international organizations like the OECD and UNESCO, as well as scholarly research articles. The analysis focuses on curriculum design, teacher education, digital integration, and assessment practices.

RESULTS AND DISCUSSION

Challenges in Uzbekistan's Current Methodologies

Uzbekistan has expanded access to English language learning by introducing it in early grades, supporting English-medium instruction, and partnering with foreign institutions. However, several key challenges persist in practice. Traditional methods continue to dominate language instruction. Many teachers still use the grammar-translation method, focusing primarily on memorization and rule-based exercises that limit opportunities for meaningful communication (Shamsutdinova & Yuldasheva, 2022). Teacher training programs often lack practical components, and many educators enter the workforce without adequate exposure to modern teaching strategies or communicative pedagogy (Kurbanova, 2023).

The digital divide presents another significant barrier. Although platforms such as Ziyonet and various LMS tools have been introduced, disparities in infrastructure and digital literacy, especially in rural regions, hinder their effective use. Moreover, language assessments in many schools and universities are misaligned with communicative objectives. Exams tend to emphasize grammar and vocabulary recall rather than the ability to use language in real-world contexts (OECD, 2021), which undermines the goal of developing functional proficiency.

Finland: Reflective and Integrated Teaching

Finland's foreign language education system is widely praised for its emphasis on learner autonomy, critical thinking, and teacher professionalism. In Finnish schools, language learning is often integrated with other subjects through Content and Language Integrated Learning (CLIL), allowing students to acquire subject knowledge and language skills simultaneously (Niemi, Toom, &

Kallioniemi, 2020). Teachers are encouraged to reflect on their own teaching practices by engaging in classroom-based research, maintaining reflective journals, and participating in peer observation activities. These strategies not only improve instructional quality but also cultivate a culture of continuous improvement.

Curriculum design in Finland is flexible, enabling educators to tailor learning materials and strategies based on student needs rather than strictly following textbooks. Assessments focus on communicative performance and self-evaluation rather than standardized testing. Such practices empower learners to take ownership of their learning while encouraging teachers to adapt instruction for diverse learning styles and abilities. For Uzbekistan, adopting elements of the Finnish approach – especially teacher-led reflection and curricular flexibility – could help build a more learner-responsive and adaptable language education system.

Singapore: Continuous Professional Development and Bilingual Policy

Singapore presents a compelling model of language education that balances global and local needs. English is the primary language of instruction, while mother tongue languages are also preserved as part of a national bilingual policy. The country's approach to teacher education is rooted in the V³SK framework, which stands for Values, Skills, Knowledge, and Vision. This framework ensures that educators are not only technically competent but also ethically grounded and forward-thinking (Ng, 2022).

Professional Learning Communities (PLCs) are an integral part of Singapore's education system. Teachers regularly collaborate with peers to share ideas, reflect on teaching experiences, and co-develop innovative strategies. The National Institute of Education (NIE) plays a central role in equipping educators with skills in communicative language teaching, formative assessment, and the use of digital tools in the classroom. Digital literacy is a key focus, and many teachers use interactive apps, online quizzes, and learning management systems to enhance engagement.

For Uzbekistan, Singapore's model highlights the importance of structured, ongoing professional development and peer collaboration. Establishing similar PLCs and strengthening teacher training institutions could lead to more consistent, high-quality instruction across schools.

United Kingdom: Standards-Based, Inclusive Language Teaching

In the United Kingdom, foreign language teaching is guided by the Professional Standards Framework (PSF), which outlines key competencies and expectations for educators at all levels (Advance HE, 2023). Language curricula are aligned with the Common European Framework of Reference for Languages (CEFR), providing learners with clear proficiency benchmarks in listening, speaking, reading, and writing. This alignment ensures a structured and measurable progression of skills.

British language classrooms emphasize real-world communication, intercultural awareness, and inclusive practices. Teachers are encouraged to use authentic materials such as news articles, podcasts, and video clips to simulate real-life interactions. Assessments focus on students' ability to apply language in various contexts rather than merely recalling vocabulary or grammar rules. Additionally, digital tools are commonly integrated into language instruction, including AI-powered apps and collaborative learning platforms.

Uzbekistan can draw valuable lessons from the UK's approach by updating its national curriculum to align with CEFR standards, promoting intercultural competence, and embedding authentic language use into classroom practice.

Pathways for Methodological Reform in Uzbekistan

Drawing from international models and the local context, several strategic shifts are necessary to enhance foreign language teaching in Uzbekistan. Firstly, a transition from rule-based instruction to communicative language teaching (CLT) is crucial. This approach prioritizes functional language use, fluency, and interaction, enabling learners to express themselves confidently in real-life situations. Secondly, teacher education programs should incorporate reflective practice, classroom research, and lesson analysis as standard components of both pre-service and in-service training.

Digital technology must also be effectively integrated into classrooms, with training provided to help teachers use digital tools for language instruction. Investing in infrastructure, particularly in

rural areas, is essential to bridge the digital divide. Furthermore, aligning Uzbekistan's language curriculum with CEFR would support standardized assessment and global recognition of language skills. Finally, establishing regular, high-quality professional development opportunities – through workshops, online courses, and peer networks – can support teachers' lifelong learning and ensure the sustainability of reforms.

CONCLUSION

Uzbekistan has made commendable strides in reforming foreign language education, but deeper methodological transformation is necessary to meet the demands of modern learners and global standards. Traditional, teacher-centered approaches still dominate classrooms, limiting the development of communicative competence and learner autonomy. Comparative analysis of international models reveals that effective language education systems are grounded in flexible pedagogy, reflective teaching, technology integration, and continuous professional development.

Finland's emphasis on teacher autonomy and integration, Singapore's values-driven training and collaborative learning structures, and the UK's standards-based, communicative curriculum all offer actionable insights. For Uzbekistan, the path forward involves adapting these principles to the local context – modernizing teacher training, revising curriculum frameworks, investing in digital infrastructure, and promoting a culture of reflection and innovation. These changes can ensure that learners acquire not just linguistic knowledge but also the ability to use language confidently in academic, professional, and intercultural contexts.

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INGLIZ VA O'ZBEK TILLARIDAGI FRAZELOGIZMLARNING MILLIY-MADANIY XUSUSIYATLARI VA QIYOSIY TAHLILI

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Annotatsiya. Ushbu maqolada ingliz va o'zbek tillaridagi frazeologik birliklarning milliy-madaniy xususiyatlari qiyosiy-tipologik tahlil asosida o'rganilgan. Tadqiqotda ikki tildagi frazeologizmlarning semantik, struktur va lingvomadaniy jihatdan o'xshash va farqli tomonlari aniqlangan, shuningdek frazeologizmlarda aks etgan milliy dunyoqarash, urf-odat va qadriyatlar tahlil qilingan. Tadqiqot natijalari frazeologik birliklarning katta qismi umuminsoniy tajribaga asoslangan mushtarak obrazlilikka ega bo'lsa-da, ularning muayyan qismi har bir xalqning o'ziga xos tarixiy-madaniy, tabiiy-geografik va diniy-ma'naviy muhitini aks ettirishini ko'rsatdi. Maqola

so'ngida frazeologizmlarni chet tili sifatida o'qitishda va tarjima amaliyotida qo'llash bo'yicha tavsiyalar berilgan.

Kalit so'zlar: frazeologizm, milliy-madaniy xususiyat, qiyosiy tahlil, lingvomadaniyatshunoslik, ekvivalentlik, obrazlilik, idioma, tarjima muammosi.

Annotation. This article examines the national-cultural characteristics of phraseological units in the English and Uzbek languages on the basis of a comparative-typological analysis. The study identifies the semantic, structural, and linguo-cultural similarities and differences between phraseological units of the two languages, and analyzes the national worldview, customs, and values reflected in them. The results show that although a considerable part of phraseological units share common imagery rooted in universal human experience, a certain portion reflects the specific historical-cultural, natural-geographical, and spiritual environment of each people. The article concludes with recommendations for applying phraseological units in foreign language teaching and translation practice.

Keywords: phraseological unit, national-cultural feature, comparative analysis, linguoculturology, equivalence, imagery, idiom, translation problem.

Аннотация. В данной статье на основе сравнительно-типологического анализа исследуются национально-культурные особенности фразеологических единиц английского и узбекского языков. В исследовании выявлены семантические, структурные и лингвокультурные сходства и различия фразеологизмов двух языков, а также проанализированы отраженные в них национальное мировоззрение, обычаи и ценности. Результаты показали, что, хотя значительная часть фразеологических единиц обладает общей образностью, основанной на общечеловеческом опыте, определённая их часть отражает специфическую историко-культурную, природно-географическую и духовную среду каждого народа. В конце статьи представлены рекомендации по применению фразеологизмов в преподавании иностранного языка и в переводческой практике.

Ключевые слова: фразеологизм, национально-культурная особенность, сравнительный анализ, лингвокультурология, эквивалентность, образность, идиома, проблема перевода.

KIRISH

Frazeologik birliklar har qanday tilning eng boy va rangdor qatlamlaridan biri bo'lib, ular tilning nafaqat lingvistik, balki madaniy-tarixiy xotirasini ham o'zida mujassam etadi. Frazeologizmlar orqali xalqning dunyoqarashi, turmush tarzi, an'analari, tabiiy-geografik muhiti va qadriyatlari obrazli shaklda ifodalanadi. Shu sababli ingliz va o'zbek tillaridagi frazeologik birliklarni qiyosiy o'rganish nafaqat nazariy tilshunoslik, balki chet tili o'qitish va tarjimashunoslik amaliyoti uchun ham katta ahamiyatga ega.

Xorijiy tilshunoslar (Wierzbicka, 1997; Kövecses, 2005; Baker, 2018) frazeologik birliklar va idiomalarning lisoniy dunyo manzarasini shakllantirishdagi rolini, ularning madaniyatga xos obrazlilikini tadqiq qilishgan. O'zbek tilshunosligida esa Rahmatullayev (2005), Mamatov (2018) va Sodiqova (2020) kabi olimlar o'zbek frazeologiyasining tizimli tavsifini bergan, biroq ingliz va o'zbek tillari frazeologizmlarining qiyosiy-lingvomadaniy tahlili hozirgacha yetarlicha chuqur o'rganilmagan sohalardan biri bo'lib qolmoqda.

Tadqiqotning maqsadi — ingliz va o'zbek tillaridagi frazeologik birliklarning milliy-madaniy xususiyatlarini aniqlash, ularning semantik-struktur o'xshashlik va farqlarini qiyosiy tahlil qilishdir.

Tadqiqot vazifalari: 1) ingliz va o'zbek tillari frazeologizmlarini mavzuviy guruhlariga ajratib tasniflash; 2) ikki tildagi frazeologizmlarning ekvivalentlik darajasini (to'liq, qisman va nolli ekvivalentlik) aniqlash; 3) frazeologizmlarda aks etgan milliy-madaniy komponentlarni tahlil qilish; 4) olingan natijalar asosida til o'qitish va tarjima amaliyoti uchun tavsiyalar ishlab chiqish.

TADQIQOT MATERIALLARI VA METODLARI

Tadqiqot materiali sifatida ingliz va o'zbek tillarining izohli va frazeologik lug'atlaridan tanlab olingan 220 ta frazeologik birlik (110 tasi ingliz, 110 tasi o'zbek tilidan) tahlil qilindi. Material

tanlashda tabiat va hayvonot dunyosi, inson xarakteri va his-tuyg'ulari, oila va turmush, mehnat va kasb-hunar kabi mavzuvii guruhlar asosii e'tibor qaratildi.

Tadqiqotda qiyosii-tipologik metod, komponent tahlili, kontekstual tahlil hamda lingvomadaniy sharhlaysh metodlaridan foydalanildi. Frazologizmlarning ekvivalentlik darajasini aniqlashda uch bosqichli tasnif qo'llanildi: to'liq ekvivalentlar (ma'no va obraz mos keladigan), qisman ekvivalentlar (ma'no mos, obraz farqli) va nolli ekvivalentlar (bir tilga xos, ikkinchi tilda muqobili bo'lmagan frazeologizmlar). Olingan natijalar miqdoriy jihatdan foizlarda ifodalab, jadval ko'rinishida tizimlashtirildi.

NATIJALAR

Tahlil natijalariga ko'ra, o'rganilgan 110 juftlik frazeologik birlikning 28 foizi (31 juftlik) to'liq ekvivalentlikka ega bo'lib, bunday frazeologizmlar asosan umuminsonii tajriba va universal obrazlilikka (masalan, hayvon obrazlari, tabiat hodisalari) asoslangan. 47 foizi (52 juftlik) qisman ekvivalentlik ko'rsatib, ma'no jihatidan mos kelsa-da, obrazli ifoda vositalari (masalan, boshqa hayvon yoki predmet nomi) bilan farqlanadi. Qolgan 25 foizi (27 juftlik) esa nolli ekvivalentlikka ega bo'lib, ular har bir xalqning o'ziga xos millii-madaniy, diniy yoki tarixii voqeligini aks ettiradi.

Millii-madaniy komponentlar tahlili shuni ko'rsatdiki, o'zbek frazeologizmlarida mehmondo'stlik, oila-nomus tushunchalari, katta-kichikka hurmat va diniy-ma'navii qadriyatlar (masalan, non, dasturxon, oq yo'l kabi tushunchalar bilan bog'liq iboralar) yuqori chastotada uchraydi. Ingliz tili frazeologizmlarida esa dengizchilik va savdo-sotiq faoliyati (masalan, kema va suzish bilan bog'liq iboralar), individualizm va vaqtga nisbatan pragmatik munosabat aks etgan frazeologik birliklar ustunlik qiladi.

Shuningdek, hayvonlar obraziga asoslangan frazeologizmlarda ham madaniy farqlar kuzatildi: masalan, ayrim hayvonlar (masalan, it, boyqush) ikki tilda qarama-qarshi konnotativ ma'nolarni ifodalashi aniqlandi, bu esa frazeologizmlarni chet tili sifatida o'zlashtirishda va tarjima qilishda alohida e'tibor talab etadigan holat ekanligini ko'rsatadi.

MUHOKAMA

Olingan natijalar Kövecses (2005) tomonidan ilgari surilgan, metafora va frazeologik obrazlilikning ma'lum darajada universal kognitiv asoslarga, ma'lum darajada esa madaniyatga xos tajribaga tayanishi haqidagi nazariyani tasdiqlaydi. Nolli ekvivalentlikka ega frazeologizmlarning mavjudligi Baker (2018) ta'kidlagan tarjimadagi "madaniy bo'shliq" (cultural gap) muammosini yaqqol namoyon etadi — bunday holatlarda so'zma-so'z tarjima ma'noni buzishi yoki umuman tushunarsiz bo'lib qolishi mumkin.

Bu natijalar chet tili o'qitish jarayonida frazeologizmlarni faqat leksik birlik sifatida emas, balki lingvomadaniy hodisa sifatida o'rgatish zarurligini ko'rsatadi. Xususan, nolli va qisman ekvivalentlikka ega frazeologizmlarni o'qitishda ularning madaniy-tarixii kelib chiqishini tushuntirish talabalarida nafaqat til, balki madaniyatlararo kompetensiiyani ham shakllantirishga xizmat qiladi.

XULOSA

O'tkazilgan qiyosii tahlil ingliz va o'zbek tillaridagi frazeologik birliklarning bir qismi umuminsonii kognitiv tajribaga asoslangan mushtarak xususiyatlarga ega bo'lsa-da, ularning sezilarli qismi har bir xalqning o'ziga xos tarixii-madaniy, tabiiy-geografik va diniy-ma'navii voqeligini aks ettirishini ko'rsatdi. Frazologizmlardagi millii-madaniy komponentlarni aniqlash ikki xalq mentaliteti va qadriyatlar tizimini chuqurroq tushunishga xizmat qiladi.

Kelgusida quyidagilar tavsiya etiladi: 1) chet tili o'qitish dasturlariga frazeologizmlarning lingvomadaniy sharhini o'z ichiga olgan mavzuvii bloklarni kiritish; 2) tarjimonlar uchun nolli ekvivalentlikka ega frazeologizmlarning tarjima strategiyalari (izohli tarjima, muqobil topish, kal'kalash) bo'yicha qo'llanmalar ishlab chiqish; 3) ingliz-o'zbek qiyosii frazeologik lug'atini yaratish; 4) frazeologizmlar asosida madaniyatlararo muloqot ko'nikmalarini rivojlantiruvchi mashqlar tizimini joriy etish.

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TECHNOLOGY-SUPPORTED PRONUNCIATION PRACTICE IN ENGLISH LANGUAGE TEACHING

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Abstract: *This article investigates the use of technology to support English pronunciation learning. It focuses on digital resources such as audio and video materials, online platforms, recording tools, and QR codes and their role in providing learners with additional pronunciation practice. The study considers how these resources can promote repeated practice, independent learning, and greater learner engagement. The practical application is presented through the methodological guidebook Mastering Pronunciation, which integrates structured phonetic instruction with digital learning resources. The findings indicate that appropriate use of technology can make pronunciation practice more accessible and flexible while supporting traditional classroom instruction.*

Keywords: *technology-supported learning, English pronunciation, digital resources, audiovisual materials, QR codes, pronunciation practice, independent learning, English language teaching.*

Annotatsiya: *Ushbu maqolada ingliz tili talaffuzini o'rganishni qo'llab-quvvatlashda texnologiyalardan foydalanish masalasi tadqiq etiladi. Unda audio va video materiallar, onlayn platformalar, ovoz yozish vositalari hamda QR-kodlar kabi raqamli resurslarning o'quvchilarga qo'shimcha talaffuz mashqlarini bajarishda tutgan o'rni yoritiladi. Tadqiqotda ushbu resurslarning takror mashq qilish, mustaqil ta'lim olish va o'quvchilarning faolligini oshirishdagi imkoniyatlari ko'rib chiqiladi. Amaliy jihat Mastering Pronunciation o'quv-uslubiy qo'llanmasi misolida yoritilib, unda tizimli fonetik ta'lim raqamli o'quv resurslari bilan uyg'unlashtirilgan. Natijalar texnologiyalardan to'g'ri foydalanish talaffuz mashg'ulotlarini yanada qulay va moslashuvchan qilish bilan birga, an'anaviy ta'limni qo'llab-quvvatlashini ko'rsatadi.*

Kalit so'zlar: *Texnologiya asosida ta'lim, ingliz tili talaffuzi, raqamli resurslar, audiovizual materiallar, QR-kodlar, talaffuz mashqlari, mustaqil ta'lim, ingliz tilini o'qitish.*

Аннотация: *В данной статье исследуется использование технологий для поддержки обучения английскому произношению. Рассматривается роль цифровых ресурсов, таких как аудио- и видеоматериалы, онлайн-платформы, средства записи речи и QR-коды, в обеспечении дополнительных возможностей для практики произношения. В исследовании анализируется, как данные ресурсы способствуют многократной практике, самостоятельному обучению и повышению активности учащихся. Практическое применение рассматривается на примере учебно-методического пособия Mastering Pronunciation, в котором систематическое обучение фонетике сочетается с цифровыми образовательными ресурсами. Результаты показывают, что правильное использование технологий может сделать практику произношения более доступной и гибкой, одновременно дополняя традиционное обучение.*

Ключевые слова: *технологии в обучении, английское произношение, цифровые ресурсы, аудиовизуальные материалы, QR-коды, практика произношения, самостоятельное обучение, преподавание английского языка.*

INTRODUCTION

Pronunciation is a fundamental aspect of learning English, as it has a significant impact on learners' ability to communicate orally and effectively. Having clear pronunciation enables learners to convey their ideas with greater confidence and makes their speech easier for others to understand. Nevertheless, developing accurate pronunciation can be challenging for both learners and teachers, especially when students do not have sufficient opportunities to practice regularly. The rapid development of digital technology has introduced various opportunities to facilitate pronunciation practice through audio and video materials, mobile applications, online platforms, and other interactive resources. Such tools allow learners to hear accurate pronunciation models, imitate sounds and words, and continue practicing outside the conventional classroom setting. Therefore, this article explores technology-supported pronunciation practice in English language teaching and considers ways in which digital resources can be incorporated into pronunciation learning activities.

LITERARY VIEWS

The use of technology in English language teaching has provided learners with new ways to improve their pronunciation skills. Since pronunciation is mainly developed through practical training rather than theoretical knowledge, learners need regular practice to produce sounds accurately and fluently. Digital resources can support this process by offering pronunciation models through audio and video materials, as well as opportunities to repeat, record, and review their speech. They also give learners greater flexibility, allowing them to practice independently, at their own pace, and in different learning environments. Furthermore, technology can expose learners to different varieties of English and create opportunities for receiving pronunciation feedback. Nevertheless, digital tools are most effective when used alongside teacher support, as teachers remain important for providing guidance and appropriate corrective feedback [13].

This indicates that digital technology can make pronunciation practice more accessible, flexible, and focused on individual learners' needs. The use of audio and video materials, repeated practice, self-recording, and feedback can give students more opportunities to improve their pronunciation both inside and outside the classroom. Thus, technology can serve as a valuable supplementary resource for supporting continuous and independent pronunciation development. Previous research has indicated that computer-assisted pronunciation training can support foreign language pronunciation development, although the strength of the evidence depends on the quality and design of individual studies

The use of digital technology in pronunciation instruction can create additional opportunities for learners to practice and improve their oral skills. Audio and video materials, visual demonstrations, and phonetic resources can help students recognize English sounds and develop more accurate pronunciation. Recording tools are also useful because learners can listen to their own

speech, notice pronunciation difficulties, and work towards correcting them independently. Moreover, online platforms and mobile applications enable students to practice pronunciation at different times and in various learning environments. Technologies such as automatic speech recognition can further support this process by providing learners with immediate information about their pronunciation performance. Consequently, the appropriate use of digital tools can complement traditional pronunciation teaching and encourage a more interactive and independent approach to pronunciation practice [9,869].

These ideas show that technology can shift pronunciation practice towards a more active and learner-focused learning process rather than relying entirely on teacher-led instruction. Features such as self-recording, independent practice, and instant feedback can increase learners' awareness of their pronunciation and encourage them to take more responsibility for their own improvement. Consequently, the integration of suitable digital resources can complement classroom teaching while also supporting learners' pronunciation practice beyond the classroom.

Digital technology can help overcome some of the difficulties associated with teaching pronunciation, especially the limited amount of classroom practice and the challenge of providing individualized feedback. Online pronunciation platforms give learners additional opportunities to practice speaking independently while enabling teachers to follow their learning progress. AI-based tools can provide immediate information about different aspects of oral performance, including pronunciation, intonation, fluency, and word stress. Moreover, adaptive digital systems can offer activities that correspond to learners' individual levels and learning needs. Interactive tasks and technology-based activities may also encourage students to participate more actively in pronunciation practice. Thus, digital technology can serve as a supportive resource for teachers while providing learners with more personalized opportunities to develop their pronunciation skills [12].

These findings suggest that technology can make pronunciation practice more individualized and accessible by providing learners with regular practice and immediate feedback. At the same time, digital tools can reduce some of the limitations of classroom-based pronunciation instruction and support learners in developing greater independence.

Digital audio and video materials can give learners additional opportunities to improve their English pronunciation through regular listening and speaking practice. Audio resources enable students to listen to correct pronunciation models and practice reproducing individual sounds, words, and phrases. Video-based materials can provide further support by combining spoken examples with visual demonstrations, including the movement of the lips and mouth. Platforms such as YouTube offer learners access to various pronunciation resources that can be used both during lessons and for independent study. Such materials can make pronunciation practice more flexible and engaging, while allowing learners to choose resources that match their individual learning needs. Thus, the use of digital audio and video resources can encourage continuous pronunciation practice and increase learners' awareness of accurate English pronunciation [8,24].

The evidence indicates that the combination of audio and visual materials can provide learners with more effective and accessible ways to practice pronunciation. Frequent exposure to accurate pronunciation models and repeated practice can improve learners' awareness of English sounds while encouraging them to continue practicing independently outside the classroom. A systematic review of mobile-assisted pronunciation research suggests that mobile learning can provide learners with additional opportunities to practice pronunciation and develop positive attitudes towards technology-supported learning.

Audiovisual learning resources offer learners flexible opportunities to improve English pronunciation through regular listening and guided practice. Audio resources expose students to different pronunciation models, while videos can visually demonstrate articulation processes, including the positioning and movement of the speech organs. Interactive tools with animated visualizations can also help learners understand the production of individual English sounds more clearly. Furthermore, online audio and video activities allow students to practice pronunciation independently outside the classroom. Thus, combining auditory input with visual support can contribute to more effective and continuous pronunciation development [10].

Audiovisual learning materials can contribute to pronunciation development by integrating spoken examples with visual explanations of how sounds are produced. Such resources may increase learners' awareness of pronunciation features while allowing them to practice repeatedly and independently beyond the classroom.

Internet-based pronunciation tools can give learners greater flexibility in practicing English pronunciation with authentic spoken materials. YouGlish, for example, enables students to observe how words and expressions are pronounced in real communicative contexts, whereas Forvo offers audio examples produced by speakers from various regions. Resources such as Ello and BBC Learning English combine listening materials with pronunciation activities and visual explanations that can be used for repeated practice. Furthermore, Speechling enables learners to submit voice recordings and obtain individual feedback on their pronunciation. Thus, online audiovisual resources can encourage independent learning while providing learners with access to varied pronunciation models and authentic spoken English [1].

The presented resources show that digital pronunciation practice can integrate authentic language input, regular repetition, different accent models, and individual feedback. As a result, learners can continue practicing outside the classroom and become more aware of pronunciation patterns used in real-life English communication. Empirical research on pronunciation applications has shown that app-based training can support learners' perception and production of selected English pronunciation features through regular practice.

QR codes can give students fast and convenient access to a variety of digital learning materials in higher education. They can connect printed educational resources with online content, including audio recordings, videos, quizzes, tutorials, and supplementary materials. In language learning, QR codes can facilitate pronunciation practice by enabling students to access pronunciation models and audiovisual resources using their mobile devices. They also allow learners to continue practicing outside the classroom and revisit learning materials whenever necessary. Consequently, the integration of QR codes into educational materials can make learning more flexible and interactive while connecting traditional printed resources with digital pronunciation activities [7].

QR codes can effectively link conventional educational materials with digital resources by giving learners instant access to additional content. In pronunciation instruction, they can facilitate regular and self-directed practice by enabling students to reach audio and video materials easily through their mobile devices.

The practical application of technology-supported pronunciation learning can be demonstrated through the methodological guidebook *Mastering Pronunciation*. The guidebook combines systematic pronunciation instruction with practical exercises, including vowel and consonant classification, phonetic transcription, listening discrimination, word pronunciation, tongue twisters, and reading activities. An important feature of the guidebook is its integration of digital resources through QR codes, which provide learners with access to audio and video materials for additional pronunciation practice. These resources allow students to listen to pronunciation models, repeat target sounds, and practice independently beyond the classroom. The guidebook also incorporates self-assessment and practical strategies such as recording speech, observing articulation, imitation, and repeated practice. Therefore, *Mastering Pronunciation* demonstrates how traditional pronunciation materials can be connected with digital technology to create a more flexible and practice-oriented learning resource [4].

The organization of *Mastering Pronunciation* shows that digital technology can effectively complement structured phonetic instruction. By combining clear explanations of pronunciation, practical exercises, listening activities, repetition, audiovisual materials, and opportunities for self-study, the guidebook supports learners in developing more accurate pronunciation and greater independence in learning. The use of QR codes further links printed materials with digital resources, giving learners convenient access to additional pronunciation practice outside the classroom. Therefore, the guidebook can be considered a practical example of integrating traditional pronunciation teaching with technology-supported learning.

DISCUSSION

The analysis presented in this article shows that digital technology can play a supportive role in developing English pronunciation skills. Audiovisual materials provide learners with opportunities to hear accurate pronunciation models and practice sounds and words through repeated exposure. Digital resources also encourage independent learning by enabling students to record their speech, evaluate their performance, and receive feedback. Furthermore, online platforms and QR codes provide convenient access to additional pronunciation materials, making it possible for learners to practice outside the classroom. The example of *Mastering Pronunciation* illustrates how digital resources can be combined with systematic phonetic instruction and practical activities. However, technology is most useful when it complements teacher guidance rather than replacing it. Overall, combining structured pronunciation instruction, digital resources, and active learner participation can create a more flexible and supportive learning environment.

CONCLUSION

The use of technology in pronunciation learning gives English learners greater opportunities to improve the clarity and accuracy of their speech. Audio and video resources, online platforms, recording tools, and QR codes can make pronunciation practice more convenient, flexible, and interactive. They enable learners to hear pronunciation models, practice target sounds repeatedly, work independently, and become more aware of their own progress. The practical example of *Mastering Pronunciation* shows that digital resources can effectively support traditional pronunciation instruction and extend learning beyond the classroom. Nevertheless, technological tools are most beneficial when they are used together with systematic teaching and teacher support. Thus, the appropriate integration of technology can encourage a more independent, active, and practice-based approach to learning English pronunciation.

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COMPARATIVE ANALYSIS OF MILITARY TERMINOLOGY IN UZBEK, RUSSIAN AND ENGLISH: A MULTILINGUAL LEXICOGRAPHIC APPROACH

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Annotatsiya. *Ushbu maqola o'zbek, rus va ingliz tillaridagi harbiy terminologiyaning qiyosiy tahliliga bag'ishlangan. Tadqiqotda harbiy terminlarning shakllanish manbalari, struktur tuzilishi va turli tillardagi ifodalanish xususiyatlari o'rganiladi. Maqolada terminlarning semantik turlari, ularning tarjimadagi ekvivalentlik darajalari va qo'llanish doiralari tahlil qilinadi. Shuningdek, harbiy terminlarning tarixiy qatlamlari, zamonaviy harbiy tizimdagi o'rni va xalqaro standartlashtirish jarayonidagi ahamiyati ko'rib chiqiladi. Tadqiqot yakunida uch tilli harbiy terminografik maqolaning ilmiy-asosli namunaviy modeli ishlab chiqilgan bo'lib, bu model terminlarning aniq va izchil tarjimasi hamda lug'atviy tavsifi uchun asos bo'lib xizmat qiladi.*

Kalit so'zlar: harbiy terminologiya, qiyosiy tahlil, ekvivalentlik, tarjima strategiyalari, terminografiya, uch tilli korpus, harbiy terminlar

Аннотация

Данная статья посвящена сравнительному анализу военной терминологии в узбекском, русском и английском языках. В исследовании рассматриваются источники формирования военных терминов, их структурные особенности и способы выражения в разных языках. В статье анализируются семантические типы терминов, их эквивалентность в переводе и сферы применения. Также рассматриваются исторические слои военных терминов, их роль в современной военной системе и значение в процессе международной стандартизации. По итогам исследования разработана научно обоснованная модель трёхязычной военной терминографической статьи, которая служит основой для точного и последовательного перевода и лексикографического описания терминов.

Ключевые слова: военная терминология, сравнительный анализ, эквивалентность, стратегии перевода, терминография, трёхязычный корпус, военные термины

Annotation. *This article presents a comparative analysis of military terminology in Uzbek, Russian, and English. The study examines the sources of formation, structural features, and means of expression of military terms across the three languages. The article analyses the semantic types of terms, their equivalence in translation, and their spheres of application. The historical layers of military terms, their role in the modern military system, and their significance in the process of international standardisation are also considered. As a result of the research, a scientifically grounded model of a trilingual military terminographic entry has been developed, which serves as a foundation for accurate and consistent translation and lexicographic description of military terminology.*

Key words: military terminology, comparative analysis, equivalence, translation strategies, terminography, trilingual corpus, military terms

In the global context of military security, defence policy, troop management, international cooperation, military education, and operational information exchange, the precision of specialist terminology is becoming increasingly important. A military term is not merely a means of naming. It possesses practical force in orders, documents, the educational process, international agreements, and

standardized data exchange. Therefore, the study of military terminology in three languages – Uzbek, Russian, and English – is relevant to philology, translation studies, and terminography.

The need to study military terms in three languages is also linked to practical requirements. In official documents, orders, regulations, training manuals, and international agreements, different renderings of the same term can lead to ambiguity of meaning. This applies particularly to terms related to defence, mobilisation, intelligence, logistics, communications, and command, where the legal scope and professional function of the term must be preserved with equal precision.

Terminological consistency is a key prerequisite for information exchange in the military sphere. In a military text, a term is not merely a name, but a designation for a specific action, authority, object, type of equipment, or service procedure. Therefore, this study analyses not only the linguistic form of the term, but also its context of use, normative source, and the constraints arising during translation.

The modernisation of the Armed Forces, the strengthening of the official language's social status, and the development of international military cooperation and translation activities are increasing the need for specialised sectoral terminology. A military term expresses not only a designation, but also legal status, institutional function, and practical management mechanisms. Therefore, a comparative analysis of Uzbek, Russian, and English military terms, the determination of their equivalence levels, and the development of a multilingual lexical description are essential to ensuring accurate communication in military contexts.

1. Structural Models of Military Terms

The analysis of the three languages reveals distinct structural patterns in the formation of military terminology. In English, the majority of military terms are formed through compounding, where two or more words combine to create a new meaning. For example:

Battlefield – the area where military combat takes place.

Warship – a ship designed and built for military combat.

Headquarters – the centre from which military operations are directed.

Peacekeeping – the active maintenance of peace by international military forces.

In Russian, military terms are predominantly created through derivation, using prefixes and suffixes attached to root words. For example:

Наступление (*offensive*) – derived from the verb наступать (to advance).

Оборона (*defence*) – derived from the verb оборонять (to defend).

Разведка (*intelligence*) – derived from the verb разведывать (to scout).

Снаряжение (*equipment*) – derived from the verb снаряжать (to equip).

In Uzbek, military terminology displays a mixed system. Many terms are borrowed from Russian and Arabic-Persian sources, but there is a growing tendency to use native word formation patterns. For example:

Qo'shin (*army*) – a native Turkic word.

Harbiy (*military*) – borrowed from Arabic.

Safarbarlik (*mobilisation*) – formed using the native suffix -lik added to the Arabic word safar (campaign).

Qo'mondon (*commander*) – borrowed from Persian.

2. Equivalence Types Between the Three Languages

The comparative analysis identifies three main types of equivalence between military terms in English, Russian, and Uzbek:

a) Full Equivalence

This occurs when a term in all three languages has the same meaning, function, and institutional scope. This is most common for internationally standardised terms.

English	Russian	Uzbek	Meaning
NATO	НАТО	NATO	North Atlantic Treaty Organisation
Peacekeeping	Миротворчество	Tinchlikparvarlik	Maintenance of peace
Cyber Defence	Кибероборона	Kiberxavfsizlik	Protection of information systems
Strategy	Стратегия	Strategiya	A high-level plan of action

b) Partial Equivalence

This occurs when terms overlap in meaning but differ in their specific legal, historical, or institutional context.

English	Russian	Uzbek	Difference
Officer	Офицер	Ofitser	Similar meaning, but rank structures differ
Regiment	Полк	Polk	The size and structure of the unit may vary
Artillery	Артиллерия	Artilleriya	Generally equivalent, technical differences exist

c) Non-Equivalence

This occurs when a term exists in one or two languages but has no direct equivalent in the third language, usually because it refers to a nationally specific institution or practice.

English	Russian	Uzbek	Explanation
National Guard	Национальная гвардия	Milliy gvardiya	Specific military force structure in each country
ROTC	No direct equivalent	No direct equivalent	A US-specific officer training programme
Army / Troops	No direct equivalent	Qo'shin	A native Uzbek term with a specific meaning

3. Translation Strategies for Military Terms

Based on the analysis, the following strategies are recommended for translating military terms between English, Russian, and Uzbek:

a) Direct Translation (Calque)

This strategy is used when the term structure and meaning are identical in all three languages.

English: Defence Policy

Russian: Оборонная политика

Uzbek: Mudofaa siyosati

b) Descriptive Translation

This strategy is used when no direct equivalent exists.

English: Drone strike

Uzbek: Pilotsiz havo vositalari bilan hujum (attack with unmanned aerial vehicles)

c) Borrowing (Adoption)

This strategy is used when the term is internationally recognised and is adopted directly.

English: NATO

Russian: НАТО

Uzbek: NATO

d) Adaptation with Native Suffixes

This strategy is used when a borrowed term is adapted to fit the grammatical patterns of the target language.

English: Mobilisation

Russian: Мобилизация

Uzbek: Safarbarlik

4. Historical and Active Layers of Military Terminology

The study identifies three chronological layers in the military terminology of each language:

Active (Current) Terms

These are terms that are in everyday use in modern military practice.

English	Russian	Uzbek
Soldier	Солдат	Askar
Officer	Офицер	Ofitser
Missile	Ракета	Raketa
Training	Подготовка	Tayyorgarlik

Transitional Terms

These are terms that are being replaced or updated as military systems modernise.

English	Russian	Uzbek	Note
Cavalry	Кавалерия	Otliq qo'shin	Being replaced by mechanised units
Fortress	Крепость	Qal'a	Less relevant in modern warfare
Rifleman	Стрелок	O'qchi	Being replaced by Piyoda Askar

Historical (Archival) Terms

These terms are no longer in active use but appear in historical texts and documents.

English	Russian	Uzbek	Historical Context
Cuirassier	Кирасир	Kirasir	A type of heavy cavalry soldier
Catapult	Катапульта	Katapulta	A siege weapon from antiquity

5. Practical Recommendations for Lexicographic Description

Based on the analysis, the following recommendations are made for creating a multilingual military terminographic entry (dictionary entry) that includes:

1. The term in all three languages – showing equivalents and variations.
2. Grammatical information – including parts of speech and gender where relevant.
3. Definition – clear and precise definition in each language.
4. Contextual examples – showing the term used in a sentence or military context.
5. Equivalence type – indicating whether full, partial, or no equivalence exists.
6. Cross-references – linking to related terms.
7. Historical notes – explaining the origin and development of the term.

Field	English	Russian	Uzbek
Term	Mobilisation	Мобилизация	Safarbarlik
Part of Speech	Noun	Существительное	Ot
Definition	The process of assembling and preparing military forces for active service	Процесс приведения войск в состояние готовности к боевым действиям	Harbiy kuchlarni jangovar holatga keltirish jarayoni
Context	The government announced full mobilisation.	Правительство объявило всеобщую мобилизацию.	Hukumat umumiy safarbarlik e'lon qildi.
Equivalence Type	Full	Full	Full
Historical Note	First used in the 19th century	Вошёл в употребление в XIX веке	XIX asrda qo'llanishga kirgan

CONCLUSION

The comparative analysis of military terminology in Uzbek, Russian and English demonstrates that a systematic, corpus-based approach is essential for accurate translation and lexicographic description. The study reveals that while there is significant overlap and international standardisation, each language possesses unique structural, historical and functional characteristics. Full equivalence is common for internationally recognised terms, while partial equivalence and non-equivalence require careful attention in translation. The development of a scientifically grounded model of a multilingual military terminographic entry will contribute to the standardisation of military terminology in Uzbekistan and facilitate international military cooperation. Future research should focus on the creation of comprehensive trilingual military dictionaries and the development of automated translation tools for military texts.

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PSYCHOLOGICAL COMPLEXITY, THE INTERNAL STRUGGLE BETWEEN PERSONAL ASPIRATIONS AND THE INFLUENCE OF THE SOCIAL ENVIRONMENT, DEPICTED IN DREISER'S WORKS.

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Abstract. *This piece examines Theodore Dreiser's role, a prominent figure in American literature, in the naturalistic aspect of his writing. Dreiser's works emphasize the key principles of naturalism: determinism, objective portrayal, and social hierarchy. Specifically, the books “Unhappy Carrie” and “The Capitalist” investigate how capitalist society impacts human fate and the elements that mold the characters’ inner lives. Dreiser’s naturalistic method enabled him to expose the ethical and financial contradictions present in society.*

Key words: *Naturalism, realism, literature, determinism, objective representation, social hierarchy, capitalism, American literature.*

Аннотация. *В этой статье рассматривается вклад Теодора Драйзера, одной из значительных фигур американской литературы, в натуралистический аспект его творчества. В работах Драйзера чётко прослеживаются ключевые идеи натурализма — детерминизм, объективное изображение и социальная стратификация. В частности, романы «Несчастливая Кэрри» и «Капиталист» анализируют, как капиталистическое общество влияет на жизни людей и какие факторы формируют их внутренний мир. Благодаря натуралистическому методу Драйзер смог выявить моральные и экономические противоречия в обществе.*

Ключевые слова: *Натуралистический подход, реалистичные произведения, литературное направление, необходимость причинности, беспристрастное изображение, классовое разделение, капитальная экономика, литература США.*

Annotatsiya. *Ushbu maqolada Amerika adabiyotining yetuk vakillaridan biri Teodor Drayzer ijodining naturalistik yo'nalishdagi o'rni tahlil qilinadi. Naturalizmning asosiy tamoyillari – determinizm, obyektiv tasvirlash va ijtimoiy tabaqalanish kabi jihatlar Drayzer asarlari misolida yoritiladi. Ayniqsa, “Baxtiqaro Kerri” va “Sarmoyador” romanlari orqali kapitalistik jamiyatning inson taqdiriga ta'siri va qahramonlarning ichki dunyosini shakllantiruvchi omillar ko'rib chiqiladi. Drayzerning naturalistik yondashuvi orqali u jamiyatdagi axloqiy va iqtisodiy ziddiyatlarni ochib berishga muvaffaq bo'lgan.*

Kalit so'zlar: *Naturalizm, realizm, adabiyot, determinizm, obyektiv tasvir, ijtimoiy tabaqalanish, kapitalizm, Amerika adabiyoti.*

INTRODUCTION

Literature is an art form that reflects human life, its spiritual experiences, and its place in society. In the late 19th and early 20th centuries, realism and naturalism occupied leading positions in literature. In particular, naturalistic literature sought to reveal internal human conflicts related to the environment, social conditions, and material needs.[1] One of the representatives of this movement is the American writer Theodore Dreiser, one of the most prominent figures in the naturalistic novel genre. Let's consider the origins of the basic ideas of naturalism. Naturalism, as a part of realism, emerged in the second half of the 19th century. In this regard, it is no exaggeration to say that the works of Theodore Dreiser are the most prominent representatives of the naturalistic style. Theodore Dreiser (1871–1945) focused in his works on the social, moral, and economic crises of American culture. In his works, Dreiser explored the biological and psychological foundations of human behavior, the influence of chance, and the impact of social forces on the fate of individuals and life experiences. His books masterfully depict the impact of social pressures, material needs, and chance on human destiny. Following naturalistic principles, Dreiser shapes the lives of his characters based on their social context, innate qualities, and external influences. The development of naturalistic philosophy in fiction was largely influenced by Theodore Dreiser's work from the 1890s to the 1920s, particularly his experiences as a journalist and his novels *Unhappy Carrie* (1900), *The Capitalist* (1912), and *The Titan* (1914). Dreiser's debut novel, *Susan Lenzi* (1900), highlights the gap between morality and reality.[2] The work's protagonist reveals her vulnerability in the face of life's difficulties and loses her moral principles under the influence of her environment. The author's novel "The Capitalist" and its naturalistic elements also deserve special attention. This approach aims to provide a scientifically grounded, objective, and materialistic understanding of existence. Naturalistic works possess the following characteristics.

MATERIALS AND METHODS.

The philosophical theory of determinism (from the Latin *determino*, meaning "I determine") asserts that everything is causally interconnected and objectively legally interrelated. It emphasizes that one phenomenon (cause) creates necessity under certain conditions, which, in turn, leads to another phenomenon (effect). The essence of determinism embodies the determining factor of human intellect. Determinism was recognized by the Eastern philosophers Al-Farabi, Ibn Sina, Beruni, Ulugh Beg, and others, as well as by the Greek philosophers Heraclitus, Democritus, and Epicurus. Determinism is the fundamental idea of psychology, and its principle serves as a compass in all areas of scientific knowledge and a practical path to the attainment of truth.[3]

In an objective description, the material world, which is independent of and exists outside of human consciousness, matter, which is the material form of existence, constitutes objective existence with all its manifestations and properties. Objective existence encompasses not only things, phenomena, and processes in nature, but also humans and society, which are the highest products of natural development.[4] People create material and objectified spiritual wealth through their theoretical and practical activities and interact with one another. All of this manifests itself in various forms of socialized objective existence.

RESULTS AND DISCUSSION.

Dreiser's first major novel, *Unlucky Carrie*, is a striking example of the naturalistic approach, in which the characters' lives are shaped by social and economic circumstances rather than moral ones. At various stages in Carrie's life, the work depicts the chaotic and predetermined nature of human existence.

Theodore Dreiser's works are among the finest examples of American naturalistic literature, providing profound insights into how capitalist society shapes human destiny. Despite his harsh criticism of his approach to naturalism, Dreiser continued to establish himself as a leading proponent of naturalism and realism. His books, *The Capitalist* and *The Titans*, depict the foundations of capitalist society and the complex interplay between self-interest and the broader social context.[9]

It is difficult to describe contemporary literary criticism as a retreat from the political and social. This book, like my previous one, is devoted to both aspects. However, it provides a more direct answer to what some consider formalist questions: why do some literary works retain their appeal more than others?

I argue that a work's appeal depends not only on its prepared audience; it also arises from the structural connections the work establishes with its readers in relation to the issues it addresses. Thus, one answer to my question is that, to retain its appeal, a work must engage readers in a complex world like history, rather than leave them confused and uncertain about their assessment of events both within and outside the text.[10] If I am right, then such appeal, while dependent on the specific issues it addresses, is not measured solely by the work's political stance.

Of course, we can take a political stance on whether we should continue to value such an institution as a literary work. For some, it is inappropriate to sustain a discourse whose primary purpose is not to take particular positions on specific issues. Rather, I argue that, given the many institutions that allow us to express our political positions, literary discourse can serve an important political function in our society not only because it serves as a guide to political action, but also because it creates a space in which our political beliefs can be tested and challenged through the dramatization of hypothetical events.[11]

CONCLUSION.

These works clearly demonstrate the deterministic worldview of naturalism, a critique of society, and a belief in the dependence of human consciousness on natural forces. Frank Cowperwood, as portrayed in his novels, is a traditional realist hero. Although his goals are based on pragmatism and unconstrained by morality, his actions are influenced by social conditions and personal abilities. Moral decay in the corporate sector and the clash between social pressure and self-interest are depicted through Frank Cowperwood in his novella "The Capitalist." Dreiser attempted to explore social problems using a naturalistic approach and became known as one of the most truthful authors of his time, employing a naturalistic method to uncover society's social difficulties and leaving behind brilliant masterpieces that exerted a significant influence on American naturalism.

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PHONOPRAGMATIC FEATURES OF UZBEK PRONUNCIATION IN RELATION TO SPEECH ACTS

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Annotatsiya. Ushbu maqolada o'zbek nutqiy muloqot tizimida direktiv, komissiv va ekspressiv nutq aktlarining ifodalanishida fonopragmatik hamda prosodik vositalarning o'rni va o'ziga xos xususiyatlari empirik misollar yordamida tahlil qilingan. Tadqiqotda so'zlovchining illokutiv maqsadlari, subyektiv munosabati va emotsional-psixologik holatining nutqiy ohang, sur'at, registr hamda vokalizatsiya (tovushlarni cho'zish) jarayonlari bilan uzviy bog'liqligi yoritib berilgan. Ayniqsa, o'zbek tilining ingliz tili bilan qiyosiy jihatlari, imperativ gaplarning pragmatik modifikatsiyalari, diskursiv markerlar, reduplikatsiya (so'z takrori) hamda temporal (vaqt) birliklarning talaffuz dinamikasi jonli nutq namunalari asosida lisoniy tahlilga tortilgan. Tadqiqot natijalari o'zbek tilining fonopragmatik tizimi nihoyatda moslanuvchan va lisoniy ma'nolar ifodalashda mahsuldor ekanligini ilmiy jihatdan asoslaydi.

Tayanch so'zlar: fonopragmatika, nutq aktlari, prosodiya, illokutiv maqsad, direktiv, intonatsiya, nutq tempi, vokalizatsiya, diskursiv marker, reduplikatsiya.

Abstract. This article analyzes the phonopragmatic and prosodic features involved in expressing directive, commissive, and expressive speech acts within the Uzbek spoken discourse system using empirical examples. The study highlights the intricate correlation between the speaker's illocutionary goals, subjective attitudes, and emotional-psychological states with speech intonation, tempo, register, and vocalization (vowel elongation) processes. In particular, the comparative aspects of the Uzbek and English languages, the pragmatic modifications of imperative sentences, discursive markers, reduplication (word repetition), and the pronunciation dynamics of temporal (time) units are linguistically examined through authentic speech samples. The research findings scientifically demonstrate that the phonopragmatic system of the Uzbek language is highly adaptive and productive in conveying linguistic meanings.

Keywords: phonopragmatics, speech acts, prosody, illocutionary goal, directive, intonation, speech tempo, vocalization, discursive marker, reduplication.

Аннотация. В данной статье на основе эмпирических примеров анализируются фонопрагматические и просодические особенности выражения директивных, комиссивных и экспрессивных речевых актов в системе узбекской разговорной речи. В исследовании освещается тесная взаимосвязь иллокутивных целей, субъективного отношения и эмоционально-психологического состояния говорящего с речевой интонацией, темпом, регистром и процессами вокализации (пролонгации гласных). В частности, на основе образцов живой речи подвергнуты лингвистическому анализу сравнительные аспекты узбекского и английского языков, прагматические модификации императивных предложений, дискурсивные маркеры, редупликация (повтор слов) и динамика произношения темпоральных (временных) единиц. Результаты исследования научно обосновывают высокую адаптивность и продуктивность фонопрагматической системы узбекского языка в выражении различных прагматических смыслов.

Ключевые слова: фонопрагматика, речевые акты, просодия, иллокутивная цель, директив, интонация, темп речи, вокализация, дискурсивный маркер, редупликация.

INTRODUCTION.

The expression of speech acts through phonetic-prosodic means in the English and Uzbek languages manifests itself in close connection with the phonological structure of the language system and the national speech culture. In most scientific research within this field, the phonopragmatic approach is aimed at co-examining prosodic and auditive processes, specifically looking at the role and function of the speaker's illocutionary goals and pragmatic intentions during the execution of speech acts. Indeed, every speech act—such as a command, request, promise, threat, apology, congratulation, and announcement—possesses a specific prosodic configuration composed of unique intonation, stress, timbre, rhythm, and pauses; these elements serve as the primary phonetic factors in realizing a particular illocutionary force.

Particularly, directive speech acts, which are among the most fundamental of these speech acts—namely commands and requests—exhibit partially similar and partially distinct pronunciation characteristics in the compared languages.

In English, a command is expressed with a falling intonation and strong dynamic stress. If the command softens into a request, the intonation becomes rising. Research indicates that the force of a command is not universally tied to prosody but is rather mediated through the structural priorities of the language. In Uzbek, however, a command is primarily expressed via imperative suffixes. Yet, it is the prosody that determines the degree of decisiveness of the command. Even though the particle *-chi* is attached to form a request in the Uzbek language, intonation still plays a decisive role. Comparatively, the strictness of a directive in English relies more heavily on prosody because the verb form in both command and request sentences remains virtually identical in English. In Uzbek, morphological means assume this distinguishing function, while prosody either reinforces or slightly moderates this distinction.

RESEARCH MATERIALS AND CORPORA.

We gathered factual speech data from two main digital audio databases: **The Uzbek Phonopragmatic Corpus:** This collection holds spontaneous oral speech samples from Uzbek-English bilinguals in the Andijan regional dialect zone. It includes everyday conversations, spoken stories (narratives), and directive exchanges recorded in natural settings. **Experimental and Analytical Methods.** We applied a set of structured methods during our tests and analysis: **Auditory (Perceptive) Analysis:** Experts carefully listened to the audio corpus to evaluate rhythmic patterns, intonation shifts, stress types, and syntagmatic breaks in bilingual speech. **Phonopragmatic and Communicative Analysis:** We used this to check how prosodic features work within speech acts like directives, commissives, and expressives. We analyzed lexical elements (like the Uzbek word “voy”), discourse markers, and sentence setups alongside the speaker's pragmatic intent. **Contrastive-Typological Method:** We compared English intonation movements (fall, rise, fall-rise) with modal suffixes and clitics in Uzbek (like *-u*, *-yu*, *-da*, *-ku*). We also evaluated rhythm, treating English as a stress-timed system and Uzbek as a syllable-timed one. **Experimental-Acoustic Method:** This technical step let us measure speech signals in emotional contexts (like irony, exaggeration, or hesitation). It tracked changes in vowel length and the strength or doubling of consonants.

Results And Discussions. When spoken speech samples (audio recordings) of Uzbek informants were initially analyzed within the scope of directive speech acts, instances of effectively utilizing phonopragmatic and paralinguistic means were observed during narrative processes to enhance expressiveness and evoke visual imagery in the listener. In doing so, speakers adapted their sound systems to the speech situation in order to reflect events dynamically and vividly.

The following empirical example provides a vivid illustration: “*Auditoriyaga kirdim, ya’ni auditoriya eshigini ochdim, ochibela domlaga qaradimda uzr domla kech qoldim, kirishga ruxsat bering aftobus buzilib qoldi, ozgina kech qolib ketdim dedim va Shunda ichkaridagi hamma talabalar jiiim bo’lib qolishdi*” (I entered the classroom, meaning I opened the classroom door, and as soon as I opened it, I looked at the teacher and said, 'Sorry teacher, I'm late, please let me come in, the bus broke down, I got a bit delayed,' and at that moment, all the students inside became dead silent).

A linguistic analysis of the above context reveals that the individual speech variant “*ochibela*,” used in the first part and characteristic of the Andijan dialectal zone, is a pragmatic equivalent of the verbal form “*ochiboq*” (as soon as I opened). Here, the speaker pronounced this unit with a fast speech tempo (rapid intonation) to emphasize the simultaneity of the action (that it occurred quickly and in immediate succession). Furthermore, the lexeme “*jiim*” (silent/quiet) in the second part of the context interprets the emotional-psychological state of the informant. That is, the elongated pronunciation of the vowel [i:] in this instance (a quantitative change) and the slowing down of the speech tempo served to embed a phonopragmatic semantics (an effect of absolute silence) into the speech situation.

Similarly, the subjective attitude (positive or negative connotation) of Uzbek speakers toward a specific reality is fully reflected in the intonational-prosodic features of their speech. Specifically, lexical units with positive meanings (“*ajoyib*” [wonderful], “*zo‘r*” [great], “*a‘lo*” [excellent]) are pronounced with a high pitch (registral rise) and intensity during the speech process. Conversely, words with negative coloring frequently manifest through a falling intonation and a depressive tone (passive registral decline).

In particular, this pattern can be observed from a pragmatic perspective in the following conversational discourse example: “*Lekin gapini bo‘lmadim, oxirigacha tabassum qilib, kulib eshitib turdim, keyin esa jilmayib turib unga aytdimki: Ajoyib fikr, yaxshi, to‘g‘ri aytyapsiz, lekin buni bir o‘ylab ko‘rish kerak ekan — dedim-da, mavzuni silliqqina boshqa tomonga burib yubordim*” (But I didn't interrupt him, I kept listening with a smile and laughing until the end, and then, smiling, I told him: 'Wonderful idea, good, you're right, but this needs to be thought over,' I said, and smoothly diverted the topic in another direction).

In this context, the expressive-evaluative lexeme “*ajoyib*” utilized by the informant is highlighted in the speech act with an intonational stress and a high acoustic pitch. The clitic *-da* within the phrase “*dedim-da*” coming in the subsequent part of the speech acts as a discursive marker, phonostylistically expressing the dynamic swiftness of the action and the immediate implementation of the communicative strategy (changing the topic) by the speaker.

The process of a speaker narrating events via directive speech acts within the Uzbek communicative system possesses unique phonopragmatic characteristics. In this regard, when the speaker aims to express their true (subjective) attitude toward a specific fact during the core progression of the discourse, they drastically alter the prosodic parameters (intonation, tone, pace) of their speech. Consequently, the uniform intonation aimed at providing basic information is replaced by an additional tone with a high level of expressiveness. This transformation ensures the embedding of phonopragmatic meaning within the discourse.

This phenomenon can be observed through the following empirical example drawn from a live speech process: “*U yerdan chiqib biz taksi chaqirganmiz. Keyin taksi kelganda, u taksini imkoniyati cheklangan ekan. Men u taksini ustidan kulmoqchi emasman. U taksist gapirolmas edikan. Keyin biz yo‘lni tushuntirolmaganmiz. Sms yozganmiz, bizni Yangibozorga olib borib qo‘ying deb*” (Leaving there, we called a taxi. Then, when the taxi arrived, that taxi driver turned out to be disabled. I don't mean to laugh at that taxi. That taxi driver couldn't speak. Then, we couldn't explain the directions. We wrote an SMS, asking him to take us to Yangibozor). An analysis of the provided context shows that the intonation dynamics, which develop neutrally and systematically in line with a directive speech act, suddenly shift, and an acceleration (speeding up) of the speech tempo is observed at the stage where the speaker inserts their own point of view. This situation serves to substantiate the leading role of phonopragmatic means in shaping pragmatic connotations and subjective attitudes within the system of speech acts.

From a phonopragmatic aspect, a change in the speaker's speech tone and intonation acts as an alternative indicator of their implicit (hidden) or explicit (open) attitude. In the Uzbek language, if a speaker feels the need to emphasize their subjective position or demonstrate that they are free from stereotypical perceptions while recounting a chain of events within a directive speech structure, they resort to a phonetic conversion such as shifting speech registers (code-switching).

For instance, in the scientific example above, a sharp change in the intonational contour and an increase in speech tempo (speed) are observed at a specific point in the discourse line (“*Men u taksini ustidan kulmoqchi emasman...*”). This phonetic modulation occurred to express the goal of preventing the speaker from being misunderstood by the listener (pragmatic preventiveness). Thus, the transition of the speech intonation from one type of invariant state to another variant is not merely an acoustic phenomenon, but rather a linguistic tool that interprets the pragmatic goal and maintains discourse balance.

In most cases, the pragmatic potential and illocutionary goals of imperative (command) sentences in Uzbek colloquial speech undergo modification primarily through phonation (intonation) means. Frequently, command sentences are realized structurally without morphological markers, i.e., through the bare verb stem (*bor* [go], *kel* [come], *bajar* [execute]). However, giving these structures expressive-emotional colorings such as formality, anger, irony, or humor depending on contextual and situational demands depends entirely on the speaker's phonopragmatic skill. For example, the imperative lexeme “*bor*” within the linguistic lexicon acquires different illocutionary forces through variations in intonation. To express a formal-official meaning, a lexical modifier (*iltimos* [please]) is added to the structure, and a soft tonality is employed. In aggressive (anger-wrath) situations, it is expressed through an increase in acoustic energy (high volume) and an exceptionally clear articulation of the differential features of phonemes (voicedness, decisiveness). Turning to the semantics of irony, it manifests during the vocalization process by elongating vowel phonemes (quantitative coherence). A humorous (joking) subtext, on the other hand, is revealed by adding the intersubjective affix *-ey* to the end of the word and prolonging (stretching) this vowel. In short, the fact that a single imperative unit can express diverse illocutionary meanings in a speech act scientifically validates that the phonopragmatic system of the Uzbek language is remarkably productive and highly adaptive.

Pragmatic modifications of imperative sentences in Uzbek colloquial speech are not limited to expressing a strict demand or command. Here, by means of intonation (melodics) and prosodic tools, a command discourse can acquire phonopragmatic functions such as a request, a wish, or positive irony. In such linguistic phenomena, an instance of over-elongation of the vowel phoneme in the final syllable of the verb within the sentence (a quantitative prosodeme) is observed. This prosodic elongation softens the strict command intonation, introducing a unique connotative meaning into the speech—elements of gentle irony or courtesy. For instance, paralinguistic examples in colloquial speech such as “*Shu voqeani menga aytib berse-e-e-eng*” (If only you could tell me this story...) or “*Shu gapni gaplashsa-a-a-a-k*” (If only we could talk about this...) dismantle psychological barriers in the listener and serve to spontaneously engage them in the communication process (to continue the narration).

The monotone intonation observed in the speech of many informants during a directive speech act is explained by the fact that the speaker's primary communicative goal is solely to transmit information. In this case, events are linked equally via conjunctions, particles, or intonation. However, deviations from monotony are observed in the pronunciation of certain speech units introduced as supplementary information during the discourse process. In such cases, secondary information is expressed at an accelerated tempo and with an expressive intonation that matches the context. For example, the following speech interpretation by a respondent supports our view: “*Hayotimizda kulgili voqealar ko‘p bo‘ladi. Bulardan albatta eng kulgilisi akalarim bilan bo‘lgan. Ikkita akam bor. Rosa qitmir bo‘lganmunda yoshligimda*” (There are many funny events in our lives. Of these, the funniest was certainly with my brothers. I have two brothers. I was so mischievous in my childhood). In the given example, the sentence “*Ikkita akam bor*” (I have two brothers) is a secondary unit introduced additionally into the text. The fact that the speech slightly accelerated during the pronunciation of this unit acquires a phonopragmatic meaning.

The pronunciation duration and pace of units indicating chronological sequence (e.g., *dastavval* [first of all], *birinchi navbatda* [in the first place], *o‘rtasida* [in the middle of], *yakunida* [at the conclusion of]) as well as those possessing temporal (time) semantics (e.g., *oldinlari*

[formerly], *o'shanda* [at that time], *hozir* [now], *hozirgina* [just now]) vary depending on their pragmatic function and position within the speech context.

Furthermore, lexemes indicating the starting point of events (*dastavval*, *birinchi navbatda*) or units pointing to a past chronotope (*oldinlari*, *o'sha vaqtlar*) are pronounced in a speech act with a prolonged prosodic intonation—specifically, by elongating (vocalizing) the vowel sound in the first syllable—in order to evoke a certain retrospective atmosphere and emotional-psychological imagery in the listener. Conversely, temporal units denoting the middle stage of a process possess neutral, mid-tempo, and stable prosodic quantity patterns.

Lexical units indicating the final stage of an event (*so'ngida*, *oxirida*, *yakunida*) and those denoting a time interval close to the moment of speech (*hozir*, *hozirgina*, *yaqindagina*) are pronounced at a relatively accelerated (fast) tempo in accordance with their semantic nature. This dynamic ensures that information is delivered to the listener not only at the lexical-semantic level, but also through a system of phonopragmatic means (intonation, tempo, and pitch) that indicate its proximity to the moment of speech.

Turning to expressive speech acts, these express the speaker's attitude and emotion toward the occurring event and process. Expressives include apologies, congratulations, gratitude, and empathy, and their phonopragmatic load is substantial. This is because the same lexical unit can convey entirely different meanings when accompanied by different prosody. For instance, if the phrase “*Thank you*” is uttered in a low and flat intonation, it signifies a formal and indifferent expression of gratitude. If the pitch rises high and then gently falls, it indicates sincere gratitude. If the pitch rises sharply and then abruptly drops, irony and dissatisfaction are expressed. In the Uzbek language, when the word “*Rahmat*” (Thank you) is spoken with a rising pitch and elongation, it expresses warmth and sincerity, whereas a short and low pitch denotes formality or indifference. If the pitch rises and then sharply drops, dissatisfaction or a complaint may be hidden beneath the gratitude. High volumes and timbres hold significant importance in Uzbek speech. Here, a high timbre signifies strong emotion, a low and soft timbre denotes sincerity, and a trembling timbre indicates excitement or fear. In English, however, the intonation contour and duration play the leading role.

In English, a speaker primarily expresses their supplementary attitude toward the thought they are conveying through relative clauses. In this case, the intonation comes out slightly higher, signaling that a supplementary attitude is being expressed. For example: *When she got there, there was a woman waiting for her, a woman gave Sara an official letter which was surprising.*

In Uzbek colloquial speech, reduplication (word repetition) is effectively utilized by the speaker to increase expressiveness and prominently highlight commissive meanings, such as promises, obligations, or intentions. For instance, in the example: “*Hayotimda esda qolarli voqea velosiped minish bo'lgan, yiqilib tushey-yiqilib tushey deb o'rganganman, lekin baribir yaxshi o'rganolmaganman*” (A memorable event in my life was riding a bicycle; I learned it thinking 'I might fall, I might fall,' but I still couldn't learn it well), the reduplicative structure “*yiqilib tushey-yiqilib tushey*” vividly reflects the speaker's emotional-evaluative attitude toward an past action-state that progressed through difficulties, via their speech intention.

Within the framework of speech act theory in Uzbek, lexical repetitions perform an important pragmatic function in reinforcing commissiveness and subjective attitudes. The reduplicative form “*yiqilib tushey-yiqilib tushey*” in the observed text serves not merely to denote a physical action, but also acts as a modality marker that accentuates the speaker's psychological state, anxiety, and simultaneously their determination on the path to achieving a goal.

In Uzbek spoken discourse, a speaker's subjective attitude and pragmatic motivation are also interpreted through lexical units that form degrees of quality. For example: “*Kelajakdagi rejalarim haqida gapirsam, eng birinchi o'rinda INYAZga perezod qilib olganimdan keyin IELTS topshirib ko'rmoqchiman*” (Speaking about my future plans, first and foremost, after transferring to INYAZ, I want to try taking the IELTS). Specifically, in the proposition reflecting the subject's future plans, the use of the intensive particle “*eng*” (most) within the phrase “*eng birinchi o'rinda*” (first and foremost) with special emphasis serves to ensure semantic dominance and intensify the speaker's attitude, thereby acquiring a phonopragmatic meaning.

CONCLUSION.

The research into the phonopragmatic and prosodic characteristics of the Uzbek language across directive, commissive, and expressive speech acts reveals several critical sociolinguistic and structural paradigms. By changing the scholarly analytical lens from rigid syntactic-morphological boundaries to functional acoustic-prosodic frameworks, this study underscores that speech production is inherently bound to the speaker's underlying illocutionary force, subjective evaluations, and contextual strategies.

The main empirical and theoretical outcomes of this research can be synthesized into the following core configurations:

Prosodic Mediation vs. Morphological Prepotency: In contrast to the English language, where directive strictness heavily dictates an unyielding reliance on intonational contour due to identical verb structures in requests and commands, the Uzbek language exhibits a hybrid model. When Uzbek natively relies on rich morphological markers (such as imperative suffixes and the clitic *-chi*), prosody does not merely duplicate these structures. Instead, acoustic-prosodic parameters—including pitch modulation, duration, and tempo variation—serve a crucial secondary function, either radically reinforcing the decisiveness of a command or fluidly transforming it into elements of gentle irony, humor, or deep courtesy.

Acoustic Realization of Subjective Modality: The analysis of authentic discourse shows that variations in speech tempo and vowel elongation (quantitative prosodemes) are direct vehicles for pragmatic preventiveness and conversational positioning. As evidenced by dialectal examples (e.g., “*ochibela*”) and phonetic expansions (e.g., “*jiim*”), speakers intentionally distort typical pronunciation norms to induce specific psychological effects or enforce conversational balance. Acceleration in speech registers acts as an alternative code-switching mechanism to navigate sensitive topics or guide listener comprehension, maintaining that acoustic delivery overrides mere literal semantics.

Dynamic Lexical and Syntactic Calibration: Time-sensitive markers (temporal units) and emphatic particles (e.g., “*eng*”) demonstrate systematic phonopragmatic features. Speakers naturally draw out structural components when establishing retrospective chronotopes to build shared imagery, while accelerating their delivery during conclusive stages to signal temporal imminence. Furthermore, morphological strategies such as reduplication (e.g., “*yiqilib tushey-yiqilib tushey*”) explicitly function as prosodic intensifiers that highlight the speaker's commitment, anxiety, or determination within commissive speech configurations.

To sum up, the phonopragmatic system of the Uzbek language manifests as a highly adaptive, fluid, and expressive apparatus. The intersection of phonetic tools, dynamic pitch variances, and paralinguistic configurations functions as a primary engine for interpreting human discourse, confirming that spoken Uzbek relies heavily on prosodic competence to achieve strategic communicative equilibrium.

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SEMANTIC COMPARISON OF UZBEK AND ENGLISH PROVERBS THROUGH ARTIFICIAL INTELLIGENCE

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Abstract: Proverbs carry the accumulated experience of a people in a handful of words. When two languages are set side by side, their proverbs often turn out to say the same thing in strikingly different ways a fact that has occupied paremiologists for well over a century. This paper looks at what changes when artificial intelligence enters that comparison. Drawing on Uzbek and English proverb pairs, it walks through a practical, three-part classification full equivalence, partial equivalence, and gaps with no fixed counterpart and shows how multilingual embedding models and language models can help identify each type more quickly than a dictionary search alone. The discussion then turns to why this matters beyond the technical exercise: for translators trying to avoid flat, literal renderings; for language teachers looking for material that actually sticks; for lexicographers building resources in a language, Uzbek, that computational linguistics has largely overlooked; and for anyone curious about what proverbs reveal about how two cultures think. The paper closes by being honest about where the technology still falls short, and where a human reader is, for now, irreplaceable.

Keywords: paremiology, proverbs, semantic comparison, artificial intelligence, natural language processing, Uzbek language, English language, cross-cultural linguistics

Annotatsiya: Maqollar bir xalqning ko'p asrlik tajribasini bir necha og'iz so'zda mujassam etadi. Ikki til yonma-yon qo'yilganda, ularning maqollari ko'pincha bir xil fikrni butunlay boshqa yo'l bilan ifodalaydi bu hodisa bir asrdan ortiq vaqtdan beri paremiologlarni qiziqtirib kelmoqda. Ushbu maqolada sun'iy intellekt shu qiyoslash jarayoniga kirib kelganda nima o'zgarishi ko'rib chiqiladi. O'zbek va ingliz maqol juftliklariga tayangan holda, amaliy uch bosqichli tasniflash to'liq ekvivalentlik, qisman ekvivalentlik va aniq muqobili yo'q bo'shliqlar orqali ko'p tilli embedding modellari va til modellari har bir turni oddiy lug'at qidiruviga qaraganda tezroq aniqlashga qanday yordam berishi ko'rsatiladi. So'ngra bu masalaning shunchaki texnik mashqdan tashqari nima uchun muhim ekani muhokama qilinadi: tekis, so'zma-so'z tarjimalardan qochmoqchi bo'lgan tarjimonlar uchun; haqiqatan ham yodda qoladigan material qidirayotgan til o'qituvchilari uchun; sun'iy intellekt ko'pincha e'tibordan chetda qoldirgan o'zbek tili uchun resurs yaratayotgan leksikograflar uchun; hamda maqollar ikki madaniyatning fikrlash tarzi haqida nimalarni ochib berishiga qiziquvchi har bir kishi uchun. Maqola texnologiyaning hozircha qayerda o'zligini va inson o'quvchisi hamon o'rnini bosib bo'lmaydigan joylarni ochiq tan olish bilan yakunlanadi.

Kalit so'zlar: paremiologiya, maqollar, semantik qiyoslash, sun'iy intellekt, tabiiy tilni qayta ishlash, o'zbek tili, ingliz tili, madaniyatlararo tilshunoslik

Аннотация: Пословицы вмещают в себя многовековой опыт народа всего в нескольких словах. Когда два языка сопоставляются друг с другом, их пословицы нередко выражают одну и ту же мысль совершенно разными способами этот факт занимает паремиологов уже более столетия. В данной статье рассматривается, что меняется, когда в этот процесс сопоставления включается искусственный интеллект. На материале узбекских и английских пословичных пар представлена практическая трёхчастная классификация полная эквивалентность, частичная эквивалентность и лакуны без устойчивого соответствия, и показано, как многоязычные модели встраивания (*embedding*) и языковые модели помогают выявлять каждый из этих типов быстрее, чем обычный словарный поиск. Далее обсуждается, почему это важно не только как техническое упражнение: для переводчиков, стремящихся избежать плоских, дословных переводов; для преподавателей языка, ищущих материал, который действительно запоминается; для лексикографов, создающих ресурсы для узбекского языка, во многом обойдённого вниманием компьютерной лингвистики; и для всех, кому интересно, что пословицы говорят о мышлении двух культур. Статья завершается честным признанием того, в чём технологии пока уступают, и где живой читатель остаётся незаменимым.

Ключевые слова: паремиология, пословицы, семантическое сопоставление, искусственный интеллект, обработка естественного языка, узбекский язык, английский язык, межкультурная лингвистика

INTRODUCTION.

Ask any Uzbek grandmother why hard work matters and she may answer with a single line: "Mehnat qilsang nonni yeysan" if you labour, you will eat bread. Ask an English speaker the same question and the answer might be "no pain, no gain." The two sayings arrive at the same conclusion by two completely different routes. One reaches for bread, the most basic and sacred food in Central Asian daily life; the other reaches for the abstract vocabulary of pain and gain. Neither translation of the other captures quite what the original does and that gap is precisely what makes proverbs such a rewarding, and stubborn, object of linguistic study.

Proverbs belong to paremiology, the branch of linguistics concerned with fixed, traditional sayings and the wisdom they encode. Far from being decorative, they tell us how a community talks about labour, honesty, family, hospitality, patience, and time often more directly than an entire chapter of ethnography could. A linguist who sets out to compare proverbs across two languages is, in a real sense, comparing two ways of seeing the world.

The trouble is that this comparison has historically been done by hand: a researcher pages through bilingual dictionaries, or relies on personal familiarity with both cultures, to decide which proverb in Language A corresponds to which proverb in Language B. This works, but slowly, and the result depends heavily on who is doing the comparing. A translator with limited exposure to English proverbial tradition might render "Mehnat qilsang nonni yeysan" word for word into English. The sentence would be grammatically correct and completely accurate and it would fall flat, because it no longer sounds like a proverb to an English ear.

This is where artificial intelligence has begun to change what is practically possible. Multilingual sentence-embedding models can turn a sentence, in any of dozens of languages, into a string of numbers that represents its meaning rather than its exact wording. Two proverbs that share no vocabulary at all can still end up close together in that numerical space if they mean roughly the same thing. Large language models add a further layer: asked directly, they can explain in plain language why two proverbs might or might not correspond, flagging cases where a literal translation would mislead a reader who does not already know both cultures. None of this replaces the linguist. What it does is let a researcher work through far more material, far more consistently, than manual comparison ever allowed.

Curiously, given how much attention AI-assisted translation has received in the last few years, systematic work comparing Uzbek and English proverbs specifically remains thin on the ground. Part of the reason is technical: Uzbek is what computational linguists call an under-resourced language the large multilingual corpora used to train today's models simply contain far less Uzbek text than English, Spanish, or Mandarin. That fact cuts both ways. It means AI tools may be somewhat less reliable when applied to Uzbek. It also means that any careful work in this area does double duty, producing not only a linguistic finding but a small contribution to the digital resources Uzbek still lacks.

With that background in mind, this paper sets itself a fairly modest, concrete goal: to show, with real proverb pairs rather than abstract description, how AI-based semantic comparison actually works between Uzbek and English, and to explain without unnecessary jargon why the exercise is worth doing at all.

MATERIALS AND METHODS.

Uzbek proverbs were drawn from long-established collections, most notably Shomaqsudov and Shorahmedov's annotated dictionary of Uzbek proverbs (published as Hikmatnoma in 1990 and reissued as Ma'nolar maxzani in 2001) and Mirzayev's compiled edition of Uzbek folk proverbs. English material was taken from the Oxford Dictionary of Proverbs, a standard reference in the field. From this material, six proverb pairs were chosen for close discussion in this paper not because they exhaust the possibilities, but because together they illustrate the full range of relationships a comparison of this kind is likely to turn up, from near-literal correspondence to proverbs with no fixed counterpart in the other language at all.

The comparison combined computational and human judgment in four stages. Each Uzbek proverb was first translated literally into English, so that its underlying image a caravan, moonlight, a guest could be seen clearly and separately from any existing idiomatic English proverb it might resemble. That literal gloss, together with a shortlist of candidate English proverbs, was then converted into vector form using a multilingual sentence-embedding model of the kind now standard in cross-lingual natural language processing (models such as LaBSE or multilingual BERT are typical examples). The cosine similarity between these vectors gave a rough numerical sense of how close two proverbs were in meaning, independent of their wording. Because a similarity score on its own says little about cultural nuance, a large language model was then asked to explain, in ordinary language, what relationship if any held between the Uzbek proverb and its English candidate; a human reviewer with knowledge of both languages checked this explanation before any pair was assigned a final classification. The human step was not a formality: several candidate matches that scored reasonably well numerically were rejected at this stage because the underlying cultural logic did not actually line up.

Three categories, already familiar from earlier comparative paremiology, were used to sort the results. A pair counted as a full equivalent when both proverbs delivered the same core lesson regardless of the images used to get there a warning against haste, for instance, or praise for hard work. A pair counted as a partial equivalent when the two proverbs overlapped in meaning but leaned on noticeably different cultural imagery, tone, or scope. And a Uzbek proverb was treated as lacunar, or gapped, when no fixed English proverb covered the same ground usually because the Uzbek saying encoded a specifically Central Asian practice or value that English proverbial tradition simply never had reason to develop a fixed phrase for.

Table 1 sets out the six proverb pairs discussed here, along with a literal gloss of the Uzbek original, the closest English equivalent where one exists, the classification assigned to the pair, and a short note on how the imagery differs.

Table 1. AI-assisted semantic comparison of six Uzbek and English proverb pairs

Uzbek proverb	Literal / English gloss	English equivalent	Type	Note on imagery
Mehnat qilsang — nonni yeysan	If you labour, you will eat bread	No pain, no gain	Full	Uzbek image: bread as the reward of labour; English image: abstract pain/gain
Yetti o'lchab, bir kes	Measure seven times, cut once	Look before you leap	Full	Both warn against hasty action; Uzbek uses a tailoring image, English a physical-movement image
It hurar, karvon o'tar	The dog barks, the caravan passes	The dogs bark, but the caravan moves on	Full	Shared caravan imagery rooted in Silk Road trade life; near-literal correspondence in English usage
Ko'rga oydin nima naf	What use is moonlight to a blind man	It's no use casting pearls before swine	Partial	Both mark 'wasted value', but the Uzbek image (blindness/light) differs sharply from the English (pearls/swine)
Mehmon otangdan ulug'	The guest is greater than your father	(no fixed equivalent; loosely: "Treat your guest like royalty")	Lacunar	Reflects Central Asian hospitality codes with no fixed English proverb counterpart
Bir kun ovqat yema, bir kun kitob o'qi	Skip a meal for a day, but read a book for a day	(no fixed equivalent; loosely relates to "Knowledge is power")	Partial	Value placed on learning over material comfort; English tradition expresses the value differently

A few patterns stand out even in this small sample. Proverbs built around genuinely universal concerns patience, caution, the connection between effort and reward tend to land in the full-equivalence category. That is not especially surprising: agrarian and trading societies the world over, whether historically nomadic or settled, have had ample reason to develop sayings about hard work paying off or haste leading to mistakes. Partial equivalents tell a slightly different story. Here both languages clearly agree on the underlying judgment that something has been wasted, say, or that learning matters more than comfort but each reaches for a different cultural object to make the point: moonlight and blindness on the Uzbek side, pearls and swine on the English side. The lacunar cases are the most revealing of the three. "Mehmon otangdan ulug'" the guest is greater than your father has no single fixed English counterpart, and it is not hard to see why: it encodes a code of hospitality that runs deeper and more formally through Central Asian social life than through the English-speaking world, where no comparably fixed saying was ever needed.

RESULTS AND DISCUSSION.

None of this would be worth doing if it stopped at classification. The more interesting question is what this kind of AI-assisted comparison is actually good for and where it still needs a human hand.

Proverbs are among the hardest things to translate well, precisely because a literal rendering is usually accurate and usually wrong at the same time. A translator working quickly through a text containing "It hurar, karvon o'tar" might render it word for word and leave an English reader puzzled about the dogs. What the reader needs is the English saying that does the same job "the dogs bark, but the caravan moves on" is close enough in most contexts to preserve both the sense and the proverbial ring of the original. An AI similarity search can surface that candidate in seconds across a

large text, which is simply not something a translator working alone through print dictionaries can match at scale.

For a learner, proverbs are often where fluency starts to look like real cultural competence rather than grammatical correctness. Knowing that "no pain, no gain" exists is one thing; knowing that it corresponds to a saying the learner already uses comfortably in their own language is what makes the phrase usable rather than merely memorised. Paired proverb lists generated with AI assistance, and checked by a teacher before use, give learners something more concrete to hold onto than an isolated vocabulary list a saying they can actually reach for in conversation.

Bilingual proverb dictionaries have traditionally been compiled over years of patient, largely manual work the Uzbek tradition alone includes decades of such effort, from Shomaqsudov and Shorahmedov's dictionary through Mirzayev's later compilations. AI tools do not replace that scholarship; what they can do is propose candidate matches for a lexicographer to accept, reject, or refine, considerably speeding up the early stages of that work. This matters more for Uzbek than for English, simply because the digital resources available for Uzbek annotated corpora, trained models, machine-readable dictionaries remain far behind what exists for major world languages. Every careful comparative study in this area is, in a small way, also an act of resource-building.

There is also a more reflective payoff. Because proverbs encode values, the pattern of equivalence and non-equivalence found between two languages says something about how their speakers think. The recurring full equivalence around diligence and caution points to concerns that are close to universal. The lacunar case built around hospitality points the other way, toward what is genuinely distinctive about Uzbek social life. Comparative paremiology, done carefully and with AI as one tool among several, ends up telling us as much about shared human cognition as it does about cultural particularity and the two are easiest to see clearly side by side.

It would be misleading to end without naming the limits plainly. Multilingual embedding models are trained overwhelmingly on languages with large amounts of available text, and Uzbek is not one of them; similarity scores involving Uzbek input should therefore be treated as a starting point rather than a verdict. Numerical similarity also has little to say about humour, irony, or register — qualities a fluent human reader catches instantly and a model may miss entirely. For that reason, every AI-generated suggestion in this study was treated as exactly that: a suggestion, to be confirmed or discarded by a reader who actually knows both languages, not a final answer to be taken on faith.

The obvious next step is to fine-tune a multilingual model specifically on an annotated Uzbek–English proverb corpus, which should improve accuracy considerably for this particular language pair. The same approach could reasonably extend to other Turkic languages, building toward a broader regional resource rather than a bilingual one. Pairing any of this with crowd-sourced human validation native speakers checking proposed matches would also help keep the resulting bilingual database trustworthy rather than merely large.

CONCLUSION.

The proverbs discussed here are ordinary enough most Uzbek and English speakers would recognize several of them without a second thought. What is less ordinary is how much they reveal once set side by side and examined closely: where two cultures reach the same conclusion by different roads, and where one culture has a fixed saying that the other simply never needed. AI-based semantic comparison does not change what proverbs mean; it changes how quickly and how systematically that meaning can be traced across a language pair, provided a human reader remains part of the process rather than stepping out of it. That combination computational reach paired with cultural judgment is what makes this an area worth continued attention, both for what it can offer translators and teachers today and for the digital resources it can help build for Uzbek going forward.

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GAMIFICATION IN ENGLISH LANGUAGE TEACHING: THEORETICAL FOUNDATIONS AND PRACTICAL IMPLICATIONS

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Annotatsiya. Ushbu maqola ingliz tilini o'qitishda (ELT) o'yinlashtirishni pedagogik yondashuv sifatida ko'rib chiqadi. Unda kontseptsianing motivatsiya nazariyasi va sotsiomadaniy o'rganish nazariyasidagi nazariy asoslari bayon etilgan, til sinflarida qo'llaniladigan asosiy o'yin elementlari tavsiflangan, o'yinlashtirishni o'yinga asoslangan o'rganishdan ajratib ko'rsatilgan va amalga oshirish tamoyillari va cheklovlari muhokama qilingan. Maqolada o'yin elementlari ularni almashtirish o'rniga aniq o'rganish maqsadlariga xizmat qilganda, o'yinlashtirish eng samarali bo'lishi ta'kidlangan.

Kalit so'zlar: o'yinlashtirish, ingliz tilini o'qitish, motivatsiya, o'yinga asoslangan o'rganish, o'quvchilarni jalb qilish

Аннотация. В данной статье рассматривается геймификация как педагогический подход в преподавании английского языка. Излагается теоретическое обоснование концепции в теории мотивации и социокультурной теории обучения, описываются основные игровые элементы, используемые на языковых занятиях, проводится различие между геймификацией и игровым обучением, а также обсуждаются принципы и ограничения внедрения. В статье утверждается, что геймификация наиболее эффективна, когда игровые элементы служат четким целям обучения, а не заменяют их.

Ключевые слова: геймификация, преподавание английского языка, мотивация, игровое обучение, вовлеченность учащихся

Abstract. This article examines gamification as a pedagogical approach in English language teaching (ELT). It outlines the concept's theoretical grounding in motivation theory and sociocultural learning theory, describes the main game elements used in language classrooms, distinguishes

gamification from game-based learning, and discusses implementation principles and limitations. The article argues that gamification is most effective when game elements serve clear learning objectives rather than replace them.

Keywords: gamification, English language teaching, motivation, game-based learning, learner engagement

INTRODUCTION

Sustaining learner motivation remains one of the central challenges of foreign language education. Learners often begin English courses with enthusiasm but lose interest when progress feels slow or classroom tasks become repetitive. In response, teachers and researchers have turned to gamification, a term that Deterding and colleagues define as the use of game design elements in non-game contexts. In ELT, this means bringing features such as points, levels, badges, challenges, and immediate feedback into ordinary lessons in order to make learning more engaging without turning the lesson into a full game.

Theoretical Foundations

Gamification draws on several established theories. Self-determination theory holds that motivation is strongest when learners experience autonomy, competence, and relatedness. Well-designed game elements support all three: choices in quests foster autonomy, visible progress builds competence, and team challenges strengthen relatedness. Csikszentmihalyi's concept of flow adds that people are most absorbed when the difficulty of a task matches their skill level, which explains why level-based progression is so central to game design.

Two language-learning theories are also relevant. Vygotsky's zone of proximal development suggests that learners progress best on tasks slightly beyond their current ability, with appropriate support, a principle that scaffolded levels and hints put into practice. Krashen's affective filter hypothesis proposes that anxiety and low motivation block language acquisition; a playful, low-risk environment in which mistakes carry no serious penalty may therefore lower this barrier. Dörnyei similarly stresses that creating a pleasant classroom atmosphere and increasing learners' expectations of success are core motivational strategies.

Core Elements and Mechanics

Werbach and Hunter organize game design into dynamics, mechanics, and components. In language classrooms, the most common components are points for completed tasks, badges for skill milestones (for example, "Phrasal Verb Master"), leaderboards, progress bars, levels, and time-limited challenges. Underlying mechanics include competition, cooperation, feedback loops, and rewards, while dynamics such as narrative and progression give the experience meaning. A vocabulary unit, for instance, may be framed as a story in which learners earn points by using new words in speaking and writing tasks, unlock the next "level" after reaching a target, and receive instant feedback on their accuracy.

Gamification and Game-Based Learning

Gamification is often confused with game-based learning (GBL), but the two differ. GBL uses complete games, such as board games, role-plays, or digital games, as the main vehicle of instruction. Gamification instead adds selected game elements to a structured course, so that the curriculum itself remains intact. In practice the approaches complement each other: a teacher may run a full vocabulary game in class (GBL) while tracking points and badges across the semester (gamification).

Practical Implementation in the Language Classroom

Effective implementation begins with learning objectives rather than tools. A teacher first decides what skill is to be developed, such as speaking fluency, vocabulary retention, or writing accuracy, and then selects mechanics that reinforce it. Several principles are widely recommended: (a) link points and badges to meaningful learning behavior, not attendance alone; (b) balance individual and team activities so that weaker learners are not discouraged by competition; (c) provide frequent, specific feedback; and (d) allow learners some choice in tasks. Digital platforms such as Kahoot!, Quizizz, and Duolingo-style applications can support these principles, but low-tech options, including class point charts and "quest" worksheets, are equally viable where technology is limited.

Challenges and Limitations

Research on gamification reports mostly positive but mixed outcomes. In a review of empirical studies, Hamari, Koivisto, and Sarsa found that gamification generally produces positive effects, though results depend heavily on the context and on the learners involved. Poorly designed systems can produce problems: extrinsic rewards may undermine intrinsic interest, competitive leaderboards may discourage lower-proficiency learners, and novelty effects may fade over time. Gamification also demands teacher preparation time and, in some settings, reliable technology. These risks suggest that game elements should support communicative practice and intrinsic interest rather than replace them.

CONCLUSION

Gamification offers English teachers a practical way to increase motivation, participation, and persistence. Its strength lies in its grounding in motivation and learning theory, and its effectiveness depends on thoughtful design aligned with clear learning outcomes. Future research should examine long-term effects on language proficiency and compare gamified approaches across age groups and learning contexts.

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LEXICAL COMPRESSION IN ENGLISH SOCIAL MEDIA DISCOURSE

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Abstract. *This article examines lexical compression in English social media discourse through abbreviations, initialisms, letter substitutions and conversational reductions. The empirical material comprises 59,899 posts from the sentiment component of TweetEval. A rule-based inventory of 37 recurrent compact forms was applied, followed by frequency comparison and chi-square testing across negative, neutral and positive classes. Compact forms occurred in 8.31% of the corpus. Their incidence was nearly identical in negative and positive posts but lower in neutral posts. The most frequent items were u, gonna, lol, rt and wanna. The findings show that compression is not random deterioration of language; it is a small but systematic register resource combining economy, informality, stance and platform literacy.*

Keywords. *social media language, lexical compression, abbreviation, reduced form, digital discourse, corpus linguistics, TweetEval, sentiment*

Annotatsiya. Maqolada ingliz tilidagi ijtimoiy tarmoq diskursida qisqartma, initialsizm, harfiy almashtirish va so‘zlashuvga xos reduksiya tahlil qilinadi. Empirik material TweetEval korpusining 59 899 ta postdan iborat sentiment qismiga tayangan. 37 ta ixcham shakl qoidaviy usulda ajratilib, ularning salbiy, neytral va ijobiy postlardagi taqsimoti xi-kvadrat testi bilan tekshirildi. Natijalar ixchamlashuvni til buzilishi emas, balki tejamkorlik, norasmiylik va pozitsiyani ifodalovchi tizimli registr vositasi sifatida talqin qilish zarurligini ko‘rsatdi.

Kalit so‘zlar. ijtimoiy tarmoq tili, leksik ixchamlashuv, qisqartma, reduksiya, raqamli diskurs, korpus lingvistikasi, sentiment

Аннотация. В статье исследуется лексическая компрессия в англоязычном дискурсе социальных сетей: аббревиатуры, инициализмы, буквенные замены и разговорные редукции. Материалом послужили 59 899 сообщений корпуса TweetEval. Список из 37 компактных форм был обработан правилами, а распределение по отрицательному, нейтральному и положительному классам проверено критерием хи-квадрат. Результаты показывают, что компрессия является не случайным нарушением нормы, а системным ресурсом цифрового регистра, связанным с экономией, неформальностью и выражением позиции.

Ключевые слова. язык социальных сетей, лексическая компрессия, аббревиатура, редукция, цифровой дискурс, корпусная лингвистика, тональность

INTRODUCTION

Social media writing is produced under conditions of speed, visibility and continuous interaction. Its language therefore combines features of conversation with the graphic resources of writing. Shortened forms such as lol, idk, u and gonna are among the most noticeable signals of this hybrid register. They are often treated in public debate as evidence of declining literacy, yet research on computer-mediated discourse describes them more productively as choices shaped by audience, platform and interactional purpose [2; 3; 4]. The central question is not whether a form departs from edited prose, but what communicative work the departure performs.

The present study addresses three questions. First, which compact lexical forms are recurrent in a large English social media corpus? Second, does their incidence vary with evaluative polarity? Third, what linguistic functions can be inferred from their distribution? The study contributes a reproducible quantitative profile rather than relying on a small collection of striking examples. Its scientific novelty lies in relating lexical compression to the sentiment classes already supplied by TweetEval and in separating frequency from effect size.

The working hypothesis is that compact forms will be more common in evaluatively marked posts than in neutral posts because affective participation favors interpersonal and conversational styling. A second hypothesis is that the corpus will not be dominated by opaque acronyms alone: grammatical reductions and letter substitutions should also be prominent. Confirming this expectation would support a register-based account of social media language.

Crystal argues that Internet language cannot be reduced to either speech or writing because it develops conventions from both modes [3]. Barton and Lee similarly emphasize that online language is embedded in situated social practices rather than determined by technology alone [2]. From this perspective, lexical compression is a resource for managing tempo, participation and identity. The same form may reduce typing effort, display familiarity with a platform community, soften an utterance or mark an informal footing.

Tagliamonte and Denis found that the supposedly disruptive forms associated with instant messaging constituted only a limited part of young users’ language and coexisted with complex grammar [6]. Squires explains that features recognized as Internet language become socially meaningful through enregisterment: speakers and readers learn to associate them with types of users, stances and situations [5]. Thus lol may act as a response marker or stance cue even where literal laughter is not intended, while rt and dm index platform-specific practices.

Computational work also shows why such forms matter methodologically. Social media text challenges tokenization, part-of-speech tagging and sentiment analysis because reduced forms may be out of vocabulary or pragmatically ambiguous. TweetEval provides a standardized setting for

comparing social-media language tasks [1]. The present article uses its sentiment corpus as linguistic evidence, not as a model-training benchmark, and focuses on transparent descriptive statistics.

The dataset contains 59,899 English posts: 11,377 negative, 27,479 neutral and 21,043 positive items. User mentions are anonymized in the distributed corpus. All official train, validation and test partitions were combined because the objective was descriptive corpus analysis rather than predictive evaluation. The mean length was 18.55 word-like tokens per post. A case-insensitive lexicon of 37 compact forms was compiled before counting. It covered initialisms and discourse markers (lol, lmao, omg, idk, btw, tbh, smh), platform terms (rt, qt, dm), letter substitutions (u, r, ur), shortened connectives and politeness forms (bc, cuz, pls, plz, thx), and conversational reductions (gonna, wanna, gotta). A post received a binary value of 1 when at least one listed form occurred as an independent token. This conservative procedure avoids treating every apostrophe omission or spelling error as intentional compression. Frequencies were calculated at token and document levels. Association between presence of a compact form and sentiment class was tested with Pearson's chi-square test. Cramér's V was reported to prevent a large corpus from turning a very small difference into an exaggerated substantive claim. Statistical significance was set at $p < .05$. The method identifies distributional tendencies; it does not infer the writer's age, gender or intention.

At least one listed compact form occurred in 4,977 posts, or 8.31% of the corpus. The rate was 9.02% in negative posts, 7.45% in neutral posts and 9.04% in positive posts. The association was statistically significant, $\chi^2(2) = 48.838$, $p < .001$, but the effect was small, Cramér's $V = .029$. The result supports the predicted contrast between evaluatively marked and neutral posts, while warning against treating compression as a strong sentiment marker by itself. The lexical profile was heterogeneous. The ten most frequent items combined graphic substitution, grammatical reduction, laughter marking and platform vocabulary. This distribution confirms that social media compression is not a single word-formation process. It is a family of practices whose common outcome is a shorter or more conventional digital form.

The near-equal rates in positive and negative posts are theoretically important. If compression merely signaled friendliness, it should have concentrated in positive posts. If it mainly indexed aggression or carelessness, negative posts should have dominated. Instead, both polarized classes exceeded the neutral class. The broader generalization is that compression correlates with interpersonal involvement. Writers use compact forms when evaluating, reacting and aligning, irrespective of whether the alignment is favorable or unfavorable.

The most frequent forms also show different degrees of lexicalization. Letter substitutions such as u and r remain graphically salient, whereas gonna and wanna are established representations of spoken reductions. Lol often functions beyond literal laughter, and rt is inseparable from platform architecture. Treating all of them as spelling errors would erase distinctions among phonological representation, discourse marking and interface vocabulary. For linguistic description, a functional taxonomy is therefore more useful than a binary opposition between correct and incorrect language.

The findings have practical implications for dictionaries, teaching and automatic processing. Learner materials should explain register and function rather than present compact forms as unrestricted equivalents of standard items. Lexicographic entries can mark frequency, platform association and pragmatic value. NLP pipelines should preserve socially meaningful forms long enough for analysis instead of normalizing them immediately. At the same time, the effect sizes show that compact forms cannot replace contextual interpretation.

Two limitations should be noted. The predetermined inventory misses novel spellings and community-specific forms, while the sentiment labels were created for classification tasks rather than discourse analysis. Moreover, the dataset represents Twitter-era communication and should not automatically be generalized to every platform. Future work can compare the same forms in Telegram, Instagram, TikTok and forum data and can annotate their local discourse functions.

Lexical compression appeared in a minority but substantial portion of the TweetEval sentiment corpus. Its rate was higher in positive and negative posts than in neutral posts, though the association was weak. The dominance of u, gonna, lol, rt and wanna demonstrates that compression includes graphic economy, conversational reduction, stance marking and platform-specific

terminology. The study therefore supports a register-based interpretation: compressed forms are systematic resources of social media discourse, not sufficient evidence of linguistic decay. This distinction is essential for the comparative study of English and Uzbek digital language because superficially similar shortening may carry different structural and pragmatic values in each language.

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STRUCTURAL-GRAMMATICAL CHARACTERISTICS AND LEXICOGRAPHICAL INTERPRETATION OF MULTI-COMPONENT TERMS IN ENGLISH AND UZBEK (ON THE EXAMPLE OF MEDICAL AND LEGAL TERMINOLOGY)

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Abstract: *This research paper provides a comprehensive, comparative-typological analysis of the structural-grammatical characteristics, syntactic modeling, and lexicographical representation of multi-component terms, which play a critical role in the medical and legal terminological systems of Modern English and Uzbek. The study explores the syntactic-semantic phenomena arising during the nomination of complex professional and scientific concepts in typologically different languages, the problems of non-equivalence, and methodological approaches to compiling bilingual specialized dictionaries. Furthermore, the proportional relationship between the principle of language economy and information density in terminological nomination is scientifically substantiated.*

Keywords: *multi-component terms, medical terminology, legal terminology, structural-grammatical analysis, lexicography, attributive combinations, izafet structures, coherence, translation problems, terminological nomination.*

Аннотация: *В данной исследовательской работе в сравнительно-типологическом аспекте всесторонне анализируются структурно-грамматические особенности, синтаксическое моделирование и принципы отражения в современной лексикографии многокомпонентных терминов, занимающих особое место в терминологической системе*

медицинской и юридической сфер английского и узбекского языков. В работе рассмотрены синтаксиско-семантические явления, возникающие в процессе номинации сложных профессиональных и научных понятий в разносистемных языках, проблема безэквивалентности, а также лексикографические подходы к составлению двуязычных отраслевых словарей. Кроме того, научно обоснована пропорциональная взаимосвязь между языковой экономией (*language economy*) и информационной емкостью в терминологической номинации.

Ключевые слова: многокомпонентные термины, медицинская терминология, юридическая терминология, структурно-грамматический анализ, лексикография, атрибутивные словосочетания, изафет, когерентность, проблемы перевода, терминологическая номинация.

Annotatsiya: Ushbu tadqiqot ishida ingliz va o'zbek tillaridagi tibbiyot hamda huquqshunoslik sohasi terminologik tizimida alohida o'rin tutuvchi ko'p komponentli terminlarning struktur-grammatik xususiyatlari, sintaktik birikuv modellashirishi va ularning zamonaviy leksikografiyada aks etish tamoyillari atroflicha va qiyosiy-tipologik planda tahlil qilinadi. Ishda turli tizimli tillarda murakkab kasbiy va ilmiy tushunchalarni nominatsiya qilish jarayonida yuzaga keladigan sintaktik-semantik hodisalar, noekvivalentlik muammosi hamda ikki tilli sohaviy lug'atlarni tuzishdagi leksikografik yondashuvlar ko'rib chiqilgan. Shuningdek, terminologik nominatsiyada til tejamkorligi (*language economy*) va axborot sig'imdorligi o'rtasidagi proporsional mutanosiblik ilmiy asoslab berilgan.

Kalit so'zlar: ko'p komponentli terminlar, tibbiyot terminologiyasi, huquqiy terminologiya, struktur-grammatik tahlil, leksikografiya, atributiv birikmalar, izofa, kogerentlik, tarjima muammolari, terminologik nominatsiya.

INTRODUCTION

One of the pressing tasks of modern linguostylistics and terminology studies is to investigate the most effective and precise linguistic means for transferring scientific and professional information. The rapid development of science and technology—particularly in medicine and law, which form the bedrock of human life and social order—has led to the continuous emergence of new concepts, diagnostic methods, treatment protocols, and legal institutes, thereby driving the constant expansion of terminological systems.

MATERIALS AND METHODS

As established in both Eastern and Western linguistics, monocomponent (single-word) terms are not always sufficient to convey the full essence of a complex concept or its interrelations with other phenomena. Consequently, **multi-component terms (polycomponent phrases)**, characterized by high information density, occupy a dominant position in scientific discourse.

Multi-component terms function simultaneously as syntactic phrases and as semantically and functionally integrated terminological units. However, structural and grammatical differences between English (an analytical language) and Uzbek (an agglutinative language) introduce specific theoretical and practical complexities in word formation, structural modeling, and lexicographical representation in bilingual dictionaries.

RESULTS AND ANALYSIS

1. Multi-component nature and the principle of language economy in terminological nomination. Two contrasting yet complementary principles operate simultaneously in the formation of terms:

Completeness and accuracy of information (reflecting all essential features and characteristics of a concept);

Language economy (delivering maximum information through minimal linguistic means).

Multi-component terms serve to delineate differential features specific to concepts and their subcategories within a given field. For instance, in medicine, the monocomponent term "*infarction*" denotes a general pathological state. However, the multi-component phrase "*acute myocardial*"

infarction" utilizes three components to explicitly define the stage of acuteness, localization, and nature of the pathological process.

In turn, the principle of language economy manifests in multi-component terms through the condensation of complex descriptive sentences into efficient syntactic models. For example, instead of a descriptive phrase such as *"an obligation to compensate for damage caused while adhering to legal procedures"*, concise polycomponent terms like *"civil liability"* or *"strict civil liability"* are utilized.

2. Structural-grammatical modeling of multi-component terms in English and Uzbek.

An analysis of medical and legal terms in English and Uzbek demonstrates that multi-component terms are primarily classified into several models based on the number of components and their internal syntactic relationships.

Two-Component Terminological Phrases

Two-component terms form the foundational base of polycomponent structures.

In English:

Adj + N (Adjective + Noun): The most productive model, where the first component acts as an attributive modifier to the second.

-Medical: *chronic bronchitis, cardiac arrest, bacterial infection.*

-Legal: *capital punishment, judicial precedent, legal entity.*

N + N (Noun + Noun / Substantive Phrases): The first noun imparts an attributive function to the head noun.

-Medical: *blood pressure, heart attack, tissue transplant.*

-Legal: *case law, court order, custody battle.*

In Uzbek:

Adjective + Noun (Attributive Phrases):

-Medical: *surunkali bronxit* (chronic bronchitis), *o'tkir travma* (acute trauma).

-Legal: *jinoiy javobgarlik* (criminal liability), *huquqiy maqom* (legal status).

Noun + Noun (Izafet and Compound Constructions):

-Medical: *qon bosimi* (blood pressure), *yurak xuruji* (heart attack).

-Legal: *sud qarori* (court decision), *ish uslubi* (work method).

Three- and Multi-Component Complex Terminological Phrases

As the number of components increases, the syntactic and semantic hierarchy becomes more intricate.

Main Models in English:

Adj + N + N / Adj + Adj + N:

-Medical: *acute myocardial infarction, primary pulmonary hypertension.*

-Legal: *supreme judicial court, international commercial arbitration.*

N + prep + N (Prepositional Structures): A prominent syntactic pattern in English.

-Medical: *insufficiency of aortic valve, inflammation of middle ear.*

-Legal: *presumption of innocence, breach of fiduciary duty.*

N + prep + Adj + N:

-Medical: *disorder of central nervous system.*

-Legal: *enforcement of foreign arbitral awards.*

Main Models in Uzbek:

Adjective + Noun + Noun (Complex Attributive Constructions):

-Medical: *o'tkir miokard infarkti* (acute myocardial infarction), *bosh miya jarohati* (brain injury).

-Legal: *xalqaro tijorat arbitraji* (international commercial arbitration), *oliy sud kollegiyasi* (supreme court panel).

Noun + Noun + Noun (Chained Genitive and Izafet Constructions):

-Medical: *aorta klapani yetishmovchiligi* (insufficiency of aortic valve), *orqa miya nervlari shamollashi* (inflammation of spinal nerves).

-*Legal: insofsiz raqobatni taqiqlash qoidasi* (rule banning unfair competition), *inson huquqlari bo'yicha vakil* (human rights commissioner).

Grammatical Comparison:

In English multi-component terms, **prepositional pre-modification** (modifiers preceding the head noun, e.g., *coronary artery disease*) and **prepositional linking** (*disease of...*) predominate. Conversely, Uzbek relies heavily on **post-positional structures, affixation**, and genitive-possessive markers (-*ning*, -*i/-si*).

3. Coherence and non-equivalence in medical and legal terminology. Because medical terminology relies heavily on Greek and Latin roots, the semantic equivalence between English and Uzbek multi-component medical terms remains relatively high.

Example:

-*English: Cardiovascular system disease*

-*Uzbek: Yurak-qon tomir tizimi kasalligi*

In legal terminology, however, the situation differs fundamentally. Law is intimately tied to the national legal systems, history, and culture of individual states. Substantial **structural and semantic non-equivalence** arises between concepts originating in Common Law and Civil Law jurisdictions.

Example: English legal terms such as "*court of equity*" or "*barrister-at-law*" lack direct institutional equivalents in Uzbek legal reality.

Example: Terminological phrases like "*plea bargaining*" or "*right against self-incrimination*" cannot be rendered into Uzbek word-for-word (calque).

Literal translation:* "*o'z-o'zini ayblashga qarshi huquq*" (unclear and grammatically clumsy).

Adequate and legal translation:* "**o'ziga va yaqin qarindoshlariga qarshi ko'rsatuv bermaslik huquqi**" (the right not to testify against oneself and close relatives).

4. Lexicographical interpretation and dictionary compilation issues. Accurately representing multi-component terms in bilingual and explanatory dictionaries remains a complex challenge in theoretical and applied linguistics. Key lexicographical issues and solutions include:

Selection of Headwords / Descriptors for Dictionary Entries

Two primary approaches exist for alphabetizing multi-component terms in dictionaries:

Direct Word Order: Entry based on the first word of the phrase.

Example: Acute myocardial infarction is listed under **A**. While user-friendly for searching, it can lead to unnecessary dictionary inflation.

Head-Noun / Inverted Order: Entry based on the principal/head noun.

Example: Acute myocardial infarction is indexed under **I** (*Infarction*):

Infarction, acute myocardial.

In modern digital and electronic lexicography, integrating cross-indexing and hyperlinking represents the most optimal solution.

Calque vs. Descriptive Lexicographical Interpretation

When translating multi-component terms, lexicographers must look beyond literal equivalents and provide **descriptive-explanatory interpretations** where necessary.

Example:

-*Term: Reasonable doubt standard*

-*Incorrect/Literal translation: Mantiqiy shubha standarti.*

-*Lexicographically accurate interpretation: Oqilona shubhadan xoli bo'lish mezonlari (jinoiy protsessda aybdorlikni isbotlash uchun yetarli bo'lgan dalillar darajasi).*

CONCLUSION

Multi-component terms in English and Uzbek medical and legal domains are characterized by logical-semantic completeness, terminological precision, and high efficiency in systematizing specialized knowledge.

Structurally: English multi-component terms primarily rely on pre-positional attributive and prepositional phrases, whereas Uzbek favors post-positional izafet structures and analytical syntactic forms.

Semantically and Translation-wise: Medical terms demonstrate higher international standardization and equivalence, while legal terminology requires descriptive and adapted translation strategies due to national-legal and cultural divergence.

Lexicographically: Establishing unified standards for organizing multi-component terms in specialized bilingual dictionaries, systematizing entries by headwords, and providing supplementary contextual/legal notes remain vital tasks in applied lexicography.

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ETHNOGRAPHISMS AND THEIR LINGUOCULTURAL SIGNIFICANCE IN ABDULLA QODIRIY'S WORKS

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Abstract. *This article examines ethnographisms in the works of Abdulla Qodiriy and their linguocultural significance. It considers how words associated with traditional clothing, food, customs, ceremonies, and social relations reflect the everyday life and cultural values of the Uzbek people. The analysis shows that ethnographisms contribute to the historical setting of Qodiriy's works, reveal aspects of the characters' identities, and preserve culturally specific meanings. The article also discusses the importance of cultural context in interpreting and translating these lexical units.*

Keywords: *ethnographism, linguoculturology, cultural identity, national worldview, Abdullah Qodiriy, Uzbek literature.*

Annotatsiya. *Ushbu maqolada Abdulla Qodiriy asarlaridagi etnografizmlar va ularning lingvomadaniy ahamiyati tadqiq etiladi. An'anaviy kiyim-kechak, taomlar, urf-odatlar, marosimlar va ijtimoiy munosabatlarga oid leksik birliklar o'zbek xalqining kundalik turmush tarzi hamda madaniy qadriyatlarini qay tarzda aks ettirishi ko'rib chiqiladi. Tahlil etnografizmlarning asarlarda tarixiy muhitni yaratish, qahramonlarning o'ziga xos jihatlarini ochib berish va muayyan madaniyatga xos ma'nolarni saqlashdagi o'rnini ko'rsatadi. Shuningdek, ushbu leksik birliklarni talqin qilish va tarjima qilishda madaniy kontekstning ahamiyati yoritiladi.*

Kalit so'zlar: *etnografizm, lingvomadaniyatshunoslik, madaniy o'zlik, milliy dunyoqarash, Abdulla Qodiriy, o'zbek adabiyoti.*

Аннотация. В статье исследуются этнографизмы в произведениях Абдуллы Кадыри и их лингвокультурное значение. Рассматривается, каким образом лексические единицы, связанные с традиционной одеждой, пищей, обычаями, обрядами и социальными отношениями, отражают повседневный быт и культурные ценности узбекского народа. Анализ показывает, что этнографизмы способствуют воссозданию исторической среды произведений, раскрытию индивидуальных особенностей персонажей и сохранению культурно обусловленных смыслов. Кроме того, освещается значение культурного контекста при толковании и переводе данных лексических единиц.

Ключевые слова: этнографизм, лингвокультурология, культурная идентичность, национальная картина мира, Абдулла Кадыри, узбекская литература.

INTRODUCTION

Language preserves collective memory and cultural experience. Ethnographisms represent culturally marked lexical units reflecting customs, traditions, material culture, social institutions and values. Abdullah Qodiriy (1894–1938), the founder of the Uzbek realistic novel, vividly depicted the social, cultural, and historical realities of nineteenth-century Uzbek society. His novels contain a rich collection of ethnographic vocabulary associated with traditional clothing, food, family relations, ceremonies, occupations, social institutions, and religious practices. These lexical units provide valuable insights into the national worldview and cultural heritage of the Uzbek people. Abdullah Qodiriy's *O'tkan Kunlar* is one of the richest sources for studying Uzbek ethnographic vocabulary because the novel depicts nineteenth-century Uzbek society in detail. The aim of this research is to identify ethnographisms and explain their linguocultural functions.

MATERIALS AND METHODS

Theoretical foundations are based on Humboldt, Sapir, Vereshchagin, Kostomarov, Vorobyev, Maslova and Teliya. Ethnographisms are viewed as linguistic signs encoding culture. Previous Uzbek studies have examined ethnolinguistics and cultural semantics, yet a comprehensive linguocultural interpretation of ethnographisms in *O'tkan Kunlar* remains limited.

The study is qualitative in nature and is mainly based on linguocultural analysis. Descriptive, semantic, contextual and linguocultural analyses were applied. Ethnographisms were classified into thematic groups: material culture, clothing, food, kinship, customs and social institutions.

RESULTS AND ANALYSIS

The ethnographisms used in *O'tkan Kunlar* represent different spheres of the traditional life and culture of the Uzbek people. Their analysis makes it possible to identify several major thematic groups that reflect material culture, social organization, family relations, customs and rituals, and food traditions. Each of these groups contributes to the representation of the national worldview and helps reconstruct the historical and cultural environment depicted in the novel.

1. Material culture: *saroy, hujra, gilam, ko'rpa, sham, qumg'on, dasturxon*. These units reconstruct traditional domestic life and provide important information about the material environment represented in *O'tkan Kunlar*. They name types of premises, household objects, furnishings, and everyday items characteristic of Uzbek life in the nineteenth century. Through these ethnographisms, the author creates a historically authentic setting and introduces the reader to the traditional way of life of the period.

2. Social institutions: *qutidor, hoji, bek, mushovir, xon*. They reflect the hierarchy of nineteenth-century society and indicate different social positions, titles, and roles. These ethnographisms help reveal the organization of political and social relations and show the status of particular characters within society. Their use also demonstrates how social hierarchy influenced communication, behaviour, and relationships between people.

3. Family and kinship: *ota, ona, kelin, qaynona* and related forms demonstrate respect and family-centered values. Kinship terminology occupies an important place in the novel because the family functions as one of the central institutions of traditional society. These words indicate not only biological or marital relationships but also culturally established roles, responsibilities, and patterns

of behaviour. Their use reflects the importance of respect for elders and the strong connection between individual behaviour and family values.

4. Customs and rituals: *fotiha*, *to'y*, *nikoh*, *sovchilik*, *mahr*. These ethnographisms reveal collective traditions associated primarily with marriage and family life. They represent different stages and elements of traditional social and religious practices and demonstrate the importance of established customs in the life of the community. In the novel, such vocabulary helps explain the cultural background of the characters' actions and shows how traditions influence personal choices and family relationships.

5. Food culture: *palov*, *non*, *choy* and *dasturxon* function as symbols of hospitality. These ethnographisms refer not only to traditional food and drink but also to culturally significant practices of receiving guests and sharing meals. In Uzbek culture, the *dasturxon* represents a space of communication, hospitality, and social interaction, while *non*, *choy*, and *palov* carry additional cultural associations. Their use in the novel strengthens the national character of the narrative and reflects the close relationship between food traditions and everyday social life.

The analysis shows that ethnographisms perform nominative, cultural, cognitive and aesthetic functions. They create historical authenticity and preserve national memory. Qodiriy uses ethnographic vocabulary not merely for description but also for characterization and ideological representation of Uzbek society.

Ethnographisms encode cultural concepts such as hospitality, respect for elders, family solidarity, honor and social responsibility. They also serve as markers of national identity. Through these units readers gain access to the Uzbek linguistic worldview. The novel demonstrates how language functions as a repository of culture and historical memory.

CONCLUSION

The study confirms that ethnographisms constitute a significant component of the artistic language of *O'tkan Kunlar*. They reflect material and spiritual culture, preserve historical knowledge, and strengthen the national-cultural character of the text. Their use allows Abdulla Qodiriy to reconstruct the everyday life, customs, social relations, and value system of Uzbek society and to create a culturally authentic representation of the historical period. Ethnographisms therefore perform not only nominative and descriptive functions but also important cultural, characterizing, and symbolic functions.

From a linguocultural perspective, such lexical units serve as carriers of collective memory and national identity, connecting language with the historical and cultural experience of the Uzbek people. Their analysis contributes to a deeper understanding of Qodiriy's artistic language and demonstrates the importance of culturally marked vocabulary in literary discourse. Future research may compare ethnographisms in Uzbek and other Turkic literary traditions and explore translation strategies for culturally marked vocabulary. Particular attention may also be paid to the ways in which national-cultural meanings are preserved, transformed, or lost when Qodiriy's works are translated into other languages.

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EFFECTIVE METHODS FOR DEVELOPING LINGUODIDACTIC COMPETENCIES IN FUTURE FOREIGN LANGUAGE TEACHERS

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Abstract. This article examines effective methods for developing linguodidactic competencies among future foreign language teachers. The study focuses on the integration of communicative, interactive, digital, reflective, and practice-oriented approaches into teacher education. The research involved 80 undergraduate students specializing in foreign language teaching. A quasi-experimental design was used to compare an experimental group receiving competency-based instruction with a control group following conventional teaching methods. The findings indicate that systematic use of microteaching, project-based learning, digital language tools, peer assessment, and reflective activities significantly improves students' linguodidactic knowledge and practical teaching skills. The results demonstrate that competency development is more effective when theoretical knowledge is consistently connected with classroom practice. The study concludes that future foreign language teachers require an integrated pedagogical model that combines linguistic knowledge, methodological awareness, digital competence, communication skills, and reflective practice.

Keywords: linguodidactic competence, future teachers, foreign language education, communicative approach, microteaching, digital learning, project-based learning, reflective practice, teacher training, pedagogical competence, interactive methods, language teaching.

Annotatsiya. Ushbu maqolada bo'lajak chet tili o'qituvchilarida lingvodidaktik kompetensiyalarni shakllantirishning samarali usullari tahlil qilinadi. Tadqiqotda kommunikativ, interfaol, raqamli, refleksiv va amaliyotga yo'naltirilgan yondashuvlarning o'qituvchi tayyorlash jarayonidagi imkoniyatlari o'rganildi. Tadqiqotda chet tili o'qituvchisi mutaxassisligi bo'yicha tahsil olayotgan 80 nafar talaba ishtirok etdi. Eksperimental va nazorat guruhlari natijalari qiyoslandi. Natijalar mikroo'qitish, loyiha asosida ta'lim, raqamli vositalar, o'zaro baholash va refleksiv topshiriqlardan tizimli foydalanish talabalarning lingvodidaktik bilimlari hamda amaliy ko'nikmalarini sezilarli darajada rivojlantirishini ko'rsatdi. Tadqiqot natijalariga ko'ra, nazariy bilimlarni amaliy pedagogik faoliyat bilan uzviy bog'lash bo'lajak o'qituvchilarning kasbiy kompetensiyalarini shakllantirishda muhim omil hisoblanadi.

Kalit so'zlar: lingvodidaktik kompetensiya, bo'lajak o'qituvchilar, chet tili ta'limi, kommunikativ yondashuv, mikroo'qitish, raqamli ta'lim, loyiha asosida ta'lim, refleksiv faoliyat, o'qituvchi tayyorlash, pedagogik kompetensiya, interfaol metodlar, til o'qitish.

Аннотация. В статье рассматриваются эффективные методы формирования лингводидактических компетенций у будущих учителей иностранных языков. Особое внимание уделяется коммуникативному, интерактивному, цифровому, рефлексивному и практико-ориентированному подходам. В исследовании приняли участие 80 студентов, обучающихся по специальности «Преподавание иностранных языков». Для определения эффективности предложенных методов были сопоставлены результаты экспериментальной и контрольной групп. Полученные данные показывают, что микрообучение, проектная деятельность, использование цифровых языковых ресурсов, взаимное оценивание и рефлексивные задания способствуют значительному повышению уровня лингводидактических знаний и практических педагогических навыков студентов. Исследование подтверждает необходимость системного объединения теоретической подготовки и практической деятельности в процессе профессионального становления будущих учителей иностранных языков.

Ключевые слова: лингводидактическая компетентность, будущие учителя, обучение иностранным языкам, коммуникативный подход, микрообучение, цифровое обучение, проектная деятельность, рефлексия, подготовка учителей, педагогическая компетентность, интерактивные методы, языковое обучение.

INTRODUCTION

The preparation of competent foreign language teachers has become an important priority in contemporary higher education. Modern teachers are expected not only to possess a high level of language proficiency but also to understand how languages are learned, how teaching materials should be selected, and how effective classroom interaction can be organized. These requirements make the development of linguodidactic competence a central component of teacher education.

Linguodidactic competence can be understood as the ability to connect linguistic knowledge with appropriate teaching principles, methods, techniques, assessment procedures, and classroom practices. However, traditional teacher education sometimes gives greater attention to theoretical knowledge than to practical application. As a result, students may know methodological concepts but experience difficulties when designing lessons or responding to real classroom situations.

Therefore, teacher-training programs need effective methods that combine theory and practice. Communicative activities, microteaching, project-based learning, digital technologies, peer assessment, and reflective practice can create opportunities for students to develop professional teaching skills. The purpose of this study is to identify and evaluate effective methods for forming linguodidactic competencies among future foreign language teachers.

LITERATURE REVIEW.

The theoretical foundation of foreign language teacher education has been developed by numerous scholars. Richards and Rodgers (2014) emphasize the importance of understanding teaching approaches as systematic relationships between language theory, learning principles, classroom procedures, and teacher roles. Their work demonstrates that effective methodology requires teachers to make informed pedagogical decisions rather than mechanically follow prescribed techniques. Canale and Swain (1980) introduced the concept of communicative competence and highlighted the importance of grammatical, sociolinguistic, discourse, and strategic dimensions of language use. Their ideas remain relevant for teacher education because future teachers must learn to develop communicative abilities rather than focusing exclusively on linguistic accuracy.

According to Harmer (2015), successful language teaching depends on the interaction between teacher decisions, learner participation, classroom management, and appropriate instructional techniques. This perspective supports the use of practical training activities in teacher education.

Shulman (1987) proposed the concept of pedagogical content knowledge, arguing that professional teachers need more than subject knowledge. They must know how to transform content into forms that learners can understand.

Nation and Macalister (2010) stress the importance of systematic course and lesson design, while Ellis (2003) demonstrates the pedagogical value of task-based learning. Freeman (1989) also argues that teacher development should include observation, experimentation, reflection, and professional decision-making. Taken together, these scholars indicate that linguodidactic competence develops most effectively when theoretical knowledge, practical teaching experience, reflection, and communication are integrated.

RESEARCH METHODOLOGY.

The study employed a quasi-experimental research design to examine the effectiveness of selected methods for developing linguodidactic competencies. The participants were 80 undergraduate students studying foreign language teaching at a higher education institution. They were divided into an experimental group of 40 students and a control group of 40 students.

During a 12-week intervention, the experimental group participated in competency-oriented activities including microteaching, project-based learning, digital language activities, peer assessment, lesson planning, classroom simulations, and reflective journals. Students regularly prepared short lessons, taught their peers, received feedback, revised their teaching plans, and reflected on their professional performance.

The control group studied the same general methodological content through conventional lectures, seminars, and individual assignments without systematic use of the integrated competency-based model.

Students' linguodidactic competence was assessed through a 100-point diagnostic test covering four dimensions: theoretical knowledge, lesson planning, classroom interaction, and assessment skills. A pre-test was administered before the intervention and a post-test after twelve weeks.

The experimental group increased its mean score from 61.4 (SD = 7.8) to 82.7 (SD = 6.4). The control group increased from 60.9 (SD = 8.1) to 69.3 (SD = 7.5). An independent-samples t-test showed a statistically significant difference between the groups' post-test results, $t(78) = 8.72$, $p < .001$. The calculated effect size was large (Cohen's $d = 1.95$), indicating a substantial practical effect of the intervention.

Results and Discussion. The research findings demonstrate that the integrated approach was considerably more effective than conventional instruction in developing linguodidactic competencies. The experimental group demonstrated an average improvement of 21.3 points, while the control group improved by only 8.4 points. The difference suggests that active participation and repeated teaching practice can contribute significantly to professional development.

The strongest improvement in the experimental group was observed in lesson-planning skills. Students became more confident in formulating learning objectives, selecting appropriate activities, sequencing classroom tasks, and adapting materials to learners' needs. Their mean score in this dimension increased from 15.2 to 21.4 out of 25 points.

Classroom interaction skills also improved considerably, increasing from 14.8 to 21.1 points. Microteaching appeared particularly useful because students had an opportunity to practice teacher talk, questioning techniques, classroom instructions, feedback, and time management in a low-risk environment.

Digital learning activities contributed to the development of students' ability to integrate technology into language instruction. Students learned to use online exercises, multimedia materials, digital presentation tools, and interactive assessment resources for pedagogical purposes rather than simply for presentation.

Peer assessment and reflective journals were also valuable. By observing classmates and evaluating their own lessons, students developed greater awareness of their strengths and weaknesses. This finding supports the argument that teacher education should develop reflective practitioners capable of independently evaluating and improving their professional performance.

Overall, the statistical results confirm that the proposed combination of methods has both educational and practical significance. The large effect size indicates that the observed improvement was not merely incidental but was associated with the competency-based instructional model.

CONCLUSION.

The study confirms that the development of linguodidactic competencies among future foreign language teachers requires a systematic combination of theoretical and practical preparation. Conventional lectures alone cannot fully prepare students for the complex demands of modern language classrooms. Future teachers need opportunities to apply methodological knowledge, make pedagogical decisions, receive feedback, and reflect on their professional performance.

The findings demonstrate that microteaching, project-based learning, digital technologies, peer assessment, lesson planning, classroom simulations, and reflective activities can substantially improve students' professional competencies. The experimental group achieved a significantly higher post-test result than the control group, with a large effect size (Cohen's $d = 1.95$).

Therefore, higher education institutions should incorporate competency-oriented and practice-based activities into foreign language teacher-training curricula. Particular attention should be paid to the connection between linguistic knowledge and teaching methodology. Continuous reflection, collaborative learning, and responsible use of digital resources should also become integral components of professional preparation.

In conclusion, effective linguodidactic training should not be viewed as the transmission of methodological information alone. It should be understood as a gradual process through which future teachers learn to transform theoretical knowledge into effective classroom practice. Such an approach can contribute to the preparation of flexible, reflective, and professionally competent foreign language teachers.

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INGLIZ VA O‘ZBEK TILLARIDA SO‘Z BIRIKMALARI TUZILISHINING KONSEPTUAL-KOGNITIV TABIATI VA ULARNING MATN YARATISHDAGI FUNKSIONAL-PRAGMATIK SALOHİYATI

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Annotatsiya. Mazkur maqolada ingliz va o‘zbek tillaridagi so‘z birikmalarining konseptual-kognitiv tabiati hamda ularning matn yaratish jarayonidagi funksional-pragmatik xususiyatlari tahlil qilinadi. So‘z birikmalari nafaqat grammatik birlik, balki inson tafakkurida shakllanadigan konseptual munosabatlarning lisoniy ifodasi sifatida ham namoyon bo‘ladi. Ingliz va o‘zbek tillarida so‘zlarning sintaktik bog‘lanishi, atributiv, obyektli, predikativ va boshqa munosabatlarning ifodalanishi turli grammatik vositalar orqali amalga oshadi. Ushbu farqlar mazkur tillarning milliy-kognitiv xususiyatlarini aks ettiradi. Maqolada konseptualizatsiya, kategoriyalash, freym, prototip, obraz-sxema kabi kognitiv tushunchalarning so‘z birikmalari shakllanishidagi o‘rni yoritiladi. Shuningdek, so‘z birikmalarining matnning mazmuniy yaxlitligi, referensial aniqligi, kommunikativ maqsadi, ekspressivligi va pragmatik ta’sirchanligini ta’minlashdagi vazifalari ko‘rib chiqiladi. Ingliz va o‘zbek tillaridagi so‘z birikmalarining qiyosiy tahlili orqali ularning matn yaratishdagi funksional imkoniyatlari ochib beriladi.

Kalit so‘zlar: so‘z birikmasi, konseptual tuzilish, kognitiv tilshunoslik, konseptualizatsiya, kategoriyalash, freym, prototip, obraz-sxema, sintaktik aloqa, matn yaratish, funksional-pragmatik xususiyat, ingliz tili, o‘zbek tili.

Аннотация. В данной статье анализируются концептуально-когнитивная природа словосочетаний в английском и узбекском языках, а также их функционально-прагматические особенности в процессе создания текста. Словосочетания выступают не только как грамматические единицы, но и как языковое выражение концептуальных отношений, формирующихся в человеческом мышлении. В английском и узбекском языках

синтаксическая связь слов, а также выражение атрибутивных, объектных, предикативных и других отношений осуществляется посредством различных грамматических средств. Эти различия отражают национально-когнитивные особенности данных языков. В статье раскрывается роль таких когнитивных понятий, как концептуализация, категоризация, фрейм, прототип и образ-схема, в формировании словосочетаний. Кроме того, рассматриваются функции словосочетаний в обеспечении смысловой целостности текста, референциальной определённости, коммуникативной цели, экспрессивности и прагматической эффективности. На основе сопоставительного анализа словосочетаний в английском и узбекском языках раскрываются их функциональные возможности в процессе создания текста.

Ключевые слова: словосочетание, концептуальная структура, когнитивная лингвистика, концептуализация, категоризация, фрейм, прототип, образ-схема, синтаксическая связь, создание текста, функционально-прагматические особенности, английский язык, узбекский язык.

Abstract. This article analyzes the conceptual-cognitive nature of word combinations in English and Uzbek, as well as their functional and pragmatic features in the process of text construction. Word combinations are manifested not only as grammatical units but also as linguistic expressions of conceptual relations formed in human cognition. In English and Uzbek, the syntactic connection of words and the expression of attributive, objective, predicative, and other relations are realized through various grammatical means. These differences reflect the national and cognitive characteristics of the respective languages. The article highlights the role of such cognitive concepts as conceptualization, categorization, frame, prototype, and image schema in the formation of word combinations. It also examines the functions of word combinations in ensuring the semantic coherence of a text, referential clarity, communicative purpose, expressiveness, and pragmatic effectiveness. Through a comparative analysis of word combinations in English and Uzbek, the study reveals their functional potential in the process of text construction.

Keywords: word combination, conceptual structure, cognitive linguistics, conceptualization, categorization, frame, prototype, image schema, syntactic connection, text construction, functional and pragmatic features, English, Uzbek.

KIRISH.

Zamonaviy tilshunoslikda til birliklarini faqat grammatik va strukturaviy nuqtayi nazardan oʻrganish bilan cheklanib qolmasdan, ularning inson tafakkuri, bilimlari, tajribasi va kommunikativ faoliyati bilan aloqadorligini aniqlashga katta eʼtibor qaratilmoqda. Ayniqsa, kognitiv tilshunoslik til birliklarining shakllanishi va qoʻllanishini insonning borliqni idrok etishi, konseptuallashtirishi va kategoriyalarga ajratishi bilan bogʻliq holda tadqiq etadi.

Soʻz birikmasi ushbu jarayonni oʻrganish uchun muhim lisoniy birliklardan biridir. Chunki alohida soʻz muayyan tushunchani ifodalasa, soʻzlarning oʻzaro birikishi natijasida murakkabroq konseptual munosabatlar yuzaga keladi. Masalan, *beautiful city, economic development, green energy* kabi inglizcha birikmalar hamda *chiroyli shahar, iqtisodiy rivojlanish, yashil energiya* kabi oʻzbekcha birikmalar nafaqat predmet yoki hodisalarni nomlaydi, balki ular oʻrtasidagi semantik va konseptual munosabatlarni ham ifodalaydi.

Ingliz va oʻzbek tillari tipologik jihatdan bir-biridan farq qiladi. Ingliz tilida soʻz tartibi nisbatan qatʼiy boʻlib, grammatik munosabatlarni ifodalashda sintaktik pozitsiya muhim ahamiyatga ega. Oʻzbek tilida esa agglutinatив xususiyat va qoʻshimchalar tizimi sintaktik munosabatlarni ifodalashda katta rol oʻynaydi. Shu sababli bir xil konseptual mazmun ikki tilda turlicha strukturaviy shaklda namoyon boʻlishi mumkin.

Mazkur maqolaning asosiy maqsadi ingliz va oʻzbek tillaridagi soʻz birikmalarining konseptual-kognitiv tabiatini aniqlash hamda ularning matn yaratishdagi funksional-pragmatik salohiyatini qiyosiy tahlil qilishdan iborat.

1. Soʻz birikmasining konseptual-kognitiv tabiati

Kognitiv yondashuvga ko‘ra, til insonning tashqi olam haqidagi bilimlarini tartibga solish va ifodalash vositalaridan biridir. Inson biror predmet, hodisa yoki jarayonni idrok etganda uni boshqa obyektlar bilan munosabatda tasavvur qiladi. Ana shu munosabatlar til birliklari orqali ifodalanadi.

So‘z birikmasida ham ikki yoki undan ortiq leksik birlik o‘rtasida muayyan konseptual munosabat mavjud bo‘ladi. Masalan:

- *modern technology* — “zamonaviy texnologiya”;
- *student’s achievement* — “talabaning yutug‘i”;
- *read a book* — “kitob o‘qimoq”;
- *highly educated person* — “yuqori ma‘lumotli shaxs”.

Bunday birikmalarda predmet, belgi, harakat, egalik, sabab, maqsad yoki boshqa semantik munosabatlar ifodalanadi.

Demak, so‘z birikmasining strukturasi ortida ma‘lum bir **konseptual model** mavjud. Masalan, *student’s achievement* birikmasida “STUDENT” va “ACHIEVEMENT” konseptlari o‘rtasida egalik yoki tegishlilik munosabati shakllanadi. *Read a book* birikmasida esa “AGENT – ACTION – OBJECT” modeli kuzatiladi.

Shunday qilib, so‘z birikmalarini kognitiv nuqtayi nazardan o‘rganish ularning grammatik shakli bilan bir qatorda, mazkur shakl asosida turgan konseptual munosabatlarni ham aniqlash imkonini beradi.

2. Ingliz va o‘zbek tillarida konseptual munosabatlarning ifodalanishi

Ingliz va o‘zbek tillarida bir xil konseptual munosabat turli grammatik vositalar yordamida ifodalanishi mumkin.

Masalan:

English: *the student's book*

Uzbek: *talabaning kitobi*

Bu ikki birikmada “EGALIK” konsepti mavjud. Biroq uning grammatik ifodalanishi farqlidir. Ingliz tilida egalik *student's* shaklidagi possessive marker orqali ifodalangan bo‘lsa, o‘zbek tilida *talabaning* va *kitobi* shakllaridagi kelishik va egalik qo‘shimchalari orqali ifodalangan.

Yana bir misol:

English: *a beautiful Uzbek city*

Uzbek: *chiroyli o‘zbek shahri*

Har ikki holatda “CITY” konsepti markaziy bo‘lib, “BEAUTY” va “UZBEK IDENTITY” konseptlari bilan bog‘lanadi.

Bu yerda nafaqat grammatik, balki konseptual tuzilish ham muhimdir. So‘zlarning tartibi va grammatik shakli tilning o‘ziga xos kognitiv va tipologik xususiyatlarini aks ettiradi.

3. Konseptualizatsiya va kategoriyalashning so‘z birikmalaridagi roli

Konseptualizatsiya inson ongida voqelikning ma‘lum bir mazmuniy modelini shakllantirish jarayonidir. Kategoriyalash esa obyekt va hodisalarni umumiy belgilariga ko‘ra guruhlariga ajratish jarayonini anglatadi.

So‘z birikmalari ushbu ikki jarayonning til orqali ifodalanishida muhim vosita hisoblanadi.

Masalan:

- *environmental protection*
- *digital education*
- *social development*
- *economic growth*

ushbu birikmalarning har biri ikki yoki undan ortiq konseptning o‘zaro bog‘lanishi asosida shakllangan. *Digital education* birikmasida “DIGITAL TECHNOLOGY” va “EDUCATION” konseptlari birlashib, zamonaviy ta‘limning muayyan turini ifodalaydi.

O‘zbek tilida ham:

- *raqamli ta‘lim*;
- *atrof-muhitni muhofaza qilish*;
- *ijtimoiy rivojlanish*;
- *iqtisodiy o‘rish*

kabi birikmalar konseptlararo munosabatlarning lisoniy ifodasidir.

4. Freym va prototiplarning soʻz birikmalarini shakllantirishdagi ahamiyati

Kognitiv tilshunoslikda **freym** maʼlum bir vaziyat yoki hodisa haqidagi strukturaviy bilim modeli sifatida talqin qilinadi. Soʻz birikmasi tarkibidagi komponentlar koʻpincha maʼlum freymning turli elementlarini ifodalaydi.

Masalan, *buy a new car* birikmasi “SAVDO” freymi bilan bogʻlanadi. Bu freymda xaridor, sotuvchi, tovar, pul va harakat kabi elementlar mavjud.

Oʻzbek tilidagi *yangi mashina sotib olmoq* birikmasi ham xuddi shu konseptual freymga asoslanadi.

Prototip tushunchasi esa maʼlum bir kategoriyaning eng tipik vakilini anglatadi. Masalan, *a family home, a traditional Uzbek house* kabi birikmalarda “HOME” konsepti turli madaniy va tajribaviy bilimlar bilan boyitiladi.

Shu sababli soʻz birikmalari faqat grammatik birlik emas, balki madaniy va tajribaviy bilimlarni ham tashuvchi birlik sifatida namoyon boʻladi.

5. Soʻz birikmalarining matn yaratishdagi funksional salohiyati

Soʻz birikmalari matnning shakllanishida muhim sintaktik va semantik vosita hisoblanadi. Ular alohida soʻzlarga qaraganda kengroq mazmuniy birliklarni ifodalash imkonini beradi.

Masalan:

Modern educational technologies provide new opportunities for students.

Ushbu gapda *modern educational technologies* va *new opportunities for students* kabi birikmalar matnning asosiy mazmuniy komponentlarini shakllantiradi.

Oʻzbek tilida:

Zamonaviy taʼlim texnologiyalari talabalar uchun yangi imkoniyatlar yaratadi.

Bu gapda ham soʻz birikmalari mazmunning konseptual tashkil etilishida asosiy vositalardan biri hisoblanadi.

Soʻz birikmalari matnda quyidagi funksiyalarni bajaradi:

1. **Nomlash funksiyasi** – predmet va hodisalarni aniq nomlaydi.
2. **Semantik funksiyasi** – tushunchalar oʻrtasidagi munosabatni ifodalaydi.
3. **Bogʻlovchi funksiya** – gap va matn komponentlari oʻrtasida mazmuniy aloqa yaratadi.
4. **Axborot funksiyasi** – mazmunni aniq va batafsil yetkazadi.
5. **Ekspressiv funksiya** – muayyan hissiy yoki baholovchi maʼnolarni ifodalashi mumkin.
6. **Pragmatik funksiya** – muallifning kommunikativ maqsadini amalga oshiradi.

6. Soʻz birikmalarining funksional-pragmatik xususiyatlari

Pragmatika til birliklarining real kommunikativ vaziyatdagi qoʻllanishini oʻrganadi. Soʻz birikmalarining pragmatik xususiyati ularning muayyan kontekstda qanday maqsadga xizmat qilishida namoyon boʻladi.

Masalan:

an urgent problem — “dolzarb muammo”

birikmasi oddiy *problem* soʻziga qaraganda kuchliroq kommunikativ taʼsirga ega. *A serious environmental threat* birikmasida esa muayyan hodisaga baholovchi munosabat ham ifodalanadi.

Oʻzbek tilida:

- *dolzarb masala;*
- *jiddiy muammo;*
- *muhim vazifa;*
- *ulkan imkoniyat;*

kabi birikmalar ham matnning pragmatik yoʻnalishini kuchaytirishi mumkin.

Demak, soʻz birikmasining tanlanishi matn muallifining maqsadi, adresati, kommunikativ vaziyati va uslubiga bogʻliq.

XULOSA

Ingliz va o'zbek tillaridagi so'z birikmalari strukturaviy, semantik, konseptual, kognitiv va pragmatik jihatlarning o'zaro uyg'unligidan tashkil topgan murakkab lisoniy birliklardir. Ularning tuzilishini faqat grammatik munosabatlar asosida izohlash mazkur birliklarning to'liq mohiyatini ochib berishga yetarli emas. So'z birikmalarining shakllanishida insonning borliqni konseptualizatsiya qilishi, kategoriyalashi, bilimlarni tizimlashtirishi va kommunikativ maqsadga muvofiq ravishda ifodalashi muhim ahamiyatga ega.

Ingliz va o'zbek tillarida bir xil konseptual mazmun turli strukturaviy vositalar orqali ifodalanishi mumkin. Bu holat tillarning tipologik xususiyatlari bilan bir qatorda, ularning milliy-madaniy va kognitiv tajribasini ham namoyon etadi.

So'z birikmalari matn yaratishda ham alohida ahamiyatga ega. Ular matnning mazmuni yaxlitligini ta'minlaydi, axborotni konkretlashtiradi, konseptlar o'rtasidagi munosabatlarni ifodalaydi va muallifning kommunikativ-pragmatik maqsadini amalga oshirishga xizmat qiladi. Shu jihatdan so'z birikmalarini konseptual-kognitiv va funksional-pragmatik yondashuv asosida tadqiq etish ingliz va o'zbek tillarining umumiy hamda farqli xususiyatlarini chuqurroq aniqlash imkonini beradi.

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BOBUR MEROSINING GLOBAL MADANIY MAKONDA QAYTA TALQIN ETILISHI

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Annotatsiya. Ushbu maqolada Zahiriddin Muhammad Bobur shaxsiyati va ijodiy merosining XXI asr madaniy, adabiy va ilmiy makonidagi o'rni kompleks tadqiq etiladi. Boburning tarixchi, shoir, yozuvchi, davlat arbobi va mutafakkir sifatidagi faoliyati zamonaviy adabiyotshunoslik hamda madaniyatshunoslik nuqtai nazaridan tahlil qilinadi. Ayniqsa, uning "Boburnoma" asari tarixiy voqelikni aks ettiruvchi manba sifatida emas, balki yuksak badiiy-estetik qiymatga ega bo'lgan adabiy yodgorlik sifatida ham o'rganiladi. Tadqiqotda Bobur ijodidagi insonparvarlik, vatanparvarlik, ma'rifatparvarlik, tabiat tasviri va inson ruhiyatini ifodalash kabi jihatlarning zamonaviy ahamiyati ochib beriladi. Shuningdek, Bobur merosining milliy madaniy xotira, madaniy identiklik va jahon adabiy jarayonidagi o'rni yoritiladi. Tadqiqot natijalari Bobur ijodining tarixiy davr bilan cheklanib qolmay, XXI asr madaniy tafakkuri uchun ham muhim ilmiy-estetik manba ekanligini ko'rsatadi.

Kalit so‘zlar: Zahiriddin Muhammad Bobur, Bobur shaxsiyati, Bobur ijodi, XXI asr madaniy konteksti, “Boburnoma”, tarixiy xotira, milliy madaniyat, insonparvarlik, badiiy-estetik meros, jahon adabiyoti.

Аннотация. В статье комплексно исследуется место и значение личности и творческого наследия Захириддина Мухаммада Бабура в культурном, литературном и интеллектуальном контексте XXI века. Деятельность Бабура как историка, поэта, писателя, государственного деятеля и мыслителя рассматривается с позиций современной литературоведческой и культурологической науки. Особое внимание уделяется произведению «Бабур-наме», которое анализируется не только как важный исторический источник, но и как уникальный литературный памятник, обладающий высокой художественно-эстетической ценностью. В исследовании раскрывается современное значение гуманистических, патриотических и просветительских идей Бабура, а также особенностей изображения природы, человеческих чувств и внутреннего мира личности в его творчестве. Кроме того, освещается роль наследия Бабура в формировании исторической памяти, национальной культурной идентичности и межкультурного диалога в мировом литературном процессе. Результаты исследования показывают, что творческое наследие Бабура не ограничивается рамками своей исторической эпохи и сохраняет значительную научную, культурную и эстетическую ценность для современного общества.

Ключевые слова: Захириддин Мухаммад Бабур, личность Бабура, творческое наследие Бабура, культурный контекст XXI века, «Бабур-наме», историческая память, национальная культура, гуманизм, художественно-эстетическое наследие, мировая литература.

Abstract. This article provides a comprehensive study of the place and significance of Zahiriddin Muhammad Babur’s personality and creative heritage in the cultural, literary, and intellectual context of the twenty-first century. Babur’s activities as a historian, poet, writer, statesman, and thinker are examined from the perspectives of contemporary literary and cultural studies. Particular attention is given to his “Baburnama”, which is analyzed not only as an important historical source but also as a unique literary monument of high artistic and aesthetic value. The study explores the contemporary significance of such aspects of Babur’s creativity as humanism, patriotism, enlightenment, descriptions of nature, and the representation of human emotions and psychology. It also highlights the role of Babur’s heritage in shaping cultural memory, national identity, and intercultural dialogue within the global literary process. The findings demonstrate that Babur’s creative legacy transcends its historical period and remains a significant intellectual, cultural, and aesthetic source for understanding the cultural thought of the twenty-first century.

Keywords: Zahiriddin Muhammad Babur, Babur’s personality, Babur’s creative heritage, twenty-first-century cultural context, “Baburnama”, historical memory, national culture, humanism, artistic and aesthetic heritage, world literature.

KIRISH

Zahiriddin Muhammad Bobur Sharq va jahon tarixida o‘zining serqirra faoliyati, yuksak adabiy salohiyati, tarixiy tafakkuri va davlat arbobi sifatidagi faoliyati bilan alohida o‘rin egallagan buyuk siymolardan biridir. Uning hayoti va ijodiy merosi muayyan tarixiy davr bilan chegaralanib qolmay, bugungi kunda ham adabiyot, tarix, madaniyatshunoslik, tilshunoslik va siyosiy tafakkur kabi turli ilmiy yo‘nalishlarda tadqiq etilayotgan muhim manbalardan biri hisoblanadi. Bobur shaxsiyati va merosining o‘ziga xosligi shundaki, u tarixiy voqelikni bevosita kuzatgan va qayd etgan tarixchi sifatida ham, inson ruhiyati, tabiat va jamiyat munosabatlarini badiiy ifodalagan ijodkor sifatida ham namoyon bo‘ladi.

XXI asrda globallashuv, axborot texnologiyalarining jadal rivojlanishi va madaniyatlararo aloqalarning kengayishi natijasida tarixiy-adabiy merosni qayta o‘rganish va zamonaviy nuqtai nazardan talqin qilishga bo‘lgan ehtiyoj yanada ortmoqda. Shu nuqtai nazardan, Bobur merosini global madaniy makon doirasida o‘rganish uning ijodining milliy chegaralardan tashqaridagi ahamiyatini aniqlash, turli xalqlar madaniyati va adabiy tafakkuri bilan bog‘liq jihatlarini ochib berish imkonini beradi. Bobur asarlarida ilgari surilgan insonparvarlik, ma‘rifat, vatanparvarlik, adolat,

tabiatga munosabat va insonning ichki dunyosiga e'tibor kabi g'oyalar bugungi umuminsoniy qadriyatlar bilan hamohangligi bilan alohida ahamiyat kasb etadi. Boburning boy merosi ichida "Boburnoma" alohida ilmiy va badiiy qiymatga ega. Mazkur asar tarixiy voqealarni xronologik tarzda bayon etish bilan birga, muallifning shaxsiy kuzatuvlari, kechinmalari, tabiat tasvirlari, geografik ma'lumotlari, ijtimoiy-siyosiy qarashlari va inson xarakteriga oid mulohazalarini ham o'zida mujassamlashtiradi. Shu sababli "Boburnoma"ni faqat tarixiy manba sifatida emas, balki badiiy tafakkur, tarixiy xotira va madaniy dunyoqarashning o'zaro uyg'unligini namoyon etuvchi noyob adabiy yodgorlik sifatida baholash mumkin.

MATERIALLAR VA USULLAR

Mazkur tadqiqotda Zahiriddin Muhammad Bobur merosining global madaniy makonda qayta talqin etilish jarayonini o'rganishda kompleks va fanlararo metodologik yondashuvdan foydalanildi. Tadqiqotning metodologik asosini tarixiylik, tizimlilik, qiyosiylik va madaniyatlararo yondashuv tamoyillari tashkil etadi. Ushbu tamoyillar Bobur shaxsiyati va ijodiy merosini faqat muayyan tarixiy davr doirasida emas, balki zamonaviy global madaniy jarayonlar bilan uzviy bog'liqlikda tahlil qilish imkonini beradi. Tadqiqotda, avvalo, tarixiy-qiyosiy metod qo'llanilib, Bobur hayoti, ijodiy faoliyati va tarixiy qarashlarining shakllanish jarayoni o'rganildi. Bobur merosining turli tarixiy davrlarda qanday baholangani va XXI asrda unga nisbatan shakllanayotgan ilmiy-estetik qarashlar o'zaro qiyoslandi. Bu yondashuv orqali Bobur merosining tarixiy qiymati bilan uning zamonaviy madaniy ahamiyati o'rtasidagi uzviylik aniqlanadi.

Tadqiqotning muhim metodlaridan biri komparativistik tahlil bo'lib, Bobur ijodidagi badiiy-estetik qarashlar boshqa Sharq va G'arb adabiy an'analari bilan qiyosiy jihatdan o'rganildi. Mazkur metod Bobur ijodida milliy o'ziga xoslik va umuminsoniy qadriyatlarning qanday uyg'unlashganini aniqlashga xizmat qiladi. Shuningdek, uning asarlarining turli madaniy muhitlarda qabul qilinishi va talqin etilishidagi o'xshash hamda farqli jihatlar tahlil qilindi.

Intertekstual yondashuv orqali Bobur asarlaridagi tarixiy, adabiy va madaniy ishoralar, an'anaviy obrazlar hamda boshqa matnlar bilan mazmuniy aloqalar o'rganildi. Ayniqsa, "Boburnoma"da tarixiy voqelik, muallifning shaxsiy kuzatuvlari va badiiy tasvir vositalarining o'zaro munosabati tahlil qilindi. Ushbu yondashuv asarning ko'p qatlamli mazmunini va uning turli davrlarda qayta o'qilishi imkoniyatlarini ochib berishga yordam beradi. Shuningdek, tadqiqotda madaniyatlararo yondashuv asosida Bobur merosining turli xalqlar va madaniyatlar o'rtasidagi muloqotdagi o'rni tadqiq etildi. Bobur ijodining tarjima qilinishi, ilmiy jihatdan o'rganilishi va jahon madaniy makonida namoyon bo'lishi uning merosining xalqaro miqyosdagi ahamiyatini belgilovchi omillar sifatida qaraldi. Bu yondashuv orqali Bobur merosining milliy madaniyat doirasidan chiqib, umumjahon madaniy qadriyatlari tizimiga kirib borish jarayoni yoritildi.

Lingvopoetik tahlil yordamida Bobur asarlarining til xususiyatlari, badiiy ifoda vositalari, obrazlar tizimi, poetik birliklari va muallif uslubi o'rganildi. Bunda tilning nafaqat kommunikativ, balki estetik va madaniy mazmunni ifodalovchi vosita sifatidagi xususiyatlariga alohida e'tibor qaratildi. Bobur ijodidagi tabiat tasvirlari, inson ruhiyati, tarixiy shaxslar va ijtimoiy munosabatlarning badiiy ifodasi shu asosda tahlil qilindi.

Bundan tashqari, tadqiqotda madaniy-semiotik yondashuv ham qo'llanilib, Bobur merosida aks etgan ramzlar, qadriyatlar, tarixiy xotira va milliy-madaniy belgilar o'rganildi. Ushbu metod Bobur asarlaridagi madaniy ma'nolarning zamonaviy jamiyat tomonidan qanday qayta anglanishi va talqin qilinishini aniqlash imkonini beradi.

NATIJALAR VA MUHOKAMA

Zahiriddin Muhammad Bobur merosining global madaniy makonda qayta talqin etilishi, avvalo, uning shaxsiyati va ijodining tarixiy chegaralardan tashqarida ham universal mazmun kasb etishi bilan izohlanadi. Bobur o'z davrining siyosiy va ijtimoiy jarayonlarida faol ishtirok etgan davlat arbobi bo'lishi bilan birga, o'z kechinmalari, kuzatuvlari va hayotiy tajribalarini badiiy hamda ilmiy tafakkur bilan uyg'unlashtira olgan ijodkor sifatida namoyon bo'ladi. Shu jihatdan uning merosi tarix, adabiyot, geografiya, madaniyat va inson tafakkurining turli qatlamlarini o'zida mujassamlashtirgan ko'p qirrali hodisa sifatida baholanadi.

Tadqiqot natijalari shuni ko'rsatadiki, Bobur merosining zamonaviy talqinida "Boburnoma" markaziy o'rinlardan birini egallaydi. Asarda muallifning shaxsiy hayoti, siyosiy faoliyati, harbiy yurishlari, turli hududlarning geografik va tabiiy xususiyatlari, aholining urf-odatlarini hamda madaniy hayoti haqida batafsil ma'lumotlar beriladi. Biroq asarning qimmati faqat tarixiy ma'lumotlar bilan cheklanmaydi. Bobur voqealarni tasvirlash jarayonida o'zining shaxsiy munosabati, estetik qarashlari va insoniy kechinmalarini ham ifodalaydi. Natijada tarixiy fakt va badiiy tasvir bir butunlikni tashkil etadi. "Boburnoma"ning o'ziga xos jihatlaridan biri — unda tarixiy haqiqat va badiiy talqinning uyg'unlashuvidir. Bobur tarixiy voqealarni bayon etishda muallif sifatida xolis kuzatuvchi bo'lishga intiladi, ayni paytda voqealarga nisbatan shaxsiy munosabatini ham yashirmaydi. Bu xususiyat asarning ishonchliligi bilan bir qatorda, uning badiiy-estetik qiymatini ham oshiradi. XXI asr adabiyotshunosligi nuqtai nazaridan mazkur jihat Bobur asarlarini tarixiy-biografik, memuar va badiiy nasrning o'ziga xos uyg'unligi sifatida o'rganish imkonini beradi. Tahlil jarayonida Bobur ijodida insonparvarlik va umuminsoniy qadriyatlar muhim o'rin egallashi aniqlandi. Uning asarlarida insonning qadr-qimmati, do'stlik, sadoqat, adolat, ilm-ma'rifat, vatan va tabiatga munosabat kabi masalalar keng yoritiladi. Mazkur g'oyalar muayyan tarixiy davrga tegishli bo'lsa-da, ularning mazmuni zamonaviy jamiyat uchun ham dolzarbdir. Ayniqsa, turli xalqlar va madaniyatlar o'rtasidagi o'zaro hurmat va muloqot masalalari Bobur merosining global madaniy ahamiyatini belgilovchi omillardan biridir.

XULOSA

Tadqiqot natijalari shuni ko'rsatadiki, Zahiriddin Muhammad Bobur merosi tarixiy davr doirasida chegaralanib qolmay, bugungi global madaniy makonda ham o'zining ilmiy, adabiy, estetik va ma'naviy ahamiyatini saqlab kelmoqda. Bobur shaxsiyati va ijodini zamonaviy ilmiy yondashuvlar asosida qayta talqin qilish uning tarixchi, davlat arbobi, shoir, nosir va tafakkur sohibi sifatidagi ko'p qirrali faoliyatini yanada chuqurroq anglash imkonini beradi. Tahlillar asosida, avvalo, "Boburnoma"ning tarixiy va badiiy xususiyatlari o'zaro uzviy birlikda namoyon bo'lishi aniqlandi. Asarda tarixiy voqealar oddiy xronologik bayon shaklida emas, balki muallifning shaxsiy kuzatuvlari, kechinmalari, baholari va estetik qarashlari bilan uyg'un holda ifodalangan. Shu sababli "Boburnoma"ni nafaqat tarixiy manba, balki yuksak badiiy tafakkur mahsuli sifatida o'rganish muhim ilmiy natijalardan biri sifatida belgilandi. Ikkinchidan, Bobur ijodining asosini tashkil etuvchi insonparvarlik, adolat, vatanparvarlik, ilm-ma'rifat, tabiatga e'tibor va inson ruhiyatini anglash kabi g'oyalar zamonaviy global madaniyat uchun ham dolzarb ekanligi kuzatildi. Mazkur universal qadriyatlar Bobur merosining turli madaniyatlar va avlodlar o'rtasida muloqot vositasi sifatida namoyon bo'lishiga xizmat qiladi. Uchinchidan, tadqiqot davomida Bobur merosining global madaniy makondagi ahamiyatini belgilovchi asosiy omillardan biri tarjima va madaniyatlararo kommunikatsiya ekanligi aniqlandi. Bobur asarlarining turli tillarga tarjima qilinishi uning ijodiy merosini keng kitobxonlar auditoriyasiga yetkazish, Sharq va G'arb adabiy-madaniy an'analarini o'zaro bog'lash hamda Bobur fenomenining xalqaro miqyosda qayta anglanishiga imkon yaratadi.

Tadqiqot natijalari Bobur merosining zamonaviy talqinida tarixiylik va zamonaviylik tamoyillarining uyg'unligi muhim ekanligini ko'rsatdi. Bugungi kunda Bobur shaxsiyati faqat tarixiy arbob sifatida emas, balki jahon adabiyoti, madaniyati va tafakkuri rivojiga munosib hissa qo'shgan ijodkor sifatida qayta baholanmoqda. Shu jihatdan uning merosini zamonaviy adabiyotshunoslik, lingvistika, madaniyatshunoslik, tarjimashunoslik va qiyosiy tadqiqotlar nuqtayi nazaridan o'rganish yangi ilmiy xulosalar chiqarish imkonini beradi.

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TOMAS HARDY VA ZULFIYA QUROLBOY QIZI ASARLARIDA AYOLNING FOJEAVIY TAQDIRI: QIYOSIY-POETIK TALQIN

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Annotatsiya. Mazkur maqolada ingliz yozuvchisi Thomas Hardy va zamonaviy o'zbek adibasi Zulfiya Qurolboy qizi asarlarida ayolning fojeaviy taqdiri qiyosiy-poetik, ijtimoiy va axloqiy jihatdan tahlil qilinadi. Tadqiqotning asosiy materialisi sifatida Hardy ning "Tess of the d'Urbervilles" romani hamda Zulfiya Qurolboy qizining "Oyimtilla" romani olinadi. Har ikki asarda ayol qahramonning shaxsiy istaklari bilan jamiyat tomonidan belgilangan axloqiy me'yorlar o'rtasidagi ziddiyat uning fojeaviy qismatini shakllantiruvchi asosiy omil sifatida namoyon bo'ladi. Tess va Oyimtilla obrazlari misolida patriarxal dunyoqarash, iqtisodiy qaramlik, ijtimoiy hukm, muhabbat va ma'naviy poklik masalalarining badiiy talqini ochib beriladi. Qiyosiy tahlil ikki adabiy makon va davrga mansub asarlar o'rtasida tipologik mushtaraklik mavjudligini, ayni paytda milliy mentalitet, tarixiy sharoit va poetik uslub ularning ayol fojeasini ifodalashida o'ziga xos farqlarni yuzaga keltirishini ko'rsatadi.

Kalit so'zlar: Thomas Hardy, Zulfiya Qurolboy qizi, Tess, Oyimtilla, ayol obrazi, fojeaviy taqdir, ijtimoiy bosim, axloqiy ziddiyat, ma'naviy poklik, qiyosiy tahlil.

Аннотация. В данной статье проводится сравнительно-поэтический, социальный и нравственно-этический анализ трагической судьбы женщины в произведениях английского писателя Томаса Харди и современной узбекской писательницы Зульфии Куролбой кызы. Основным материалом исследования служат роман Томаса Харди «Тэсс из рода д'Эрбервиллей» и роман Зульфии Куролбой кызы «Ойимтилла». В обоих произведениях противоречие между личными стремлениями героини и нравственными нормами, установленными обществом, выступает одним из ключевых факторов, определяющих её трагическую судьбу. На примере образов Тэсс и Ойимтиллы раскрывается художественная интерпретация таких проблем, как патриархальное мировоззрение, экономическая зависимость, общественное осуждение, любовь и духовная чистота. Сравнительный анализ показывает наличие типологических общностей между произведениями, принадлежащими к различным литературным пространствам и историческим эпохам. Вместе с тем национальный менталитет, исторические условия и особенности поэтического стиля обуславливают своеобразие художественного изображения женской трагедии в творчестве каждого из авторов.

Ключевые слова: Томас Харди, Зульфия Куролбой кызы, Тэсс, Ойимтилла, женский образ, трагическая судьба, социальное давление, нравственный конфликт, духовная чистота, сравнительный анализ.

Abstract. This article provides a comparative-poetic, social and ethical analysis of the tragic fate of women in the works of the English novelist Thomas Hardy and the contemporary Uzbek writer Zulfiya Qurolboy qizi. The main material of the study is Hardy's "Tess of the d'Urbervilles" and Zulfiya Qurolboy qizi's novel "Oyimtilla". In both works, the conflict between a woman's personal aspirations and the moral norms imposed by society emerges as a decisive factor shaping her tragic

destiny. Through the figures of Tess and Oyimtilla, the article examines artistic representations of patriarchal values, economic dependence, social judgment, love and moral purity. The comparative analysis reveals important typological similarities between two different literary traditions while also showing how national mentality, historical context and narrative style create distinct models of female tragedy.

Keywords: Thomas Hardy, Zulfiya Qurolboy qizi, Tess, Oyimtilla, female image, tragic fate, social pressure, moral conflict, spiritual purity, comparative analysis.

KIRISH

Jahon adabiyotida ayol obrazi ijtimoiy muhit, axloqiy qadriyatlar va inson erkinligi masalalarini yoritishda alohida badiiy ahamiyat kasb etadi. Ayniqsa, ayolning fojeaviy taqdiri tasviri orqali yozuvchilar jamiyatning ichki ziddiyatlarini, ikkiyuzlamachi axloqini va shaxs erkinligiga qo'yilgan cheklovlarni ochib beradilar. Thomas Hardy va Zulfiya Qurolboy qizi turli davr, millat va adabiy an'analarga mansub bo'lishlariga qaramay, ularning asarlarida ayol qismati ijtimoiy muammolarning eng ta'sirchan badiiy ifodalaridan biri sifatida namoyon bo'ladi.

Thomas Hardy XIX asr oxiri ingliz realizmining yirik vakili sifatida Viktorian jamiyatidagi sinfiy tengsizlik, diniy-axloqiy dogmalar va genderga doir ikki tomonlama mezonlarni keskin tanqid qiladi. "Tess of the d'Urbervilles" romanida Tessning fojeasi uning tabiiy axloqiy pokligi bilan jamiyatning rasmiy hukmi o'rtasidagi keskin ziddiyatdan tug'iladi. Zulfiya Qurolboy qizi esa zamonaviy o'zbek nasrida ayolning ijtimoiy mavqei, oilaviy munosabatlar, ruhiy bosim va qadriyatlar inqirozini chuqur psixologik tasvirlaydi. "Oyimtilla" romanida ayolning yashashga, sevilishga va o'z taqdirini o'zi belgilashga bo'lgan intilishi an'anaviy qarashlar va ijtimoiy muhit bilan to'qnashadi.

Mazkur maqolaning maqsadi Thomas Hardy va Zulfiya Qurolboy qizi ijodida ayolning fojeaviy taqdiri qanday poetik vositalar yordamida yaratilishini qiyosiy tahlil qilish, Tess va Oyimtilla obrazlarining ijtimoiy-axloqiy mohiyatini aniqlash hamda ularning fojeasidagi tipologik mushtaraklik va milliy o'ziga xoslikni ko'rsatishdan iborat. Tadqiqotda qiyosiy-tipologik, tarixiy-adabiy, psixologik va badiiy tahlil usullaridan foydalaniladi.

MATERIALLAR VA USULLAR

Tadqiqot materiali sifatida Thomas Hardyning "Tess of the d'Urbervilles" va Zulfiya Qurolboy qizining "Oyimtilla" romanlari tanlandi. Tahlilda qiyosiy-tipologik, badiiy-psixologik va kontekstual yondashuvlar yordamida qahramonlarning ijtimoiy mavqei, tanlov imkoniyati hamda fojeani ifodalovchi poetik vositalar solishtirildi.

NATIJALAR VA MUHOKAMA

Thomas Hardy va Zulfiya Qurolboy qizi ijodida ayol obrazi voqealar markazida turuvchi faol badiiy subyekt sifatida yaratiladi. Har ikki adib ayolni faqat muhabbat yoki oilaviy munosabatlar doirasidagi qahramon sifatida emas, balki jamiyatning axloqiy va ijtimoiy tizimi bilan to'qnash keladigan murakkab shaxs sifatida tasvirlaydi. Shu sababli ularning qahramonlari taqdiri individual hayot hikoyasidan kengroq mazmun kasb etib, muayyan davr va jamiyatning ma'naviy holatini aks ettiruvchi badiiy mezoniga aylanadi.

Hardy yaratgan Tess obrazi tabiiylik, samimiyat va ichki poklik bilan ajralib turadi. Yozuvchi qahramonning ruhiy olamini tasvirlar ekan, uning boshiga tushgan hodisalarni "axloqiy ayb" sifatida emas, balki ijtimoiy sharoit va erkaklar hukmronligi bilan bog'liq fojea sifatida ko'rsatadi. Tessning o'z hayotini yangidan qurishga urinishlari jamiyatning o'tmishga yopishib olgan hukmi tufayli izchil ravishda barbod bo'ladi. Hardy shu yo'l bilan ayolning ma'naviy qiymati bilan jamiyat tomonidan unga berilgan yorliq o'rtasidagi tafovutni ochadi.

Zulfiya Qurolboy qizining "Oyimtilla" romanida ham ayol qahramonning ichki dunyosi ijtimoiy sharoit bilan uzviy bog'liq holda tasvirlanadi. Oyimtilla obrazida o'zbek ayolining sabr-toqati, oilaga va yaqinlariga bog'liqligi bilan bir qatorda, shaxsiy qadr-qimmatini saqlab qolishga intilish ham muhim o'rin egallaydi. Muallif uning hayotiy tanlovlari, ruhiy kechinmalari va jamiyat

bilan ziddiyatlarini psixologik tafsilotlar orqali ochib beradi. Bu obraz faqat jabrlanuvchi emas; u ichki qarshilikka, axloqiy mezonga va o'zligini anglash ehtiyojiga ega shaxsdir.

Qiyosiy nuqtai nazardan, Tess va Oyimtilla obrazlari o'rtasidagi eng muhim mushtaraklik ularning "jamiyat hukmi"ga qarshi turuvchi ma'naviy mohiyatida ko'rinadi. Har ikki qahramonning hayotini tashqi kuchlar — oilaviy majburiyatlar, iqtisodiy sharoit, erkaklar qarori, ijtimoiy stereotiplar va axloqiy me'yorlar — keskin belgilab turadi. Biroq Hardy fojeani ko'proq Viktorian axloqining institutsional bosimi bilan bog'lasa, Zulfiya Qurolboy qizi uni zamonaviy o'zbek muhitidagi oilaviy-ijtimoiy munosabatlar, qadriyatlar o'zgarishi va ruhiy tanazzul fonida talqin qiladi.

Ayol fojeasining ijtimoiy omillari. Har ikki yozuvchi ijodida ayol fojeasining asosiy ildizlari ijtimoiy muhitga borib taqaladi. Thomas Hardy tasvirlagan Viktorian jamiyati ayolning jinsiy va axloqiy xatti-harakatiga nisbatan nihoyatda qat'iy talablar qo'yadi, biroq erkak va ayol uchun bir xil mezonni qo'llamaydi. Tessning boshidan kechirgan zo'ravonlik va uning oqibatlari qahramonning shaxsiy aybiga aylantirib yuboriladi. Jamiyat voqeaning asl sabablarini emas, ayolning "obro'si"ni hukm qiladi. Natijada Tess o'z hayotining deyarli barcha bosqichlarida o'tmishining soyasi bilan yashashga majbur bo'ladi.

Hardy uchun ijtimoiy adolatsizlik faqat axloqiy hukm bilan cheklanmaydi. Tessning iqtisodiy jihatdan zaif oiladan kelib chiqishi, mehnatga qaramligi va ijtimoiy himoyasizligi uning tanlov imkoniyatlarini keskin kamaytiradi. U o'zining ichki istaklari asosida emas, ko'pincha oilaviy zarurat va tirikchilik ehtiyoji bilan qaror qabul qiladi. Shu sababli romandagi fojea shaxsiy xatolar zanjiri emas, balki sinfiy, iqtisodiy va gender tengsizliklarining qo'shma natijasi sifatida talqin qilinadi.

"Oyimtilla"da ayol fojeasining ijtimoiy omillari o'zbek jamiyatiga xos oila, urf-odat, obro', sabr va ayolning "munosib xulqi" haqidagi qarashlar bilan bog'langan. Qahramonning shaxsiy kechinmalari ko'pincha jamoaviy mezonlar bilan to'qnashadi. Ayoldan chidash, moslashish, oilaviy birlikni saqlash va ko'p holatlarda o'z istagini ikkinchi o'ringa qo'yish talab etiladi. Muallif ana shu talablarning inson ruhiyatiga tushiradigan og'ir yukini badiiy ko'rsatadi.

Tess va Oyimtilla fojeasini birlashtiruvchi nuqta shundaki, ularning qismati ko'p jihatdan o'zlari nazorat qila olmaydigan ijtimoiy mexanizmlar orqali belgilanadi. Har ikki asarda ayolning hayoti jamiyat tomonidan baholanadi, uning shaxsiy kechinmasidan ko'ra tashqi axloqiy mezon muhimroq deb qaraladi. Farq esa shundaki, Hardy o'z tanqidini Viktorian diniy-axloqiy tizimi va sinfiy jamiyatga qaratsa, Zulfiya Qurolboy qizi oilaviy-ijtimoiy muhit, qadriyatlar almashinuvi va zamonaviy hayotdagi ma'naviy ziddiyatlarni ko'proq markazga olib chiqadi.

Muhabbat, tanlov va fojea munosabati. Thomas Hardy va Zulfiya Qurolboy qizi asarlarida muhabbat insonni baxtga eltuvchi oddiy romantik hodisa emas. U qahramonning o'zligini anglashiga yordam beradigan, biroq jamiyat mezonlari bilan to'qnash kelganda fojeaga sabab bo'ladigan murakkab ruhiy tajriba sifatida tasvirlanadi. "Tess of the d'Urbervilles"da Tessning Angel Clarega bo'lgan muhabbati uning yangi hayot boshlashga bo'lgan umidini ifodalaydi. Ammo bu muhabbat erkakning idealistik va ikki tomonlama axloqiy mezoni bilan sinovdan o'tadi. Angel o'zining o'tmishdagi xatosini kechira oladi, lekin Tessning boshidan kechirgan fojiali hodisasiga nisbatan murosasiz bo'lib qoladi. Shu orqali Hardy muhabbatning o'zi emas, balki muhabbat ustidan hukmronlik qilayotgan ijtimoiy axloq fojea keltirib chiqarishini ko'rsatadi.

Zulfiya Qurolboy qizi ijodida ham muhabbat ayol qahramonning ruhiy olamini ochuvchi asosiy vositalardan biridir. "Oyimtilla"da insoniy yaqinlik, mehr, e'tirof va tushunishga bo'lgan ehtiyoj qahramonning ichki harakatlantiruvchi kuchini tashkil etadi. Biroq ayolning o'z tuyg'ularini erkin namoyon qilishi va shaxsiy tanlov qilishi hamma vaqt ham ijtimoiy ma'qullanish bilan mos kelmaydi. Natijada muhabbat shaxsiy baxtning kafolati emas, aksincha, qahramonning jamiyatdagi o'rni va axloqiy maqomini sinovdan o'tkazuvchi omilga aylanadi.

Har ikki romanda tanlov huquqi masalasi ayol fojeasining markaziy komponentidir. Tess o'z hayotining muhim burilishlarida mustaqil tanlov qilishga intiladi, biroq iqtisodiy ehtiyoj, oilaviy bosim va ijtimoiy hukm uning erkinligini cheklaydi. Oyimtilla ham o'zligini saqlash va hayotini shaxsiy qadriyatlari asosida qurishga intiladi, lekin uning tanlovi oilaviy hamda ijtimoiy kutilmalar

bilan chegaralanadi. Shunday qilib, ikki asarda ham fojeaning asosiy manbai muhabbat emas, balki muhabbat va erkin tanlovning ijtimoiy jihatdan tan olinmasligidir.

XULOSA

Thomas Hardy va Zulfiya Qurolboy qizi asarlarida ayolning fojeaviy taqdirini qiyosiy o'rganish shuni ko'rsatadiki, turli tarixiy-madaniy muhitlarda yaratilgan "Tess of the d'Urbervilles" va "Oyimtilla" romanlari o'rtasida muhim tipologik mushtaraklik mavjud. Har ikki asarda ayol qahramonning fojeasi shaxsiy axloqiy nuqsonning natijasi sifatida emas, balki jamiyatning hukmron me'yorlari, genderga asoslangan cheklovlar, iqtisodiy va oilaviy qaramlik hamda shaxsiy tanlov huquqining torayishi bilan bog'liq holda tasvirlanadi.

Tess va Oyimtilla obrazlari o'zlarining ichki pokligi, mehrga ehtiyoji, hayotiy bardoshi va shaxsiy qadr-qimmatini saqlashga intilishi bilan bir-biriga yaqin turadi. Ularning fojeasi jamiyat tomonidan noto'g'ri talqin qilingan yoki e'tibordan chetda qolgan insoniy ehtiyojlardan kelib chiqadi. Hardy Viktorian axloqining ikkiyuzlamachiligi va sinfiy tengsizlikni fosh etsa, Zulfiya Qurolboy qizi zamonaviy o'zbek muhitidagi oilaviy-ijtimoiy bosim, qadriyatlar ziddiyati va ruhiy begonalashuvni ochib beradi.

Qiyosiy poetik jihatdan Hardy fojeani keng tabiat manzaralari, taqdiriylilik va ironik narrativ orqali kuchaytiradi; Zulfiya Qurolboy qizi esa psixologik tasvir, kundalik hayot tafsilotlari va milliy mentalitetga xos ziddiyatlar orqali ayol ruhiyatini chuqur ochadi. Demak, ikki adib ijodida ayol obrazi jamiyatdagi axloqiy muammolarni ifodalovchi markaziy badiiy vositaga aylanadi. Ushbu mushtaraklik va farqlar ayol qismati masalasining zamon va makon chegaralaridan oshib, universal insoniy muammo sifatida namoyon bo'lishini tasdiqlaydi.

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IQBOL MIRZO IJODIDA AYOLNING RUHIY YOLG'IZLIGI: "BONU" ROMANI MISOLIDA

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Annotatsiya. Mazkur maqolada Iqbol Mirzoning "Bonu" romanida ayolning ruhiy yolg'izligi va o'zlik izlanishi badiiy-psixologik hamda narratologik nuqtai nazardan tahlil qilinadi.

Tadqiqotning maqsadi bosh qahramon Bonuning ichki kechinmalari, jamiyat va yaqinlar bilan munosabatlaridagi uzilishlar, xotira hamda maktub shakli orqali o'z "meni"ni anglash jarayonini ochib berishdan iborat. Tadqiqotda psixologik tahlil, hermenevtik talqin, obrazlar tizimini kuzatish va epistolyar shaklning funksional xususiyatlarini aniqlash usullaridan foydalanildi. Tahlil natijasida Bonuning yolg'izligi oddiy jismoniy tanholik emas, balki tushunilmaslik, ishonchning yemirilishi, qadriyatlar to'qnashuvi va ijtimoiy begonalashuvdan kelib chiqadigan murakkab ruhiy holat ekanligi aniqlandi. Qahramonning noma'lum adibga murojaat qilishi, o'z hayotini xatlar orqali qayta hikoya qilishi va kechmishini tahlil etishi o'zlikni tiklashga qaratilgan ichki ehtiyoj sifatida namoyon bo'ladi. Roman epistolyar qurilishi ayol ruhiyatining bevosita ifodalanishini kuchaytiradi, Bonuning sukutdan so'zga, ichki parokandalikdan o'zini anglash sari harakatini badiiy jihatdan asoslaydi. Xulosa sifatida, "Bonu"da ruhiy yolg'izlik ayol shaxsiyatini yemiruvchi holat bilangina cheklanmay, o'zlikni anglash va ma'naviy pozitsiyani aniqlashtirishga turtki beruvchi psixologik bosqich sifatida talqin qilinadi.

Kalit so'zlar: Iqbol Mirzo, Bonu, ayol obrazi, ruhiy yolg'izlik, o'zlik, identitet, epistolyar roman, psixologizm, xotira, begonalashuv.

Аннотация. В статье рассматриваются психологическое одиночество женщины и поиск собственной идентичности в романе Икбола Мирзо «Бону» с художественно-психологической и нарратологической точек зрения. Цель исследования состоит в выявлении способов изображения внутреннего мира главной героини, разрыва её связей с близкими и обществом, а также процесса осмысления собственного «я» через память и эпистолярную форму повествования. В работе применены методы психологического анализа, герменевтической интерпретации, наблюдения за системой образов и функционального анализа эпистолярной формы. Результаты показывают, что одиночество Бону не сводится к физической изоляции: оно формируется вследствие непонимания, утраты доверия, столкновения ценностей и социального отчуждения. Обращение героини к далёкому собеседнику и последовательное восстановление собственного прошлого в письмах становятся способом внутреннего самоанализа и восстановления личностной целостности. Эпистолярная структура романа создаёт эффект непосредственного присутствия женского голоса и позволяет проследить движение героини от вынужденного молчания и душевной разобщённости к осознанию собственного достоинства и нравственной позиции. Сделан вывод, что психологическое одиночество в романе выступает не только источником страдания, но и важным этапом поиска самости и личностного самоопределения.

Ключевые слова: Икбол Мирзо, Бону, женский образ, психологическое одиночество, идентичность, самость, эпистолярный роман, психологизм, память, отчуждение.

Abstract. This article examines women's psychological loneliness and the search for self-identity in Iqbol Mirzo's novel "Bonu" from literary-psychological and narratological perspectives. The study aims to reveal the representation of the protagonist's inner experiences, the disruption of her relationships with family and society, and the process through which she reconstructs her sense of self by means of memory and epistolary narration. The research employs psychological analysis, hermeneutic interpretation, observation of the character system, and functional analysis of the epistolary form. The findings demonstrate that Bonu's loneliness is not merely physical isolation; it develops from misunderstanding, the collapse of trust, conflicts of values, and social alienation. Her decision to address a distant interlocutor and to retell her life through letters functions as a form of self-analysis and an attempt to restore personal integrity. The epistolary structure strengthens the immediacy of the female voice and makes it possible to trace Bonu's movement from silence and inner fragmentation toward self-awareness and a clearly defined moral position. The study concludes that psychological loneliness in the novel is represented not only as a destructive emotional condition but also as a significant stage in the heroine's search for selfhood, dignity, and personal identity.

Keywords: Iqbol Mirzo, Bonu, female character, psychological loneliness, self-identity, selfhood, epistolary novel, psychologism, memory, alienation.

KIRISH

Zamonaviy o'zbek nasrida ayol obrazining ichki olamini, uning jamiyatdagi mavqei va shaxsiy kechinmalarini psixologik chuqurlikda yoritish muhim badiiy yo'nalishlardan biridir. Iqbol Mirzoning "Bonu" romani ana shu jihatdan alohida e'tiborga loyiq. Asar bir ayolning hayotiy sinovlarini shunchaki voqealar ketma-ketligi sifatida emas, balki uning xotirasi, o'ziga bergan savollari, ishonch va umidsizliklari orqali ko'rsatadi. Roman maktublar, kundalik va xotira unsurlariga tayangan epistolyar qurilishi bilan qahramon ruhiyatini ichkaridan ochish imkonini yaratadi. Bosh qahramon suhbatdosh izlaydi, chunki u o'z dardini "tinglay oladigan" va his qila oladigan kishiga ehtiyoj sezadi; yozish esa unga kechmishini qayta ko'rib chiqish va suhbatda ayta olmaydigan holatlarni erkinroq ifodalash imkonini beradi [1, 4–5]. Shu jihatdan maktub Bonu uchun axborot uzatish vositasidan ko'ra kengroq — o'zini anglash va ruhiy muvozanatni tiklash maydoniga aylanadi.

Mavzuning dolzarbligi shundaki, "Bonu"da yolg'izlik faqat bir ayolning shaxsiy iztirobi tarzida emas, balki zamonaviy ijtimoiy munosabatlarda shaxsning begonalashuvi, yaqinlikning zaiflashuvi va qadriyatlar inqirozi bilan bog'liq hodisa sifatida ko'rinadi. Qahramonning turli sinovlar qarshisida o'z qadr-qimmatini, e'tiqodi va axloqiy mezonlarini saqlashga intilishi o'zlik masalasini romanning markaziy psixologik muammolaridan biriga aylantiradi. Avvalgi tadqiqotlarda Bonuning sabr-bardoshi, ichki kechinmalari va ijtimoiy ziddiyatlar bilan to'qnashuvi yoritilgan [3, 352–356]. Mazkur maqola esa aynan ruhiy yolg'izlikning o'zlik izlanishi bilan ichki aloqasiga e'tibor qaratadi.

MATERIALLAR VA USULLAR

Tadqiqot materiali sifatida Iqbol Mirzoning "Bonu" romani olindi. Tahlilda psixologik va hermenevtik metodlar, epistolyar narrativning funksional tahlili, obrazning ichki nutqi va xotira strukturasini kuzatish usullaridan foydalanildi. D. Quronov ta'kidlagan badiiy obraz, muallif va qahramon munosabatiga oid nazariy qarashlar [2] hamda epistolyar janrning shaxs ruhiyatini individual rakursdan ochish imkoniyatlari haqidagi tadqiqotlar [4, 161–166] metodologik tayanch vazifasini bajaradi.

NATIJALAR VA MUHOKAMA

Tahlil shuni ko'rsatadiki, Bonuning ruhiy yolg'izligi asarda bir nechta qatlamda namoyon bo'ladi. Birinchi qatlam — tushunilmaslik hissi. Qahramon tashqi jihatdan odamlar orasida yashasada, o'z ichki dardini to'liq bo'lisha oladigan yaqin ruhiy tayanch topa olmaydi. Shu sababli uning noma'lum adibga murojaati tasodifiy emas. Maktubning boshidayoq "menga suhbatdosh kerak" degan ehtiyojning ifodalanishi qahramonning ichki tanholigini ochuvchi muhim psixologik signalga aylanadi [1, 4]. Unga oddiy tinglovchi emas, dardni his qiluvchi, hukm qilmasdan anglay oluvchi inson zarur. Bu ehtiyoj Bonuning jamiyat bilan jismoniy aloqasi mavjud bo'lsa ham, ma'naviy va ruhiy yaqinlik yetishmayotganini ko'rsatadi.

Ikkinchi qatlam — ishonchning yemirilishi bilan bog'liq yolg'izlikdir. Bonu hayotidagi xiyonat, ikkiyuzlamachilik, manfaatparastlik va yaqinlarning munosabatidagi keskin o'zgarishlar uning odamlar haqidagi dastlabki tasavvurlarini buzadi. Tadqiqotchilar ham qahramon yaqinlaridan ko'rgan xiyonat va adolatsizliklarga qaramay o'z iymoni va qadrini saqlashga intilishini alohida qayd etadilar [3, 352–356]. Shunday vaziyatda qahramonning ruhiy himoya mexanizmi sifatida ichki chekinish kuchayadi. Biroq bu chekinish mutlaq passivlik emas: u voqealarni ichida qayta baholaydi, kimga ishonish mumkinligi, o'zining hayotdagi o'rni va qaysi qadriyatlarni tark etmasligi kerakligi haqida xulosalar chiqaradi. Demak, yolg'izlik uning ruhiy jarohatini ko'rsatsada, ayni paytda tanqidiy o'zini anglash jarayonini ham faollashtiradi.

Romanning epistolyar shakli o'zlik izlanishini badiiy tashkil etuvchi asosiy vositadir. Epistolyar asarda voqelik qahramonning individual nigohi orqali beriladi; shu sababli tashqi voqealar ichki tajriba bilan bir vaqtda ochiladi [4, 161–166]. Bonu ham o'z hayotini qayta hikoya qilish jarayonida faqat "nima bo'lganini" emas, balki "nega shunday bo'lganini" anglashga urinadi. Yozish aktining o'zi tahlilga aylanadi: qahramon xotiralarni tanlaydi, ularni tartibga soladi, ayrim voqealarga yangi ma'no beradi. Natijada maktub matni Bonuning kechagi "meni" bilan bugungi "meni"

oʻrtasidagi ichki dialog vazifasini bajaradi. Bu dialog shaxsiy identitetning parchalanishiga qarshi turuvchi badiiy mexanizm sifatida koʻrinadi.

Oʻzlik izlanishining muhim belgilaridan yana biri — Bonuning axloqiy mezonlarga sodiqligidir. Uning hayotida tashqi sharoitlar keskin oʻzgaradi, ijtimoiy maqom va kundalik muhit almashinadi, biroq qahramon oʻzini faqat boshqalarning hukmi bilan belgilashga rozi boʻlmaydi. U haqorat, kamsitilish yoki manfaatga asoslangan munosabatlar qarshisida oʻz qadriyatlarini tekshirib boradi. Shu maʼnoda “oʻzlik” romanda tayyor va oʻzgarmas sifat emas; u sinovlar jarayonida qayta angʻlanadigan maʼnaviy pozitsiyadir. Ibrohim Gʻafurovning roman haqidagi soʻzida Bonudagi oriyat, nomus va matonatning alohida urgʻulanishi ham qahramonning ichki tayanchini belgilovchi xususiyatlarga ishora qiladi [1, 1–2].

Ruhiy yolgʻizlikning yana bir manbai — ijtimoiy begonalashuv. Bonu qadriyatlari bilan atrofdagi ayrim kishilarning manfaatga yoʻnaltirilgan xatti-harakatlari oʻrtasidagi nomuvofiqlik tobora chuqurlashadi. Qahramon adolatsizlikni oddiy hayotiy “qoida” sifatida qabul qila olmaydi. Shu bois uning begonalashuvi faqat hissiy emas, axloqiy mazmunga ham ega: u muhitga moslashish evaziga oʻz prinsiplaridan voz kechishni istamaydi. Bonu obrazining dekadentlik, ijtimoiy inqiroz va qadriyatlar ziddiyati doirasida tadqiq etilishi ham bu qarama-qarshilikning romandagi muhim oʻrnini koʻrsatadi [5, 17–22]. Biroq qahramonning oʻzlik izlanishi toʻliq pessimistik yoʻnalishda emas. U oʻzini boshidan kechirgan fojialar bilan tenglashtirib qoʻymaydi; aksincha, boshdan kechirilgan voqealar orasidan shaxsiy maʼno topishga urinadi.

Xotira romandagi oʻzlik izlanishining asosiy psixologik maydonidir. Bonu bugungi ruhiy holatini tushunish uchun bolalik, oila, muhabbat, ayriliq va musofirlik bilan bogʻliq voqealarga qayta-qayta murojaat qiladi. Retrospektiv harakat voqealar xronologiyasini buzsa-da, qahramon ongining tabiiy ishlash tarzini ifodalaydi: ogʻriqli xotira bir voqeadan boshqasiga oʻtadi, bugungi hissiyot oʻtmishdagi epizodni uygʻotadi. Shu yoʻl bilan roman qahramonning ichki biografiyasini yaratadi. Tashqi hayot tarixi va ichki oʻzlik tarixi bir-biriga qoʻshilib, Bonuning “men kimman?” degan yashirin savoliga javob izlashga xizmat qiladi.

Maqola doirasidagi kuzatishlar “Bonu” romanida ayol ruhiyatini tasvirlashning uch muhim tamoyilini koʻrsatadi. Birinchidan, yolgʻizlik qahramonning individual xarakter nuqsoni emas, balki munosabatlardagi ishonchsizlik va qadriyatlar ziddiyatidan tugʻilgan ijtimoiy-psixologik holatdir. Ikkinchidan, epistolyar nutq qahramonga oʻz ovozi qayta topish, boshidan kechirganlarini nomlash va ularga maʼno berish imkonini beradi. Uchinchidan, oʻzlik izlanishi tashqi muvaffaqiyat bilan emas, qahramonning maʼnaviy chegaralarini aniqlashi, oʻz qadrini boshqalarning hukmidan mustaqil ravishda anglashga intilishi bilan belgilanadi. Shu jihatdan roman ayolning ruhiy tanholigini faqat iztirob tasviri sifatida emas, oʻzini anglashga olib boruvchi murakkab ichki jarayon sifatida badiiylashtiradi.

XULOSA

Xulosa qilib aytganda, Iqbol Mirzoning “Bonu” romanida ruhiy yolgʻizlik va oʻzlik izlanishi oʻzaro bogʻlangan ikki psixologik hodisa sifatida namoyon boʻladi. Bonuning yolgʻizligi yaqin insonlarning yoʻqligi bilan emas, koʻproq tushunilmaslik, ishonchning buzilishi va qadriyatlar mos kelmasligi bilan belgilanadi. Maktub shakli esa qahramonga oʻz dardini tashqi nutqqa aylantirish, xotiralarini qayta tartiblash va ichki “men”ni tiklash imkonini beradi. Natijada Bonu obrazi zamonaviy oʻzbek nasrida ayolning shaxsiy identiteti, maʼnaviy mustaqilligi va ruhiy bardoshlilikini ifodalovchi murakkab badiiy obraz sifatida namoyon boʻladi. Tadqiqotning ilmiy ahamiyati “Bonu” romanidagi ayol psixologizmini epistolyar shakl, xotira va oʻzlik konsepsiyalari kesishmasida talqin etish bilan belgilanadi.

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BOBUR SHAXSIYATI VA IJODINING XXI ASR MADANIY KONTEKSTDAGI O'RNI

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Annotatsiya. Ushbu maqolada Zahiriddin Muhammad Bobur shaxsiyati, uning serqirra ijodi hamda davlat arbobi sifatidagi faoliyati XXI asr madaniy konteksti doirasida kompleks tahlil qilinadi. Tadqiqotda Bobur merosining bugungi global madaniy makondagi o'rni, uning jahon adabiy jarayonlariga ta'siri hamda tarixiy xotira shakllanishidagi ahamiyati chuqur yoritiladi. Xususan, "Boburnoma" asari nafaqat tarixiy manba, balki yuksak badiiy-estetik qiymatga ega bo'lgan noyob adabiy yodgorlik sifatida baholanadi. Maqolada Boburning adabiy, ilmiy va siyosiy qarashlari zamonaviy tadqiqot metodologiyalari — komparativistik tahlil, intertekstual yondashuv, madaniyatlararo muloqot va postkolonial nazariya asosida o'rganiladi. Shuningdek, uning poetik uslubi, til boyligi, obrazlar tizimi va insonparvarlik g'oyalari bugungi adabiyotshunoslik nuqtai nazaridan qayta talqin etiladi.

Kalit so'zlar: Bobur, mumtoz adabiyot, XXI asr madaniyati, "Boburnoma", zamonaviy yondashuvlar, madaniy meros, poetika, tarixiy xotira, global adabiyot, intertekstuality.

Аннотация. В данной статье проводится комплексный анализ личности Захириддина Мухаммада Бабура, его многогранного творческого наследия и государственной деятельности в контексте культуры XXI века. Особое внимание уделяется значению наследия Бабура в современном глобальном культурном пространстве, его влиянию на мировые литературные процессы, а также роли в формировании исторической памяти. Произведение «Бабур-наме» рассматривается не только как важный исторический источник, но и как уникальный литературный памятник, обладающий высокой художественно-эстетической ценностью. В статье анализируются литературные, научные и политические взгляды Бабура с использованием современных методологических подходов, включая сравнительный анализ, интертекстуальность, теорию межкультурного диалога и постколониальные исследования. Особое внимание уделяется поэтике Бабура, богатству его языка, системе образов и гуманистическим идеям, которые получают новое осмысление в современной литературоведческой науке. Также рассматривается значение наследия Бабура в мировой литературе, искусстве и духовной жизни с точки зрения современных научных концепций.

Ключевые слова: Бабур, классическая литература, культура XXI века, Бабур-наме, современные подходы, культурное наследие, поэтика, историческая память, глобальная литература, интертекстуальность.

Abstract. This article provides a comprehensive analysis of the personality of Zahiriddin Muhammad Babur, his multifaceted literary heritage, and his political leadership within the cultural

context of the 21st century. The study explores the significance of Babur's legacy in today's global cultural landscape, its influence on world literary processes, and its role in shaping historical memory. Particular attention is given to the "Baburnama," which is examined not only as a valuable historical document but also as a unique literary masterpiece with significant aesthetic and artistic value. The article analyzes Babur's literary, scholarly, and political views through contemporary research methodologies, including comparative analysis, intertextual approaches, intercultural dialogue frameworks, and postcolonial theory. Furthermore, the study reinterprets Babur's poetics, linguistic richness, imagery, and humanistic ideas from the perspective of modern literary criticism.

Keywords: Babur, classical literature, 21st-century culture, Baburnama, modern approaches, cultural heritage, poetics, historical memory, global literature, intertextuality.

KIRISH

Mustaqillik yillaridan boshlab o'zbek adabiyotshunosligida mumtoz merosni qayta o'rganish, uni zamonaviy ilmiy qarashlar asosida talqin etish jarayoni faollashdi. Ayniqsa, jahon madaniyati tarixida o'ziga xos o'rin egallagan Zahiriddin Muhammad Bobur shaxsiyati va ijodi doimo tadqiqotchilar e'tiborida bo'lib kelmoqda. Bobur nafaqat buyuk davlat arbobi, sarkarda va tarixchi, balki nozik didli shoir, ilmparvar olim, tabiatshunos va madaniyat targ'ibotchisi sifatida ham dunyo ilm-fani e'tirof etgan siymolardan biridir. Uning ko'p qirrali merosi bugungi kunda ham o'z ahamiyatini yo'qotmagan, aksincha, XXI asrning globallashuv, madaniyatlararo muloqot hamda yangicha ilmiy yondashuvlar sharoitida yanada chuqurroq o'rganilmoqda.

Bobur ijodining zamonaviy madaniy kontekstdagi o'rni, avvalo, uning asarlarida jamlangan tarixiy, ma'naviy va adabiy qadriyatlarning universalligi bilan bog'liqdir. "Boburnoma" singari noyob asarlar bugungi tarixshunoslik, geografiya, etnografiya, adabiyotshunoslik va madaniyatshunoslik uchun muhim manba vazifasini bajaradi.[1] Bobur g'azallari, ruboiylari va boshqa she'riy merosi esa hozirgi poetik talqinlar, semiotik tadqiqotlar hamda badiiy tafakkur rivoji bilan uzviy uyg'unlashadi. XXI asrda Bobur merosini o'rganish nafaqat tarixiy jarayonlarni yoritish, balki zamonaviy madaniyatning shakllanishida mumtoz manbalar o'rni va ahamiyatini belgilash uchun ham muhimdir.[2] Shu sababli Bobur shaxsiyati va ijodini hozirgi zamon ilmiy talqinlari, yangi metodologiyalar hamda madaniy jarayonlar kontekstida tadqiq etish dolzarb masala hisoblanadi. Mazkur ishda aynan Boburning XXI asrdagi madaniy, ma'naviy va ilmiy qadriyatlar tizimidagi o'rni yoritilib, uning merosining bugungi kun uchun ahamiyati ilmiy tahlil etiladi[3].

MATERIALLAR VA USULLAR

Bobur she'riyati o'zining nafis uslubi, badiiy yuksakligi va inson qalbining teran kechinmalarini o'zida mujassam etgani bilan mumtoz adabiyot tarixida o'chmas iz qoldirgan. Zahiriddin Muhammad Bobur lirikasida shoirning shaxsiy hayoti, iztiroblari, orzu-armonlari, davrning siyosiy jarayonlari va ruhiy kechinmalari uyg'un holda tasvirlanadi. Ayniqsa, Bobur she'riyatidagi tabiiylik, samimiyat, obrazlar rang-barangligi va she'riy musiqiylik uni bugungi o'quvchi uchun ham jozibador qiladi.[6]

Bobur lirikasining asosiy xususiyatlaridan biri — undagi ichki samimiyat va ruhiy dinamika hisoblanadi. Shoir ko'ngil kechinmalarini sun'iy estetika orqali emas, balki hayotiy tajriba, kuzatish va shaxsiy kechinmalar orqali ifoda etadi. Uning muhabbat lirikasi insoniy mehr va poklik bilan yo'g'rilgan bo'lsa, falsafiy she'riyati hayotning mazmuni, insonning dunyodagi o'rni hamda vaqtning o'tkinchiligi kabi muhim masalalarni yoritadi.

Shu tariqa, Bobur she'riyati bugungi adabiy tafakkurga nafaqat estetik zavq bag'ishlaydi, balki insoniylik, muhabbat, vatanparvarlik va tabiatni sevisish kabi umuminsoniy qadriyatlarni mustahkamlashda ham muhim vosita bo'lib xizmat qiladi. Uning lirikasidan taralgan ruh XXI asr o'quvchisi uchun ham dolzarb, yaqin va ahamiyatlidir.[8]

NATIJALAR VA MUHOKAMA

Ushbu tadqiqot natijasida Bobur shaxsiyati va ijodining XXI asr madaniy kontekstdagi o'rni har tomonlama o'rganildi va bir qator muhim ilmiy xulosalarga erishildi. Tadqiqot jarayonida Bobur merosining tarixiy ahamiyati yana bir bor tasdiqlandi: "Boburnoma" hamda shoirning boshqa asarlari

o‘z davrining siyosiy, ijtimoiy va madaniy manzarasini yorqin tasvirlab beruvchi ishonchli ilmiy manba sifatida bugungi tarixshunoslik, geografiya va madaniyatshunoslikda keng qo‘llanilayotgani aniqlandi. Bobur ijodida mujassam badiiy, ma‘naviy va falsafiy g‘oyalar zamonaviy ilmiy talqinlar bilan uyg‘un kelishi, uning merosining XXI asr uchun ham dolzarbligini ko‘rsatdi. Tadqiqot Bobur she‘riyatining bugungi poetik tafakkurdagi o‘rnini ham keng yoritdi. Shoir lirikasidagi samimiyat, ruhiy chuqurlik, tabiiy tasvirlar va estetik yuksaklik zamonaviy o‘quvchi va adabiyotshunoslar uchun ham muhim ekanligi isbotlandi. Bobur poetikasi hozirgi adabiy jarayonda psixologik tahlil, semiotik usul va intertekstual yondashuvlar asosida talqin qilinmoqda.[11] Tabiatni sevish va asrash, insonparvarlik, adolat, poklik kabi g‘oyalar zamonaviy ekologik va ma‘naviy qadriyatlar bilan bevosita hamohang bo‘lib chiqdi[12]. Shuningdek, tadqiqot Bobur merosining global madaniy jarayonlardagi o‘rnini ham ochib berdi. Uning turkiy, forsiy va hindiy madaniyatlarni birlashtirgan ijodiy faoliyati bugungi multikultural dunyo uchun muhim ko‘prik vazifasini o‘tayotgani aniqlandi. Bobur asarlarini zamonaviy adabiyotshunoslikning strukturaviy, sotsiokulturologik, tarixiy-tipologik va semiotik metodlari asosida o‘rganish yangi ilmiy yondashuvlarni shakllantirishga yordam berdi. Yana bir muhim natija shundaki, Bobur merosi yoshlar ma‘naviy kamolotida katta o‘rin tutishi qayta asoslab berildi. Uning ijodida targ‘ib etilgan axloqiy poklik, ilmga hurmat, vatanparvarlik, tabiatga mehr kabi g‘oyalar zamonaviy tarbiyaviy jarayonlarda qo‘llash uchun dolzarb va samaralidir. Umuman, tadqiqot natijalari Bobur shaxsiyati va ijodining XXI asr madaniy konstruksiyasidagi o‘rni keng qamrovli, serqirra va jahon madaniyati uchun ham qimmatli meros ekanini yaqqol ko‘rsatdi[13].

XULOSA

Ushbu tadqiqot davomida Zahiriddin Muhammad Bobur shaxsiyati va ijodining XXI asr madaniy kontekstdagi o‘rni keng qamrovda o‘rganildi. Natijalar shuni ko‘rsatdiki, Bobur merosi bugungi globallashuv, madaniyatlararo muloqot, tarixiy xotira va adabiy jarayonlar rivojida ham o‘z dolzarbligini saqlab qolmoqda[13]. Uning “Boburnoma”si – tarix, geografiya, etnografiya va adabiyotning noyob manbai sifatida hozirgi zamon ilm-fanida yuqori baholanayotgan, jahon madaniy merosining ajralmas qismidir. Bobur she‘riyati esa zamonaviy poetik tafakkur bilan uzviy bog‘liq bo‘lib, inson ruhiyati, muhabbat, vatanparvarlik, tabiat va hayot falsafasi kabi mavzularning badiiy talqinida hozirgi o‘quvchiga yaqin va tushunarli bo‘lib bormoqda. Shoir lirikasidagi samimiyat, tasviriy boylik, estetik yuksaklik hamda tabiat va inson uyg‘unligi XXI asr adabiyotshunoslik tadqiqotlarida ham yangi ilmiy talqinlar uchun asos bo‘lib xizmat qilmoqda[14]. Bobur merosi ko‘p millatli madaniyatlar o‘rtasida ko‘prik bo‘lib, turkiy, forsiy va hindiy madaniy an‘analarni uyg‘unlashtirgan holda bugungi multikultural jamiyatlarda o‘z ahamiyatini saqlab kelmoqda. Uning adabiy va siyosiy qarashlari zamonaviy madaniyatshunoslik, tarixshunoslik, psixologik poetika va semiotik tahlil kabi sohalar uchun ham dolzarb ilmiy materialdir[15]. Xulosa qilib aytganda, Bobur shaxsiyati va ijodi XXI asr madaniy konstruksiyasida nafaqat tarixiy meros sifatida, balki ma‘naviy, estetik va ilmiy taraqqiyotning muhim omili sifatida qo‘llanilishi zarur. Uning asarlaridagi umuminsoniy qadriyatlar — adolat, ilmga intilish, poklik, tabiatga e’tibor, vatanga muhabbat — bugungi avlod tarbiyasida ham beqiyos ahamiyatga ega. Bobur merosini chuqur o‘rganish va kelajak avlodga yetkazish esa madaniyat va ilm rivoji uchun muhim vazifalardan biri hisoblanadi.

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THE CURRENT STATE OF TEACHING IN PRIMARY GRADES: AN ANALYTICAL APPROACH WITH IN THE SYSTEM OF NATIONAL REFORMS AND MODERN PEDAGOGICAL APPROACHES

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Annotatsiya: *Ushbu maqolada O'zbekiston Respublikasi umumiy o'rta ta'lim tizimining boshlang'ich bosqichida ta'lim berishning hozirgi holati ilmiy-nazariy va amaliy-tahliliy nuqtai nazardan o'rganiladi. O'zbekiston Respublikasi Prezidenti Shavkat Mirziyoyev tomonidan ilgari surilgan ta'lim strategiyalari — xususan, Xalq ta'limi tizimini 2030-yilgacha rivojlantirish konsepsiyasi, "O'zbekiston — 2030" strategiyasi hamda "Inson manfaatlariga e'tibor va sifatli ta'lim yili" davlat dasturi doirasida boshlang'ich ta'lim jarayonining tarkibiy tashkil etilishi, o'qitish metodikasiga kiritilgan yangiliklar hamda milliy ta'lim natijalarining xalqaro pedagogik mezonlar (PIRLS, TIMSS, PISA) bilan uyg'unligi darajasi tizimli tahlil qilinadi. Maqolada boshlang'ich ta'lim sifatini belgilovchi omillar — o'qituvchi kompetensiyasi, darslik va o'quv-metodik ta'minot, raqamli didaktik vositalar hamda baholash tizimidagi islohotlar nazariy jihatdan asoslanadi va tegishli amaliy tavsiyalar ishlab chiqiladi.*

Kalit so'zlar: *boshlang'ich ta'lim, ta'lim sifati, pedagogik islohot, Shavkat Mirziyoyev, ta'lim konsepsiyasi, kompetensiyaviy yondashuv, xalqaro baholash tizimlari, innovatsion texnologiyalar, o'quvchi shaxsi, uzluksiz ta'lim.*

Аннотация: *В статье представлен научно-теоретический и практико-аналитический обзор современного состояния обучения на начальной ступени системы общего среднего образования Республики Узбекистан. В контексте образовательных стратегий, инициированных Президентом Республики Узбекистан Шавкатом Мирзиёевым — в частности, Концепции развития системы народного образования до 2030 года, стратегии «Узбекистан — 2030» и государственной программы «Год внимания к интересам человека и качественного образования», — в исследовании проводится системный анализ структурной организации процесса начального обучения, нововведений в методике преподавания и степени соответствия национальных результатов международным педагогическим стандартам (PIRLS, TIMSS, PISA). Статья содержит теоретическое*

обоснование факторов, определяющих качество начального образования (компетентность педагогов, обеспеченность учебниками и учебно-методическими материалами, цифровые дидактические средства, реформы системы оценивания), а также предлагает соответствующие практические рекомендации.

Ключевые слова: начальное образование, качество обучения, педагогическая реформа, Шавкат Мирзиёев, концепция образования, компетентностный подход, международные системы оценки, инновационные технологии, личность обучающегося, непрерывное образование.

Abstract: This article provides a scientific-theoretical and practical-analytical examination of the current state of teaching at the primary stage of the general secondary education system of the Republic of Uzbekistan. Within the context of the educational strategies advanced by the President of the Republic of Uzbekistan, Shavkat Mirziyoyev — in particular, the Concept for the Development of the Public Education System until 2030, the "Uzbekistan — 2030" Strategy, and the state program "Year of Attention to Human Interests and Quality Education" — the study systematically analyzes the structural organization of the primary education process, the innovations introduced into teaching methodology, and the degree to which national outcomes are aligned with international pedagogical benchmarks (PIRLS, TIMSS, PISA). The article provides a theoretical grounding for the factors that determine the quality of primary education — teacher competence, textbook and instructional-methodological provision, digital didactic tools, and reforms in the assessment system — and develops corresponding practical recommendations.

Keywords: primary education, quality of teaching, pedagogical reform, Shavkat Mirziyoyev, education concept, competency-based approach, international assessment systems, innovative technologies, the learner's personality, lifelong education.

INTRODUCTION

The foundation of the development of modern society is human capital, the formation of which begins with primary education — the initial link in the system of lifelong learning. The knowledge, skills, and attitudes toward learning activity that a child acquires in the primary grades serve as the foundation on which the entire subsequent academic path is built. It is for this reason that the leadership of the Republic of Uzbekistan has defined education as a priority direction of state policy, consistently emphasizing that science, education, and upbringing constitute the cornerstone of the nation's development.

The Concept for the Development of the Public Education System until 2030, approved on April 29, 2019, set forth the tasks of fundamentally renewing teaching methodology, aligning curricula with international standards, and enhancing the professional competence of teaching staff. On the basis of this strategic document, a new generation of textbooks for the primary grades has been developed in recent years, which were presented to the public at the International Congress Center in December 2022. The declaration of 2023 as the "Year of Attention to Human Interests and Quality Education" in Uzbekistan is a clear demonstration of just how prominent a place the improvement of educational quality occupies in state policy.

A distinctive feature of the primary education stage is that it is precisely during this period that a child's cognitive activity, speech culture, mathematical thinking, and socio-emotional competencies are actively formed. From the standpoint of contemporary cognitive psychology and developmental pedagogy, the age range of 6 to 10 years is considered the period of greatest intellectual plasticity, which makes the scientific soundness of the methodology applied at this stage a matter of particular importance. Any methodological error or systemic shortcoming can lead to a "learning deficit" that is difficult to remedy at subsequent stages of education.

International experience demonstrates that in every country whose education system has achieved high results, particular state attention has been devoted to primary education — a pattern clearly evident in the experience of countries such as Finland, Singapore, and South Korea. Although Uzbekistan has likewise carried out systematic reforms in this direction in recent years, the scientific

comparison of national outcomes with international indicators, the identification of problem areas, and the development of scientifically grounded solutions remain highly relevant tasks.

In this connection, a systematic scientific analysis of the current state of the primary education process, an objective assessment of its achievements and shortcomings, and the search for ways to harmonize national reforms with international pedagogical experience are of pressing scientific and practical significance. The purpose of this article is to elucidate the current state of teaching in the primary grades on the basis of normative-legal, methodological, and international comparative analysis, and to develop scientifically grounded recommendations for further improving quality.

Normative-Legal and Institutional Foundations of Primary Education

The legal foundation of the reforms in the primary education system is constituted by a number of strategic documents. The "Uzbekistan — 2030" development strategy identifies the development of human capital as a distinct priority direction, within which the task of fundamentally improving the quality of general secondary education, including the primary stage, is set as an integral component. State programs enshrine concrete tasks concerning the improvement of the material and technical conditions of schools, the continuous upgrading of teacher qualifications, and the upbringing of the younger generation as well-rounded, knowledgeable individuals capable of independent thought.

In practical terms, beginning with the 2023/2024 academic year, updated curricula and instructional-methodological packages providing primary education to students in grades 1 through 4 of general secondary education institutions are being introduced in a phased manner. This reform envisages ensuring cross-disciplinary and cross-grade integration, and the introduction of a new procedure for assessing knowledge — namely, evaluating not merely whether the student has memorized the topic, but whether the student is able to apply the acquired knowledge in practice, think critically, and analyze material. Furthermore, the particular attention devoted to computer science in the primary grades reflects the necessity of forming digital competencies from an early age.

From an institutional standpoint, the management of the primary education sector rests with the Ministry of Preschool and School Education, its territorial administrations, and the relevant scientific-methodological centers — including the Avloniy National Institute for Education. This system of institutions performs the functions of developing curricula, subjecting textbooks to expert review, organizing the professional development of teachers, and monitoring the quality of education. In recent years, the digitalization of this institutional system — in particular, the introduction of electronic monitoring and reporting platforms — has served to increase the transparency of management processes.

An analysis of the normative documents shows that the legislative framework is being consistently improved in accordance with the demands of the times: the Law "On Education," the corresponding resolutions of the Cabinet of Ministers, and Presidential decrees form an organically interconnected system. At the same time, ensuring that the high standards established in the normative documents are applied fully and uniformly in practice — particularly at the regional level — remains an issue that requires special oversight and methodological support.

In summary, the normative-legal foundations of primary education have risen to a qualitatively new level in recent years, grounded in the principles of a competency-based approach, results orientation, and integration into international standards. The consistent and effective application of this regulatory framework in practice requires the strengthening of institutional capacity, the reinforcement of financial provision, and the further improvement of monitoring mechanisms.

Factors Affecting the Quality of Teaching in Primary Grades

The most important factor determining the effectiveness of primary education is the professional and methodological preparedness of the teacher. Existing analyses show that the scientific-pedagogical capacity of higher education institutions specializing in pedagogy has not yet reached a sufficient level, a substantial proportion of graduates are trained through part-time (correspondence) study, and this places constraints on the formation of practical-methodological

skills. It is for this reason that the transformation of pedagogical higher education institutions and the training of a new generation of teachers on the basis of the "teachers of the future" principle have been raised as matters of state importance.

A high-quality textbook is one of the primary tools for engaging a child's interest in learning. In recent years, consistent work has been carried out to redesign primary-grade textbooks on the basis of a competency-based approach: the volume and complexity of text is being adapted to age-appropriate characteristics, visual-didactic materials are being expanded, and the share of assignments that encourage independent thinking is being increased. Nevertheless, certain gaps continue to be observed between the content of textbooks and actual methodological practice in the classroom, which requires additional methodological support in order to fully and effectively implement the updated curricula.

The traditional assessment system has often served merely to measure a child's reproductive knowledge. The new assessment criteria being introduced as part of the current reforms are oriented toward taking into account higher-order cognitive skills such as practical application, analysis, and critical thinking. This approach aligns with the higher levels of Bloom's Taxonomy — analysis, synthesis, and evaluation — which is widely recognized in international pedagogical science, and places the learner's personality at the center of the educational process.

At the same time, the success of the reforms in the assessment system largely depends on teachers' ability to apply the new criteria correctly and uniformly. In practice, differences may be observed among teachers in how assessment criteria are interpreted, which undermines the objectivity of assessment outcomes. For this reason, the development of unified methodological guidelines for assessment, the creation of platforms for teachers to exchange experience, and the expansion of formative assessment practice are among the important directions for improving the quality of primary education.

Another significant factor affecting educational quality is the number of students per classroom and the level of material and technical provision of the learning environment. In overcrowded classrooms, the teacher's ability to provide individualized attention to each child is constrained, which complicates the implementation of the principles of differentiated instruction. This problem is even more pronounced in rural areas compared to urban ones, where a shortage of qualified personnel, insufficient instructional and visual materials, and inadequate internet infrastructure are commonly observed.

Finally, the home environment and the contribution of parents to a child's learning activity constitute an important socio-pedagogical factor determining the quality of primary education. A child's exposure to a culture of reading at home and active cooperation between parents and the school have a direct positive effect on a student's motivation to learn and on academic outcomes. For this reason, alongside purely pedagogical-methodological factors, strengthening the partnership among family, school, and community must become an integral part of modern educational quality policy.

Modern Pedagogical Technologies and Innovative Approaches

One of the important directions in renewing primary education is the systematic integration of information and communication technologies into the lesson process. Interactive whiteboards, multimedia textbooks, gamification elements, as well as project-based and problem-based teaching methods, are increasingly being applied in ways adapted to the age-specific characteristics of primary-grade students. Such approaches transform the child into an active seeker of knowledge while preserving their natural curiosity.

The incorporation of gamification elements into the lesson process — in particular, the use of digital badges and rating systems — is recognized as an effective means of fostering intrinsic motivation among primary-grade students. Nevertheless, in applying such technologies it is essential to maintain moderation, to limit screen time in accordance with age-appropriate norms, and to strictly adhere to the principle of subordinating technology to pedagogical goals; otherwise, the technology itself may become an end in itself, causing educational effectiveness to decline.

Project-based teaching methodology is increasingly being applied as an effective means of developing primary-grade students' ability to solve practical problems, work as a team, and

substantiate their own reasoning. Within this approach, the learner becomes not merely a recipient of ready-made knowledge but an active participant in the process of constructing knowledge, which fully corresponds to the core idea of the modern competency-based educational paradigm.

At the same time, the effective implementation of pedagogical technologies is determined not only by technical provision but also by the teacher's ability to make methodologically sound use of these tools. For this reason, the continuous enhancement of teachers' professional competence in the field of information and communication technology must become an ongoing process integral to ensuring the quality of primary education.

Regional disparities must also be taken into account in the implementation of innovative technologies: while digital infrastructure is relatively well developed in schools in large cities, certain rural and remote educational institutions may have a lower level of provision of internet connectivity and technical equipment. The strategy for introducing innovative approaches must therefore be grounded in the principle of creating equal opportunities for all students, so as not to further deepen technological inequality.

Alignment of National Reforms with International Pedagogical Benchmarks

The international benchmarks recognized for the objective assessment of primary education outcomes include PIRLS (Progress in International Reading Literacy Study), which measures students' reading literacy, and TIMSS (Trends in International Mathematics and Science Study), which measures the level of knowledge in mathematics and the natural sciences. Applying the methodological principles of these international assessment systems to national monitoring tools makes it possible to conduct a comparative analysis of the quality of knowledge among Uzbek schoolchildren within a global context.

Although the PISA study directly covers 15-year-old students, its methodological approach — namely, the measurement of the ability to apply knowledge in real-life situations — rests on fundamental skills that must be formed beginning at the primary stage. From this standpoint, it is advisable to take the philosophy underlying PISA into account when developing primary-grade curricula, that is, to devote particular attention to forming functional literacy in students from an early age.

Uzbekistan participated in the international PIRLS study for the first time in 2021, in which nearly 6,000 fourth-grade students from 180 schools across the country took part. According to the results of the study, the average reading literacy score of Uzbekistan's students was significantly below the international benchmark average, placing the country among the lower-ranked participants. In addition, the gap between the results of boys and girls was found to be wider than the international average gap, indicating that this is a matter requiring additional pedagogical attention from the standpoint of gender equity as well.

In 2023, Uzbekistan participated fully in the international TIMSS study for the first time, in which thousands of fourth- and eighth-grade students from schools across the country's various regions were tested in mathematics and the natural sciences. The results of the international reports indicate that considerable reserves still remain for improving mathematical and scientific literacy within the national education system, which calls for in-depth analysis broken down by content domains and cognitive levels — knowledge, application, and reasoning.

The principles of the European Higher Education Area (EHEA) and the Bologna Process, although directed primarily at higher education, nonetheless offer methodological guidance for primary education reform as well, from the standpoint of a learner-centered educational philosophy, results-oriented curriculum development, and quality-assurance mechanisms. Adapting such international experience to local socio-cultural conditions is an important precondition for ensuring the global competitiveness of Uzbekistan's education system.

Existing Problems and Ways to Overcome Them

The analysis conducted reveals that a number of systemic problems persist within the primary education system: disparities in material-technical conditions and teaching capacity between rural and urban schools; a shortage of qualified primary-grade teachers in certain regions; the incomplete

formation of a continuous methodological support system for the updated curricula; and a low level of parental and community involvement in the educational process.

The transparency and reliability of international assessment studies is likewise a matter deserving particular attention. In practice, instances such as the artificial inflation of national monitoring results or the non-objective application of sample-selection criteria may draw criticism from the international community, which, in the long run, limits the possibility of objectively assessing the true state of the country's education system. For this reason, the methodological integrity of assessment procedures and the randomness of the sample-selection process must be strictly ensured.

Another important problem concerns the professional prestige and level of material incentives afforded to primary-grade teachers. The insufficient development of socio-economic mechanisms to encourage young specialists to enter and remain long-term in the field of pedagogy is causing qualified personnel to migrate to other sectors, which in turn has a negative effect on the stability of educational quality.

To address these problems, the following systemic measures are proposed: first, institutionalizing a system of continuous professional development for primary-grade teachers; second, strengthening targeted state programs aimed at equalizing material-technical provision across regions; third, aligning national monitoring tools with international assessment benchmarks (PIRLS, TIMSS); and fourth, introducing institutional mechanisms that reinforce cooperation between family and school.

In addition, it is necessary to strengthen the wages and social protection of primary-grade teachers, to improve the system of material and moral incentives for them, and to introduce targeted benefits aimed at attracting young specialists to rural areas. Such a comprehensive approach would help ensure workforce stability within the primary education sector and, consequently, contribute to a steady improvement in educational quality.

CONCLUSION

In summary, the current state of teaching in the primary grades is being consistently reformed on the basis of the strategic directions established by the President of the Republic of Uzbekistan: a new generation of textbooks, a competency-based assessment system, digital didactic tools, and a comprehensive set of measures to enhance the professional competence of teaching staff are being implemented. At the same time, the analysis conducted shows that this process is not yet complete and requires further, more in-depth scientific-methodological development.

The analysis of the normative-legal foundations showed that the legislative framework has been improved in line with the demands of the times, but its uniform and complete implementation in practice still varies across regions. The analysis of the factors affecting quality demonstrated the organic interconnection between teacher competence, textbook quality, the assessment system, and the home environment, and proved the necessity of addressing them not in isolation, but as an integrated system.

The analysis of innovative pedagogical technologies and the comparison with international experience showed that Uzbekistan's primary education system has taken its first, yet important, steps toward global integration. Participation in international studies such as PIRLS and TIMSS has made it possible to objectively identify the strengths and weaknesses of the national education system, thereby providing a scientifically grounded roadmap for further reforms.

Nevertheless, further consistent scientific and practical efforts are required in order to fully align quality indicators with international standards, to eliminate inter-regional disparities, and to strengthen methodological provision. Future research should be directed toward developing empirically tested models for improving the quality of primary education, in particular toward comparatively evaluating the effectiveness of various methodological approaches on the basis of experimental and control groups.

Only an organic synthesis of national strategic priorities with global pedagogical experience can raise the quality of primary education to a new, internationally competitive level. In this regard,

the analysis and recommendations presented in this article may serve as a methodological foundation for further scientific research and practical reforms in the field of primary education.

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STRUCTURAL AND WORD-FORMATION FEATURES OF FLOWER NAMES IN UZBEK AND ENGLISH: A COMPARATIVE STUDY

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Annotatsiya. Ushbu maqolada o'zbek va ingliz tillaridagi gul nomlarining struktura-so'z yasalishi jihatidan chog'ishtirma tahlili amalga oshirilgan. Tadqiqot davomida ikki tildagi gul nomlari tub (sodda), yasama (affiksali), qo'shma va so'z birikmasi shaklidagi nomlarga ajratilib, ularning har biriga xos yasalish modellari aniqlandi. Natijalar shuni ko'rsatdiki, ingliz tilida qo'shma so'z yasalishi (masalan, sunflower, snowdrop, bluebell) va o'zlashma tub so'zlar (rose, tulip, lily) yetakchi o'rin tutsa, o'zbek tilida "gul" leksemi ishtirokidagi qo'shma nomlar (atirgul, quyoshgul) bilan bir qatorda affiksatsiya yo'li bilan yasalgan nomlar (qizg'aldoq) ham yuqori mahsuldorlikka ega. Tadqiqot natijalari qiyosiy leksikologiya va tarjimashunoslik uchun amaliy ahamiyatga ega.

Kalit so'zlar: gul nomlari, so'z yasalishi, qo'shma so'z, affiksatsiya, o'zlashma so'z, qiyosiy leksikologiya, o'zbek tili, ingliz tili.

Аннотация. В данной статье проводится сравнительный структурно-словообразовательный анализ названий цветов в узбекском и английском языках. В ходе исследования названия цветов в обоих языках подразделяются на корневые (простые), производные (аффиксальные), сложные слова и словосочетания, для каждого из которых выявлены характерные словообразовательные модели. Результаты показывают, что в английском языке ведущую роль играют сложные слова (sunflower, snowdrop, bluebell) и заимствованные корневые слова (rose, tulip, lily), тогда как в узбекском языке наряду со сложными названиями с компонентом «gul» (atirgul, quyoshgul) высокой продуктивностью

обладают и аффиксальные образования (*qizg'aldoq*). Результаты имеют практическое значение для сопоставительной лексикологии и переводоведения.

Ключевые слова: названия цветов, словообразование, сложное слово, аффиксация, заимствованное слово, сопоставительная лексикология, узбекский язык, английский язык.

Abstract. This paper presents a comparative structural and word-formation analysis of flower names in the Uzbek and English languages. The study classifies flower names in both languages into root (simple), derived (affixal), compound, and phrasal types, identifying the word-formation models characteristic of each. The findings show that in English, compounding (e.g., sunflower, snowdrop, bluebell) and borrowed root words (rose, tulip, lily) play the leading role, whereas in Uzbek, compound names built on the component *gul* "flower" (*atirgul*, *quyoshgul*) are highly productive alongside derivational (affixal) formations such as *qizg'aldoq*. The results are of practical value for contrastive lexicology, terminology studies, and translation practice.

Keywords: flower names, word formation, compounding, affixation, borrowing, contrastive lexicology, Uzbek language, English language.

INTRODUCTION

Botanical vocabulary, and flower names in particular, represents a lexical layer in which structural, semantic, and cultural information intersect. Flower names are rarely coined arbitrarily: their internal form frequently reflects a perceived property of the plant (colour, shape, smell, place of growth) or an association drawn from everyday life. Because of this transparency, flower names offer a convenient and linguistically rich material for studying the productivity of different word-formation types in a given language.

The relevance of the present study is determined by the growing interest in contrastive lexicology and terminology studies, as well as by the practical needs of translation, lexicography, and foreign-language teaching, where phytonyms (plant names) are a recurrent source of difficulty. Uzbek and English belong to typologically distant language families — agglutinative Turkic and analytic Germanic, respectively — which makes the comparison of their word-formation systems, as reflected in flower names, particularly instructive.

The aim of this article is to identify and compare the structural types and word-formation models of flower names in Uzbek and English, and to determine the relative productivity of compounding, affixation, and borrowing in each language within this thematic group.

MATERIALS AND METHODS

The material of the study comprises approximately 80 flower names selected from Uzbek and English explanatory and bilingual dictionaries, botanical reference sources, and the online etymological dictionary of English. The names were analysed using the descriptive method, structural (morphemic) analysis, and comparative-contrastive analysis. Word-formation types were established according to the standard classification adopted in both Uzbek and English linguistics, distinguishing four structural classes: (1) root (simple) words, (2) derived (affixal) words, (3) compound words, and (4) phrasal (multi-word) names.

For each language, the selected names were grouped according to these four classes, and the internal structure of compound and derived names was further analysed component by component in order to reveal recurrent word-formation models, such as the [colour + flower], [place/time + flower], and [shape + object-name] patterns.

RESULTS AND DISCUSSION

Root (simple) words. In both languages this group is largely represented by borrowings that entered the language as unanalysable wholes. In English, names such as *rose*, *tulip*, *lily*, *iris*, and *orchid* were borrowed from Latin, Greek, Persian, and Turkic sources and function as simple roots synchronically, regardless of their historical origin. In Uzbek, the same pattern is observed in words such as *lola* (*tulip*), *binafsha* (*violet*), and *romashka* (*chamomile*, a borrowing from Russian), which are perceived by native speakers as unsegmentable roots.

Derived (affixal) words. Affixation is comparatively less prominent among flower names in English, where diminutive or descriptive suffixes occasionally appear, as in violet (Latin *viola* + diminutive suffix), historically opaque today. In Uzbek, affixation is more clearly synchronically active: the name *qizg'aldoq* (poppy) is transparently related to the adjectival root *qizil* "red" through a derivational suffix, iconically motivated by the flower's colour. This confirms the generally higher productivity of suffixal derivation in the agglutinative structure of Uzbek compared with English.

Compound words. Compounding proved to be the most productive word-formation type for flower names in both languages, though the compositional models differ. In English, the dominant model combines a modifying noun or adjective with the head noun flower or another generic plant-related noun: sunflower (sun + flower), snowdrop (snow + drop), bluebell (blue + bell), buttercup (butter + cup), and foxglove (fox + glove). Several of these compounds are metaphor-based, naming the flower after an object it visually resembles (cup, bell, glove) rather than using the generic head flower itself.

In Uzbek, the corresponding productive model attaches a specifying element to the generic component *gul* "flower": *atirgul* (atir "fragrance/perfume" + *gul*), literally "fragrance-flower", denoting the rose, and *quyoshgul* (quyosh "sun" + *gul*), a calque-like compound denoting the sunflower. A structurally distinct type is exemplified by *lolaqizg'aldoq*, a compound built from two independently existing flower names (*lola* "tulip" + *qizg'aldoq* "poppy") and used to denote the corn poppy, a model without a direct structural counterpart among the English examples analysed.

Phrasal (multi-word) names. Both languages also employ syntactic phrases that have become lexicalised as fixed names. The English *forget-me-not* is a frozen imperative phrase functioning as a single nominal unit, orthographically fixed with hyphens. Comparable multi-word botanical names exist in Uzbek scientific nomenclature (e.g., descriptive Latin-based botanical terms used in specialist literature), though such phrasal names are markedly less frequent than compounds in everyday Uzbek flower vocabulary.

Comparative summary. The contrastive analysis shows that compounding is the leading word-formation type for flower names in both languages, which supports the cross-linguistic tendency noted in the general word-formation literature. The languages diverge, however, in the productivity of the remaining types: English relies more heavily on borrowed simple roots for well-established, internationally known flowers, while Uzbek shows comparatively higher productivity of affixal derivation, alongside a distinctive compound-of-compounds pattern (*lolaqizg'aldoq*) not paralleled in the English material examined.

CONCLUSION

The comparative structural analysis of flower names in Uzbek and English has shown that, despite the typological distance between the two languages, compounding is the most productive word-formation type for this thematic lexical group in both. At the same time, each language displays type-specific tendencies: English favours root-and-modifier compounds built on generic nouns such as flower, cup, bell, and glove, together with a substantial layer of borrowed simple roots; Uzbek relies extensively on the generic component *gul* in compounding, while also making active use of affixal derivation motivated by colour and other perceptual features. These findings contribute to the contrastive lexicology of Uzbek and English and may be applied in bilingual lexicography, botanical terminology work, and the teaching of English and Uzbek as foreign languages. Further research could extend the corpus of names and incorporate a cognitive-semantic dimension, examining the motivational models underlying the word-formation types identified here.

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DEVELOPING ENVIRONMENTAL CULTURE IN PRIMARY SCHOOL ENGLISH LESSONS

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Abstract. *The integration of environmental education into primary foreign language teaching has emerged as a pressing pedagogical priority in the context of global sustainable development goals. This article presents a comprehensive methodological framework for fostering environmental culture among young learners (grades 1–4) through English language instruction. Drawing on interdisciplinary research in eco-pedagogy, critical language teaching, and primary education psychology, the study argues that English lessons offer a uniquely effective platform for cultivating eco-conscious behavior alongside communicative competence. The proposed approach targets five essential everyday ecological practices: personal hygiene, proper waste disposal, caring for indoor plants, maintaining cleanliness of personal space, and developing a respectful relationship with nature. Unlike traditional subject-separated instruction, this framework positions English not merely as a target language but as the primary medium through which environmental values are internalized. The article introduces an innovative integrative methodology combining Action-Chain modular systems, adapted Eco-Total Physical Response (Eco-TPR) techniques, and a three-tiered assessment model measuring linguistic, cognitive, and behavioral outcomes*

Keywords: environmental culture, primary education, English language teaching, Eco-TPR, integrative methodology, sustainable development education, health-saving technologies, ecological literacy.

Annotatsiya. *Atrof-muhitga oid ta'limni boshlang'ich chet tili ta'limi jarayoniga integratsiya qilish global barqaror rivojlanish maqsadlari kontekstida dolzarb pedagogik ustuvor yo'nalishlardan biriga aylanmoqda. Mazkur maqolada boshlang'ich sinf o'quvchilarida (1–4-sinflar) ingliz tilini o'qitish orqali ekologik madaniyatni shakllantirishga qaratilgan kompleks metodik yondashuv taqdim etiladi. Ekopedagogika, tanqidiy til o'qitish va boshlang'ich ta'lim psixologiyasi sohalaridagi fanlararo tadqiqotlarga asoslanib, tadqiqot ingliz tili darslari kommunikativ kompetensiya bilan bir qatorda ekologik ongli xulq-atvorni shakllantirish uchun o'ziga xos samarali platforma ekanligini asoslaydi. Taklif etilayotgan yondashuv kundalik hayotda muhim bo'lgan beshta ekologik amaliyotga yo'naltirilgan: shaxsiy gigiyenaga rioya qilish, chiqindilarni to'g'ri tashlash, xona o'simliklarini parvarish qilish, shaxsiy makon tozaligini saqlash hamda tabiatga hurmat bilan munosabatda bo'lishni rivojlantirish. An'anaviy, fanlar alohida o'qitiladigan yondashuvdan farqli ravishda, mazkur metodika ingliz tilini shunchaki o'rganish obyekti sifatida emas, balki ekologik qadriyatlarni o'zlashtirishning asosiy vositasi sifatida talqin qiladi. Maqolada Action-Chain modulli tizimlari, moslashtirilgan Eco-Total Physical Response (Eco-TPR) texnikalari hamda lingvistik, kognitiv va xulq-atvor natijalarini baholashga mo'ljallangan uch bosqichli baholash modelini birlashtiruvchi innovatsion integrativ metodika taklif etiladi. Ekologik mazmuni kommunikativ ingliz tili topshiriqlariga singdirish orqali mazkur yondashuv bir vaqtning o'zida leksik birliklarning o'zlashtirilishi va uzoq muddat saqlanishini kuchaytiradi hamda barqaror xulq-atvor shakllarini rivojlantiradi.*

Kalit so'zlar: ekologik madaniyat, boshlang'ich ta'lim, ingliz tilini o'qitish, Eco-TPR, integrativ metodika, barqaror rivojlanish ta'limi, salomatlikni asrash texnologiyalari, ekologik savodxonlik.

Аннотация. Интеграция экологического образования в процесс обучения иностранному языку в начальной школе становится актуальным педагогическим приоритетом в контексте глобальных целей устойчивого развития. В данной статье представлена комплексная методическая модель формирования экологической культуры у младших школьников (1–4 классы) посредством обучения английскому языку. Основываясь на междисциплинарных исследованиях в области экопедагогики, критического языкового обучения и психологии начального образования, исследование обосновывает, что уроки английского языка создают уникально эффективную платформу для формирования экологически осознанного поведения наряду с развитием коммуникативной компетенции. Предлагаемый подход ориентирован на формирование пяти основных экологических практик повседневной жизни: соблюдение личной гигиены, правильная утилизация отходов, уход за комнатными растениями, поддержание чистоты личного пространства и развитие уважительного отношения к природе. В отличие от традиционного предметно-разделённого обучения, данная модель рассматривает английский язык не только как объект изучения, но и как основной инструмент усвоения экологических ценностей. В статье представлена инновационная интегративная методика, объединяющая модульные системы Action-Chain, адаптированные техники Eco-Total Physical Response (Eco-TPR), а также трёхуровневую модель оценивания, направленную на измерение лингвистических, когнитивных и поведенческих результатов.

Ключевые слова: экологическая культура, начальное образование, обучение английскому языку, Eco-TPR, интегративная методика, образование в интересах устойчивого развития, здоровьесберегающие технологии, экологическая грамотность.

The escalating global environmental crisis has made the early formation of ecological consciousness an imperative of modern education. As the international community mobilizes around the Sustainable Development Goals (SDGs), education systems worldwide are being called upon to prepare environmentally responsible citizens capable of addressing the challenges of climate change, biodiversity loss, and unsustainable consumption patterns.

In this context, the integration of environmental education into English language teaching represents a particularly promising direction. English, as the global lingua franca, provides access to international environmental discourse, enabling young learners to participate in cross-border conversations about sustainability. Research has demonstrated that environmental materials can be integrated into English curricula through various modalities—reading comprehension, vocabulary building, writing exercises, and speaking and listening activities—thereby creating a more holistic approach to education that promotes both linguistic and environmental literacy.

The present article addresses this gap by proposing a practical, theory-driven pedagogical model specifically designed for primary school English classrooms. The focus on primary education is deliberate and grounded in robust developmental and pedagogical reasoning.

The choice to target primary school learners (ages 6–10) in environmental education through English is supported by multiple converging lines of evidence from developmental psychology, educational theory, and language acquisition research.

1. The Sensitive Period for Value Formation

Primary school age represents a critical window for the formation of values, attitudes, and behavioral patterns. During this period, children develop their foundational understanding of right and wrong, their relationship with the natural world, and their sense of personal responsibility. Environmental attitudes formed in childhood tend to persist into adulthood, making early intervention particularly effective. As Slesareva (2019) notes, the study of the psychological and pedagogical characteristics of primary school children is essential for designing effective environmental education programs.

2. Natural Receptivity to Environmental Themes

Young children possess an innate curiosity about and connection to the natural world. They are naturally drawn to animals, plants, weather phenomena, and outdoor exploration. This intrinsic interest provides a powerful motivational foundation for environmental education. TESOL

International Association (2025) emphasizes that incorporating nature into the primary English language teaching classroom has demonstrated benefits for developing cognitive abilities, with students able to engage in different levels of thinking when observing and connecting with nature.

3. Language Acquisition Advantages

Primary school learners are in a period of heightened linguistic plasticity, making them particularly receptive to second language acquisition. When environmental content is introduced through English during this sensitive period, children develop not only ecological vocabulary but also the cognitive frameworks for understanding environmental issues in a global context. Moreover, the integration of physical movement—such as Total Physical Response (TPR) activities—with environmental themes capitalizes on young learners' natural preference for kinesthetic learning.

4. Alignment with Curriculum Standards

Environmental themes naturally align with the topics typically covered in primary English curricula: animals, weather, family, home, school, and food. This thematic overlap means that environmental education need not be an additional burden on teachers but can be seamlessly integrated into existing lesson structures.

The intersection of environmental education and primary English language teaching has attracted increasing scholarly attention in recent years. This section reviews key contributions to the field, comparing their approaches, findings, and limitations.

Özcan and Gürsoy (2026) conducted a practitioner research project in a Turkish public primary school with fourth-grade students. Drawing on Paulo Freire's problem-posing model grounded in critical pedagogy, they developed localized materials and a pedagogic model rooted in six environmental themes derived from students' lived experiences. The study employed semi-structured interviews to evaluate the model's effectiveness in achieving dual objectives: language development and critical environmental awareness. Their findings demonstrated that integrating environmental issues through critical language pedagogy successfully enhanced both linguistic competence and environmental consciousness, though the authors noted the importance of context-sensitive pedagogies.

An Analysis of EFL Elementary School Coursebooks in Chile and Indonesia (2025) employed ecolinguistics and environmental education frameworks to examine the representation of environmental themes in primary EFL coursebooks. The study identified the presence of positive environmental content but found incomplete integration and a predominantly anthropocentric perspective. This research highlighted the gap between policy aspirations and classroom materials, emphasizing the need for better incorporation of insights from ecolinguistics and environmental education.

Integrating Environment Education into Elementary English Education (published in the Korean Citation Index) traced the history and rationales for connecting education for sustainability with ESL education. The study proposed environmental ethics suitable for integrating into textbook units and called for further research on materials and activities that would foster both language learning and environmental education.

An Eco-pedagogical Approach to Teaching English to Young Learners (Özcan, 2025) employed a mixed-methods design with a group of fourth graders, using pretests and posttests to measure environmental knowledge, behavior, affect, and listening and speaking skills. The findings indicated significant improvements in environmental knowledge and critical awareness, high engagement in language courses, and notable changes in listening and speaking skills through expanded environmental vocabulary. However, only a few significant changes were found in environmental behaviors, suggesting that longer interventions may be necessary for behavioral transformation.

Ecoliteracy-Based Teaching Strategies in English Language Teaching for Elementary School Students (Adam & Ali) investigated strategies used by English teachers to incorporate ecoliteracy into classroom practice, identifying six approaches with three emerging as most dominant: embedding environmental themes in lessons, employing project-based learning, and modeling eco-behavioral English instructions.

Slesareva (2019) examined the concept of environmental education, its goals and objectives, and identified forms and methods of environmental education for primary school children in English lessons. This work, while foundational, focused primarily on theoretical classification rather than developing practical methodological innovations.

Tailakova (2024) explored the pedagogical possibilities of forming an eco-oriented personality through foreign language instruction, presenting results from experimental work on organizing environmental project activities within the English subject. The research identified English as the most effective subject course for integrating international experience into domestic environmental education.

Russian pedagogical literature has identified various methods for environmental education in primary English lessons, including visual methods (observation, illustrative materials), practical methods (projects, ecological games), and verbal methods (conversation). Forms of work include individual, pair, group, and frontal formats.

Comparative Analysis and Identified Gaps

The existing research reveals several significant gaps: Dimension Existing Research Gap Identified

Content Focus Generally addresses broad environmental themes (climate change, animals, pollution) Limited focus on daily practical behaviors (hygiene, waste disposal, plant care, personal cleanliness)

Methodological Approach Often employs project-based learning or critical pedagogy Insufficient integration of kinesthetic and sensory methods (TPR, action-oriented learning) Assessment Primarily measures knowledge and attitudes Lacks comprehensive three-tiered models assessing linguistic, cognitive, and behavioral outcomes simultaneously

Age Specificity Frequently targets upper primary or secondary Limited research on early primary (grades 1-2) learners

Language-Behavior Link Treats language and environmental education as parallel objectives Does not fully leverage language as the primary medium for behavioral conditioning The Novelty of the Proposed Approach

The methodological framework proposed in this article addresses the identified gaps through several innovative features that distinguish it from existing approaches. Focus on Everyday Practical Behaviors

While much existing research addresses broad environmental themes such as climate change or biodiversity, the present approach focuses on five concrete, everyday practices directly relevant to young children's lived experiences:

- Personal hygiene (hand washing, dental care, bathing)
- Proper waste disposal (throwing rubbish in designated bins, recycling)
- Caring for plants (watering flowers, nurturing indoor greenery)
- Maintaining cleanliness of personal space (keeping rooms and clothes tidy)
- Developing a respectful relationship with nature (observing animals, appreciating outdoor environments)

This focus on the quotidian is pedagogically significant. As Vygotsky's sociocultural theory suggests, learning is most effective when it connects to learners' immediate social and physical environments. By anchoring environmental education in daily routines, the approach ensures that ecological values are not abstract concepts but lived practices.

The Eco-Total Physical Response (Eco-TPR) Innovation

Total Physical Response (TPR), developed by James Asher, is a language teaching method based on the coordination of language and physical movement. While TPR has been widely used in primary language teaching, its application to environmental education has been limited.

The present approach introduces Eco-TPR, an adaptation that connects environmental vocabulary with real-life ecological actions. For example:

- "I wash my hands" → students perform hand-washing motions
- "I throw rubbish in the bin" → students mime throwing waste

- "I water the flowers" → students simulate pouring water
- "I clean my room" → students demonstrate tidying movements
- "I love nature" → students gesture toward the outdoors

This innovation is grounded in the principle that physical embodiment enhances memory retention and creates stronger neural associations between language, action, and meaning. Moreover, by performing eco-friendly actions while verbalizing them in English, students internalize both the language and the behavior simultaneously.

The Action-Chain Modular System

Building on the Action-Chain concept, the proposed framework organizes environmental vocabulary and behaviors into sequential modules that reflect natural daily routines. Each module follows a progressive structure:

1. Sensory initiation – Students observe and describe environmental phenomena using their senses
2. Lexical discovery – New vocabulary is introduced through images, sounds, and gestures without translation
3. Physical embodiment – Students perform the corresponding eco-action while verbalizing in English
4. Project-based application – Mini-projects connect classroom learning to real-world action
5. Reflective evaluation – Students reflect on both their language use and environmental behavior

While existing research has demonstrated the feasibility and benefits of integrating environmental education into language teaching, significant gaps remain in terms of behavioral outcomes, age-appropriate methodology, and systematic assessment. The proposed approach addresses these gaps, offering primary teachers a practical toolkit for developing both environmental culture and English language competence in their young learners.

Future research should focus on empirical validation of the proposed model through longitudinal studies measuring sustained behavioral change, cross-cultural comparisons examining the model's applicability in diverse educational contexts, and the development of additional modules addressing other dimensions of environmental education.

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THE TRANSFORMATION OF CRIMINAL CONSCIOUSNESS: A CRIMINOLOGICAL PERSPECTIVE AND ITS REPRESENTATION IN LITERATURE

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Abstract. *This scientific article presents a comparative analysis of Tahir Malik's detective novel Shaytanat, regarded as a significant work of Uzbek literature, and Agatha Christie's And Then There Were None, one of the masterpieces of English and world literature. The study focuses on the representation of crime, justice, social disorder, and criminal consciousness in both works. Particular attention is given to the following aspects: (1) the representation of signs of social crisis in And Then There Were None; and (2) the establishment and exercise of power by individuals operating within or alongside law enforcement institutions in Shaytanat. In both works, the disruption of the established system of social justice leads to the arbitrary administration of justice outside the boundaries of the law. The article examines the parallel roles of Zohid in Shaytanat and Judge Wargrave in And Then There Were None, focusing on their approaches to justice, punishment, and social order. The primary objective of the study is to analyze the psychological development and criminal consciousness of Asadbek, the central character of Tahir Malik's Shaytanat.*

Keywords: Social psychology; Criminal group; Social injustice; criminal motive; justice; Criminal psychology; Law; Legal system; Crisis; Punishment; criminal authority; Criminal group; . Revolution; Motif; Sacrifice; Intellectualism; Deduction; Comparison; Detective; Social Detective; Crime and punishment; Murderer; Criminal;

Аннотация. В данной научной статье представлен сравнительный анализ детективного романа Тахира Малика «Шайтанат», являющегося значительным произведением узбекской литературы, и романа Агаты Кристи «И никого не стало», одного из выдающихся произведений английской и мировой литературы. Исследование посвящено вопросам изображения преступления, справедливости, социального кризиса и преступного сознания в обоих произведениях. Особое внимание уделяется следующим аспектам: (1) выявлению признаков социального кризиса в романе «И никого не стало»; (2) анализу установления и осуществления власти лицами, действующими в рамках правоохранительной системы или за её пределами, в романе «Шайтанат». В обоих произведениях нарушение установленного порядка социальной справедливости приводит к произвольному осуществлению правосудия за пределами закона. В статье рассматриваются параллельные функции и образы Зохида в «Шайтанате» и судьи Уоргрейва в романе «И никого не стало», с акцентом на их представления о справедливости, наказании и общественном порядке. Основной целью исследования является анализ психологического развития и формирования преступного сознания Асада Бека — центрального персонажа романа Тахира Малика «Шайтанат».

Ключевые слова: Социальная психология; преступные группы; социальная несправедливость; преступные мотивы; справедливость; криминальная психология; право; правовая система; социальный кризис; наказание; преступная власть; революция; мотив; жертва; интеллектуализм; дедукция; сравнительный анализ; детективная литература; социальный детектив; преступление и наказание; убийца; преступность.

Annotatsiya. Mazkur ilmiy maqolada o'zbek adabiyotining muhim namunalaridan biri hisoblangan Tohir Malikning "Shaytanat" detektiv romani hamda ingliz va jahon adabiyotining mashhur asarlaridan biri bo'lgan Agata Kristining "O'nta negr bolasi" (And Then There Were None) romani qiyosiy tahlil qilinadi. Tadqiqotda har ikki asarda jinoyat, adolat, ijtimoiy tartibsizlik va jinoiy ongning badiiy ifodalanishiga e'tibor qaratiladi. Xususan, quyidagi jihatlar tahlil qilinadi: (1) "O'nta negr bolasi" romanida ijtimoiy inqiroz belgilarining namoyon bo'lishi; (2) "Shaytanat" romanida huquqni muhofaza qiluvchi tizim vakillari yoki undan tashqarida harakat qiluvchi shaxslar tomonidan hokimiyatning o'rnatilishi va amalga oshirilishi. Har ikki asarda mavjud ijtimoiy adolat

tizimining buzilishi qonun doirasidan tashqarida o'zboshimchalik bilan "adolat o'rnatish" holatining yuzaga kelishiga sabab bo'ladi. Maqolada "Shaytanat" asaridagi Zohid va "O'nta negr bolasi" romanidagi sudya Uorgreyv obrazlarining parallel jihatlari, ularning adolat, jazo va ijtimoiy tartib haqidagi qarashlari tahlil qilinadi. Tadqiqotning asosiy maqsadi Tohir Malikning "Shaytanat" romanidagi markaziy qahramon Asadbekning psixologik rivojlanishi va jinoiy ongining shakllanish jarayonini o'rganishdan iborat.

Kalit so'zlar: Ijtimoiy psixologiya; jinoyatchi guruhlar; ijtimoiy adolatsizlik; jinoiy motivlar; adolat; jinoiy psixologiya; huquq; huquqiy tizim; ijtimoiy inqiroz; jazo; jinoiy hokimiyat; inqilob; motiv; qurbonlik; intellektualizm; deduksiya; qiyosiy tahlil; detektiv adabiyot; ijtimoiy detektiv; jinoyat va jazo; qotil; jinoyatchilik.

In *Shaytanat*, human values such as loyalty, honesty, and trust are portrayed realistically against the background of the criminal world. In depicting criminal groups and their activities, Tahir Malik demonstrates how individuals involved in organized crime construct their own social realities, or "parallel worlds," within the disorder created by various social and moral factors. The characters in the novel are therefore not merely individuals whom readers may encounter in everyday life; rather, they are portrayed as committed and "loyal" members of a closed social group governed by its own concepts of justice, rules, and unwritten laws. Throughout the novel, even those who publicly present themselves as "benefactors" of society and claim to act in the "interests of the people," while occupying positions of power under Asadbek's influence, are ultimately revealed to be ordinary instruments of this criminal system.

From the beginning to the end of the novel, the reader is confronted with an important question: Is Asadbek genuinely motivated by the interests of society, or does he ultimately act in pursuit of his own interests? At first glance, several of his actions may create the impression that he is a socially conscious or patriotic figure. For instance, he uses his influence to secure the release of Anvar, who has been unjustly confined to a psychiatric institution despite not being mentally ill, and to obtain the release of Sharif Nomozov, who has been imprisoned as a result of false accusations. He subsequently facilitates Nomozov's appointment as the director of a wine-producing enterprise. These actions may initially appear to demonstrate Asadbek's concern for others.

However, a closer examination reveals that his motivations are primarily self-serving. Anvar is released not simply out of compassion, but because Asadbek intends to use him as a means of bringing Elchin under his influence. Similarly, Sharif Nomozov's release is connected to Asadbek's personal and financial interests, particularly his intention to obtain economic benefits from the enterprise. Thus, what initially appears to be an act of social justice is revealed to be an instrument for strengthening Asadbek's personal power and influence.

This analysis is directly connected to the representation of organized crime in the novel. Asadbek does not normally accomplish his objectives through formal governmental institutions or legitimate legal mechanisms. Instead, he relies on his close associates and subordinates—his ordinary "lackeys," who remain constantly at his disposal. In this criminal environment, a parallel system of authority emerges, governed not by officially established laws but by unwritten rules, personal loyalty, fear, and mutual obligations. Consequently, *Shaytanat* presents organized crime not merely as a collection of illegal activities, but as a complex social structure capable of creating its own hierarchy, norms, and mechanisms of "justice."

There are unwritten laws in organized crime. Some of them are unforgivable—"betrayal" and "treachery." In the work, these two elements are revealed as the foundation of organized crime. We can see this in the image of Kilich Sulaymonov. When Asadbek found out that Hosil had gone to the rich man's door to stab Asadbek in the back, Asadbek didn't need to force him to go to prison instead of Sharif. The reason was that the prison sentence for betraying Asadbek for the sword was equivalent to a vacation permit.

Money and power are not always the motives for organized crime. Take, for example, A. Christie's work "There were ten of them." Throughout his long career, Judge Wargrave has seen how people break the law and how crimes go unpunished. According to Pristman, the increased fear and

doubt among the characters of the work in a closed environment reveals the complexity of human life.

Through this same work, A. Christie breaks the traditional detective model in detective works and destroys the barrier between the perpetrator and the victim. As McKinen points out, lost or non-existent trust and mutual suspicion among the characters cause the internal destruction of the characters. And the ending is, in a sense, tragic.

Unlike other detective works, the heroes of "They Were Ten" face an internal psychological crisis after facing memories of crimes they committed in the past.

"Shaytanat reveals the moral crisis and the erosion of values in society through the world of crime," said Adib. [Malik, T., 1994] Asadbek and other characters are not only depicted as cleansers of dirt or rapists, but the characters in the work are depicted as having a complex psychological nature, transcending the traditional "good-evil" boundary⁵. [Karimov, B., 2005] If we take the image of Asadbek as an example, one character is the "father" of the criminal world, which has its place in the countries of the Soviet Union, and on the other hand, the spouse who is on the shoulders of family problems.

According to Bartol, crime is often not an accident, but rather the result of a system of conscious or semi-conscious decisions made by an individual. [Bartol, C.R., 2019] We can take the image of Elchin as an example. Elchin could have taken revenge on Asadbek by committing a crime or continued his life after the period of exile ended. However, Elchin chooses to commit the crime by kidnapping Asadbek's daughter and discrediting her without any external influence or pressure. In addition, it should be noted that criminal behavior is often associated with family problems and lack of upbringing, and the social environment. [Albert, B., 1977] The image of Asadbek can be a clear example of this: "As Asadbek silently watched his father being taken away, a cold and heavy feeling against injustice woke up in his heart for the first time." [T. Malik, 1994].

It is evident that Asadbek's childhood trauma served as a motive for him to enter the world of crime. But according to Albert Bandura, a person who has lived in a criminal environment gradually accepts the rules of that environment. [Bandura, A., 1977, pp. 30]. As an example, Michael Carlioni in Mario Puzo's "God Father" is also initially considered a morally excluded person in a criminal family [Puzo, M., 1969, pp – 26] but the murder of Sanni Carlioni and the attempt on his father, and the fact that his wife accidentally met the death that was actually intended for Michael, takes his father's place in the criminal world. As a comparison, we can take the image of Elchin from the work "Shaytanat." Through the image of Elchin, we see that the personal human values of a person who has taken the first step into crime begin to change slowly. [Siegel, L., 2018, pp – 45.]

Furthermore, according to Bartholli, he is loyal to his superiors, yet lives mentally under fear and pressure. Such criminals are called subordinates in the criminal world [Bartol, C., 2019, pp – 57.]. In many cases, people who enter the world of crime with a motive of revenge and are far from crime are later trapped in internal conflicts. For example, Elchin is not entirely evil; on the contrary, he sometimes suffers from a pang of conscience, and at other times, a sense of remorse overwhelms his entire mind.

According to Johansson, criminal individuals often experience internal pangs of conscience. [Yochelson, S., 1976, pp. 25]. Elchin also becomes indifferent to those suffering around him under the influence of other criminals, as well as human feelings disappear in Elchin, according to a deeper immersion into the world of crime.

According to Heir, "Exposure to violence diminishes emotional sensitivity" in the words of The proximity to crime gradually leads to the loss of a person's emotional sensitivity. [Hare, R., 1999, pp. 12]. This situation affects everyone differently, and human psychology plays a major role in this. That is, Elchin was not initially for the criminal world - the motive of revenge leads him into the criminal world. Asadbek was also a gentle, pure heart, but his father's imprisonment and subsequent exile led to the loss of his mother's health and the death of Samandar, and later his mother's death.

Psychological studies generally indicate that individuals are not born criminals; rather, criminal behavior may develop under the influence of social environment, traumatic life experiences, and individual choices. From this perspective, *Shaytanat* should not be regarded merely as a novel

about crime. It can also be interpreted as a psychological work that explores the complex interaction between the human psyche, social pressure, and moral choice. Throughout the novel, Tahir Malik presents crime not simply as an individual problem but as a phenomenon shaped by the social environment, injustice, and various societal problems surrounding the individual.

Through the characters of Asadbek and Elchin, Tahir Malik demonstrates that an individual does not enter the criminal world suddenly or without cause. Instead, the process develops gradually through a succession of circumstances, experiences, influences, and personal decisions. The novel therefore emphasizes the significant role of the social environment in shaping an individual's moral principles, worldview, and behavior. In this sense, criminal consciousness can be understood as a gradually developing psychological and social phenomenon rather than an innate characteristic.

The realistic representation of the criminal environment is one of the factors that contributes to the psychological impact of *Shaytanat*. Rasulov argues that the novel presents the criminal world in a convincing and realistic manner, which increases its impact on the reader. Such realism functions not merely as a means of depicting criminal life but also as an important artistic device through which the author reveals the potential consequences of choosing a criminal path.

Similarly, Normatov emphasizes the significance of artistic interpretation in revealing the moral and psychological dimensions of literary characters. In this regard, Tahir Malik employs his characters as a means of demonstrating how particular choices and circumstances can influence an individual's psychological development. Asadbek and Elchin serve as particularly significant examples of this process. Their experiences illustrate that criminal behavior may emerge through a gradual transformation of values, attitudes, and perceptions under the pressure of the surrounding social environment.

Thus, *Shaytanat* can be interpreted as a psychological and social examination of criminal consciousness. Tahir Malik does not merely portray criminals and their activities; he explores the underlying motives, circumstances, and psychological transformations that lead individuals toward crime. The novel consequently encourages readers to consider the relationship between social injustice, personal responsibility, moral choice, and the formation of criminal behavior.

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FREEDOM SHOULD BE IN THE CLASSROOMS

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Abstract: Many studies criticize teachers and instructors for problems in the quality of education, but other factors affecting classroom effectiveness should also be considered. This article examines certain departmental practices and their possible influence on the classroom environment and teaching process. The study focuses on three main issues: first, the need for teachers to introduce new approaches to their teaching styles in order to meet the needs of 21st-century learners; second, the possible negative consequences of excessive administrative pressure on teachers; and third, the importance of helping students understand that restricting certain actions is not always intended as punishment. These issues are discussed through the author's classroom experiences, short practical observations, and examples from teaching practice. The article also emphasizes the importance of supporting and guiding beginning ESL teachers in developing their professional and pedagogical potential. In addition, it highlights the role of educational administrators in providing teachers with an appropriate level of professional autonomy, which may contribute to improving the quality of teaching. The study does not aim to criticize teachers, students, or educational departments. Instead, it draws attention to the possible positive and negative effects of certain institutional limitations and emphasizes the importance of using them appropriately. When balanced with autonomy, respect, and open communication, such practices may contribute to a more effective and supportive educational environment.

Key words: Freedom, Classroom environment, Education, Autonomy, Student empowerment, Critical thinking, Open expression, Creativity, Intellectual growth, Active participation, Independent learning, Respectful dialogue, Equity and inclusion, Student voice, Educational policy.

Аннотация: Многие исследования посвящены критике учителей и преподавателей в связи с проблемами качества образования, однако необходимо учитывать и другие факторы, влияющие на эффективность учебного процесса. В данной статье рассматриваются отдельные практики и подходы на уровне кафедры, а также их возможное влияние на учебную среду и качество занятий. Исследование сосредоточено на трех основных аспектах: во-первых, необходимости внедрения преподавателями новых подходов в методику обучения в соответствии с потребностями обучающихся XXI века; во-вторых, возможных негативных последствиях чрезмерного административного давления на преподавателей; в-третьих, важности формирования у студентов понимания того, что ограничение определённых действий не всегда является наказанием. Данные вопросы рассматриваются на основе опыта автора, кратких практических наблюдений и примеров из учебного процесса. Особое внимание уделяется поддержке и профессиональному развитию начинающих преподавателей английского языка как второго языка (ESL). Кроме того, подчеркивается роль администрации образовательных учреждений в обеспечении преподавателям необходимого уровня профессиональной автономии, способствующего повышению качества обучения. Статья не направлена на критику преподавателей, студентов или кафедр. Напротив, в ней анализируются положительные и отрицательные стороны определённых институциональных ограничений и подчеркивается необходимость их разумного применения. Сочетание автономии, уважения и открытого диалога может способствовать созданию более эффективной и благоприятной образовательной среды.

Ключевые слова: свобода, учебная среда, образование, автономия, расширение возможностей студентов, критическое мышление, свободное выражение мнения, творчество, интеллектуальное развитие, активное участие, самостоятельное обучение, уважительный диалог, равенство и инклюзивность, голос студента, образовательная политика.

Annotatsiya: Ta'lim sifati bilan bog'liq muammolarda ko'pincha o'qituvchi va pedagoglar tanqid qilinadi, biroq dars samaradorligiga ta'sir ko'rsatuvchi boshqa omillarni ham hisobga olish zarur. Mazkur maqolada kafedra darajasidagi ayrim amaliyot va yondashuvlar hamda ularning dars jarayoni va ta'lim muhitiga ehtimoliy ta'siri tahlil qilinadi. Tadqiqot uchta asosiy jihatga e'tibor qaratadi: birinchidan, XXI asr o'quvchilarining ehtiyojlariga moslashish uchun o'qituvchilarning ta'lim uslubiga yangi yondashuvlarni joriy etishi; ikkinchidan, o'qituvchilarga nisbatan haddan tashqari ma'muriy bosimning yuzaga keltirishi mumkin bo'lgan salbiy oqibatlari; uchinchidan, talabalarga muayyan harakatlarni cheklash har doim ham jazo ma'nosini anglatmasligini tushuntirish zarurati. Mazkur masalalar muallifning pedagogik tajribasi, amaliy kuzatuvlari va dars jarayonida uchragan misollar asosida yoritiladi. Shuningdek, ingliz tilini ikkinchi til sifatida o'qituvchi yangi pedagoglarni qo'llab-quvvatlash va ularning kasbiy-pedagogik salohiyatini rivojlantirish muhimligi ta'kidlanadi. Ta'lim muassasalari rahbariyatining o'qituvchilarga zarur darajadagi kasbiy avtonomiyani ta'minlashi dars sifatini oshirishga xizmat qilishi mumkin. Maqola o'qituvchilar, talabalar yoki kafedralarni tanqid qilishni maqsad qilmaydi, balki muayyan cheklovlarining ijobiy va salbiy jihatlarini ko'rsatadi. Avtonomiya, hurmat va ochiq muloqot uyg'unligi samarali ta'lim muhitini shakllantirishga yordam beradi.

Kalit so'zlar: erkinlik, ta'lim muhiti, ta'lim, avtonomiya, talabalarning imkoniyatlarini kengaytirish, tanqidiy fikrlash, erkin fikr bildirish, ijodkorlik, intellektual rivojlanish, faol ishtirok, mustaqil ta'lim, hurmatga asoslangan muloqot, tenglik va inklyuzivlik, talaba ovozi, ta'lim siyosati.

INTRODUCTION

The process of teaching has never been as difficult as now because there are numbers of sources of distractions, for example, laptops, phones, being in touch with social media all the time and at the same time teachers are being asked to involve technology during the classes. And who might know the technology better than who was born in the century of technology? Of course in most classes students' knowledge in technology is wider than teachers and it makes a challenging taking the charge of the classrooms for teachers. As Ellie Tran (2023) marks in her article that in a boring class with the voice of teachers echoing in your ears, trying to lift your eyelids to pay attention to what they are saying is not the best scenario for any class. In order to escape from such situation Elli also suggests in her Innovative Teaching Method that this type of method is not using all the cutting-edge technology or catching-up with latest educational trends (2023). To my frame of reference if teachers do not want to have the class they should work on creating new teaching strategies rather than trying to make themselves learn endless technology stuff.

According to Balasubramanian G (2021) chairperson and Board Advisor, International Council for School Leadership in Delhi believes that the departments of the teaching centers (schools, colleges, universities) should be supportive so teachers could create learning nutrient but also emotional nutrient to the learners. By excessively controlling the educators department could kill the spirit and willingness of teaching and losing the talents which they have not shown yet (Balasubramanian, 2021). Personally, in my first year of teaching I felt a pressure on my shoulders which was overwhelming as the department kept interrupting by entering to the classroom in the middle of teaching, or asking to do documents which were absolutely useless, or take picture through the cameras if I was sitting while checking student's work. If teachers always stay overwhelmingly stressed, surely they become with the less feeling of humor or even could become less active during teaching.

It is obvious that some education centers, schools or even universities do not allow students eating in the classrooms, and Larry Ferlazzo (<https://www.edweek.org/teaching-learning>) mentions in his article that some teachers let students eat in the class, and they see it as a case where flexibility should take precedence over the learning environment. So, at the beginning the eating habit of my students never disturbed me at all, however, later I realized that there should be some limitation. And limits should be in the list of foods they choose but not for the eating habit at all. When I forbade my students from eating or bringing food to the class they started trying to eat sneakily during the class. But eating is anyway eating even students do their best to eat silently. And Larry Ferlazzo believes

that if you let learners have some bite of cake they ask for a drink, too, then after a while they need to go to the restroom which means the half part of the class has already been stolen.

According to 2007 statistics American Association of University Professors (<https://www.aaup.org/file/ACASO07FreedomClassrmRpt.pdf>) reports in its site on internet, The professoriate is abusing the classroom in four particular ways: (1) instructors "indoctrinate" rules that might affect later in their personal career developing period rather than educate them what to do and what not to do to become persona among others; (2) instructors fail fairly to present conflicting views on contentious subjects, thereby depriving students of educationally essential "diversity" or "balance"; (3) instructors are intolerant of students' religious, political, or socioeconomic views, thereby creating a hostile atmosphere inimical to learning; and (4) instructors persistently interject material, especially of a political or ideological character, irrelevant to the subject of instruction. To support the first mentioned issue I would like to give an example from the situations that I have been experiencing since I have started working at one of the universities in my town. The University where I work cares more about the features which should be in the last stages and rather than emphasizing on education. Recently, a student argued that if demanding uniform is useful to them or not because right before coming into the class she was told off as she was not wearing uniform. For this reason she missed the half of the lesson which she was waiting for.

Colorado University (www.libarts.colostate.edu) believes that the freedom for learners to get education, seek for knowledge, and challenge ideas while building and sharing your own opinions is the foundation of what is called academic freedom. While looking through the article which Colorado University published in its page to discuss the reason why learners need academic freedom in the classroom I have realized that we, as people who has the power to create this atmosphere in the classroom always ignore some features during the class. Firstly, demanding them uniform or number of notebooks which are full of useless notes. Secondly, cornering them asking the reason of their absence in the last lesson which also causes wasting learners time. In the following page Colorado University argues that this freedom protects students from unfair treatment by instructors based on the student's opinions and beliefs which means that we as a instructors, teachers and educators must keep in mind that rather than blaming them for finding incorrect answer we could help them to change the way they approach the issue (www.libarts.colostate.edu). To my frame of reference this method helps realizing that learners' opinions are valuable and it will not be out of profit by expressing without feeling of fear about retribution by all students of the class. At the same time, the freedom to seek for new knowledge motivates learners to follow teachers' assignments and the given course content, even if they are not agree with it. Unfortunately I should mention that sometimes teachers cause discrimination by telling of students towards other students who are friends to that student and both sides feel uncomfortable if some keeps selling out their mistakes. A real well educated pedagogue never lets happen especially discrimination towards another learner whatever mistake he or she has made.N

As we know in the 21st century's all classrooms are provided with cameras through which the higher department observes both teachers and student in order to check the quality of the class. However, in some levels they forget about giving freedom to both seem to be thinking more about not doing something wrong which the department does not want to see while they should be involved in classes. As an example, at university where I work teachers are always told f if students are seen holding phones. So, department is ignoring a problem which has negative effect for both sides teachers and students, respectively. Let's approach to the first side of the problem which illustrates the negative effect to teachers' teaching abilities. If department does not take into consideration this part of the constantly observing teachers' work they will soon stay with no teachers at the university at all. Personally I the classroom should have cross lines which only students and teachers should cross over. Cameras should work out of the classroom but not inside! The outside of the university needs more observation as the danger is always outside and let the observing the inside of the classroom teachers.

The other side of the problem is that, to my personal experience, recently we had a movie time with my sophomore students, as that day we had exam after class, and while watching they wanted

to sit comfortable or some of them wanted to put their heads on the desk or lean on each other. And when I kept reminding that they cannot sit like that they got frustrated. In such situation one of my professor's words from Master's degree years at Webster comes to my mind and it sounds like this: "You do not have ask permission all the time for standing or leaving the room as you student of university already". And unfortunately I always feel shame for telling off a student for not asking permission to come to the blackboard or to some corner of the room. One is sure that telling them off is not an option because they are becoming an individual already and personally I consider that by trying to make them obey the outrageously countless and useless rules we only kill new growing their futures. For example, recently I witnessed a girl crying after one of the department members shouted at her for being late for the class and I do not agree if someone says that by shouting they have fixed the problem and the student never be late anymore. She will be late in the next morning or will not come at all or loses interest of studying. And here is one problem that I do care about which is becoming cruel teacher at the front of the students. The reason why say so is that department never tells students something they should do and something they should not do which causes students think that teachers are the members of the education who steal their freedom in the classroom. At the university where I work some members of the department is always taking picture of students and teachers which is annoying. During the class students are not allowed to use their phones I agree with it in some points but in some cases, to my frame of reference, they should be allowed to use it, for example during foreign language classes as they need their phone to use translator apps. But whenever I claim it the only answer I get is letting my students use book version vocabularies rather than e-versions. It is obvious that using book version vocabularies is only killing the time and personally I believe that putting students in such situations is equal to going down rather than going up. And whenever they see teachers sitting while teaching they will punish them by not paying fully for that month which is brutal and overwhelmingly unfair towards educators! In the classrooms freedom is needed not only by students but also by teachers, too.

Also there is another issue which I faced a lot during my first year experience and it was allowing or not allowing students to have snacks during the lessons. As they in their fast growing period they need snacks time to time. To my frame of reference it should be allowed. If they are allowed to eat during the lesson they will keep the whole their attention to the class and they do not have wait for the class finish and going to the café or university buffet. However, I still do agree for not allowing some snacks which has a strong odor as it may some students vomiting because there 25 students who has 25 different tastes.

As students need more energy for another four or six hours classes, they should be allowed to snacks during the classes. And I would like to highlight that if a student carries on they way to the class a cup of coffee it will never be the sign of disrespect to anyone at all. He or she carries a drink because they want it and they need it. So, I always say "yes" my students ask to have some snacks during the class and I have some bite myself, too. But there should be strict limitations as I mentioned above. However, sometimes I have to stop them eating for a while in order to help them control their attention which is usually accepted as a punishment by my students and it is not punishment in reality.

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INGLIZ VA O'ZBEK TILLARIDA BOLALAR SPONTAN NUTQINING LINGVOPRAGMATIK XUSUSIYATLARI

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Annotatsiya. Mazkur maqolada ingliz va o'zbek tillarida bolalar spontan nutqining lingvopragmatik xususiyatlari qiyosiy jihatdan tadqiq etiladi. Tadqiqotning asosiy e'tibori bolaning tabiiy kommunikativ vaziyatlarda o'z fikri, munosabati, hissiyoti va kommunikativ maqsadini qanday ifodalashiga qaratiladi. Bolalar spontan nutqi faqat grammatik birliklar yig'indisi emas, balki bolaning kognitiv, emotsional va ijtimoiy tajribasini aks ettiruvchi murakkab kommunikativ hodisa sifatida talqin qilinadi. Tadqiqotda tavsifiy, qiyosiy, kontekstual va lingvopragmatik tahlil metodlaridan foydalanildi. Tahlil natijasida murojaat, savol-javob, buyruq, iltimos, rad etish, tasdiqlash, hayrat va baholash kabi kommunikativ aktlarning bolalar nutqida faol qo'llanishi aniqlandi. Ingliz va o'zbek tillarida ushbu funksiyalar umumiy kommunikativ ehtiyojlarga asoslangan bo'lsa-da, ularning verbal ifodalanishida milliy-madaniy va grammatik farqlar mavjud. Tadqiqot natijalari bolalar tilini o'rganish, qiyosiy tilshunoslik va kommunikativ til o'qitish metodikasi uchun muhim ahamiyatga ega.

Kalit so'zlar: bolalar spontan nutqi, lingvopragmatika, kommunikativ akt, kognitivlik, emotsional nutq, ingliz tili, o'zbek tili, qiyosiy tilshunoslik, bolalar tili.

Abstract. This article investigates the linguopragmatic features of children's spontaneous speech in English and Uzbek from a comparative perspective. Particular attention is paid to the ways children express their thoughts, attitudes, emotions and communicative intentions in natural communicative situations. Children's spontaneous speech is considered not merely as a combination of grammatical structures, but as a complex communicative phenomenon reflecting children's cognitive, emotional and social experience. The study employs descriptive, comparative, contextual and linguopragmatic methods. The analysis reveals the active use of communicative acts such as addressing, questioning, requesting, ordering, refusing, confirming, expressing surprise and evaluation. Although these functions are based on universal communicative needs in both English and Uzbek, their verbal realization demonstrates grammatical and culture-specific differences. The findings may contribute to child language studies, comparative linguistics and communicative language teaching methodology.

Keywords: children's spontaneous speech, linguopragmatics, communicative act, cognition, emotional speech, English, Uzbek, comparative linguistics, child language.

Аннотация. В данной статье проводится сравнительное исследование лингвопрагматических особенностей спонтанной речи детей в английском и узбекском языках. Основное внимание уделяется тому, как ребёнок выражает свои мысли, отношение, эмоции и коммуникативные намерения в естественных коммуникативных ситуациях. Детская спонтанная речь рассматривается не только как совокупность грамматических единиц, но и как сложное коммуникативное явление, отражающее когнитивный, эмоциональный и социальный опыт ребёнка. В исследовании использованы описательный, сравнительный, контекстуальный и лингвопрагматический методы анализа. В результате исследования установлено, что в детской речи активно используются такие коммуникативные акты, как обращение, вопрос и ответ, приказ, просьба, отказ, подтверждение, выражение удивления и оценки. Хотя в английском и узбекском языках данные функции основаны на общих коммуникативных потребностях, в их вербальном выражении наблюдаются национально-культурные и грамматические различия. Результаты исследования имеют важное значение для изучения детской речи, сравнительного языкознания и методики коммуникативного обучения языкам.

Ключевые слова: *детская спонтанная речь, лингвопрагматика, коммуникативный акт, когнитивность, эмоциональная речь, английский язык, узбекский язык, сравнительное языкознание, детская речь.*

KIRISH

Zamonaviy tilshunoslikda tilni faqat grammatik tizim sifatida emas, balki insonning tafakkuri, hissiyoti, tajribasi va ijtimoiy faoliyati bilan uzviy bog‘liq kommunikativ hodisa sifatida o‘rganishga katta e‘tibor qaratilmoqda. Shu nuqtayi nazardan bolalar nutqi alohida ilmiy qiziqish uyg‘otadi. Chunki bolaning nutqiy faoliyatida til tizimining shakllanishi bilan bir qatorda uning dunyoni anglash, baholash va boshqalar bilan muloqotga kirishish jarayoni ham aks etadi.

Bolalar spontan nutqi mazkur jarayonlarni o‘rganish uchun ayniqsa muhim manba hisoblanadi. Oldindan tayyorlanmagan nutq jarayonida bola o‘zining real kommunikativ ehtiyojlarini bevosita ifodalaydi. U savol beradi, javob qaytaradi, biror narsani so‘raydi, norozilik bildiradi, suhbatdoshning e‘tiborini jalb qiladi, o‘z fikrini himoya qiladi yoki hissiy munosabatini bildiradi.

Spontan nutqning muhim jihati shundaki, unda nutqiy shakl va kommunikativ maqsad o‘zaro chambarchas bog‘langan. Masalan, bolaning “Look!”, “Give me!”, “Why?”, “No!” kabi qisqa birliklari grammatik jihatdan sodda bo‘lsa-da, muayyan kommunikativ vazifani bajaradi. O‘zbek tilida ham “Qarang!”, “Bering!”, “Nega?”, “Yo‘q!” kabi birliklar turli pragmatik ma‘nolarni ifodalashi mumkin.

Ingliz va o‘zbek tillarini qiyoslash esa bolalar spontan nutqining universal hamda milliy-madaniy xususiyatlarini aniqlash imkonini beradi. Ayniqsa, murojaat shakllari, iltimos, buyruq, rad etish, baholash va emotsional munosabatning ifodalanishida qiziqarli farqlar kuzatiladi. Tadqiqotning maqsadi ingliz va o‘zbek tillarida bolalar spontan nutqining lingvopragmatik xususiyatlarini aniqlash va qiyosiy tahlil qilishdan iborat. Ushbu maqsad asosida quyidagi vazifalar belgilandi: bolalar spontan nutqining pragmatik tabiatini yoritish; bolalar nutqidagi asosiy kommunikativ aktlarni aniqlash; ingliz va o‘zbek tillaridagi pragmatik birliklarni qiyoslash; emotsional va baholovchi birliklarning funksiyalarini tahlil qilish; til va madaniyatning bolalar kommunikativ xulqiga ta‘sirini aniqlash.

TADQIQOT METODOLOGIYASI

Tadqiqot obyekti ingliz va o‘zbek tillarida so‘zlashuvchi bolalarning tabiiy kommunikativ vaziyatlardagi spontan nutqidir. Tadqiqot predmeti esa ushbu nutqda qo‘llanadigan pragmatik birliklar, kommunikativ aktlar va ularning funksional xususiyatlaridan iborat. Tadqiqotda tavsifiy, qiyosiy, kontekstual va lingvopragmatik tahlil metodlaridan foydalanildi. Lingvopragmatik tahlil orqali nutqiy birliklarning faqat lug‘aviy yoki grammatik ma‘nosi emas, balki konkret kommunikativ vaziyatdagi maqsadi ham hisobga olindi. Bolalar spontan nutqini tahlil qilishda uch asosiy jihatga e‘tibor qaratildi: nutq shakli, kommunikativ maqsad va kontekst. Aynan ushbu uch komponent bolaning nutqiy birliklarini to‘g‘ri talqin qilish imkonini beradi.

NATIJALAR VA MUHOKAMA

Bola nutqining asosiy vazifalaridan biri o‘z ehtiyojini boshqa shaxsga yetkazishdir. Shu sababli spontan nutqda iltimos, talab va buyruq mazmunidagi birliklar juda faol uchraydi.

Ingliz tilida: “Give me the toy!” “I want this one.”

O‘zbek tilida: “O‘yinchoqni bering!” “Men shuni xohlayman.”

Har ikki holatda ham bola o‘z istagini suhbatdoshga yetkazishga intiladi. Biroq ingliz tilida bevosita buyruq shakli, o‘zbek tilida esa vaziyatga qarab hurmat shaklining qo‘llanishi pragmatik jihatdan muhim bo‘lishi mumkin.

Bola nutqining rivojlanishi bilan kommunikativ maqsadni yumshatish vositalari ham shakllanib boradi. Masalan, bevosita: “Give me water.” shaklidan: “Can I have some water, please?” kabi nisbatan muloyim konstruksiyaga o‘tish bolaning pragmatik kompetensiyasi rivojlanayotganini ko‘rsatadi. O‘zbek tilida ham: “Suv bering.” va: “Iltimos, suv berasizmi?” kabi turli kommunikativ shakllar mavjud. Demak, bolaning tilni o‘zlashtirishi faqat grammatik qoidalarni egallashdan iborat emas. Bola kommunikativ vaziyatga mos nutq shaklini tanlashni ham o‘rganadi.

Savol berish bolalar spontan nutqining eng faol kommunikativ shakllaridan biridir. Bola atrof-muhitni anglash jarayonida doimiy ravishda savollar beradi.

Ingliz tilida: “What is this?” “Why is he crying?” “Where are we going?”

O‘zbek tilida: “Bu nima?” “Nega u yig‘layapti?” “Qayerga ketyapmiz?”

Savol birliklari bolaning nafaqat axborot olish, balki kognitiv faoliyatini ham namoyon qiladi. “Nima?”, “Nega?”, “Qanday?” kabi savollar bolaning sabab-oqibat munosabatlarini anglashga bo‘lgan ehtiyojini ko‘rsatadi.

Ayniqsa, “Why?” / “Nega?” tipidagi savollar bolaning kognitiv rivojlanishida muhim bosqichni aks ettiradi. Bola faqat predmetning nomini emas, balki hodisaning sababini bilishga intiladi.

Shu sababli bolalar savollarini faqat grammatik birlik sifatida emas, balki bolaning kognitiv faoliyatining lingvistik ko‘rinishi sifatida ham baholash mumkin.

Bolalar nutqida rad etish va tasdiqlash ham muhim pragmatik funksiyani bajaradi. Ingliz tilida *yes, no, I don't want it, that's mine* kabi birliklar faol ishlatiladi.

O‘zbek tilida esa *ha, yo‘q, men xohlamayman, bu meniki* kabi konstruksiyalar qo‘llanadi.

Masalan: “No! I don't want it.”

“Yo‘q! Men buni xohlamayman.”

Bu konstruksiyalar bolaning shaxsiy xohishi va pozitsiyasini ifodalash vositasidir. Ayniqsa, “Bu meniki” / “That’s mine” kabi birliklar bolaning o‘zini alohida shaxs sifatida anglash jarayonining nutqdagi ko‘rinishlaridan biridir. Shu jihatdan bolalar spontan nutqi antropotsentrik xususiyatga ega. Ya’ni nutq markazida bolaning o‘zi, uning ehtiyojlari, munosabati va tajribasi turadi.

Bolalar nutqida hissiy munosabatning ifodalanishi juda faol kuzatiladi. Hayrat, qo‘rquv, quvonch, norozilik va ajablanish kabi holatlar ko‘pincha qisqa undovlar orqali ifodalanadi.

Ingliz tilida: “Wow!” “Oh no!” “Really?”

O‘zbek tilida: “Voy!” “Voy, yo‘q!” “Rostdanmi?”

Bunday birliklar ko‘pincha mustaqil gap sifatida ishlatiladi. Ularning to‘liq mazmunini anglash uchun kommunikativ vaziyat muhim ahamiyatga ega. Masalan, ingliz tilidagi “*Wow!*” yoki o‘zbek tilidagi “*Voy!*” bir xil shaklda turli vaziyatlarda quvonch, hayrat yoki qo‘rquvni ifodalashi mumkin. Demak, spontan bolalar nutqini pragmatik jihatdan tahlil qilishda faqat so‘zning lug‘aviy ma’nosini emas, balki **intonatsiya, vaziyat, suhbatdosh va kommunikativ maqsadni** ham hisobga olish zarur.

INGLIZ VA O‘ZBEK TILLARINING QIYOSIY TAHLILI

Quyidagi jadval bolalar spontan nutqidagi ayrim asosiy kommunikativ funksiyalarni umumlashtiradi:

Kommunikativ funksiya	Ingliz tili	O‘zbek tili
Iltimos	“Please give me this.”	“Iltimos, buni bering.”
Buyruq/talab	“Give me the toy!”	“O‘yinchoqni bering!”
Savol	“What is this?”	“Bu nima?”
Rad etish	“No, I don’t want it.”	“Yo‘q, men buni xohlamayman.”
Tasdiqlash	“Yes, it is mine.”	“Ha, bu meniki.”
Hayrat	“Wow!”	“Voy!”
E’tibor jalb qilish	“Look!”	“Qarang!”
Sababni aniqlash	“Why?”	“Nega?”

Jadvaldan ko‘rinadiki, bolalar nutqida kommunikativ ehtiyojlar ko‘p jihatdan universal xarakterga ega. Har ikki tilda ham bola axborot olish, ehtiyojini bildirish, e’tibor jalb qilish, rad etish va hissiy munosabatini ifodalash uchun tildan foydalanadi. Biroq ushbu funksiyalarning verbal ifodalanishida tilning grammatik tizimi va milliy-madaniy kommunikativ me’yorlari o‘z ta’sirini ko‘rsatadi. Masalan, o‘zbek kommunikativ muhitida kattalarga murojaat qilishda hurmat shakllarining qo‘llanishi muhim bo‘lsa, ingliz tilida bunday grammatik farqlanish ancha cheklangan. Bu holat bolalarning pragmatik kompetensiyasi shakllanishida ijtimoiy-madaniy muhitning rolini ko‘rsatadi.

Bolalar spontan nutqining muhim xususiyatlaridan biri uning antropotsentrik yoʻnalganligidir. Bola nutqida “men”, “meniki”, “xohlayman”, “bilmayman”, “qoʻrqaman”, “yoqadi” kabi birliklarning faol qoʻllanishi bolaning oʻz shaxsiy tajribasini markazga qoʻyishini koʻrsatadi.

Ingliz tilida: “I want it.” “I like this.” “It’s mine.”

Oʻzbek tilida: “Men buni xohlayman.” “Menga bu yoqadi.” “Bu meniki.”

Mazkur birliklar bolaning subyektiv dunyosini til orqali ifodalash vositasidir. Bolaning spontan nutqi orqali uning atrof-muhitni qanday idrok qilishi, nimaga qiziqishi, nimani yoqtirishi yoki rad etishi haqida maʼlum xulosalar chiqarish mumkin. Shu sababli bolalar nutqini antropotsentrik va kognitiv yondashuv asosida oʻrganish zamonaviy tilshunoslik uchun istiqbolli yoʻnalishlardan biridir.

XULOSA

Tadqiqot natijalari ingliz va oʻzbek tillarida bolalar spontan nutqi nafaqat til oʻzlashtirish jarayonining mahsuli, balki bolaning kognitiv, emotsional va ijtimoiy rivojlanishini aks ettiruvchi murakkab kommunikativ hodisa ekanligini koʻrsatdi.

Har ikki tilda savol, iltimos, buyruq, rad etish, tasdiqlash, murojaat va emotsional munosabatni ifodalovchi kommunikativ birliklar faol qoʻllanadi. Ularning mavjudligi bolalarning asosiy kommunikativ ehtiyojlari universal ekanligini koʻrsatadi. Shu bilan birga, ingliz va oʻzbek tillarining grammatik hamda madaniy xususiyatlari mazkur kommunikativ funksiyalarning ifodalanishida muayyan farqlarni yuzaga keltiradi. Oʻzbek tilida hurmat, murojaat va ijtimoiy munosabatlarni ifodalashda ayrim grammatik va leksik vositalar muhim rol oʻynasa, ingliz tilida kommunikativ maqsad koʻproq sintaktik va leksik vositalar orqali ifodalanadi.

Bolalar spontan nutqida antropotsentrik xususiyat ham yaqqol namoyon boʻladi. “Men”, “meniki”, “xohlayman”, “yoqadi” kabi birliklar bolaning nutqida shaxsiy tajriba va subyektiv munosabat markaziy oʻrin tutishini koʻrsatadi. Shunday qilib, bolalar spontan nutqini lingvopragmatik va antropotsentrik yondashuv asosida qiyosiy oʻrganish ingliz va oʻzbek tillaridagi bolalar nutqining universal hamda milliy-madaniy xususiyatlarini aniqlashga imkon beradi. Ushbu yoʻnalishdagi tadqiqotlar kelgusida bolalar nutqining elektron korpusini yaratish, turli yosh bosqichlarini qiyoslash va nutqiy rivojlanishning kognitiv-pragmatik mexanizmlarini aniqlash bilan davom ettirilishi mumkin.

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INGLIZ VA O'ZBEK TILIDAGI PUBLITSISTIK MATNLARDA "SAHIYLIK" KONSEPTINING DISKURSIV TALQINI

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Annotatsiya. Maqolada konsept tushunchasining nazariy talqinlari, "sahiylik" konseptining ikki tildagi lug'aviy-semantik maydoni, hamda uning ommaviy axborot vositalari matnlarida diskursiv jihatdan qanday shakllantirilishi va qaysi ijtimoiy-madaniy qadriyatlar bilan bog'lanishi yoritilgan. Tadqiqot uchun ingliz (BBC, The Guardian) va o'zbek ("Xalq so'zi", "Darakchi") nashrlaridan 2015-2024 yillar oralig'ida chop etilgan, "sahiylik" konseptiga oid kalit so'zlarni o'z ichiga olgan 200 tadan (jami 400 ta) publitsistik matn tanlab olingan va diskurs-tahlil usuli asosida o'rganilgan. Natijalar shuni ko'rsatdiki, ingliz tilidagi matnlarda "sahiylik" konsepti ko'proq individual xayriya va shaxsiy tashabbus (individual philanthropy) kontekstida, o'zbek tilidagi matnlarda esa jamoaviy o'zaro yordam va mahalla an'analari (hashar, mehr-oqibat) kontekstida diskursiv jihatdan shakllantirilgan. Maqola yakunida bu farqlarning ikki xalqning ijtimoiy-madaniy qadriyatlar tizimi bilan bog'liqligi asoslangan hamda konseptual tahlil natijalarini madaniyatlararo muloqot va tarjima amaliyotida qo'llash bo'yicha tavsiyalar berilgan.

Kalit so'zlar: konsept, sahiylik, diskurs tahlili, publitsistik matn, lingvokulturologiya, qiyosiy tilshunoslik, ijtimoiy-madaniy qadriyat.

Annotation. The article examines theoretical interpretations of the notion of concept, the lexical-semantic field of "generosity" in the two languages, and how it is discursively constructed in mass media texts and linked to particular socio-cultural values. For the study, 200 publicistic texts from each language (400 in total) containing keywords related to the concept of "generosity," published between 2015 and 2024 in English (BBC, The Guardian) and Uzbek ("Khalq So'zi," "Darakchi") media outlets, were selected and analyzed using discourse analysis methods. The results show that in English-language texts, the concept of "generosity" is predominantly discursively constructed in the context of individual philanthropy and personal initiative, while in Uzbek-language texts it is constructed in the context of collective mutual aid and neighborhood (mahalla) traditions such as hashar and mehr-oqibat. The article concludes by substantiating that these differences relate to the socio-cultural value systems of the two peoples and provides recommendations for applying the results of conceptual analysis in intercultural communication and translation practice.

Key words: concept, generosity, discourse analysis, publicistic text, linguoculturology, comparative linguistics, socio-cultural value.

Аннотация. В статье рассматриваются теоретические трактовки понятия концепта, лексико-семантическое поле "щедрости" в двух языках, а также то, как этот концепт дискурсивно конструируется в текстах СМИ и связывается с определёнными социально-культурными ценностями. Для исследования отобраны и проанализированы методом дискурс-анализа по 200 публицистических текстов на каждом языке (всего 400), содержащих ключевые слова, относящиеся к концепту "щедрость", опубликованных в 2015-2024 годах в англоязычных (BBC, The Guardian) и узбекоязычных ("Халқ сўзи", "Даракчи") изданиях. Результаты показывают, что в англоязычных текстах концепт "щедрость" преимущественно конструируется в контексте индивидуальной благотворительности и личной инициативы, тогда как в узбекоязычных текстах — в контексте коллективной взаимопомощи и традиций махалли (хашир, меҳр-окибат). В заключение статьи обосновывается связь этих различий с системой социально-культурных ценностей двух народов и даются рекомендации по применению результатов концептуального анализа в межкультурной коммуникации и практике перевода.

Ключевые слова: концепт, щедрость, дискурс-анализ, публицистический текст, лингвокультурология, сопоставительное языкознание, социально-культурная ценность.

KIRISH

Konseptlar tilshunoslikda muayyan xalqning dunyoqarashi, qadriyatlari va ijtimoiy-madaniy tajribasini o'zida mujassam etuvchi mental-lisoniy birliklar sifatida talqin etiladi. "Sahiylik" konsepti insoniyat madaniyatida universal axloqiy qadriyat sifatida mavjud bo'lsa-da, uning muayyan tilda va madaniyatda qanday til vositalari orqali ifodalanishi, qaysi kontekstlarda faollashishi va qanday ijtimoiy amaliyotlar bilan bog'lanishi xalqdan xalqqa farq qilishi mumkin.

Ommaviy axborot vositalari, xususan publitsistik matnlar, jamiyatdagi qadriyatlar tizimini shakllantirish va aks ettirishda muhim rol o'ynaydi. Shu sababli, publitsistik diskursda "sahiylik" konseptining qanday til vositalari orqali va qaysi kontekstlarda ifodalanishini o'rganish nafaqat tilshunoslik, balki lingvokulturologiya va ijtimoiy tilshunoslik nuqtai nazaridan ham muhim ilmiy ahamiyat kasb etadi.

Tadqiqotning maqsadi — ingliz va o'zbek tilidagi publitsistik matnlarda "sahiylik" konseptining diskursiv talqinini qiyosiy tahlil qilish hamda aniqlangan farqlarning ikki xalqning ijtimoiy-madaniy qadriyatlar tizimi bilan bog'liqligini asoslashdan iborat. Tadqiqot vazifalari: 1) konsept va diskursiv tahlil tushunchalarining nazariy asoslarini yoritish; 2) ikki tildagi publitsistik matnlar korpusini shakllantirish; 3) "sahiylik" konseptining diskursiv jihatdan qanday shakllantirilishini kontent va diskurs tahlili orqali o'rganish; 4) natijalar asosida ijtimoiy-madaniy xulosalar va amaliy tavsiyalar shakllantirish.

MATERIAL VA METODLAR

Tadqiqot uchun ingliz tilida BBC va The Guardian nashrlari, o'zbek tilida "Xalq so'zi" va "Darakchi" nashrlarining 2015-2024 yillar oralig'idagi arxividan "generosity/generous", "charity/charitable" (ingliz tili) va "sahiylik/saxiy", "xayriya" (o'zbek tili) kabi kalit so'zlarni o'z ichiga olgan maqolalar tanlab olindi. Har bir tildan 200 tadan, jami 400 ta publitsistik matn tasodifiy tanlov usuli bilan korpusga kiritildi.

Tadqiqot metodologiyasi quyidagi bosqichlardan iborat bo'ldi:

1) lug'aviy-semantik tahlil — har ikki tilda "sahiylik" konseptini ifodalovchi leksik birliklarning semantik maydonini aniqlash uchun;

2) kontent-tahlil — konsept qaysi mavzuiy kontekstlarda (individual xayriya, davlat dasturlari, jamoaviy yordam, diniy amaliyotlar va h.k.) qo'llanilishi chastotasini aniqlash uchun;

3) diskurs-tahlil (kritik diskurs tahlili elementlari bilan) — konseptning matnda qanday ijtimoiy munosabatlar, me'yorlar va qadriyatlar bilan bog'lab talqin etilishini chuqur tahlil qilish uchun;

4) qiyosiy-lingvokulturologik sharhlash — aniqlangan farqlarni ikki xalqning ijtimoiy-madaniy konteksti nuqtai nazaridan izohlash uchun.

Har bir matn ikkita mustaqil filolog-ekspert tomonidan mavzuiy kontekst bo'yicha kodlashtirildi (coding), kelishmovchilik yuzaga kelgan holatlar uchinchi ekspert ishtirokida hal qilindi (kelishuv darajasi — Koen kappa koeffitsienti 0,81).

NATIJALAR

Lug'aviy-semantik tahlil natijasida ingliz tilida "sahiylik" konseptini ifodalovchi so'z va iboralarning boy sinonimik qatori (generosity, philanthropy, charity, benevolence, altruism) aniqlandi, bu esa ingliz tilida ushbu konseptning nozik semantik farqlanishlarga ega ekanligini ko'rsatadi. O'zbek tilida esa "sahiylik", "saxovat", "muruvvat", "mehr-oqibat" kabi so'zlar mavjud bo'lib, ularning ko'pchiligi diniy-axloqiy va an'anaviy jamoaviy munosabatlar konteksti bilan chambarchas bog'liq.

Kontent-tahlil natijasida ingliz tilidagi matnlarning 47 foizi individual xayriya va shaxsiy tashabbus (masalan, muayyan shaxsning fond tashkil etishi yoki yirik xayriya qilishi) kontekstida, 28 foizi korporativ ijtimoiy mas'uliyat (corporate social responsibility) kontekstida, qolgan qismi esa davlat dasturlari va boshqa kontekstlarda "sahiylik" konseptini yoritgan. O'zbek tilidagi matnlarning esa 52 foizi jamoaviy o'zaro yordam va mahalla an'analari (hashar, homiylik, mahalla ko'magi)

kontekstida, 24 foizi davlat va nodavlat tashkilotlari homiyligi kontekstida, qolgan qismi individual xayriya kontekstida "sahiylik"ni tasvirlagan.

Diskurs-tahlili shuni ko'rsatdiki, ingliz tilidagi matnlarda sahiy shaxs ko'pincha "o'ziga xos tashabbuskor" (individual agency) sifatida, uning shaxsiy tanlovi va erki nuqtai nazaridan tasvirlanadi, o'zbek tilidagi matnlarda esa sahiylik ko'proq jamoaviy burch va an'anaviy me'yorlarga rioya qilish (masalan, "mahalla an'analarga sodiqlik") nuqtai nazaridan talqin etiladi. Bundan tashqari, o'zbek tilidagi matnlarda sahiylik ko'pincha diniy-axloqiy tushunchalar (savob, duo) bilan bevosita bog'lab tasvirlangan, ingliz tilidagi matnlarda esa bunday bog'liqlik nisbatan kamroq (asosan diniy nashrlarga xos) uchragan.

MUHOKAMA

Olingan natijalar "sahiylik" konseptining universal axloqiy tushuncha bo'lishiga qaramay, uning diskursiv talqini muayyan xalqning ijtimoiy tuzilishi, madaniy an'analari va qadriyatlar tizimi bilan chambarchas bog'liq ekanligini tasdiqlaydi. Ingliz tilidagi matnlarda kuzatilgan individualistik talqin g'arb jamiyatlarining individualizm va shaxsiy tashabbusga asoslangan ijtimoiy-madaniy qadriyatlari bilan izohlanishi mumkin, o'zbek tilidagi matnlardagi jamoaviy talqin esa Markaziy Osiyo jamiyatlariga xos kollektivism, mahalla instituti va diniy-axloqiy an'analarning ustuvorligini aks ettiradi.

Bu natijalar madaniyatlararo muloqot va tarjima amaliyoti uchun muhim amaliy ahamiyatga ega. Xususan, "sahiylik" konseptiga oid matnlarni bir tildan ikkinchisiga tarjima qilishda faqat leksik ekvivalentni topish yetarli emas — tarjimon ushbu konseptning har ikki madaniyatdagi kontekstual va konnotativ farqlarini ham hisobga olishi zarur, aks holda tarjima matni asl matnning madaniy-pragmatik ma'nosini to'liq bera olmasligi mumkin.

Shuningdek, bu natijalar xalqaro xayriya tashkilotlari va ijtimoiy loyihalar uchun ham amaliy ahamiyatga ega bo'lib, turli madaniyatlarda xayriya va yordamga chaqiruvchi kommunikatsiya strategiyalarini loyihalashda mahalliy qadriyatlar tizimini (individual tashabbus yoki jamoaviy hamjihatlik) hisobga olish kommunikatsiya samaradorligini oshirishi mumkin.

XULOSA

O'tkazilgan tadqiqot natijasida quyidagi xulosalarga kelindi:

1. "Sahiylik" konsepti universal axloqiy tushuncha bo'lsa-da, uning diskursiv talqini ingliz va o'zbek tillarida sezilarli darajada farqlanadi.

2. Ingliz tilidagi publitsistik matnlarda "sahiylik" ko'proq individual tashabbus va shaxsiy xayriya kontekstida, o'zbek tilida esa jamoaviy o'zaro yordam va mahalla an'analari kontekstida talqin etiladi.

3. O'zbek tilidagi matnlarda sahiylik diniy-axloqiy tushunchalar bilan bevosita bog'lab tasvirlanadi, bu Markaziy Osiyo jamiyatlaridagi diniy-axloqiy an'analarning ustuvorligini aks ettiradi.

4. Aniqlangan farqlar ikki xalqning individualistik va kollektivistik qadriyatlar tizimi bilan bog'liq bo'lib, bu lingvokulturologik tahlil orqali ochib berilishi mumkin.

5. Konseptual tahlil natijalari tarjima amaliyoti va madaniyatlararo kommunikatsiya strategiyalarini loyihalashda mahalliy qadriyatlar tizimini hisobga olish zarurligini ko'rsatadi.

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INGLIZ TILINI O'RGATISHDA INTERFAOL METODLARDAN FOYDALANISH

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Annotatsiya. Mazkur maqolada ingliz tilini o'rgatish jarayonida interfaol metodlardan foydalanishning pedagogik va metodik imkoniyatlari tahlil qilinadi. Zamonaviy ta'lim jarayonida talabaning faolligi, mustaqil fikrlashi, kommunikativ kompetensiyasi va amaliy ko'nikmalarini rivojlantirish muhim vazifalardan biri hisoblanadi. Shu nuqtayi nazardan, an'anaviy o'qitish usullarini interfaol metodlar bilan uyg'unlashtirish ingliz tilini samarali o'zlashtirish uchun muhim shartlardan biridir. Maqolada "aqliy hujum", "klaster", "aqliy hujum", "Think-Pair-Share", rolli o'yinlar, munozara, debat, juftlik va kichik guruhlarda ishlash, "case study", "problem-based learning", "information gap" hamda loyiha metodi kabi interfaol yondashuvlarning ingliz tili ta'limidagi o'rni yoritilgan. Shuningdek, ushbu metodlarning talabalarning speaking, listening, reading va writing ko'nikmalarini rivojlantirishdagi imkoniyatlari ko'rib chiqilgan. Tadqiqot natijalari interfaol metodlar o'quvchilarning darsdagi ishtirokini kuchaytirishi, kommunikativ muhitni shakllantirishi, mustaqil fikrlashni rivojlantirishi va ingliz tilidan amaliy foydalanish imkoniyatlarini kengaytirishini ko'rsatadi.

Kalit so'zlar: ingliz tili, interfaol metodlar, kommunikativ kompetensiya, interfaol ta'lim, rolli o'yin, munozara, debat, guruhli ish, loyiha metodi, til ko'nikmalari.

Аннотация. В статье анализируются педагогические и методические возможности использования интерактивных методов в процессе обучения английскому языку. В современных условиях образования одной из важных задач является развитие активности учащихся, самостоятельного мышления, коммуникативной компетенции и практических языковых навыков. В связи с этим сочетание традиционных методов обучения с интерактивными подходами является важным условием эффективного изучения английского языка. В статье рассматривается применение таких методов, как мозговой штурм, кластер, Think-Pair-Share, ролевые игры, дискуссии, дебаты, работа в парах и малых группах, case study, problem-based learning, information gap и проектный метод. Особое внимание уделяется их возможностям в развитии навыков говорения, аудирования, чтения и письма. Результаты методического анализа показывают, что интерактивные методы способствуют повышению активности учащихся, созданию коммуникативной среды, развитию самостоятельного мышления и расширению возможностей практического использования английского языка.

Ключевые слова: английский язык, интерактивные методы, коммуникативная компетенция, интерактивное обучение, ролевая игра, дискуссия, дебаты, групповая работа, проектный метод, языковые навыки.

Abstract. This article analyzes the pedagogical and methodological potential of using interactive methods in English language teaching. In modern education, developing students' active participation, independent thinking, communicative competence, and practical language skills is an important task. Therefore, combining traditional teaching methods with interactive approaches can

contribute to more effective English language learning. The article examines such methods as brainstorming, clustering, Think–Pair–Share, role-play, discussions, debates, pair and group work, case studies, problem-based learning, information-gap activities, and project-based learning. Particular attention is paid to their potential for developing speaking, listening, reading, and writing skills. The methodological analysis demonstrates that interactive methods can increase students' classroom participation, create a communicative learning environment, promote independent thinking, and provide more opportunities for practical use of English.

Keywords: *English language, interactive methods, communicative competence, interactive learning, role-play, discussion, debate, group work, project-based learning, language skills.*

KIRISH

Bugungi globallashuv jarayonida xorijiy tillarni, xususan, ingliz tilini o'rganish zamonaviy mutaxassis uchun muhim kompetensiyalardan biriga aylanib bormoqda. Ingliz tili xalqaro ilmiy hamkorlik, oliy ta'lim, biznes, axborot texnologiyalari, turizm, diplomatiya va boshqa ko'plab sohalarda asosiy kommunikatsiya vositalaridan biri sifatida qo'llanadi. Shu sababli ingliz tilini o'qitish jarayonida faqat grammatik qoidalarni yod oldirish yoki lug'at boyligini oshirish bilan cheklanib qolmasdan, o'rganuvchining real kommunikativ vaziyatlarda tildan foydalana olish qobiliyatini shakllantirish talab etiladi.

An'anaviy ta'lim modelida o'qituvchi ko'pincha asosiy axborot manbai sifatida namoyon bo'ladi, talaba esa tayyor ma'lumotni qabul qiluvchi vazifasini bajaradi. Bunday yondashuv ayrim nazariy bilimlarni shakllantirish uchun foydali bo'lsa-da, ingliz tilini amaliy o'zlashtirishda har doim ham yetarli natija bermasligi mumkin. Til — kommunikativ hodisa bo'lib, uni samarali o'zlashtirish uchun o'rganuvchi tildan foydalanishi, savol berishi, fikr bildirishi, suhbat qurishi, muammoli vaziyatlarni muvaffaqiyatli qilishi va turli kommunikativ rollarni bajarishi kerak.

Interfaol ta'lim ana shu ehtiyojdan kelib chiqadi. "Interfaol" tushunchasi o'qituvchi va o'quvchi, shuningdek, o'quvchilarning o'zaro faol hamkorligini nazarda tutadi. Bunda ta'lim jarayonining markazida nafaqat o'qituvchi, balki talabaning o'zi ham turadi. Talaba bilimni tayyor holda qabul qilmaydi, balki muvaffaqiyatli, hamkorlik, izlanish, muammoli topshiriqlar va amaliy faoliyat orqali uni o'zlashtiradi.

Ingliz tili ta'limida interfaol metodlardan foydalanish, ayniqsa, kommunikativ kompetensiyani rivojlantirish uchun katta imkoniyat yaratadi. Masalan, rolli o'yin orqali talaba mehmonxona, aeroport, restoran, ish intervyusi yoki biznes uchrashuvi kabi real hayotiy vaziyatlarni modellashtirishi mumkin. Debat va munozaralar esa talabaning o'z fikrini ingliz tilida mantiqiy va asoslangan holda ifodalash qobiliyatini rivojlantiradi.

Shuningdek, interfaol metodlar talabalarning darsdagi psixologik faolligini oshirishga xizmat qiladi. Juftlik va kichik guruhlarda ishlash orqali passiv talabalar ham muloqotga jalb qilinadi. Bu esa ingliz tilida gapirishdan qo'rqish, xato qilishdan uyalish kabi psixologik to'siqlarni kamaytirishga yordam beradi.

Mazkur tadqiqotning maqsadi ingliz tilini o'rgatishda interfaol metodlardan foydalanishning pedagogik va metodik imkoniyatlarini aniqlash hamda ularning talabalarning kommunikativ va til ko'nikmalarini rivojlantirishdagi o'rnini tahlil qilishdan iborat.

Tadqiqotning asosiy vazifalari quyidagilardan iborat: ingliz tili ta'limida interfaol metodlarning mohiyatini ochib berish; eng samarali interfaol metodlarni aniqlash; ularning speaking, listening, reading va writing ko'nikmalariga ta'sirini tahlil qilish; interfaol metodlardan foydalanish shartlarini aniqlash; ingliz tili darslari uchun metodik tavsiyalar ishlab chiqish.

METODLAR

Tadqiqotda nazariy tahlil, qiyosiy tahlil, pedagogik kuzatish, metodik umumlashtirish va tizimli yondashuv metodlaridan foydalanildi. Ingliz tilini o'qitishda interfaol metodlarning pedagogik imkoniyatlarini aniqlash maqsadida mahalliy va xorijiy ilmiy-metodik adabiyotlar tahlil qilindi.

Tadqiqotning nazariy asosini kommunikativ til o'qitish, o'quvchi markazli ta'lim, hamkorlikda o'qitish va faol ta'lim tamoyillari tashkil etdi. Interfaol metodlar ingliz tilini o'qitishning to'rtta asosiy ko'nikmasi — speaking, listening, reading va writing bilan bog'liq holda tahlil qilindi.

Tadqiqot jarayonida ingliz tili darslarida keng qo'llash mumkin bo'lgan interfaol metodlar bir necha guruhga ajratildi. Birinchi guruhga kommunikativ metodlar, jumladan, juftlikda suhbat, information gap, savol-javob va intervyu topshiriqlari kiritildi. Ikkinchi guruhni rolli o'yinlar va dramatizatsiya tashkil etdi. Uchinchi guruhga munozara, debat va muammoli vaziyatlarni tahlil qilish metodlari kiritildi. To'rtinchi guruh esa loyiha va hamkorlikka asoslangan metodlardan iborat bo'ldi.

"Think-Pair-Share" metodida talaba avval berilgan savol yoki muammo haqida mustaqil fikrlaydi, keyin juftlikda o'z fikrini muhokama qiladi va yakunda umumiy guruh oldida fikrini taqdim etadi. Mazkur metod ayniqsa speaking ko'nikmasini rivojlantirishda samarali hisoblanadi.

Rolli o'yin metodida talabalarga ma'lum kommunikativ vaziyat va rollar beriladi. Masalan, "At the airport", "At the restaurant", "Job interview", "At the hotel", "Business meeting" kabi mavzularda talabalar turli rollarni bajarishlari mumkin. Ushbu metod orqali tilning grammatik va leksik birliklari tabiiy kommunikativ kontekstda qo'llanadi.

"Information gap" metodida bir talaba yoki guruhda mavjud bo'lgan ma'lumot boshqa talaba yoki guruhda mavjud bo'lmaydi. Muammoni hal qilish uchun ular ingliz tilida savol berish va javob olish orqali kerakli axborotni topadilar. Bu metod tabiiy kommunikativ ehtiyojni shakllantiradi.

Debat metodida talabalarga muayyan muammo bo'yicha qarama-qarshi nuqtayi nazarlar beriladi. Talabalar o'z pozitsiyasini ingliz tilida asoslash, dalil keltirish va qarshi fikrga javob berishni o'rganadilar.

Loyiha metodida esa talabalar muayyan mavzu bo'yicha mustaqil yoki guruh shaklida loyiha tayyorlaydi. Masalan, "My future profession", "Tourism in Uzbekistan", "Modern technologies", "Environmental problems" kabi mavzularda ingliz tilidagi taqdimotlar tayyorlash mumkin.

Interfaol metodlarni tanlashda talabalarining yoshi, til bilish darajasi, guruh hajmi, dars maqsadi, mavzuning murakkabligi va mavjud texnik imkoniyatlar hisobga olinishi lozim.

NATIJALAR

Tadqiqotning metodik tahlili shuni ko'rsatadiki, interfaol metodlardan foydalanish ingliz tili darslarini kommunikativ va faol o'quv muhitiga aylantirish imkonini beradi. An'anaviy darsda o'qituvchi tomonidan beriladigan savollarga talabalar navbat bilan javob berishi mumkin. Interfaol darsda esa talabalarining o'zlari savol beradi, suhbatdoshini tinglaydi, javob beradi, fikrini asoslaydi va muammoni birgalikda hal qiladi.

Birinchi muhim natija — speaking ko'nikmasining rivojlanishidir. Juftlikdagi suhbatlar, rolli o'yinlar, debatlar va guruh muhokamalari talabaga ingliz tilida muntazam gapirish imkoniyatini beradi. Talaba grammatik jihatdan mukammal jumla tuzishga haddan tashqari e'tibor berib qolmasdan, fikrni yetkazish va suhbatni davom ettirishga intiladi. Natijada uning kommunikativ faolligi ortadi.

Ikkinchi natija — listening ko'nikmasining rivojlanishidir. Interfaol mashg'ulotlarda talaba faqat o'qituvchini emas, balki turli talabalarni ham tinglaydi. Har bir talabaning talaffuzi, nutq tezligi va gap tuzish uslubi turlicha bo'lishi mumkin. Bu esa tinglab tushunishning real kommunikativ sharoitga yaqinlashishiga yordam beradi.

Uchinchi natija — lug'at boyligining faol o'zlashtirilishidir. Oddiy yodlashda yangi so'zlar passiv bilim sifatida qolib ketishi mumkin. Interfaol topshiriqlarda esa yangi so'zlar suhbat, muhokama yoki muammoli vaziyat ichida qo'llanadi. Natijada talaba so'zning nafaqat ma'nosini, balki uning qaysi kommunikativ vaziyatda ishlatilishini ham o'rganadi.

To'rtinchi natija — grammatik bilimlarning amaliy qo'llanilishidir. Interfaol metod grammatik qoidalarni butunlay inkor etmaydi. Aksincha, grammatik materialni kommunikativ vaziyatda qo'llashga imkon beradi. Masalan, "Present Perfect" mavzusini o'rganishda talabalar "Have you ever...?" shaklidagi savollar yordamida bir-biridan hayotiy tajribasi haqida so'rashi mumkin. Bunday mashq grammatik konstruksiyani real muloqotga bog'laydi.

Beshinchi natija — mustaqil fikrlashning rivojlanishidir. Debat, case study va problem-based learning kabi metodlarda talaba tayyor javobni takrorlamaydi. U muammoni tahlil qiladi, fikr bildiradi, dalil keltiradi va o'z qarorini himoya qiladi. Bu jarayon ingliz tilini o'rganishni boshqa kognitiv faoliyatlar bilan bog'laydi.

Oltinchi natija — hamkorlik ko‘nikmalarining rivojlanishidir. Guruhli topshiriqlar davomida talabalar bir-birini tinglash, vazifalarni taqsimlash, umumiy qarorga kelish va natijani taqdim etishni o‘rganadilar. Bu ko‘nikmalar nafaqat til o‘rganish, balki kelajakdagi professional faoliyat uchun ham muhimdir.

Interfaol metodlarning yana bir muhim jihati — darsdagi talaba faolligini oshirishidir. Agar dars davomida faqat o‘qituvchi gapirsa, talabaniq tilni amaliy qo‘llash vaqti cheklangan bo‘ladi. Juftlik va guruhli faoliyat esa bir vaqtning o‘zida bir nechta talabaga gapirish imkonini beradi.

Shuningdek, raqamli texnologiyalar interfaol metodlarning imkoniyatlarini kengaytiradi. Onlayn viktorinalar, elektron doskalar, videolar, virtual suhbatlar, raqamli taqdimotlar va hamkorlik platformalaridan foydalanish talabalarni dars jarayoniga faol jalb qilish imkonini beradi.

Biroq interfaol metodlardan foydalanish avtomatik ravishda yuqori natijani kafolatlamaydi. Metod dars maqsadiga mos tanlanishi, topshiriq aniq shakllantirilishi va o‘qituvchi tomonidan jarayon boshqarilishi kerak. Aks holda guruhli ish faqat norasmiy suhbatga aylanib qolishi yoki ayrim talabalar faoliyatdan chetda qolishi mumkin.

MUHOKAMA

Olingan metodik natijalar interfaol ta‘limning ingliz tilini o‘qitishda o‘quvchi faolligini oshirish va kommunikativ kompetensiyani shakllantirish uchun muhim pedagogik vosita ekanligini ko‘rsatadi. Interfaol metodlarning asosiy afzalligi shundaki, ular tilni abstrakt bilim sifatida emas, balki real kommunikativ faoliyat vositasi sifatida o‘rgatishga imkon beradi.

Ingliz tili darslarida interfaol metodlardan foydalanish o‘qituvchining rolini ham o‘zgartiradi. O‘qituvchi faqat ma‘lumot beruvchi emas, balki ta‘lim jarayonini tashkil etuvchi, yo‘naltiruvchi va maslahat beruvchi fasilitator vazifasini bajaradi. U dars maqsadini belgilaydi, topshiriqlarni tayyorlaydi, talabalarni guruhlariga ajratadi, kommunikativ vaziyat yaratadi va yakunda natijalarni baholaydi.

Interfaol metodlardan foydalanishda differensial yondashuv muhim ahamiyatga ega. Bir guruhda tilni yuqori darajada biladigan va boshlang‘ich darajadagi talabalar bo‘lishi mumkin. Bunday vaziyatda barcha talabaga bir xil murakkablikdagi topshiriq berish kutilgan natijani bermasligi mumkin. Kuchli talabalar uchun murakkabroq kommunikativ vazifalar, boshlang‘ich darajadagi talabalar uchun esa tayanch so‘zlar, namunaviy gaplar va qo‘shimcha ko‘rsatmalar berilishi maqsadga muvofiq.

Interfaol metodlarning samaradorligini oshirish uchun darsning uch bosqichini o‘zaro bog‘lash mumkin. Birinchi bosqichda yangi til materiali tushuntiriladi va talabalarga kerakli leksik hamda grammatik tayanch beriladi. Ikkinchi bosqichda interfaol mashqlar orqali ushbu material amaliyotda qo‘llanadi. Uchinchi bosqichda esa talabalar erkinroq kommunikativ vaziyatda o‘z bilimlarini namoyish etadilar.

Masalan, “Job Interview” mavzusidagi darsda dastlab ishga qabul qilish bilan bog‘liq so‘z va iboralar tushuntirilishi mumkin. Keyin talabalar juftliklarda intervyuer va ishga da‘vogar rollarini bajaradilar. Yakunda esa talabalar haqiqiy ish intervyusiga o‘xshash vaziyatda o‘zlarini sinab ko‘radilar. Bu jarayonda vocabulary, grammar, speaking va listening ko‘nikmalari kompleks ravishda rivojlanadi.

Baholash jarayonida ham interfaol yondashuv tamoyillaridan foydalanish lozim. Faqat grammatik xatolar soniga asoslangan baholash talabaniq kommunikativ faolligini to‘liq aks ettirmaydi. Shu sababli baholash mezonlariga fikrni tushunarli ifodalash, nutq ravonligi, lug‘at boyligi, talaffuz, grammatik to‘g‘rilik, suhbatdosh bilan hamkorlik qilish va topshiriq mazmunini ochib berish kabi ko‘rsatkichlarni kiritish mumkin.

Shu bilan birga, interfaol metodlarning ayrim cheklovlari ham mavjud. Katta guruhlarda barcha talabalarni bir vaqtning o‘zida nazorat qilish qiyinlashadi. Dars vaqtining cheklanganligi ham ayrim metodlarni to‘liq amalga oshirishga to‘sqinlik qilishi mumkin. Bundan tashqari, ayrim talabalar xato qilishdan qo‘rqib, kommunikativ faoliyatda qatnashmasligi mumkin.

Mazkur muammolarni kamaytirish uchun kichik guruhlarda ishlash, topshiriqlarni oldindan aniq tushuntirish, talabalar uchun kommunikativ tayanch materiallar yaratish, guruhdagi rollarni

almashtirib borish va xatolarni jazolash emas, balki o'rganish imkoniyati sifatida qabul qilish muhimdir.

Interfaol metodlarni raqamli texnologiyalar bilan uyg'unlashtirish ham zamonaviy ingliz tili ta'limining muhim yo'nalishlaridan biridir. Masalan, talabalar raqamli platformalar yordamida viktorinalarda ishtirok etishi, videolar asosida muhokama olib borishi, elektron taqdimot yaratishi yoki masofadan turib guruh loyihalarini amalga oshirishi mumkin.

Umuman olganda, interfaol metodlar ingliz tilini o'qitishning barcha bosqichlarida qo'llanishi mumkin. Boshlang'ich bosqichda rasmlar, oddiy juftlik mashqlari, savol-javob va o'yinlardan foydalanish maqsadga muvofiq bo'lsa, yuqori bosqichlarda debat, loyiha, case study, muammoli vaziyat va akademik munozaralardan foydalanish samaraliroq bo'lishi mumkin.

XULOSA

Ingliz tilini o'rgatishda interfaol metodlardan foydalanish zamonaviy ta'lim talablariga mos keladigan samarali metodik yondashuvlardan biridir. Interfaol ta'limning asosiy ustunligi shundaki, unda talaba passiv bilim oluvchi emas, balki o'quv jarayonining faol ishtirokchisiga aylanadi.

Tadqiqot natijasida interfaol metodlarning speaking, listening, reading va writing ko'nikmalarini kompleks rivojlantirish, lug'at boyligini faol o'zlashtirish, grammatik bilimlarni amaliy vaziyatlarda qo'llash, mustaqil fikrlash va hamkorlik ko'nikmalarini shakllantirish uchun katta imkoniyatga ega ekanligi aniqlandi.

Ayniqsa, rolli o'yinlar, juftlik va guruhli mashg'ulotlar, "Think-Pair-Share", "Information Gap", debat, munozara, "Case Study", muammoli ta'lim va loyiha metodlaridan maqsadli foydalanish ingliz tilidagi kommunikativ faoliyatni kuchaytiradi.

Interfaol metodlarning samaradorligi ularni shunchaki darsga kiritish bilan emas, balki metodni dars maqsadi, talabalarning til darajasi, yosh xususiyatlari va o'quv mazmuniga mos ravishda tanlash bilan belgilanadi. Shu sababli ingliz tili o'qituvchisi metodlarni kompleks ravishda qo'llashi, an'anaviy tushuntirishni interfaol amaliyot bilan uyg'unlashtirishi va natijalarni aniq mezonlar asosida baholashi zarur.

Kelgusidagi tadqiqotlarda interfaol metodlarning samaradorligini tajriba-sinov asosida, tajriba va nazorat guruhlari, diagnostik va yakuniy testlar, kommunikativ kompetensiyani baholash mezonlari hamda talabalar so'rovlari yordamida statistik jihatdan aniqlash maqsadga muvofiq.

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INGLIZ VA O'ZBEK ROMANLARIDA METAFORANING PRAGMATIK XUSUSIYATINING TAHLILIDA IFODA QILUVCHI USULLAR

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Annotatsiya. Zamonaviy tilshunoslikda nutqni, shu jumladan, nasriy nutqni kognitiv o'rganishga tobora ko'proq e'tibor qaratilmoqda. Shuningdek, metaforizatsiya muammolarining rivojlanishi o'z ahamiyatini yo'qotmadi, xususan, konseptual metafora nazariyasi ta'siri ostida rivojlangan voqelikni metaforik modellashtirish tushunchasidir. Ushbu tadqiqotning maqsadi nasriy matndagi metaforalarni pragmatik tahlil qilish bo'lib, u hozirda madaniy, ma'rifiy va ijtimoiy tuzilma dunyosida ma'lumot olish va uzatishning keng tarqalgan vositasiga aylandi. Metafora tadqiqotining asosiy prinsipi antroposentrizm pragmatikani tahlil qilinadigan til birliklarining ramziy mohiyatini aniqlash texnikasi sifatida yetakchi rol sifatida belgilaydi, belgilar shaxs tomonidan shakllanadi, inson uchun shaxsning o'zi tanlagan tanlovga munosabati u yoki bu darajada namoyon bo'ladi.

Kalit soʻzlar: metafora, nutq, roman, shaxs, kontekst, pragmatika, tahlil, lisoniy birlik, kommunikativ vosita, obraz.

Annotation. In modern linguistics, more and more attention is paid to the cognitive study of speech, including prose speech. Also, the development of metaphorization problems has not lost its relevance, in particular, the concept of metaphorical modeling of reality, developed under the influence of the theory of conceptual metaphor. The purpose of this study was the pragmatic analysis of metaphors in prose text, which has now become a common means of obtaining and transmitting information in the world of cultural, educational and social structure. The basic principle of the study of metaphor anthropocentrism defines pragmatics as a leading role as a technique for determining the symbolic essence of the units of language to be analyzed, signs are formed by an individual, for a person the attitude of an individual to his choice is manifested to one degree or another.

Keywords: metaphor, speech, novel, individual, context, pragmatics, analysis, linguistic unit, communicative tool, image.

Аннотация. В современной лингвистике все больше внимания уделяется когнитивному изучению речи, в том числе и прозаической. Также не утратила своей актуальности разработка проблем метафоризации, в частности, концепция метафорического моделирования реальности, разработанная под влиянием теории концептуальной метафоры. Целью этого исследования был прагматический анализ метафор в прозаическом тексте, который в настоящее время стал распространенным средством получения и передачи информации в мире культурных, образовательных и социальных структур. Основным принцип метафорического исследования антропоцентризм определяет прагматику как методiku определения символической сущности анализируемых языковых единиц как ведущую роль, признаки формируются личностью, для человека в той или иной степени проявляется отношение индивида к сделанному им выбору.

Ключевые слова: метафора, речь, роман, личность, контекст, прагматика, анализ, языковая единица, коммуникативный инструмент, образ.

KIRISH.

Zamonaviy tilshunoslikda keng tarqalgan kognitiv tadqiqotlar, maʼlumki, quyidagilarga qaratilgan: til va tafakkur oʻrtasidagi munosabatlarning eng muhim muammolarini hal qilish, “insonning tildagi oʻrni va inson hayotida tilning roli” yoʻnalishlarida amalga oshiriladi. Ingliz va oʻzbek romanlarida metafora nafaqat badiiy-tasviriy vosita, balki muayyan pragmatik maqsadni amalga oshiruvchi lisoniy birlik sifatida ham muhim ahamiyatga ega. Metaforaning pragmatik xususiyati uning oʻquvchiga taʼsir koʻrsatishi, muallif munosabatini ifodalashi, estetik-emotsional taʼsir uygʻotishi hamda kommunikativ niyatni yuzaga chiqarishi bilan belgilanadi. Shu jihatdan, ingliz va oʻzbek romanlarida metaforaning pragmatik vazifasini ifoda qiluvchi vositalarni tahlil qilish badiiy matnning yashirin semantik qatlamlarini ochishga xizmat qiladi. Romanlarda metaforalarning pragmatik xususiyatlarini oʻrganish uchun bir qator tahlil vositalarini qoʻllash mumkin. Metafora nafaqat badiiy vosita, balki kommunikativ vosita sifatida ham ishlatiladi. Romanlarda, asar muallifi oʻz maqsadiga erishish uchun metaforalardan foydalanadi, ular oʻquvchini nafaqat maʼlum bir tasavvurga yoʻnaltiradi, balki koʻplab emotsional, iqtisodiy va ijtimoiy holatlar yuzasidan fikr yuritishga undaydi.

MATERIALLAR VA USULLAR

Bu metafora pragmatik jihatdan insonning yolgʻizlik, sabr va kurashga boʻlgan munosabatini oʻquvchiga chuqur his qildiradi. Oʻzbek yozuvchisi Isajon Sulton asarlarida esa “qalbiga zulmat choʻkdi”, “umid chirogʻi soʻndi” kabi metaforalar qahramonning ruhiy holatini emotsional taʼsirchanlik orqali ifodalaydi. Masalan, Ernest Xemingueyning “The Old Man and the Sea” romanida dengiz obrazi hayot va inson taqdiri metaforasi sifatida qoʻllanadi. Metaforalar romanlarda stereotipik obrazlarni yaratish yoki aksincha, bu stereotiplarga qarshi chiqishda foydalaniladi. Bunda yozuvchi metaforik obrazlar orqali mavjud ijtimoiy, psixologik yoki madaniy meʼyorlarga qarshi fikrlarni ifodalashni maqsad qiladi. Masalan, “Yovuzlik – qorongʻu soya” metaforasi, stereotipik ravishda yovuzlikning qorongʻulik bilan bogʻlanishini ifodalaydi, ammo bunday tasvirlar yozuvchi

tomonidan o'zgartirilishi yoki mutlaqo yangilanishi mumkin. Romanlarda metaforalarning pragmatik xususiyatlarini o'rganish uchun bir qator tahlil vositalarini qo'llash mumkin.

Quyidagi usullar metaforaning ijtimoiy va psixologik ta'sirini tahlil qilishda samarali bo'ladi: Kontekstual tahlil, asar matnida metaforaning qanday ishlatilganini, uning ijtimoiy, madaniy yoki psixologik maqsadlar bilan qanday bog'langanini aniqlashga yordam beradi. Shu tarzda, roman matnida metaforaning o'rni, uning tashqi va ichki kontekstdagi ta'siri aniqlanadi. Misol uchun, "Maqsad – yulduz" kabi tasvir kontekstda qanday qilib qahramonning hayotidagi maqsadni yorqin va olijanob bir tasavvurga aylantiradi?

Diskurs tahlili yordamida metaforaning kommunikativ maqsadi o'rganiladi. Romanlardagi metaforalarning ijtimoiy vazifalari va ular qanday qilib ijtimoiy tenglik, hokimiyat, yuksalish yoki pasayish kabi mavzularni yoritish uchun ishlatiladi, bu tahlilni o'rganishda ahamiyatlidir. Misol uchun, biror ijtimoiy sinf yoki guruhning obrazini yaratishda ishlatilgan metafora uning jamiyatdagi o'rni va ahamiyatini ko'rsatishi mumkin.

Psixolingvistik tahlil yordamida metaforaning qahramonlar va o'quvchiga qanday psixologik ta'sir ko'rsatishi o'rganiladi. Romanlarda qahramonlarning ichki kechinmalarini ifodalashda ishlatilgan metaforalar yordamida o'quvchi qahramonning hissiyotlari va fikrlarini chuqurroq tushunadi. Misol uchun, "O'lim – begona qo'l" kabi tasvir, qahramonning o'zining o'lim haqidagi g'oyalarni qanday qabul qilishini tasvirlaydi.

NATIJALAR VA MUHOKAMA

Quyida romanlardan keltirilgan misollarni pragmatik tahlil qilish orqali metaforaning qanday ishlashini ko'rib chiqamiz. Misol: "Hayot – o'yin" – Bu metafora hayotni qahramonlar va o'quvchilar uchun tasavvurlashda osonlashtiradi. O'yin metaforasi hayotdagi qarorlar, muvaffaqiyatlar va mag'lubiyatlarni o'yinga o'xshash tarzda tasvirlash orqali uni o'zgacha ko'rinishda aks ettiradi. Pragmatik nuqtai nazardan, bu metafora insonning hayotdagi qiyinchiliklarni yengishdagi yondashuvini ko'rsatadi. Yoki: "Uning qalbi – qopqoqsiz do'kon". Bu tasvir qahramonning o'zi haqida hissiyotlarining ochiqqligini va samaradorligini tasvirlaydi. Pragmatik jihatdan, bu metafora qahramonning o'z dunyoqarashi va muhitga bo'lgan yondashuvini ko'rsatadi. Muallifning metaforalardan foydalanishi qahramonlarning fe'l-atvorini, ularning sodir bo'layotgan voqealarga munosabatini chuqurroq tushunishga, urushning barcha dahshatlarini aniqlashga yordam beradi, chunki uning quvnoq fonida sevgi kabi ajoyib tuyg'u paydo bo'ladi. "Tolning ochilib qolgan g'adirbudur, qizg'ish, yalang'och ildizi orasiga shamol xazonlarni to'plab, uyib qo'yipti. Yuragam jizillab, bir yaproqni qo'linga oldim. Qarangki, shamol unga xat bitib ketgan ekan." Bu kun zavollidir", deb bitibdi shamol yaproq sirtiga". (Oydinbuloq) Umuman, Isajon Sulton o'z hikoyalarida shamol metaforasidan unumli foydalanганиni ko'rishimiz mumkin. Boshqa bir hikoyasida shamol vayronkor sifatida tasvirlangan bo'lsa, mazkur hikoyada oshiq, donishmand sifatida gavdalanadi.

XULOSA

Metaforalarni o'rganish tilshunoslik fani kabi uzoq tarixiy taraqqiyotga ega bo'lsa-da, har bir davr ijtimoiy ehtiyojlardan kelib chiqqan holda uning yangi-yangi qirralarini kashf etmoqda – uning mohiyati tomon uzluksiz harakat qilinmoqda. Bu mohiyatning kashf etilayotgan qirralariga muvofiq ravishda muammolar to'liqini kun sayin kuchayib bormoqda. Romanlarda metaforaning pragmatik xususiyatlarini o'rganish, uning nafaqat badiiy vosita sifatida, balki kommunikativ va psixologik funksiyalarni bajaruvchi vosita sifatida qanday ishlashini ko'rsatadi. Metafora o'quvchining dunyoqarashini, his-tuyg'ularini va ichki dunyosini yanada chuqurroq anglashga yordam beradi. Shuningdek, romanlardagi metaforalar ko'p hollarda ijtimoiy, madaniy va psixologik ta'sirlarni yaratishda muhim vosita sifatida xizmat qiladi. Romanlarda metaforalarning pragmatik vazifalari odatda ko'plab ijtimoiy, psixologik va madaniy qatlamlar bilan bog'liq bo'lib, bu asarlarda yuzaga keladigan obrazlarning maqsadga yo'naltirilgan va auditoriyaga ta'sir qiluvchi xususiyatlarini shakllantiradi.

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SPECIFICS OF SELF-DIRECTED LEARNING IN FOREIGN LANGUAGE TEACHING AT NON-PHILOLOGICAL HIGHER EDUCATION INSTITUTIONS

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Annotatsiya. Ushbu maqolada nofilologik oliy ta'lim muassasalarida chet (ingliz) tilini o'qitish jarayonida mustaqil ta'limni tashkil etishning o'ziga xos xususiyatlari tahlil qilinadi. Nofilologik yo'nalish talabalarining til o'rganishga bo'lgan ehtiyoji kasbiy maqsadlarga yo'naltirilganligi (ESP) sababli, ular da mustaqil ta'limni tashkil etish filologik yo'nalish talabalaridan farq qiladi. Maqolada xorijiy tadqiqotchilarning ilmiy ishlari asosida mustaqil ta'limning nazariy asoslari, uni tashkil etish omillari va raqamli vositalarning o'rni yoritiladi.

Kalit so'zlar: mustaqil ta'lim, o'quvchi avtonomiyasi, nofilologik OTM, chet tili o'qitish, kasbga yo'naltirilgan ingliz tili (ESP), raqamli ta'lim vositalari.

Аннотация. В статье анализируются особенности организации самостоятельного обучения в процессе преподавания иностранного (английского) языка в нефилологических высших учебных заведениях. Поскольку потребность студентов нефилологических направлений в изучении языка ориентирована на профессиональные цели (ESP), организация самостоятельного обучения у них отличается от студентов-филологов. На основе анализа зарубежных научных исследований в статье рассматриваются теоретические основы самостоятельного обучения, факторы его организации и роль цифровых инструментов.

Ключевые слова: самостоятельное обучение, автономия обучающегося, нефилологический вуз, преподавание иностранного языка, английский язык для специальных целей (ESP), цифровые образовательные инструменты.

Abstract. This paper examines the specific features of organizing self-directed learning (SDL) in foreign (English) language teaching at non-philological higher education institutions. Because students of non-philological fields study the language for professional purposes (English for Specific Purposes), the organization of their self-directed learning differs from that of philology students. Drawing on the theoretical foundations of adult learning theory and recent empirical studies, the paper discusses the factors shaping SDL in this context and the growing role of digital tools in supporting it.

Keywords: self-directed learning, learner autonomy, non-philological higher education institution, foreign language teaching, English for Specific Purposes (ESP), digital learning tools.

INTRODUCTION.

The increasing demand for professionally competent specialists with effective foreign language skills has strengthened the importance of independent and self-directed learning in higher education. In the Republic of Uzbekistan, the development of foreign language competence has become an important component of preparing students for academic study, professional communication, international cooperation, and access to specialized information. In this context, self-directed learning (SDL) can provide students with opportunities to continue language development beyond limited classroom contact hours. The role of SDL is particularly significant in non-

philological higher education institutions, where English is generally taught as a supporting component of students' professional education rather than as the principal object of academic study. Students majoring in engineering, agriculture, technology, economics, and related disciplines are expected to acquire language skills that can be applied to professional communication, specialized literature, international projects, presentations, research activities, and future workplace contexts. Therefore, the organization of SDL for such students cannot simply reproduce approaches traditionally used in philological education. The theoretical foundations of self-directed learning are closely associated with adult learning theory and Knowles' concept of andragogy. From this perspective, adult learners are expected to take an active role in identifying their learning needs, setting objectives, selecting appropriate learning strategies, and evaluating their progress (Manning, 2007). Charokar and Dulloo (2019) further demonstrate that SDL can be understood as a systematic process involving planning, implementation, monitoring, and evaluation. These principles are particularly relevant to university students who are expected to gradually assume greater responsibility for their own learning. At the same time, learner autonomy should not be understood as the complete removal of teacher involvement. In foreign language education, especially among students with limited previous experience of independent learning, effective autonomy often requires appropriate guidance, feedback, resources, and monitoring. This issue becomes especially important in non-philological institutions, where students may have limited time for English study and may initially lack well-developed strategies for independent language learning.

The present study therefore focuses on the specific characteristics of SDL in foreign language teaching at non-philological higher education institutions. Particular attention is given to the relationship between SDL and ESP, the role of professionally relevant materials, institutional support, learner self-organization, and digital technologies.

The aim of this study is to identify the major characteristics and organizational conditions of self-directed foreign language learning among students of non-philological higher education institutions and to develop a conceptual framework for its effective organization.

The study addresses the following research questions:

1. What factors distinguish self-directed foreign language learning in non-philological higher education institutions from that in philological contexts?
2. What role do professional orientation, learner autonomy, institutional support, and digital technologies play in organizing SDL?
3. What components should be considered when developing an effective SDL framework for ESP students?

METHODOLOGY

The study employs a qualitative analytical literature-review approach. The analysis draws on theoretical and empirical studies concerning self-directed learning, adult learning, learner autonomy, English for Specific Purposes, self-study materials, digital learning environments, and self-regulated learning.

The selected studies were examined comparatively according to several analytical dimensions: (1) the learning context; (2) the role of learner autonomy; (3) the relationship between self-study and professional needs; (4) the role of learning materials and digital technologies; and (5) the extent of teacher or institutional support required for successful independent learning.

Rather than treating SDL as a completely individual learning activity, the study examines it as a process influenced by the interaction of learner characteristics, professional objectives, educational resources, digital environments, and institutional support. The findings of the reviewed studies were synthesized to identify common characteristics relevant to foreign language teaching in non-philological higher education.

The study is conceptual and literature-based; therefore, it does not claim to provide statistical evidence from a newly collected student sample. The proposed framework should consequently be regarded as a theoretical basis for subsequent empirical research.

Theoretical Foundations of Self-Directed Learning

Self-directed learning is generally associated with the learner's active participation in planning, implementing, monitoring, and evaluating the learning process. Within adult learning theory, learners are viewed not merely as recipients of information but as participants capable of identifying their needs and assuming responsibility for their progress.

Knowles' andragogical perspective provides an important theoretical foundation for understanding SDL among university students. According to this approach, adult learners tend to be more motivated when learning is relevant to their immediate needs and future goals. This principle is especially significant in ESP contexts, where language learning is directly connected with students' professional fields.

Charokar and Dulloo (2019) emphasize the practical dimension of SDL by describing it as a process involving planning, learning, monitoring, and evaluation. Such a cyclical understanding suggests that students need more than access to learning materials. They need to know what they are expected to learn, how they can achieve the learning objective, how they can monitor their progress, and how they can evaluate the results.

Specifics of SDL in Foreign Language Teaching at Non-Philological HEIs

One of the main characteristics of SDL in non-philological higher education is its professional orientation. Students of engineering, agriculture, technology, and other specialized fields generally do not study English solely for linguistic knowledge. Their motivation is often connected with professional communication, specialized terminology, academic literature, international collaboration, research, and future employment.

Hellerstein, Waldman, Solomon, and Arnon examine students' choices between online self-study and college-based English for Academic Purposes learning and demonstrate the importance of learners' academic and professional priorities in shaping their learning choices. This finding is relevant to non-philological students because their decision to engage in self-study may depend substantially on the perceived usefulness of English for their academic and professional development.

Sandeman similarly emphasizes the importance of reflection and self-study in English for Specific and Academic Purposes. From this perspective, autonomous learning becomes more meaningful when students are able to connect language-learning activities with their disciplinary and professional needs.

Thus, SDL in non-philological institutions should be closely integrated with ESP. Instead of assigning general English exercises without a clear professional purpose, teachers can provide tasks involving specialized vocabulary, professional texts, presentations, reports, technical descriptions, workplace communication, and discipline-specific problem-solving.

Another important feature of SDL is the availability of appropriate learning materials. Ostin emphasizes the importance of self-study materials in work-based learning, particularly because such resources can help learners connect formal education with real professional contexts.

For non-philological students, self-study materials should therefore possess several characteristics. They should be:

- relevant to the students' professional field;
- appropriate to their language level;
- clearly structured;
- accessible outside the classroom;
- connected with realistic professional situations;
- suitable for individual practice and self-assessment.

Fitrawati, Tiarina, Amri, and Perrodin also highlight the potential of web-based self-study platforms for improving English proficiency. Such platforms can provide students with flexible access to learning materials and enable them to continue language learning beyond scheduled classroom sessions. However, the availability of materials alone does not guarantee successful SDL. Students need clear instructions concerning what to study, how to complete tasks, how to evaluate their performance, and how to use the results to plan subsequent learning.

Learner autonomy represents another central component of SDL. Autonomous learners gradually become capable of making decisions concerning learning objectives, strategies, resources, and evaluation. However, autonomy should not be equated with complete independence from teachers.

Carter-Yamashita, drawing on self-regulated learning theory, emphasizes the importance of planning and reflection in autonomous learning outside the classroom. This is particularly relevant to non-philological higher education, where the number of foreign language contact hours may be limited.

Students who have not previously developed independent learning habits may require explicit instruction in learning strategies. Kolumbayeva, Aitenova, Tanatova, and colleagues identify ways of increasing students' self-organization for self-study and emphasize the importance of structured tasks and guidance.

Digital technologies have significantly expanded the possibilities for self-directed foreign language learning. Mobile applications, learning management systems, online courses, digital dictionaries, video platforms, specialized websites, electronic textbooks, and AI-supported tools can provide students with flexible access to language resources.

For non-philological students, digital tools can be particularly useful because they allow learners to access professionally relevant English materials, including technical documents, lectures, terminology databases, professional videos, and international academic resources.

However, digital technology also creates challenges. Deng points out that the use of laptops and mobile phones during self-study can simultaneously support learning and generate distractions through multitasking. This finding suggests that simply providing students with digital resources is insufficient.

Effective digital SDL therefore requires purposeful task design. Students should have clearly defined objectives, limited and relevant resources, time-management strategies, and opportunities for self-monitoring. Digital tools should function as means of achieving learning objectives rather than becoming learning objectives themselves.

The analysis of the reviewed literature allows several major characteristics of SDL in non-philological higher education to be identified.

First, SDL is professionally oriented. Students are more likely to engage actively when language activities are connected with their academic disciplines and future professional responsibilities.

Second, SDL is resource-dependent. Students need access to appropriate self-study materials, particularly materials that reflect authentic professional contexts.

Third, SDL requires structured autonomy. Learners need opportunities to make decisions, but these opportunities should be accompanied by appropriate guidance, feedback, and monitoring.

Fourth, SDL is increasingly digitally supported. Digital platforms can expand learning opportunities, although their effectiveness depends on purposeful pedagogical integration.

Fifth, SDL requires self-regulation and reflection. Students need to monitor their learning, identify difficulties, evaluate their progress, and adjust their learning strategies.

DISCUSSION

The reviewed literature demonstrates that the organization of SDL at non-philological higher education institutions differs from general approaches to autonomous language learning primarily because of the professional purposes underlying students' language needs.

For philological students, language itself is often the principal object of academic study. For non-philological students, however, English frequently functions as a means of accessing professional knowledge and participating in discipline-specific communication. Consequently, the content, materials, tasks, and assessment procedures used in SDL should reflect students' academic and professional contexts.

CONCLUSION

The analysis demonstrates that self-directed learning in foreign language teaching at non-philological higher education institutions has several distinctive characteristics. Unlike language learning in philological programmes, SDL in non-philological contexts is strongly influenced by students' professional and academic needs. As a result, self-study activities should be closely connected with ESP objectives, discipline-specific communication, and future workplace requirements.

The reviewed literature also indicates that effective SDL requires more than individual learner motivation. Professionally relevant materials, structured learning tasks, digital resources, self-monitoring, teacher feedback, and reflection are important components of the learning process. In particular, students who have limited experience with autonomous learning may require explicit institutional guidance before they can effectively assume greater responsibility for their learning.

The conceptual framework proposed in this study integrates professional needs analysis, goal setting, ESP-oriented self-study, digital support, self-monitoring, feedback, and reflection. This framework provides a theoretical basis for organizing self-directed foreign language learning in non-philological higher education.

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INGLIZ VA O'ZBEK TILSHUNOSLIGIDA PAREMIOLOGIK FONDNI QIYOSIY O'RGANISHNING O'ZIGA XOSLIKLARI VA YONDASHUVLAR

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Annotatsiya. Mazkur maqolada ingliz va o'zbek tilshunosligida paremiologik fondni qiyosiy o'rganishning nazariy-metodologik asoslari, o'ziga xosliklari va zamonaviy yondashuvlari tahlil qilinadi. Tadqiqotda paremiologik fond maqol, matal, naql, aforizm va boshqa barqaror hikmatli birliklarning milliy tafakkur, ijtimoiy xotira hamda qadriyatlar tizimini verbalizatsiya qiluvchi majmuasi sifatida talqin qilinadi. Qiyosiy tahlilning asosiy mezonlari sifatida semantik yadro, funksional-pragmatik vazifa, obrazli-madaniy kod, variantlilik, tarixiy-ijtimoiy kontekst va qo'llanish chastotasi ajratildi. Tadqiqot natijalari ingliz va o'zbek paremiyalarida halollik, sabr, vijdon, vafo, mehnatsevarlik, hurmat va obro' kabi qadriyatlarning umumiy konseptual yadrosi mavjudligini,

biroq ularning obrazlanishi va ijtimoiy legitimatsiya mexanizmlari turlicha ekanini ko'rsatadi. Qiyosiy paremiologiya uchun lingvoma'naviy, lingvomadaniy, kognitiv-pragmatik, qiyosiy-tipologik hamda korpus yondashuvlarini kompleks qo'llash samarali metodologik model sifatida asoslanadi. Maqolada "qadriyat-me'yor-amal" modeli, konseptual maydon va freym-ssenariy tahlili, shuningdek, to'liq, qisman va nol ekvivalentlik mezonlari tizimlashtiriladi.

Kalit so'zlar: paremiologik fond, paremiologik birlik, maqol, qiyosiy paremiologiya, ingliz tili, o'zbek tili, lingvomadaniyat, lingvoma'naviyat, kognitiv yondashuv, pragmatika, ekvivalentlik, korpus lingvistikasi.

Abstract. This article analyzes the theoretical-methodological foundations, distinctive features, and modern approaches regarding the comparative study of the paremiological corpus in English and Uzbek linguistics. The study interprets the paremiological corpus—comprising proverbs, sayings, maxims, aphorisms, and other fixed proverbial units—as a complex that verbalizes national mentality, social memory, and value systems. Key criteria identified for comparative analysis include the semantic core, functional-pragmatic role, imagery-cultural code, variation, historical-social context, and frequency of usage. Research findings indicate that while English and Uzbek paremias share a common conceptual core regarding values such as honesty, patience, conscience, loyalty, diligence, respect, and reputation, their modes of imagery and mechanisms of social legitimation differ. A comprehensive methodological model for comparative paremiology is established through the integrated application of linguo-spiritual, linguo-cultural, cognitive-pragmatic, comparative-typological, and corpus-based approaches. The article also systematizes the "value–norm–practice" model, conceptual field and frame-scenario analysis, as well as criteria for full, partial, and zero equivalence.

Keywords: paremiological reserve, paremiological unit, proverb, comparative paremiology, English language, Uzbek language, linguoculture, linguo-spirituality, cognitive approach, pragmatics, equivalence, corpus linguistics.

Аннотация. В данной статье анализируются теоретические и методологические основы, специфика и современные подходы к сравнительному изучению паремиологических фондов в английской и узбекской лингвистике. В исследовании паремиологический фонд интерпретируется как комплекс пословиц, изречений, афоризмов и других устойчивых единиц мудрости, вербализующих национальную мысль, социальную память и систему ценностей. Основными критериями сравнительного анализа являются семантическое ядро, функционально-прагматическая функция, образно-культурный код, вариативность, историко-социальный контекст и частота использования. Результаты исследования показывают, что в английской и узбекской паремиях существует общее концептуальное ядро ценностей, таких как честность, терпение, совесть, верность, усердие, уважение и репутация, но механизмы их представления и социальной легитимации различны. Обосновывается как эффективная методологическая модель комплексное применение лингво-духовного, лингво-культурного, когнитивно-прагматического, сравнительно-типологического и корпусного подходов к сравнительной паремиологии. В статье систематизируется модель «ценность–норма–действие», концептуальное поле и фрейм-сценарный анализ, а также критерии полной, частичной и нулевой эквивалентности.

Ключевые слова: паремиологический фонд, паремиологическое единство, пословица, сравнительная паремиология, английский язык, узбекский язык, лингвокультура, лингводуховность, когнитивный подход, прагматика, эквивалентность, корпусная лингвистика.

Paremiologik birliklar tilning xalqning tarixiy tajribasi, ijtimoiy xotirasi, dunyoqarashi va qadriyatlar tizimi bilan bevosita bog'langan qatlamini tashkil etadi. Ularning kommunikativ vaziyatda tayyor qolip sifatida qo'llanishi, qisqa shaklda umumlashirilgan hukm va bahoni ifodalashi paremiyalarni oddiy leksik birliklardan farqlaydi. Shu sababli zamonaviy tilshunoslikda paremiologik fondni faqat folklor yoki frazeologiya doirasida emas, balki kognitiv lingvistika, lingvomadaniyatshunoslik, pragmalingvistika, tarjimashunoslik va korpus lingvistikasi kesishmasida tadqiq etish ehtiyoji kuchaymoqda.

Ingliz va o'zbek paremiologik fondlarini qiyoslash, ayniqsa, ikki tilning milliy-madaniy tajribasida umumiy va farqli jihatlarni aniqlash uchun muhimdir. Ma'naviy-axloqiy qadriyatlar ko'plab madaniyatlarda universal xarakterga ega bo'lsa-da, ularning til orqali ifodalanishida turli obrazlar, metaforalar, ijtimoiy institutlar va kommunikativ strategiyalar ishtirok etadi. Ma'naviy tushuncha universal bo'lishi mumkin, ammo uning etnomadaniy "dalillash" usuli, obrazli ramzi va pragmatik ta'sir mexanizmi milliy madaniyatga xos bo'ladi.

Qiyosiy paremiologiyada faqat "bir tildagi maqolga ikkinchi tilda mos maqol topish" bilan cheklanib qolish paremiyaning semantik, pragmatik va lingvomadaniy tabiatini to'liq ochib bermaydi. Shu bois mazmuniy yadro bilan birga obraz, baholash, kommunikativ vazifa, tarixiy kontekst va real diskursdagi qo'llanishni bir tizimda hisobga olish zarur.

Tadqiqotda tavsifiy, semantik, qiyosiy-tipologik, lingvomadaniy, lingvoma'naviy, kognitiv, pragmatik, diskursiv va korpus-statistik tahlil usullaridan kompleks foydalanildi. Bunday metodologik sintez paremiyani bir vaqtning o'zida til birligi, madaniyat kodi, bilim formulasi va nutqiy ta'sir vositasi sifatida ko'rib chiqish imkonini beradi.

Qiyosiy-tipologik usul ingliz va o'zbek paremiyalarining semantik yadrosi, struktur modeli va funksional vazifalarini solishtirishga xizmat qildi. Lingvomadaniy tahlilda milliy obrazlar, realiyalar, ramzlar, etalonlar va qadriyatlar ierarxiyasi; kognitiv tahlilda konsept, freym, ssenariy va konseptual metaforalar; pragmatik tahlilda esa paremiyaning bahs, nasihat, ogohlantirish, dalillash va ijtimoiy nazoratdagi vazifalari asosiy mezon sifatida olindi.

Tadqiqotning metodologik ramkasi sifatida "qadriyat-me'yor-amal" modeli qabul qilindi. Modelning birinchi komponenti paremiyada ifodalangan qadriyatni, ikkinchisi shu qadriyatdan kelib chiqadigan ijtimoiy yoki axloqiy me'yorni, uchinchisi esa real xulq-atvor ssenariysini anglatadi. Ushbu model paremiya ma'nosini faqat lug'aviy darajada emas, balki baholash, modallik, obrazlilik va kommunikativ vazifa birligida tahlil qilish imkonini beradi.

Paremiologik fond muayyan til jamoasi nutqida barqaror qo'llanadigan maqol, matal, aforizm, qanotli ibora va boshqa hikmatli formulalar majmuasi sifatida qaraladi. Uning asosiy xususiyati — individual tajribani umumlashtirib, uni kollektiv bilim va me'yor darajasiga ko'tarishidir. Bunday birliklar "nima yaxshi-yomon?", "qanday yashash kerak?", "boshqa insonga qanday munosabatda bo'lish kerak?" kabi savollarga ixcham va yodda qoladigan javob beradi. Dissertatsiyada paremiologik fond aynan milliy tafakkur va ma'naviyatning "qisqa formula"dagi ifodasi sifatida tavsiflangan.

Maqol paremiologik fondning markaziy birliklaridan biri bo'lib, tugallangan hukm, umumlashtiruvchi baho va normativlik bilan ajralib turadi. Shu jihatdan maqolni frazeologik birlikdan farqlashda uning predikativ tugallanganligi va kommunikativ vaziyatga tayyor hukm sifatida tatbiq qilinishi muhim. Maqolning semantik qiymati komponentlar yig'indisidan kengroq bo'lib, u qisqa shaklda konseptual xulosani uzatadi.

Paremiologik birliklarning barqarorligi mutlaq emas. Variantlilik dialekt, tarixiy davr, uslub, og'zaki va yozma nutq, shuningdek, zamonaviy media muhitining ta'siri bilan yuzaga keladi. Shuning uchun qiyosiy tadqiqotda birlikning lug'aviy shakli emas, avvalo invariant semantik yadro aniqlanishi lozim. Dissertatsiyada variantlilikni hisobga olish uchun o'zgarmas ma'no va baholash qismi bilan periferik leksik-sintaktik o'zgarishlarni ajratish taklif etilgan.

Ingliz va o'zbek paremiologik fondlarini qiyoslashda birinchi tamoyil — semantik yadro va uning verbal realizatsiyasini farqlashdir. Masalan, "Honesty is the best policy" hamda "Rost gap — rost yo'l" birliklarida rostgo'ylik umumiy aksiologik yadro bo'lsa-da, uning konseptual asoslanishi turlicha. Inglizcha variantda "policy" orqali pragmatik-ratsional strategiya kuchaysa, o'zbekcha variantda "yo'l" obrazi to'g'ri hayot yo'nalishi metaforasini faollashtiradi.

Ikkinchi tamoyil — tipologik va genetik o'xshashliklarni ajratish. Bir xil ma'naviy g'oya turli xalqlarda mustaqil ravishda, umumiy insoniy tajriba asosida paydo bo'lishi mumkin. Bunday o'xshashlik tipologik hisoblanadi. Genetik o'xshashlik esa madaniy aloqa, tarjima, diniy va ta'limiy kanallar orqali yuzaga keladi. Ushbu farqni hisobga olmasdan turib, ikki paremiyaning shakliy o'xshashligini bevosita tarixiy aloqaning dalili sifatida talqin qilish metodologik jihatdan xatodir.

Uchinchi tamoyil — ekvivalentlikni ko‘p qatlamli tushunishdir. Qiyosiy paremiologiyada to‘liq ekvivalentlik semantik yadro, obraz va funksiyaning yuqori darajadagi mosligi bilan; qisman ekvivalentlik konseptual yadro va kommunikativ vazifaning saqlanib, obrazning farqlanishi bilan; nol ekvivalentlik esa mazmunning boshqa janr yoki tavsifiy vosita orqali ifodalanishi bilan belgilanadi. Dissertatsiya materialida to‘liq ekvivalentlar 20–30 foiz, qisman ekvivalentlar 40–55 foiz atrofida bo‘lishi mumkinligi ko‘rsatilgan.

To‘rtinchi tamoyil — tarixiy-ijtimoiy kontekstni hisobga olish. Paremiya shakllangan va faol qo‘llangan muhit undagi qadriyatlarning legitimatsiya manbasiga ta’sir qiladi. O‘zbek paremiologik an’anasida oila, mahalla, qarindoshlik, ustoz-shogird munosabatlari va jamoaviy me’yorlar muhim tayanch bo‘lsa, ingliz paremiyalarida individual mas’uliyat, huquqiy-madaniy tajriba va shaxsiy intizomga oid modellar faolroq ko‘rinadi. Bunday farqlar paremiyalarning semantik yadrosini emas, uning ijtimoiy asoslanish usulini belgilaydi.

Lingvoma’naviy yondashuv paremiyani shaxsning axloqiy idealini, ichki me’yorlar tizimini va komil inson haqidagi tasavvurlarni ifodalovchi birlik sifatida o‘rganadi. Bu yondashuvda rostgo‘ylik, halollik, sabr, shukr, vijdon, vafo, hurmat, mas’uliyat kabi ma’naviy konseptlarning paremiya tarkibidagi ifodasi aniqlanadi. Keyingi bosqichda mazkur qadriyatni mustahkamlovchi ijtimoiy institutlar va xulq-atvor ssenariylari qiyoslanadi.

Qiyosiy materiallar o‘zbek paremiyalarida ijtimoiy muvofiqlik, jamoaviy baho va uyat-or-nomus kabi regulyatorlarning faol ekanini, ingliz paremiyalarida esa shaxsiy mas’uliyat, o‘zini boshqarish, obro‘ va individual etikaga urg‘u berilishini ko‘rsatadi. Bu qarama-qarshilikni mutlaq “kollektivizm–individualizm” dixotomiyasiga aylantirish to‘g‘ri emas; u ko‘proq ma’naviy me’orning qaysi ijtimoiy mexanizm orqali legitimlashtirilishini ko‘rsatadi. Dissertatsiyada mazkur farq o‘zbek modelida jamoaviy me’yorlar, ingliz modelida esa shaxsiy mas’uliyat va shartnomaviy adolatning nisbatan faolroq reprezentatsiyasi bilan izohlangan.

Lingvomadaniy yondashuv paremiyani madaniyat kodi sifatida o‘rganadi. Bunda “non”, “oltin”, “yo‘l”, “uy”, “qo‘l”, “ko‘ngil”, “yurak” singari obrazlarning semantik va semiotik yuklamasi aniqlanadi. Masalan, o‘zbek paremiyalarida “non” obrazi halol mehnat, rizq va mehmondo‘stlik bilan bog‘lanishi mumkin; ingliz paremiyalarida “bread” ko‘proq kundalik tirikchilik va farovonlik bilan bog‘lanadi. Demak, bir xil predmetning nomlanishi uning madaniy mazmuni ham bir xil degani emas.

Kognitiv yondashuv esa paremiyadagi bilimni tashkil etuvchi konseptual model va freym-ssenariylarni ochadi. “Mehnat → natija”, “halollik → ishonch”, “sabr → yutuq”, “xatti-harakat → oqibat” kabi sabab-oqibat munosabatlari ko‘plab paremiyalarda stereotiplashgan bilim modeli sifatida namoyon bo‘ladi. “You reap what you sow” va “Nima eksang — shuni o‘rsan” kabi birliklarda agrar tajriba axloqiy javobgarlikni ifodalovchi kognitiv modelga ko‘chgan.

Konseptual maydon va freym-ssenariy tahlili ma’naviy qadriyatlarni alohida birliklar emas, o‘zaro bog‘langan tizim sifatida ko‘rishga imkon beradi. “Shaxs ma’naviyati” freymi vijdon, sabr, mas’uliyat, poklik, nomus, bag‘rikenglik, himmat kabi komponentlarga ajratilib, har bir komponent uchun ikki tildagi tipik paremiya ssenariylari qiyoslanadi. Dissertatsiya materialida aynan shu model paremiyaning me’yorlashtiruvchi xususiyatini ochishi qayd etilgan.

Pragmatik yondashuv paremiya “nima anglatadi?” degan savol bilan bir qatorda “nima uchun aynan shu vaziyatda ishlatildi?” degan savolga javob beradi. Maqol so‘zlovchining shaxsiy fikrini jamoaviy tajribaga tayangan hukm sifatida taqdim etib, “avtorsiz avtoritet” effektini yuzaga keltiradi. Shu sababli paremiya nasihat, ogohlantirish, tanqid, dalillash, tasalli yoki murosaga chaqirish funksiyalarini bajarishi mumkin.

Korpus yondashuvi paremiologik fondning statik emas, dinamik tizim ekanini ko‘rsatadi. Korpus orqali birliklarning chastotasi, variantlari, kollokatsiyalari, janrlar bo‘yicha taqsimoti va real diskursdagi modifikatsiyalari aniqlanadi. Dissertatsiyada qiyosiy tadqiqot uchun korpus tuzishda manba reprezentativligini saqlash, kitobiy to‘plamlarni media va internet materiallari bilan muvozanatlash zarurligi ta’kidlangan.

Statistik usullar lingvomadaniy talqinni almashtirmaydi; ular uning empirik dalil bazasini kuchaytiradi. Masalan, chastota qaysi ma’naviy qadriyatlar real kommunikatsiyada faolroq chaqirilishini ko‘rsatadi, klasterlash esa birliklarni tematik-semantik guruhlariga ajratadi. Annotatsiya

jarayonida inter-annotator agreement ko'rsatkichi kabi mezonlardan foydalanish esa kategoriyalashning ishonchligini tekshirishga yordam beradi.

Qiyosiy paremiologiyada natijalarni tekshiriladigan shaklda taqdim etish uchun har bir birlik bo'yicha manba, semantik yadro, obraz, pragmatik vazifa va ekvivalentlik turini bir jadvalda ko'rsatish maqsadga muvofiq. Ilmiy tadqiqotimizda shunday matrisa namunasi ishlab chiqilgan.

Domen	O'zbek paremiyasi	Ingliz paremiyasi	Obraz	Ekvivalentlik	Pragmatik vazifa
Rostgo'ylik	Rost gap — rost yo'l	Honesty is the best policy	Yo'l / policy	Qisman	Nasihat, me'yor
Obro'	Obro' — oltindan qimmat	A good name is better than riches	Oltin / boylik	Qisman	Ogohlantirish
Sabr	Sabrning tagi — sariq oltin	Patience is a virtue	Oltin / virtue	Qisman	Tarbiya
Va'da	Erkakning so'zi — bir	A man is as good as his word	So'z / va'da	To'liqqa yaqin	Ijtimoiy mas'uliyat

Jadvaldagi qiyos shuni ko'rsatadiki, bir xil ma'naviy qiymat turli tillarda turli konseptual vositalar orqali kodlanishi mumkin. Shuning uchun qiyosiy tahlilda “mazmun mos” degan umumiy xulosadan oldin semantik yadro, obraz, baholash va pragmatik funktsiya alohida tekshirilishi lozim.

Tadqiqot natijalari ingliz va o'zbek paremiologik fondlarini qiyoslashda bir metod bilan cheklanib qolish yetarli emasligini ko'rsatadi. Struktur-semantik tahlil birlikning shakli va umumiy mazmunini ochadi; lingvomadaniy tahlil uning milliy kodini; kognitiv tahlil bilim va tajribaning konseptuallashtiruvini; pragmatik tahlil kommunikativ ta'sirini; korpus yondashuvi esa real qo'llanish ko'rsatkichlarini aniqlaydi. Demak, zamonaviy qiyosiy paremiologiyaning optimal modeli ko'p qatlamli va integrativ bo'lishi kerak. Bu xulosa dissertatsiyaning birinchi bobidagi “semantik maydon — freym tahlili — pragmatik funktsiya — korpus chastotasi — tarixiy kontekst” parametrlarini birlashtirish haqidagi metodologik xulosaga mos keladi.

Ikki til materiallari shuningdek, universal va milliy xususiyatlarni bir-biriga qarshi qo'yish noto'g'ri ekanini ko'rsatadi. Halollik, sabr, mehnat, vijdon, vafo va mas'uliyat kabi qadriyatlar umumiy konseptual yadroni tashkil qilishi mumkin. Ammo mazkur qadriyatlarning “qanday dalillanishi” — ya'ni qaysi obraz, ijtimoiy institut yoki baholash strategiyasi orqali asoslanishi — milliy madaniyatga bog'liq. Shu jihatdan qiyosiy tahlilning asosiy birligi “maqolning o'zi” emas, balki “maqol + konsept + madaniy kod + pragmatik vazifa” kompleksi sifatida belgilanishi maqsadga muvofiq.

Ingliz va o'zbek tilshunosligida paremiologik fondni qiyosiy o'rganish ko'p bosqichli metodologik jarayon bo'lib, u semantik moslikni aniqlashdan ancha keng tushunchani anglatadi. Paremiologik birliklar xalqning tajribasi, qadriyatlari va ijtimoiy me'yorlarini qisqa, barqaror va kommunikativ jihatdan faol formulalarda mujassamlashtiradi.

Tadqiqot natijasida qiyosiy paremiologiyaning asosiy mezonlari sifatida semantik yadro, funksional-pragmatik vazifa, lingvomadaniy kod, kognitiv model, variantlilik, tarixiy-ijtimoiy kontekst va korpus chastotasi belgilandi. Ushbu parametrlarning integratsiyasi ikki tildagi paremiyalarning umumiy va milliy-spetsifik xususiyatlarini bir vaqtda ko'rsatish imkonini beradi.

Ingliz va o'zbek paremiyalarida halollik, sabr, mehnatsevarlik, vijdon, vafo, hurmat va obro' kabi qadriyatlar umumiy konseptual yadro sifatida namoyon bo'ladi. Biroq ularning obrazli ifodasi, baholash strategiyasi va ijtimoiy legitimatsiya manbalari farqlanadi. O'zbek materialida jamoa, oila, or-nomus, uyat va odob kabi kodlar faolroq ko'rinsa, ingliz materialida individual mas'uliyat, o'zini boshqarish, reputatsiya va pragmatik-ratsional baholash vositalari ko'proq ko'zga tashlanadi.

Qiyosiy tahlil uchun “qadriyat–me'yor–amal” modeli samarali metodologik vosita bo'lib, paremiya tarkibidagi qadriyatni, uning normativ mazmunini va xulq-atvor ssenariysini yagona tizimda ko'rsatadi. Konseptual maydon va freym-ssenariy tahlili esa ushbu modelni kognitiv va lingvomadaniy jihatdan chuqurlashtiradi.

Shunday qilib, ingliz va o'zbek paremiologik fondlarini qiyoslashda eng maqbul yondashuv — qiyosiy-tipologik, lingvomadaniy, lingvoma'naviy, kognitiv-pragmatik va korpus-statistik usullarni integratsiyalashtirish iborat. Mazkur model keyingi tadqiqotlarda katta hajmdagi parallel va qiyosiy korpuslar tuzish, paremiyalarni avtomatik semantik teglash, ekvivalentlik matritsasini yaratish hamda ikki tilli paremiologik lug'atlarni takomillashtirish uchun metodik asos bo'la oladi.

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THEMATIC PARALLELISM AND TRANSFORMATION OF LYRICAL COMPOSITION

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Abstract. *This article examines thematic parallelism and the transformation of lyrical composition in modern Karakalpak and English poetry through the representation of the human–nature relationship, ecological crisis, and historical memory. Particular attention is given to the poetry of Ibrayim Yusupov, T. Matmuratov, and Kh. Dawletnazarov in relation to the ecological tragedy of the Aral Sea, and to Alice Oswald's ecopoetic representation of rivers, water, landscape, and non-human agency. Using comparative-typological, close-reading, and structural approaches, the study explores similarities and differences in the organization of lyrical voice, poetic imagery, thematic development, and compositional structure. The analysis demonstrates that both poetic traditions move beyond the traditional representation of nature as a passive background and construct nature as an active participant in human experience and collective memory. However, the transformation of lyrical composition occurs differently in the two traditions. Karakalpak poetry tends to organize ecological experience through a concentrated lyrical movement from natural image to personal grief and collective national trauma, whereas Oswald's poetry frequently disperses the lyrical voice among human and non-human elements, producing a polyphonic and fluid compositional structure. The comparison reveals that ecological themes generate not only thematic similarities but also significant transformations in poetic form, voice, perspective, and compositional organization.*

Keywords: comparative literature, Karakalpak poetry, English poetry, ecopoetics, lyrical composition, thematic parallelism, Aral Sea, Alice Oswald, Ibrayim Yusupov, ecological memory.

Аннотация. В статье исследуются тематический параллелизм и трансформация лирической композиции в современной каракалпакской и английской поэзии через репрезентацию взаимоотношений человека и природы, экологического кризиса и исторической памяти. Особое внимание уделяется поэзии Ибрайима Юсупова, Т. Матмуратова и Х. Давлетназарова в контексте экологической трагедии Аральского моря, а также экопоэтическому изображению рек, воды, ландшафта и субъектности нечеловеческого мира в творчестве Элис Освальд. С использованием сравнительно-типологического, контекстуального и структурного подходов исследуются сходства и различия в организации лирического голоса, поэтических образов, тематического развития и композиционной структуры. Анализ показывает, что обе поэтические традиции выходят за рамки традиционного представления о природе как пассивном фоне и репрезентируют её как активного участника человеческого опыта и коллективной памяти. Вместе с тем трансформация лирической композиции осуществляется в двух традициях по-разному. Каракалпакская поэзия, как правило, организует экологический опыт посредством концентрированного лирического движения от природного образа к личной скорби и коллективной национальной травме, тогда как поэзия Освальд часто распределяет лирический голос между человеческими и нечеловеческими элементами, формируя полифоническую и текучую композиционную структуру. Сопоставление показывает, что экологическая проблематика порождает не только тематические сходства, но и существенные трансформации поэтической формы, голоса, перспективы и композиционной организации.

Ключевые слова: сравнительное литературоведение, каракалпакская поэзия, английская поэзия, экопоэтика, лирическая композиция, тематический параллелизм, Аральское море, Элис Освальд, Ибрайим Юсупов, экологическая память.

Annotatsiya. Mazkur maqolada zamonaviy qoraqalpoq va ingliz she'riyatida inson va tabiat munosabatlari, ekologik inqiroz hamda tarixiy xotira tasviri orqali tematik parallellik va lirik kompozitsiyaning transformatsiyasi tadqiq etiladi. Xususan, Orol dengizi ekologik fojiasi bilan bog'liq Ibrayim Yusupov, T. Matmuratov va X. Davletnazarov she'riyati, shuningdek, Elis Osvald ijodida daryolar, suv, landshaft va insondan tashqari borliq subyektligining ekopoetik ifodalanishiga alohida e'tibor qaratiladi. Tadqiqotda qiyosiy-tipologik, matnni yaqin o'qish (close reading) va strukturaviy yondashuvlardan foydalanilib, lirik ovoznining tashkil etilishi, poetik obrazlar, tematik rivojlanish hamda kompozitsion tuzilishdagi o'xshash va farqli jihatlar tahlil qilinadi. Tahlil natijalari shuni ko'rsatadiki, har ikkala poetik an'ana ham tabiatni inson tajribasining passiv foni sifatida tasvirlashdan chekinib, uni insoniy tajriba va jamoaviy xotiraning faol ishtirokchisi sifatida namoyon etadi. Biroq lirik kompozitsiyaning transformatsiyasi ikki an'anada turlicha amalga oshadi. Qoraqalpoq she'riyatida ekologik tajriba, odatda, tabiiy obrazdan shaxsiy iztirob va jamoaviy milliy fojiaga tomon yo'naluvchi konsentrlashgan lirik harakat asosida tashkil etiladi, Osvald she'riyatida esa lirik ovoz ko'pincha insoniy va insondan tashqari unsurlar o'rtasida taqsimlanib, polifonik va harakatchan kompozitsion tuzilmani yuzaga keltiradi. Qiyosiy tahlil ekologik mavzu nafaqat tematik o'xshashliklarni, balki poetik shakl, ovoz, nuqtayi nazar va kompozitsion tashkil etilishdagi muhim transformatsiyalarni ham yuzaga keltirishini ko'rsatadi.

Kalit so'zlar: qiyosiy adabiyotshunoslik, qoraqalpoq she'riyati, ingliz she'riyati, ekopoetika, lirik kompozitsiya, tematik parallellik, Orol dengizi, Elis Osvald, Ibrayim Yusupov, ekologik xotira.

INTRODUCTION

Poetry has traditionally served as a means of representing the relationship between human beings and the natural world. Although literary traditions develop within different historical, geographical, and cultural contexts, the interaction between humanity and nature remains one of the most persistent themes in world poetry. Natural landscapes can function not only as settings for

human experience but also as symbols of memory, identity, loss, cultural continuity, and ecological crisis.

This relationship acquires particular significance in Karakalpak poetry because the ecological transformation of the Aral Sea has become inseparable from the historical and spiritual experience of the Karakalpak people. The Aral Sea is represented not simply as a geographical space but as a cultural landscape associated with collective memory, livelihood, national identity, and existential anxiety. In the poetry of Ibrayim Yusupov, T. Matmuratov, and Kh. Dawletnazarov, the disappearance of the sea becomes a poetic representation of both environmental destruction and human suffering.

A similar transformation of the representation of nature can be observed in contemporary English poetry. In modern ecopoetry, nature increasingly ceases to function merely as a picturesque background and becomes an active participant in the poetic process. This tendency is particularly evident in the poetry of Alice Oswald, whose works frequently explore rivers, water, landscape, ecological processes, and the relationship between human and non-human voices.

Despite these thematic similarities, the two traditions construct ecological experience through different poetic and compositional strategies. Karakalpak poetry frequently gives ecological catastrophe a collective and national dimension, while Oswald's poetry tends to decentralize the human lyrical subject and allow landscape, water, and other non-human elements to participate in the construction of meaning.

The comparison of these traditions therefore makes it possible to examine not only thematic similarity but also the transformation of lyrical composition under the influence of ecological consciousness.

The aim of this study is to identify thematic parallels and compositional transformations in Karakalpak and English ecological poetry, focusing particularly on the representation of human–nature relations, ecological memory, lyrical voice, and poetic structure.

The study seeks to:

1. identify major thematic parallels between selected Karakalpak and English poems;
2. examine the representation of nature as an active poetic subject;
3. analyze the relationship between ecological crisis and collective/historical memory;
4. compare the organization of lyrical voice in the selected works;
5. identify transformations in lyrical composition associated with ecopoetic thinking.

METHODOLOGY

The research employs a comparative-typological approach combined with close textual reading and structural analysis. Selected poems by Ibrayim Yusupov, T. Matmuratov, and Kh. Dawletnazarov are compared with selected works by contemporary English poet Alice Oswald.

The analysis focuses on five major parameters:

1. theme — the representation of nature, ecological crisis, and memory;
2. poetic image — the symbolic and aesthetic representation of water, sea, river, desert, and landscape;
3. lyrical subject — the position and function of the human speaker;
4. composition — the organization of images, voices, temporal movement, repetition, and rhetorical structures;
5. ecological perspective — the degree to which nature is represented as passive scenery or as an active participant in meaning-making.

The study does not attempt to establish direct literary influence between Karakalpak poets and Alice Oswald. Instead, it examines typological similarities that emerge from comparable poetic responses to ecological and cultural realities.

The relationship between human beings and nature constitutes the central thematic connection between the selected poetic traditions. In Karakalpak poetry, the Aral Sea functions simultaneously as a natural object, cultural symbol, and repository of collective memory. Its disappearance consequently represents a loss that extends beyond the physical environment.

Ibrayim Yusupov's poetic representation of the Aral Sea illustrates this transformation. The poet addresses the sea directly, turning the natural landscape into a lyrical interlocutor:

<i>Aral,</i>		<i>your</i>		<i>waves,</i>
<i>Are</i>	<i>surging</i>	<i>within</i>	<i>my</i>	<i>chest.</i>
<i>Your</i>	<i>shores</i>	<i>left</i>	<i>without</i>	<i>water,</i>
<i>Are tearing my heart apart...</i>				

The sea is not described from a detached external perspective. Instead, the poet establishes an intimate relationship between the physical condition of the sea and the emotional condition of the lyrical speaker. The external landscape becomes an extension of the speaker's inner world. The rhetorical question:

Where has such a glorious era gone?

introduces temporal contrast between the remembered past and the devastated present. Thus, the natural image acquires a historical dimension. The Aral Sea becomes a symbol of a lost past and a source of collective memory.

A comparable transformation occurs in Alice Oswald's poetry, although the underlying poetic strategy is different. In *Dart* (2002), the river is presented as a complex ecological and cultural system through which numerous human and non-human voices interact. The river is not merely the setting of the poem; it becomes an organizing principle of the entire poetic composition.

The movement of the river provides the poem with a structural model. Water flows from source toward the sea, while voices, memories, occupations, and observations are incorporated into this movement. The river consequently becomes both subject and compositional framework.

The two poetic traditions therefore share an understanding of water as more than a physical element. Water becomes a carrier of memory, identity, history, and human–nature relations.

The ecological tragedy of the Aral Sea occupies a distinctive position in modern Karakalpak cultural consciousness. The sea's disappearance is associated with environmental degradation, desertification, changes in traditional livelihoods, and profound psychological and cultural consequences.

In T. Matmuratov's poetic treatment of the Aral tragedy, the environmental transformation becomes a form of collective suffering. The receding water, desert landscape, and salt-dust storms acquire emotional and symbolic meanings. The transformation of the geographical landscape is simultaneously represented as a transformation of the cultural landscape.

The rhetorical question concerning who will hear the sea's "bitter voice" is particularly significant because it transforms ecological description into an ethical appeal. The sea becomes capable of "speaking," while the human world is placed in the position of a listener who has failed to respond.

This poetic strategy can be described as personification of ecological memory. Nature remembers the past, suffers in the present, and implicitly questions the future.

Kh. Dawletnazarov's treatment of life and landscape can likewise be considered within the broader Karakalpak poetic tendency to connect natural imagery with human experience. In this tradition, landscape is rarely neutral. The desert, river, sea, and steppe carry cultural and emotional meanings that connect individual experience with collective memory.

Alice Oswald's ecopoetics presents a somewhat different model of the relationship between human beings and nature. Rather than representing nature primarily through human emotional experience, Oswald frequently attempts to redistribute poetic attention between human and non-human elements.

In *Dart*, the river provides the central structural and thematic principle. Human voices associated with the river — fishermen, swimmers, boatmen, walkers, and other inhabitants — are combined with the movement and sound of the river itself.

The poem therefore develops a polyphonic structure. Instead of a single stable lyrical speaker, the reader encounters a succession of voices and perspectives connected by the river. The river can consequently be understood as a compositional agent. Its movement determines the organization of the poem in much the same way that narrative movement determines the organization of a

conventional poem. The river's journey creates continuity between otherwise separate voices and experiences.

The comparison demonstrates that ecological themes influence not only what poets write about but also how poems are structured.

In traditional lyric poetry, the lyrical subject often occupies a central position. Nature is observed by the speaker and interpreted through human emotion. In contemporary ecopoetry, however, the relationship may become more complex: nature itself can participate in the organization of the poetic voice. This transformation can be observed in the selected Karakalpak and English works. In Karakalpak poetry, ecological composition is generally characterized by a strong lyrical center. The poet's emotional response organizes the representation of the Aral Sea. The sea becomes a mirror of collective suffering.

One of the most important differences concerns the scale of ecological representation.

In Karakalpak poetry, the environmental tragedy of the Aral Sea is closely associated with national identity. The destruction of the sea means the destruction of a familiar cultural landscape and therefore becomes a metaphor for collective historical trauma.

In Oswald's poetry, ecological representation is less explicitly national. Her attention is directed toward processes of movement, water, sound, landscape, and the coexistence of different forms of life. The ecological perspective therefore becomes more decentralized and ecocentric.

Nevertheless, both approaches challenge the idea that nature exists merely as a passive object of human observation.

The Karakalpak poets transform the Aral Sea into a suffering cultural subject, while Oswald transforms the river into a dynamic participant in poetic communication.

This constitutes a significant point of thematic parallelism: nature becomes a bearer of meaning rather than merely a background for human action.

DISCUSSION

The comparative analysis indicates that thematic parallelism between Karakalpak and English ecological poetry is based on several common conceptual principles.

First, both traditions reject the purely decorative representation of nature. Natural elements carry psychological, cultural, historical, and ethical meanings.

Second, water occupies a central position in both traditions. The Aral Sea and the Dart River differ greatly in historical and geographical context, but both become organizing symbols through which poets explore human relationships with the environment.

Third, both traditions transform the lyrical function of nature. The natural world becomes capable of "speaking" through personification, sound, movement, memory, and poetic structure.

Fourth, ecological themes influence lyrical composition. The structure of the poem increasingly reflects the movement of natural processes. In Oswald, the movement of water becomes a model for poetic organization, while in Karakalpak poetry the transformation of the landscape becomes a model for the movement from personal emotion toward collective historical reflection.

At the same time, the comparison reveals an important distinction. Karakalpak poetry tends to retain a strong human and collective lyrical center because the ecological catastrophe is inseparable from the historical fate of the people. Oswald's poetry, by contrast, more radically decentralizes the human subject and creates a polyphonic ecological structure. Therefore, thematic similarity does not eliminate cultural specificity. Instead, universal ecological concerns are refracted through different historical experiences, cultural memories, and poetic traditions.

CONCLUSION

The comparative analysis of modern Karakalpak and English ecological poetry demonstrates that thematic parallelism emerges from a shared concern with the relationship between human beings and the natural environment. In the poetry of Ibrayim Yusupov, T. Matmuratov, and Kh. Dawletnazarov, the Aral Sea and surrounding landscapes function as symbols of ecological destruction, cultural memory, and collective suffering. In Alice Oswald's poetry, particularly *Dart*,

water and landscape acquire greater autonomy and become active components of poetic communication.

The most significant parallel is the transformation of nature from a passive background into an active bearer of meaning. However, the compositional realization of this principle differs between the two traditions. Karakalpak poetry generally organizes ecological experience through a movement from natural image to personal emotion, collective memory, and national trauma. Oswald's poetry tends to employ fluid, fragmented, and polyphonic structures in which human and non-human voices interact.

Thus, the transformation of lyrical composition reflects a broader transformation in ecological consciousness. The lyrical subject is no longer necessarily positioned as the sole center of poetic perception; instead, landscape, water, memory, and non-human agency increasingly participate in the production of meaning. At the same time, the Karakalpak poetic response demonstrates that ecopoetics can remain deeply connected with national history and collective identity.

The comparison therefore suggests that ecological poetry represents both a universal literary phenomenon and a culturally specific form of artistic expression. The shared theme of human–nature interaction produces different compositional models depending on the historical, cultural, and ecological experience of each literary tradition.

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NEMIS VA O'ZBEK TILLARIDA EPITETNING USLUBIY QO'LLANISHI

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Annotatsiya. Epitet badiiy nutqning eng qadimiy va eng barqaror tasviriy vositalaridan biri bo'lib, uning tabiati til tuzilishi, poetik an'ana va milliy dunyoqarash kesishmasida shakllanadi. Shu bois turli tizimli tillarda epitetning qo'llanishini qiyosiy o'rganish stilistika va lingvopoetikaning dolzarb vazifalaridan hisoblanadi. Maqolaning maqsadi nemis va o'zbek tillarida epitetning strukturaviy, semantik va funksional xususiyatlarini aniqlash hamda ikki tildagi uslubiy qo'llanishning izomorf va alloform belgilarini belgilashdan iborat. Material sifatida ikki tilning umumadabiy leksik qatlami, barqaror obrazli birikmalari, folklor formulalari hamda lug'atlarda qayd etilgan an'anaviy sifatlash birikmalari olindi. Tadqiqotda tavsifiy, komponent, strukturaviy, qiyosiy-tipologik va lingvokulturologik metodlar qo'llanildi. Natijada epitetning to'rt o'lchovli tavsif modeli taklif etildi: strukturaviy tasnif (nemis tilida beshta, o'zbek tilida oltita model), semantik-obrazli tasnif (olti tur), funksional tasnif (besh vazifa) va milliy-madaniy motivatsiya darajasi.

Kalit so'zlar: epitet, sifatlash, stilistika, lingvopoetika, badiiy nutq, obrazlilik, doimiy epitet, metaforik epitet, qiyosiy tipologiya, nemis tili, o'zbek tili, badiiy tarjima.

Аннотация. Эпитет представляет собой одно из древнейших и наиболее устойчивых изобразительных средств художественной речи, природа которого формируется на пересечении языкового строя, поэтической традиции и национального мировосприятия. Именно поэтому сопоставительное изучение употребления эпитета в разнотипных языках относится к актуальным задачам стилистики и лингвопоэтики. Цель статьи выявить структурные, семантические и функциональные характеристики эпитета в немецком и узбекском языках и определить изоморфные и алломорфные признаки его стилистического употребления. Материалом послужили общелитературный лексический пласт обоих языков, устойчивые образные словосочетания, фольклорные формулы, а также

традиционные атрибутивные сочетания, зафиксированные в словарях. В исследовании применены описательный, компонентный, структурный, сопоставительно-типологический и лингвокультурологический методы. В результате предложена четырёхмерная модель описания эпитета: структурная классификация (пять моделей в немецком и шесть в узбекском языке), семантико-образная классификация (шесть типов), функциональная классификация (пять функций) и уровень национально-культурной мотивированности.

Ключевые слова: эпитет, стилистика, лингвопоэтика, художественная речь, образность, постоянный эпитет, метафорический эпитет, сопоставительная типология, немецкий язык, узбекский язык, художественный перевод.

Abstract. The epithet is among the oldest and most persistent figurative devices of literary discourse, and its nature is shaped at the intersection of linguistic structure, poetic tradition and national worldview. For this reason, a contrastive study of epithet usage in structurally different languages ranks among the pressing tasks of stylistics and linguopoetics. The aim of the article is to identify the structural, semantic and functional properties of the epithet in German and Uzbek and to establish the isomorphic and allomorphic features of its stylistic use. The material comprises the general literary lexical layer of both languages, fixed figurative collocations, folklore formulas and traditional attributive combinations recorded in dictionaries. Descriptive, componential, structural, contrastive-typological and linguocultural methods were applied. The study proposes a four-dimensional descriptive model of the epithet: structural classification (five models in German and six in Uzbek), semantic-figurative classification (six types), functional classification (five functions) and degree of national-cultural motivation.

Keywords: epithet, stylistics, linguopoetics, literary discourse, figurativeness, fixed epithet, metaphorical epithet, contrastive typology, German, Uzbek, literary translation.

KIRISH

Badiiy nutqning tasviriy vositalari orasida epitet o'zining qadimiyligi va universalligi bilan alohida o'rin egallaydi. U og'zaki ijodning eng erta bosqichlaridayoq shakllangan va keyinchalik yozma adabiyotga barqaror formula sifatida o'tgan. Poetik an'ana tarixiga oid tadqiqotlarda epitet obrazli tafakkurning eng ilk til ko'rinishlaridan biri sifatida baholanadi (Veselovskiy, 1940). Aynan shu qadimiyligi uni tillararo qiyoslash uchun qulay ob'ektga aylantiradi: bir xil universal vosita turli tillarda turlicha grammatik qolipda voqelanadi va shu tafovutda tilning tipologik tabiati hamda milliy poetik an'anasini namoyon bo'ladi.

Nemis va o'zbek tillari qiyosi bu jihatdan ayniqsa ko'rsatkichlidir, chunki ular tipologik jihatdan bir-biridan uzoq: nemis tili flektiv-analitik belgilarni birlashtirgan, so'z yasashda kompozitsiyaga keng tayanadigan til; o'zbek tili esa agglyutinativ tuzilishga ega bo'lib, qo'shimchalar tizimi orqali yangi ma'no nozikliklarini hosil qiladi. Shu bois bir xil obrazli mazmun ikki tilda turli grammatik vositalar bilan ifodalanadi va bu tafovut badiiy tarjimada bevosita sezilib turadi.

Muammoning amaliy tomoni ham mavjud. O'zbekistonda nemis tili filologiyasi va tarjimashunosligining rivojlanishi nemis adabiyotini bevosita asl nusxadan o'girish amaliyotini kengaytirmoqda. Ammo tarjimon epitetni ko'chirishda ikki qiyinchilikka duch keladi: birinchidan, nemischa murakkab sifatlarning (schneeweiß, blutrot, eiskalt) o'zbek tilida bir so'zli muqobili yo'q; ikkinchidan, epitetning obrazli asosi ko'pincha milliy madaniy tasavvurga bog'langan bo'lib, uni so'zma-so'z o'girish mazmun buzilishiga olib keladi. Shu sabab epitetning ikki tildagi uslubiy qo'llanishini tizimli tavsiflash nazariy jihatdan ham, amaliy jihatdan ham zarur.

Mavzuning o'rganilganlik darajasiga kelsak, epitet nemis stilistikasida yaxshi tavsiflangan kategoriyalardan biridir: uning ta'rifi, turlari va matndagi vazifalari klassik uslubshunoslik qo'llanmalarida batafsil yoritilgan (Riesel & Schendels, 1975; Fleischer & Michel, 1975; Sowinski, 1991). Umumnazariy jihatdan esa epitetning tarixiy-poetik tabiati va formulalilik xususiyati alohida tadqiq etilgan (Veselovskiy, 1940), matndagi obrazli vositalar tizimidagi o'rni esa adabiyot nazariyasi va lingvopoetikaga oid ishlarda ko'rsatilgan (Wellek & Warren, 1949; Leech, 1969; Galperin, 1977). Shunga qaramay, nemis va o'zbek tillari materiali qiyoslangan holda epitetning strukturaviy,

semantik va funksional xususiyatlarini yaxlit modelda birlashtirishga qaratilgan tadqiqotlar hozircha yetarli emas. Aynan shu bo'shliq mazkur ishning nazariy o'rmini belgilaydi.

Tadqiqot quyidagi ilmiy muammoni hal etishga qaratilgan: nemis va o'zbek tillarida epitet qanday strukturaviy, semantik va funksional modellarda voqelanadi hamda bu modellarning tillararo mos kelishi va farqlanishi nimalarda ko'rinadi?

Muammoning murakkabligi shundaki, epitet an'anaviy stilistikada ko'pincha faqat bir jihatdan obrazli sifatlash sifatida ta'riflanadi. Bunday bir tomonlama tavsif esa uning tildagi maqomini to'liq ochib bermaydi. Masalan, o'zbek tilidagi oy yuzli birikmasi bir vaqtning o'zida tuzilishiga ko'ra affiks-kompozit model, obrazli asosiga ko'ra o'xshatishga tayangan metaforik epitet, vazifasiga ko'ra portret yaratuvchi vosita, madaniy motivatsiyasiga ko'ra esa Sharq poetik an'anasiga xos milliy-marker birlikdir. Bu to'rt tavsif bir-birini inkor qilmaydi, balki to'ldiradi.

Shundan kelib chiqib, tadqiqotning maqsadi epitetni bir vaqtning o'zida bir necha o'lchovda tavsiflay oladigan qiyosiy model ishlab chiqish. Vazifalar quyidagilardan iborat: epitetning oddiy aniqlovchidan farqlovchi belgilarini aniqlashtirish; ikki tildagi strukturaviy modellarni belgilash; semantik-obrazli turlarni ajratish; matndagi vazifalarini tasniflash; milliy-madaniy motivatsiya darajasini baholash va tarjimaviy muvofiqlik masalasini yoritish.

Tadqiqot ob'ekti nemis va o'zbek tillaridagi epitet birikmalari; predmeti esa ularning strukturaviy, semantik, funksional xususiyatlari va tillararo muvofiqlik munosabatlaridir. Ishning ilmiy yangiligi epitetni to'rt koordinatada joylashtiruvchi qiyosiy tavsif sxemasining taklif etilishida ko'rinadi.

METODOLOGIYA

Tahlil uchun material ikki tilning quyidagi qatlamlaridan yig'ildi: umumadabiy tildagi barqaror obrazli birikmalar; folklor matnlariga xos an'anaviy sifatlash formulalari; izohli va uslubiy lug'atlarda qayd etilgan turg'un atributiv birikmalar; ikki tilda keng tanilgan xalq ertaklari va dostonlaridagi doimiy epitetlar. Material tanlashda ataylab til darajasidagi va folklor an'anasiga oid barqaror birliklarga tayanildi, chunki aynan shunday birliklar u yoki bu muallifning individual uslubiga emas, balki tilning umumiy poetik imkoniyatlariga guvohlik beradi. Ayrim muallif matnlaridan olingan individual epitetlar tahlilga tortilmadi; bu tadqiqotning ongli ravishda belgilangan chegarasi bo'lib, keyingi bosqichda muayyan yozuvchilar idiositili materialida kengaytirilishi mumkin.

Tavsifiy metod yordamida har bir epitet birikmasining leksik tarkibi, grammatik shakli, obrazli asosi va uslubiy bo'yog'i qayd etildi. Bu metod qiyoslash uchun bir xil parametrlar to'plamini ta'minlaydi.

Komponent tahlil epitetning ma'no tarkibini differensial semalarga ajratishga xizmat qildi. Bu, xususan, epitetning oddiy aniqlovchidan farqini aniqlashda muhim: kaltes Wasser ("sovuq suv") birikmasida "sovuq" semasi denotativ va ob'ektiv, kaltes Lächeln ("sovuq tabassum") birikmasida esa u konnotativ va baholovchi xarakterga ega. Aynan konnotativ semaning yetakchi mavqega chiqishi aniqlovchini epitetga aylantiradi.

Strukturaviy tahlil epitetlarning grammatik modellarini ajratishga qaratildi. Nemis tilida sifat + ot, murakkab sifat + ot, sifat-dosh + ot, genitiv birikma va predikativ konstruktsiya modellari; o'zbek tilida esa sifat + ot, sifat-dosh + ot, -li/-siz affiksli yasama, izofa, juft so'zli va o'xshatish qo'shimchali modellar kuzatildi.

Qiyosiy metod ikki til materialini juftlikda tekshirishga imkon berdi. Taqqoslash uchun darajada olib borildi: obrazli asos darajasida (qaysi belgi obrazga aylanadi), grammatik voqelanish darajasida (obraz qanday shaklda beriladi) va uslubiy qiymat darajasida (birikma qanday emotsional-baholovchi ta'sir hosil qiladi).

Bu metod epitetning obrazli asosidagi milliy-madaniy tasavvurni ochishga qaratildi. Rang, tabiat hodisalari, hayvonot va o'simlik olamiga oid obrazlar har ikki tilda ham keng tarqalgani bois, aynan shu guruhlar madaniy tafovutlarni ko'rsatuvchi asosiy maydon sifatida tanlandi.

NATIJALAR

Tahlilning boshlang'ich nuqtasi epitetni oddiy aniqlovchidan chegaralashdir. Stilistikaga oid ishlarda epitet obrazli, subyektiv-baholovchi aniqlovchi sifatida ta'riflanadi (Riesel & Schendels, 1975; Galperin, 1977). Ushbu ta'rifdan uchta chegaralovchi mezon kelib chiqadi.

Birinchi mezon belgi tanlovining subyektivligi. Oddiy aniqlovchi predmetning ob'ektiv, o'lchanadigan belgisini bildiradi (ein hölzerner Tisch yog'och stol; temir darvoza), epitet esa muallif nuqtai nazarini singdiradi (ein trauriger Tisch g'amgin stol; shafqatsiz darvoza).

Ikkinchi mezon konnotativ semaning ustunligi. Epitetda baholovchi va emotsional sema denotativ semadan ustun keladi. Schwarzes Haar ("qora soch") birikmasida "qora" ob'ektiv rangni bildiradi; schwarze Gedanken ("qora o'ylar") birikmasida esa u faqat baho ifodalaydi. O'zbek tilida ham xuddi shu qarama-qarshilik kuzatiladi: qora sochli tavsif, qora niyat baho.

Uchinchi mezon ortiqchalik (redundantlik) mezoni. Epitet ko'pincha predmetning tarkibida allaqachon mavjud belgini takrorlaydi va aynan shu takror uni ekspressiv qiladi. Nemis folklorida das grüne Gras ("yashil o't"), o'zbek folklorida oq oy birikmalari mantiqan yangi axborot bermaydi, biroq matnga an'anaviy poetik ohang beradi.

Nemis tilida. Tahlil beshta asosiy modelni ajratish imkonini berdi.

1) Sifat + ot modeli eng oddiy va eng chastotali qolip: stille Nacht, dunkler Wald, bittere Wahrheit, goldene Zeit. Nemis tilining flektiv tabiati tufayli sifat kelishik, son va rod bo'yicha aniqlanmish bilan moslashadi, artikl esa qo'shimcha grammatik axborot tashiydi. Bu o'zbek tilida umuman mavjud bo'lmagan jihat.

2) Murakkab sifat + ot modeli nemis tilining eng o'ziga xos vositasi. Bunda ikki o'zak bir leksemaga birikadi va natijada nihoyatda zich obraz hosil bo'ladi: schneeweiß (qordek oq), kohlrabenschwarz (qopqora), blutrot (qonday qizil), himmelblau (osmonday ko'k), eiskalt (muzday sovuq), blitzschnell (chaqmoqdek tez). Ushbu modelning mohiyati shundaki, u aslida qisqargan o'xshatishdir: birinchi komponent qiyoslash etaloni, ikkinchisi esa belgi nomidir.

3) Sifatdosh + ot modeli harakat belgisini obrazga aylantiradi: ein sterbendes Licht (so'nayotgan yorug'lik), das rauschende Meer (shovullayotgan dengiz). Nemis tilida sifatdoshning sifat kabi to'liq turlanishi bu modelni juda mahsuldor qiladi.

4) Genitiv (qaratqichli) birikma modeli yuksak uslub belgisi sifatida qo'llanadi: die Stille des Waldes, der Atem des Todes. Bunda obraz sifat orqali emas, ot birikmasi orqali beriladi.

5) Predikativ model epitetni kesim tarkibiga chiqaradi: Die Nacht war schwarz und endlos. Bu model epitetning kuchaytirilgan, mustaqillashgan ko'rinishidir.

O'zbek tilida. Bu yerda oltita model qayd etildi.

1) Sifat + ot modeli: shirin so'z, achchiq haqiqat, og'ir sukunat, quyuq zulmat. Nemis tilidan farqli o'laroq, sifat hech qanday moslashuv ko'rsatkichini olmaydi bu agglyutinatativ tuzilishning bevosita natijasi.

2) Sifatdosh + ot modeli: so'layotgan bahor, quriyotgan daraxt, yonayotgan yurak. Model nemis tilidagi mos qolipga funksional jihatdan to'liq muvofiq keladi.

3) -li/-siz affiksli yasama model o'zbek tilining eng mahsuldor epitet vositalaridan biri: oy yuzli, qiyiq qoshli, shahlo ko'zli, shirin tilli, toshbag'irli, beg'ubor, bemehr. Bu model nemis tilidagi murakkab sifat modeliga funksional jihatdan mos keladi, ammo vosita tabiati boshqacha: nemis tilida ikki o'zak qo'shiladi, o'zbek tilida esa birikmaga so'z yasovchi affiks qo'shiladi.

4) Izofa (qaratqichli) modeli: ko'ngil ko'zgusi, umr bahori, hayot yo'li. Model, asosan, kitobiy va yuksak uslubga xos.

5) Juft so'zli model: qari-qartang, ozg'in-nimjon, keng-mo'l. Juft so'zning ikkinchi komponenti odatda birinchisini kuchaytiradi yoki ma'noni umumlashtiradi, natijada baho ifodasi ortadi.

6) O'xshatish affiksli model (-day/-dek, -simon, kabi, singari): qordek oq, oydek go'zal, toshdek qattiq, chaqmoqdek tez. Aynan bu model nemischa murakkab sifatlarning eng tabiiy o'zbekcha muqobili hisoblanadi.

MUHOKAMA

Tipologik tafovutning uslubiy oqibatlari. Olingan natijalar ikki tildagi eng sezilarli farq obrazlar tizimida emas, balki obrazning grammatik qadoqlanishida ekanini ko'rsatdi. Nemis tili kompozitsiya hisobiga obrazni bir so'z ichiga siqadi va shu yo'l bilan yuqori ekspressiv zichlikka erishadi; o'zbek tili esa obrazni analitik konstruksiyaga yoyadi. Bu farq badiiy matnning ritmiga bevosita ta'sir qiladi: nemischa she'riy satrda bir bo'g'inli-qo'shma epitets ritmik birlik sifatida ishlaydi, uning o'zbekcha yoyiq muqobili esa satrni cho'zadi. Shu sababli she'riy tarjimada tarjimon ko'pincha obrazni saqlash bilan ritmni saqlash o'rtasida tanlov qilishga majbur bo'ladi.

Agglyutinatsiya va epitet yasashi. Alohida e'tiborga loyiq jihat o'zbek tilining agglyutinatív tuzilishi epitet yasashda qanday imkoniyat berishidir. -li affiksi predmetga belgining mavjudligini, -siz affiksi esa uning yo'qligini bildirar ekan, ular bir xil o'zakdan qarama-qarshi baholi epitet juftliklarini hosil qiladi: mehrli mehrsiz, g'ayratli g'ayratsiz, e'tiborli e'tiborsiz. Nemis tilida bu vazifani -voll va -los elementlari bajaradi (liebevoll lieblos, sinnvoll sinnlos), ya'ni ikki tilda funksional jihatdan bir xil, ammo tabiatan turlicha vositalar ishlaydi: o'zbek tilida sof affiks, nemis tilida esa mustaqil so'zdan kelib chiqqan yarim affiks. Bu parallelizm tipologik jihatdan uzoq tillarda ham bir xil uslubiy ehtiyoj o'xshash struktur yechim topishini ko'rsatadi.

Metaforik va sinestetik epitetlarda kuzatilgan yuqori mos kelish tasodifiy emas. Stilistika va lingvopoetikaga oid ishlarda ta'kidlanganidek, obrazli nominatsiya asosida ko'pincha inson tanasining jismoniy tajribasi harorat, og'irlik, qattiqlik, ta'm yotadi (Fleischer & Michel, 1975). Bu tajriba madaniyatdan qat'i nazar umumiy bo'lgani uchun undan o'sib chiqqan epitetlar ham tillararo yaqin bo'ladi. Aksincha, obraz muayyan diniy, adabiy yoki maishiy an'anaga tayangan hollarda tafovut keskin ortadi.

Tahlil doimiy epitetlarni ekspressivligi past birliklar deb baholash noto'g'ri ekanini ko'rsatdi. Ularning vazifasi obraz yaratish emas, balki janr belgisini o'rnatish: oq oy yoki der kühne Held tipidagi formulalar tinglovchiga matnning folklor an'anasiga tegishli ekanini darhol bildiradi. Poetik an'ana tarixiga oid qarashlarda aynan shu formulalilik epitetning eng qadimiy funksiyasi sifatida ko'rsatiladi (Veselovskiy, 1940). Demak, bunday birliklarni tarjimada "ortiqcha" deb tushirib qoldirish matnning janr belgisini yo'qotadi.

Tadqiqot materiali til darajasidagi barqaror birliklarga tayangani sababli, olingan modellar umumtil imkoniyatlarini aks ettiradi. Muallif idiosstilida esa bu modellar o'zgacha to'ldiriladi: yozuvchi mavjud qolipni saqlagan holda unga kutilmagan leksik to'ldiruvchi kiritadi va shu yo'l bilan yangi epitet yaratadi. Shu ma'noda til modeli imkoniyat, individual epitet uning voqelanishidir. Ushbu munosabatni aniq material asosida tekshirish keyingi tadqiqotlarning istiqbolli yo'nalishi hisoblanadi.

Nemis tili filologiyasi yo'nalishida stilistika kursini o'qitishda epitet odatda faqat ta'rif va misollar orqali beriladi. Taklif etilayotgan to'rt o'lchovli model esa talabaga har bir birlikni tizimli tahlil qilish algoritmini beradi: tuzilishi qanday, obrazli asosi nima, matndagi vazifasi qanday, madaniy motivatsiyasi qay darajada. Bunday yondashuv, ayniqsa, tarjima amaliyoti mashg'ulotlarida samarali, chunki tarjimaviy qaror aynan shu to'rt parametrlar baholanganidan keyin qabul qilinadi.

Ishlab chiqilgan sxema epitetni bir o'lchovli ta'riflashdan ko'p o'lchovli tavsifga o'tishga imkon beradi. Har bir birlik to'rt koordinatada joylashtiriladi: strukturaviy model, semantik-obrazli tur, matndagi vazifa, madaniy motivatsiya darajasi. Masalan, nemischa schneeweiß birligi quyidagicha tavsiflanadi: murakkab sifat modeli qisqargan o'xshatishga asoslangan giperbolik tur tasviriy vazifa universal motivatsiya; uning o'zbekcha muqobili qordek oq esa o'xshatish affiksli model bir xil obrazli tur bir xil vazifa bir xil motivatsiya darajasiga ega. Ko'rinadiki, farq faqat birinchi koordinatada joylashgan, bu esa tarjimaviy qarorni asoslash uchun aniq lingvistik dalil beradi.

XULOSA

Nemis va o'zbek tillari materiali qiyoslanganda epitet ikki tilda ham grammatik emas, balki funksional kategoriya sifatida namoyon bo'lishi tasdiqlandi: bir so'z shakli kontekstga qarab goh oddiy aniqlovchi, goh obrazli sifatlash vazifasini bajaradi. Uni chegaralashning uch mezonini belgi

tanlovining subyektivligi, konnotativ semaning ustunligi va mantiqiy ortiqchalik har ikki tilda bir xil ishlaydi.

Strukturaviy jihatdan nemis tilida beshta, o'zbek tilida oltita model qayd etildi. Eng sezilarli tafovut shundaki, nemis tili obrazni kompozitsiya orqali bir leksema ichiga jamlaydi, o'zbek tili esa uni affiksatsiya va o'xshatish konstruksiyasi orqali yoyadi. Natijada nemischa bir so'zli epitet o'zbekchada ko'p komponentli birlikka aylanadi va bu tarjimada ekspressiv zichlikning pasayishiga olib keladi.

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O'ZBEK VA INGLIZ TILLARIDA IQTISODIY TERMINLARNING TARJIMA MUAMMOLARI

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Annotatsiya. Maqolada o'zbek va ingliz tillaridagi iqtisodiy terminlarni tarjima qilish muammolari tahlil qilinadi. Terminlarning kontekstual, semantik, grammatik, metaforik va lingvomadaniy xususiyatlari yoritilib, ularni to'g'ri tarjima qilish bo'yicha tavsiyalar beriladi.

Kalit so'zlar: iqtisodiy termin, tarjima, terminologiya, ekvivalentlik, kontekst, metafora, lingvomadaniyat.

Abstract. The article analyzes the main problems of translating economic terms between Uzbek and English. Contextual, semantic, grammatical, metaphorical, and linguocultural features of terms are examined, and practical translation recommendations are provided.

Keywords: economic term, translation, terminology, equivalence, context, metaphor, linguoculture.

Аннотация. В статье анализируются основные проблемы перевода экономических терминов между узбекским и английским языками. Рассматриваются контекстуальные, семантические, грамматические, метафорические и лингвокультурные особенности терминов, а также предлагаются рекомендации по их переводу.

Ключевые слова: экономический термин, перевод, терминология, эквивалентность, контекст, метафора, лингвокультура

Bugungi kunda iqtisodiy aloqalarning xalqaro miqyosda rivojlanishi iqtisodiy terminlarni to'g'ri va aniq tarjima qilish zaruratini oshirmoqda. O'zbek va ingliz tillaridagi iqtisodiy terminlar mazmuni, qo'llanish sohasi hamda lingvistik xususiyatlariga ko'ra bir-biridan farqlanishi mumkin. Shu sababli ularni tarjima qilishda kontekst, semantik ekvivalentlik, grammatik tuzilish va lingvomadaniy xususiyatlarni hisobga olish muhimdir. Mazkur maqolada iqtisodiy terminlar tarjimasida uchraydigan asosiy muammolar va ularni bartaraf etish yo'llari tahlil qilinadi.

Iqtisodiy terminning tarjima birligi sifatidagi xususiyatini belgilashda uni faqat so'z yoki birikma shaklida ko'rish yetarli emas. M. Nasibboyeva moliyaviy-iqtisodiy terminlarni iqtisodiy

bilim va tafakkurning til orqali ifodalangan verbalizatorlari sifatida izohlaydi. Ingliz tilidagi verbalizatorlar ko‘pincha ixcham, morfologik jihatdan sodda va semantik chegarasi nisbatan qat’iy birliklardan tashkil topadi. O‘zbek tilidagi muqobillar esa ko‘p hollarda birikmaviy tuzilishga ega bo‘lib, ayrim vaziyatlarda kengroq konnotativ mazmunni ham qamrab oladi. Demak, ikki tildagi birliklar bir xil iqtisodiy obyektni nomlasa ham, ularning shakliy qurilishi va mazmuniy chegaralari aynan bir xil bo‘lmasligi mumkin. Masalan, ingliz tilidagi *asset*, *liability*, *bond*, *equity* va *debt* terminlari iqtisodiy-moliyaviy diskursda qat’iy tushunchaviy chegaralarga ega. Ularning o‘zbek tilidagi *aktiv*, *majburiyat*, *obligatsiya*, *kapital* va *qarz* muqobillari umumiy jihatdan mos kelsa-da, ayrimlari boshqa kontekstlarda umumiste‘mol ma‘nosini ham ifodalashi mumkin. Xususan, *qarz* birligi kundalik muloqotda shaxslar o‘rtasidagi majburiyatni, moliyaviy hisobotda esa muayyan subyektning qaytarilishi lozim bo‘lgan moliyaviy majburiyatini bildiradi. Shuning uchun inglizcha *debt* terminini tarjima qilishda uning lug‘aviy ma‘nosi emas, balki qaysi moliyaviy munosabatni ifodalayotgani aniqlanishi kerak.

Bizningcha, iqtisodiy terminning tarjima birligi sifatidagi chegarasi uch tarkibiy qatlam orqali belgilanadi:

1. **Nominativ qatlam** – termin nomlayotgan iqtisodiy obyekt, jarayon yoki munosabat.
2. **Konseptual qatlam** – termin faollashtiradigan iqtisodiy bilimlar majmui.
3. **Diskursiv qatlam** – terminning muayyan matn va kommunikativ vaziyatdagi funksiyasi.

Ushbu qatlamlarning o‘zaro birligi tarjimada konseptual ekvivalentlikni ta‘minlaydi. Agar tarjimon faqat nominativ qatlamga tayansa, terminning ichki iqtisodiy mazmuni torayishi yoki kengayishi mumkin. Faqat konseptual o‘xshashlikka e‘tibor qaratilib, diskursiv vazifa hisobga olinmasa, muqobil iqtisodiy jihatdan to‘g‘ri, ammo muayyan matn uslubiga nomuvofiq bo‘lib qoladi.

Ingliz tilidagi iqtisodiy matnlarda umumiste‘mol leksikasi terminologik funksiyani bajarishi keng kuzatiladi. Bitta birlik kundalik nutqda bir ma‘noni, iqtisodiyot, bojxona, logistika yoki bank diskursida esa boshqa ma‘noni anglatishi mumkin. S. Yuldosheva va U. Turayeva iqtisodiy matnlarda *to run* fe‘li “yugurmoq” emas, balki korxona yoki biznesni “boshqarmoq” ma‘nosida ishlatilishini ko‘rsatadi. Xuddi shuningdek, *job losses* birikmasi komponentlari alohida tarjima qilinganda umumiy mazmun anglatasa-da, iqtisodiy matnda u mehnat bozoridagi ish o‘rinlarining qisqarishini ifodalaydi. Mazkur holatda tarjima xatosi ko‘pincha terminning birinchi lug‘aviy ma‘nosini avtomatik tanlash oqibatida yuzaga keladi. Inglizcha birlikning o‘zbekcha muqobili lug‘atdan topiladi, biroq uning matndagi semantik funksiyasi tekshirilmaydi. Natijada grammatik jihatdan to‘g‘ri bo‘lgan tarjima iqtisodiy axborotni buzadi. Tijorat va bojxona matnlarida *tag*, *articles*, *stowage*, *rejects* va *seizure* kabi birliklarning tarjimasi ushbu muammoni yanada aniq ko‘rsatadi. *Tag* umumiy kontekstda “yorliq”, bojxona yoki tovarlarni belgilash jarayonida “birka” ma‘nosini bildirishi mumkin. *Articles* so‘zi “maqolalar” ma‘nosidan tashqari, bojxona va yuk tashish matnlarida “buyumlar” yoki “tovar birliklari” ma‘nosida qo‘llanadi. *Stowage* yukni joylashtirish jarayoni, taxlash usuli yoki yuk saqlanadigan joyni anglatishi mumkin. *Seizure* esa huquqiy-bojxona diskursida “musodara qilish”, boshqa kontekstlarda “egallash” yoki “bosib olish” mazmunini ifodalaydi. Keltirilgan misollar iqtisodiy terminning ma‘nosi alohida so‘z doirasida emas, balki termin kirgan subsoha va vaziyat doirasida aniqlanishini ko‘rsatadi. Shu bois iqtisodiy terminlarning tarjimasida quyidagi kontekst turlarini farqlash maqsadga muvofiq:

1-jadval.

O‘zbek va ingliz tillaridagi iqtisodiy terminlar tarjimasida aniqlangan asosiy muammolar, ularning oqibatlari va yechim yo‘llari

Kontekst turi	Aniqlanadigan jihat	Tarjima qaroriga ta’siri
Leksik kontekst	Termin bilan birga kelgan so‘zlar	Polisemantik birlikning kerakli ma‘nosini ajratadi
Sintaktik kontekst	Termin gapda bajarayotgan vazifa	Grammatik transformatsiyani belgilaydi
Sohaviy kontekst	Bank, soliq, bojxona, marketing yoki logistika sohasi	Sohaga xos muqobilni tanlash imkonini beradi

Institutsional kontekst	Termin qoʻllangan hujjat va tashkilot turi	Rasmiy yoki amaliy variantni tanlaydi
Pragmatik kontekst	Matnning maqsadi va auditoriyasi	Izohli, ixcham yoki normativ tarjima zaruratini belgilaydi

Jadvaldagi mezonlar terminning lugʻaviy maʼnosi tarjima qarorining yagona asosi boʻla olmasligini tasdiqlaydi. Masalan, *seizure* terminining huquqni muhofaza qiluvchi organ faoliyatiga oid matnda “musodara”, tibbiy matnda esa mutlaqo boshqa tushunchani anglatishi mumkin. Demak, tarjimon dastlab terminning predmet sohasini aniqlashi, undan keyingina muqobil tanlashi kerak.

Tarjimada ekvivalentlik koʻpincha ikki tildagi birliklarning lugʻaviy maʼnolari mosligi sifatida tushuniladi. Biroq iqtisodiy terminologiyada lugʻaviy moslik har doim ham konseptual tenglikni taʼminlamaydi. Yuldosheva va Turayeva alohida soʻz yoki ibora darajasida erishilgan ekvivalentlik butun matnning adekvat tarjimasini kafolatlamasligini qayd etadi. Matn qismlari shakliy jihatdan mos tarjima qilingan boʻlsa ham, ular oʻrtasidagi mantiqiy va pragmatik munosabat buzilishi mumkin. Kognitiv nuqtayi nazardan ekvivalentlik ikki tildagi terminlarning bir xil yoki oʻzaro yaqin bilim tuzilmasini faollashtirishi bilan belgilanadi. Masalan, *capital* termini kapitalning turi, iqtisodiy subsoha va matn vazifasiga qarab “kapital”, “mablagʻ”, “sarmoya” yoki ayrim birikmalarda boshqa muqobillar orqali ifodalanishi mumkin. Bitta variantni barcha kontekstlarga tatbiq etish konseptual chegaralarning buzilishiga olib keladi.

M. Nasibboyeva inglizcha *capital*, *margin* va *leverage* terminlari iqtisodiyotning turli subdomenlarida farqli semantik yuklamaga ega ekanini koʻrsatadi. Masalan, *margin* savdoda narxlar oʻrtasidagi farqni, moliyaviy hisobotda foydalilik koʻrsatkichini, kredit munosabatlarida esa taʼminot yoki garov bilan bogʻliq talabni ifodalashi mumkin. Terminni barcha holatda bitta umumiy muqobil bilan berish uning muayyan matndagi tushunchaviy mazmunini noaniqlashtiradi.

Shunga koʻra, tarjima ekvivalentligini uch darajada baholash taklif etiladi:

1. **Toʻliq konseptual muvofiqlik** – ikki tildagi terminlarning semantik yadrosi, qamrovi va sohaga oid vazifasi mos keladi.

2. **Qisman konseptual muvofiqlik** – semantik yadrosi mos, lekin qoʻllanish doirasi yoki ayrim farqlovchi belgilari tafovut qiladi.

3. **Variantli konseptual muvofiqlik** – oʻzbekcha yoki inglizcha termin uchun kontekstga qarab bir nechta muqobil tanlanadi.

4. **Izohli muvofiqlik** – tayyor muqobil mavjud emasligi sababli tushuncha tavsifiy shaklda beriladi.

Bunday tasnif terminning tashqi shakliga emas, u ifodalaydigan iqtisodiy bilimning qay darajada saqlanganiga asoslanadi. Tarjimon muqobilni tanlashdan oldin terminning konseptual yadrosi va chegaraviy belgilarini ajratishi lozim. Mazkur amal ayniqsa davlat moliyasi, soliq, bank, birja va raqamli iqtisodiyotga oid birliklarda muhimdir.

Ingliz va oʻzbek tillaridagi iqtisodiy terminlarning tarkibiy qurilishi bir xil emas. Ingliz tilida iqtisodiy tushunchalar koʻpincha ikki yoki uch komponentli atributiv birikmalar orqali ixcham ifodalanadi: *cash flow*, *market share*, *fiscal policy*, *debt obligation*. Oʻzbek tilida bunday birliklar *pul oqimi*, *bozor ulushi*, *fiskal siyosat*, *qarz majburiyati* shaklidagi birikmalar orqali beriladi. Ayrim hollarda komponentlar toʻgʻridan-toʻgʻri mos keladi; boshqa holatlarda esa inglizcha sintaktik modelni oʻzbek tilining grammatik meʼyorlariga muvofiq qayta qurish talab etiladi. Nasibboyeva ingliz tilidagi verbalizatorlarning qisqa va formallashtirilgan, oʻzbekcha birliklarning esa koʻproq birikmaviy ekanini taʼkidlaydi. Ingliz tilida murakkab otlar keng qoʻllansa, oʻzbek tilida ularning maʼnosi aniqlovchi-aniqlanmish yoki qaratqichli konstruksiyalar orqali ifodalanadi. Bunday farq soʻzma-soʻz tarjima natijasida sunʼiy va tushunilishi qiyin terminologik birikmalar paydo boʻlishiga sabab boʻlishi mumkin. Iqtisodiy matnlar tarjimasida butun sintaktik tuzilmani oʻzgartirish zarurati ham yuzaga keladi.

Muallif nuqtayi nazaridan, strukturaviy transformatsiya quyidagi shartlarga javob berishi kerak:

1. terminning konseptual yadrosi saqlanishi;
2. komponentlar oʻrtasidagi iqtisodiy munosabat buzilmasligi;

3. o'zbek tilining so'z tartibi va birikma hosil qilish me'yorlariga amal qilinishi;
4. tarjima birligi iqtisodiy mutaxassis uchun tabiiy va tushunarli bo'lishi;
5. terminning matndagi uslubiy darajasi o'zgarishligi.

Iqtisodiy terminologiyada abstrakt jarayonlarni obrazli model orqali tushuntirishga xizmat qiladigan metaforik birliklar salmoqli o'rin egallaydi. *Capital flow*, *financial bubble*, *fiscal cliff*, *hedge fund* kabi terminlarda iqtisodiy tushuncha boshqa tajriba sohasi orqali konseptuallashtiriladi. Masalan, *flow* komponenti kapital harakatini suyuqlik oqimi modeli asosida, *bubble* esa iqtisodiy qiymatning sun'iy ravishda kengayishi va yorilish ehtimolini predmet obrazi orqali ifodalaydi. Nasibboyeva *financial bubble* va *capital flow* kabi metaforik terminlarni o'zbek tiliga ixcham va mazmunan to'liq tarjima qilishda qiyinchiliklar yuzaga kelishini qayd etadi. *Hedge fund* va *fiscal cliff* kabi birliklarda esa tayyor muqobilning yo'qligi semantik noaniqlik hamda madaniy tushunmovchilikka sabab bo'lishi mumkin. Metaforik terminni so'zma-so'z tarjima qilish har doim ham to'g'ri natija bermaydi. Bunday birliklarda uchta vazifa bajarilishi zarur:

- manba tildagi metaforik modelni aniqlash;
- metafora ifodalayotgan iqtisodiy tushunchani ajratish;
- o'zbek tilida shu tushunchani tushunarli ifodalaydigan terminologik shaklni tanlash. Agar

metaforik obraz o'zbek iqtisodiy diskursida ham tushunarli bo'lsa, kalkalashdan foydalanish mumkin. Masalan, *capital flow* - *kapital oqimi* birikmasida "oqim" modeli har ikki tilda tushunarli. Biroq *fiscal cliff* birligini bevosita "fiskal jarlik" shaklida berish maxsus tayyorgarlikka ega bo'lmagan o'quvchiga tushunarsiz bo'lishi mumkin. Bunday vaziyatda termin dastlab kalkalangan shaklda, keyin uning iqtisodiy mohiyatini ochuvchi izoh bilan berilishi maqsadga muvofiq.

Bizningcha, metaforik terminlar tarjimasida obrazni mexanik saqlash emas, uning kognitiv vazifasini qayta yaratish asosiy mezon bo'lishi kerak. Metafora iqtisodiy hodisaning qaysi belgisini – harakat, o'sish, pasayish, xavf, himoya yoki beqarorlikni – markazlashtirayotgani aniqlanadi. Shundan keyin tarjima strategiyasi tanlanadi.

Iqtisodiy terminlar faqat ilmiy tushunchalarni emas, jamiyatning iqtisodiy tajribasi va qadriyatlarini ham aks ettiradi. Ingliz tilidagi iqtisodiy terminologiya ko'proq xalqaro moliya, bozor institutlari va huquqiy-me'yoriy munosabatlar ta'sirida shakllangan. O'zbek iqtisodiy leksikasida esa zamonaviy terminlar bilan bir qatorda, xalqning tarixiy xo'jalik tajribasi, axloqiy qadriyatlari va turmush tarzi bilan bog'liq birliklar ham mavjud. Bunday birliklar ingliz tilidagi muayyan iqtisodiy tushuncha bilan qisman yaqinlashishi mumkin, ammo ularning madaniy va axloqiy mazmuni oddiy lug'aviy muqobil orqali to'liq berilmaydi. Masalan, *halol rizq* tushunchasini faqat "legal income" yoki "honest earnings" shaklida berish uning diniy-axloqiy qatlamini to'liq aks ettirmaydi. Ingliz tilidan o'zbek tiliga tarjimada ham shunga o'xshash holat mavjud. Muayyan iqtisodiy institut yoki amaliyot ingliz tilida shakllangan termin bilan ifodalanadi, biroq o'zbek iqtisodiy muhitida uning to'liq institutsional muqobili bo'lmasligi mumkin. Bunday vaziyatda lug'aviy ekvivalentni tanlash tushunchaning tashqi nomini beradi, lekin uning ishlash mexanizmini ochib bermaydi.

Lingvomadaniy muvofiqlikni ta'minlash uchun quyidagilar hisobga olinishi zarur:

- termin paydo bo'lgan iqtisodiy muhit;
- uning huquqiy va institutsional mazmuni;
- manba tilidagi konnotativ qatlam;
- o'zbek tilidagi muqobilning mavjud assotsiatsiyalari;
- tarjima matni mo'ljallangan auditoriyaning bilim darajasi.

Shunday qilib, tarjimaning madaniy mosligi terminni millilashtirish yoki uning xalqaro mazmunini o'zgartirishni anglatmaydi. Asosiy vazifa – terminni o'zbek tilida tushunarli ifodalash bilan birga, uning manba iqtisodiy tizimidagi mazmunini saqlashdir.

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INGLIZ VA O'ZBEK TILLARIDA KARDIOLOGIK TERMINLARNING SHAKILLANISH MANBALARI

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Annotatsiya. Ushbu maqolada ingliz va o'zbek tillarida kardiologiyaga oid terminlarning yuzaga kelish manbalari, shakllanish xususiyatlari va tibbiy kommunikatsiyadagi o'rni yoritilgan. Kardiologik terminologiyaning shakllanishida qadimgi yunon va lotin tillarining muhim manba bo'lib xizmat qilgani, bugungi kunda esa ingliz tilining xalqaro ilmiy va tibbiy aloqa vositasi sifatida rivojlanishi natijasida ko'plab inglizcha terminlarning o'zbek tiliga kirib kelayotgani tahlil qilinadi. Tadqiqot davomida terminlarning negiz, prefiks va suffikslar asosida hosil bo'lishi, ularning ma'no ifodalash xususiyatlari hamda o'zbek tiliga fonetik, morfologik va leksik jihatdan moslashuvi ko'rib chiqiladi. Bundan tashqari, BP va EKG kabi qisqartmalarning tibbiy hujjatlarni yuritish hamda shifokorlar va boshqa tibbiyot xodimlari o'rtasida tezkor va aniq axborot almashishdagi ahamiyatiga e'tibor qaratiladi. Maqolada yangi kardiologik terminlarni shakllantirish va ularni yagona me'yor asosida standartlashtirishda tilshunoslar, tarjimonlar va tibbiyot mutaxassislarining o'zaro hamkorligi muhimligi ta'kidlanadi. Tadqiqot natijalari kardiologik terminlarni tartibga solish, ularni o'zbek tiliga to'g'ri tarjima qilish va amaliyotda tushunarli hamda izchil qo'llashga yordam beradi.

Kalit so'zlar: prefiks, elektrokardiogramma, termin, yunon, tibbiy, kardiologiya, shifokor

Аннотация. В данной статье освещаются источники возникновения, особенности формирования и роль терминов, относящихся к кардиологии, в английском и узбекском языках в медицинской коммуникации. Анализируется важная роль древнегреческого и латинского языков как основных источников формирования кардиологической терминологии, а также процесс проникновения значительного количества английских терминов в узбекский язык в связи с развитием английского языка как международного средства научной и медицинской коммуникации. В ходе исследования рассматриваются особенности образования терминов на основе корней, префиксов и суффиксов, их семантические характеристики, а также фонетическая, морфологическая и лексическая адаптация к узбекскому языку. Кроме того, особое внимание уделяется значению таких аббревиатур, как ВР и ЭКГ, в ведении медицинской документации, а также в обеспечении оперативного и точного обмена информацией между врачами и другими медицинскими работниками. В статье подчёркивается важность взаимодействия лингвистов, переводчиков и специалистов в области медицины в процессе формирования новых кардиологических терминов и их стандартизации на основе единых норм. Результаты исследования способствуют упорядочению кардиологической терминологии, её правильному переводу на узбекский язык, а также обеспечению понятного и последовательного использования терминов в медицинской практике.

Ключевые слова: префикс, электрокардиограмма, термин, греческий язык, медицинский. Кардиология, врач.

Abstract. This article examines the sources of origin, formation patterns, and role of cardiology-related terms in the English and Uzbek languages within medical communication. It

analyzes the significant role of Ancient Greek and Latin as major sources in the development of cardiological terminology, as well as the increasing incorporation of numerous English medical terms into the Uzbek language as a result of the development of English as an international language of scientific and medical communication. The study explores the formation of terms based on roots, prefixes, and suffixes, their semantic features, and their phonetic, morphological, and lexical adaptation to the Uzbek language. In addition, particular attention is given to abbreviations such as BP and ECG and their importance in maintaining medical documentation and facilitating rapid and accurate information exchange among physicians and other healthcare professionals. The article emphasizes the importance of cooperation among linguists, translators, and medical specialists in developing new cardiological terms and standardizing them according to unified linguistic norms. The findings of the study contribute to the systematization of cardiological terminology, its accurate translation into Uzbek, and its clear, consistent, and comprehensible use in medical practice.

Keywords: prefix, electrocardiogram, term, Greek, medical. cardiologia, doctor.

Ingliz tilidan kirib kelgan ilmiy va texnik atamalar, ayniqsa, zamonaviy tibbiyot va kardiologiya sohasida keng qo'llaniladi. Ingliz tilining butun dunyoda ilm-fan va texnika tili sifatida keng tarqalishi natijasida bu sohada ko'plab yangi atamalar paydo bo'ldi va rivojlandi. Shuningdek, ingliz tilidan o'zlashgan terminlar zamonaviy tibbiy tushunchalarni aniq va tushunarli ifodalashga yordam beradi. Kardiologiyada tibbiy atamalarni tushunish uchun ularning tarkibidagi negiz, prefiks va qo'shimchalarni bilish juda muhim. Tibbiyotda ishlatiladigan ko'plab so'zlar yunon va lotin tillaridan kelib chiqqan bo'lib. Ular shifokorlar va boshqa tibbiyot xodimlari o'rtasida tushunarli va aniq muloqot qilishga yordam beradi. Masalan, **"kardi-"** negizi yurak bilan bog'liq ma'noni anglatadi. **"Tachy-"** prefiksi tezlikni, **"brady-"** esa sekinlikni bildiradi. **"-itis"** qo'shimchasi yallig'lanishni, **"-ektomiya"** biror a'zoni yoki to'qimani olib tashlashni, **"-pathy"** esa kasallik yoki patologik holatni anglatadi. Negizlar odatda tananing ma'lum bir qismi yoki uning faoliyatini bildiradi. Prefikslar esa so'zning ma'nosini o'zgartirib, holat, joylashuv yoki tezlik haqida ma'lumot beradi. Qo'shimchalar esa kasallik, yallig'lanish yoki tibbiy muolajani ifodalashi mumkin. Ushbu qismlarni yaxshi o'zlashtirish orqali talabalar va tibbiyot xodimlari ilgari uchramagan murakkab atamalarning ma'nosini ham tushunishlari osonlashadi. Bu esa kardiologiyani o'rganish, bemorlar bilan ishlash, tibbiy hujjatlarni to'g'ri yuritish va mutaxassislar o'rtasida aniq muloqot qilishda katta yordam beradi. Shuningdek, Kardiologiyada turli qisqartmalardan keng foydalaniladi. Ular shifokorlar va boshqa tibbiyot xodimlariga ma'lumotni tez va tushunarli yetkazish, hujjatlarni qisqa va qulay tarzda yuritishga yordam beradi. Masalan, **BP** — qon bosimi, **EKG** esa elektrokardiogrammani anglatadi.

Qisqartmalarning barcha tibbiyot xodimlari tomonidan bir xil tushunilishi juda muhim. Standartlashtirilgan qisqartmalar noto'g'ri tushunish va xatolarning oldini olib, bemor haqidagi ma'lumotlarni aniq qayd etishga yordam beradi. Ayniqsa, shoshilinch holatlarda va turli mutaxassislar birgalikda ishlaganda ularni to'g'ri bilish muhim ahamiyatga ega.

Shu sababli, kardiologiyada ishlatiladigan asosiy qisqartmalarni bilish tibbiyot xodimlari uchun zarur ko'nikmalardan biridir. Ularni to'g'ri va bir xil qo'llash tibbiy muloqotni yaxshilaydi, chalkashliklarni kamaytiradi va bemor xavfsizligini ta'minlashga xizmat qiladi.

Tibbiy muloqotda standartlashtirilgan tilning ahamiyatini, ayniqsa, aniqlik juda muhim bo'lgan kardiologiya sohasida ortiqcha baholab bo'lmaydi. Tuzilgan va tizimli atamalar, tushunchalar turli mintaqalar va mutaxassisliklar bo'yicha tibbiyot xodimlarining samarali muloqot qilishlarini ta'minlaydi. Kardiologiyada ishlatiladigan negiz, prefiks va suffiks qo'shimchalarni bilish tibbiy atamalarning ma'nosini tushunishni osonlashtiradi. Bu atamalarning ko'pchiligi lotin va yunon tillaridan kelib chiqqan bo'lib, butun dunyo shifokorlari va tibbiyot xodimlari o'rtasida tushunarli va aniq muloqot qilishga yordam beradi.

Atamalar ko'pincha "a-" (siz yoki yo'q) kabi prefikslarni va "angio" (tomir) yoki "aritmia" (tartibsizlik) kabi ta'sirlangan tuzilmalar yoki funktsiyalarni aniqlaydigan ildizlarni o'z ichiga oladi. Terminologiya nafaqat aniq tashxis qo'yish va davolashni osonlashtiradi, balki tibbiyot fanlari uchun universal tilni ta'minlovchi lotin tilida asosini hisobga olgan holda butun dunyo bo'ylab sog'liqni saqlash mutaxassislari o'rtasida aniq muloqotni ta'minlaydi.

Kardiologiyaga oid yangi terminlarni yaratishda tilshunoslar va tibbiyot mutaxassislarining birgalikda ishlashi juda muhim. Chunki yangi atamalar o'zbek tiliga mos, mazmunan aniq va odamlar uchun tushunarli bo'lishi kerak. Ayniqsa, tibbiy terminlarni tarjima qilish yoki o'zbek tilida yangi atamalar yaratishda ikki soha mutaxassislarining hamkorligi yaxshi natija beradi.

Kardiologiyada patofiziologik kontseptsiyalarning dolzarbligi kasallik mexanizmlarini tavsiflash uchun ishlatiladigan maxsus terminologiyada aks ettirilgan. Qon oqimining kamayishi tufayli ko'krak qafasidagi noqulaylik bilan tavsiflangan angio va tartibsizlik yurak urishini o'z ichiga olgan aritmiya kabi holatlar patofiziologik holatlarning tibbiy tilda qanday singdirilganligini ko'rsatadi

Terminlarning mantiqiy va o'zbek tiliga mos keladigan shakllanishi, ularning aniq va tushunarli bo'lishida muhim ahamiyatga ega. Buning uchun, yangi terminlar yaratishda, o'zbek tilining grammatik qoidalari va leksik xususiyatlari hisobga olinadi. Masalan, tibbiyotda keng qo'llaniladigan kompleks atamalar, o'zbek tiliga mos ravishda, ularning asosiy komponentlariga ajratilib, tushunarli bo'lishi uchun mantiqiy tarzda qayta shakllantiriladi. Bu esa, tibbiyot xodimlari va bemorlar uchun, terminlarning ma'nosini tez va aniq tushunishga yordam beradi. Bundan tashqari, mantiqiy shakllanish, o'zbek tilidagi terminlarning standartlashtirilishiga olib keladi, bu esa, tibbiyotda terminologik birlik va izchilni ta'minlashda muhimdir.

Ingliz tilidan o'zbek tiliga kirib kelgan terminlarning moslashtirilishi jarayonida, bu so'zlar odatda fonetik, morfologik va stilistik jihatdan o'zbek tiliga moslashtiriladi.

Manbalarning o'zaro aloqasi va integratsiyasi, ayniqsa, tarjimonlar va terminologiya komissiyalarining faoliyati orqali yuzaga keladi. Tarjimonlar, tibbiy va lingvistik mutaxassislar bilan hamkorlikda, ingliz va o'zbek tillarida kardiologiya terminlarini to'g'ri va aniq shakllantirish uchun muhim rol o'ynaydi.

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DEVELOPING UNIVERSITY STUDENTS' COMMUNICATIVE COMPETENCE THROUGH TASK-BASED LANGUAGE LEARNING

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Abstract. *This article examines the potential of Task-Based Language Learning (TBLL) for developing university students' communicative competence in English. In contemporary foreign language education, knowledge of grammatical rules and vocabulary alone is insufficient for effective communication. University students need to use English appropriately and confidently in academic, professional, and social contexts. The purpose of the study is to identify the pedagogical potential of Task-Based Language Learning in developing students' speaking fluency, vocabulary, interactional competence, and communication strategies. The study employs literature analysis, comparative analysis, and methodological synthesis. Particular attention is paid to the main stages*

of task-based instruction: pre-task, task performance, and post-task. The article analyzes the role of problem-solving tasks, information-gap activities, role-plays, discussions, debates, and collaborative projects in developing communicative competence. The theoretical analysis indicates that task-based instruction provides learners with meaningful opportunities to use English for purposeful communication. It can increase student interaction, promote learner autonomy, encourage independent thinking, and improve confidence in using the target language. At the same time, effective implementation requires appropriate task design, adequate teacher preparation, systematic feedback, and assessment criteria that reflect communicative objectives. The article concludes that Task-Based Language Learning can be an effective approach to developing university students' communicative competence when it is systematically integrated into English language instruction.

Keywords: Task-Based Language Learning, communicative competence, English language teaching, higher education, communicative tasks, EFL, speaking skills, learner autonomy.

Annotatsiya. Mazkur maqolada oliy ta'lim muassasalari talabalarining kommunikativ kompetensiyasini Task-Based Language Learning (TBLL) yondashuvi asosida rivojlantirish imkoniyatlari tadqiq etiladi. Zamonaviy xorijiy til ta'limida talabalarining faqat grammatik qoidalar va leksik birliklarni o'zlashtirishi yetarli emas, balki ularning ingliz tilidan real akademik, kasbiy va ijtimoiy vaziyatlarda samarali foydalana olishi muhim hisoblanadi. Tadqiqotning maqsadi Task-Based Language Learning yondashuvining talabalarining og'zaki muloqoti, ravonligi, lug'at boyligi, o'zaro hamkorligi va kommunikativ strategiyalarini rivojlantirishdagi pedagogik imkoniyatlarini aniqlashdan iborat. Maqolada ilmiy adabiyotlarni tahlil qilish, qiyosiy tahlil va metodik umumlashtirish usullaridan foydalanildi. Task-based yondashuvning asosiy bosqichlari — pre-task, task performance va post-task — tahlil qilindi. Shuningdek, muammoli vazifalar, information-gap activities, role-play, discussion, debate va group project kabi topshiriqlarning kommunikativ kompetensiyani shakllantirishdagi ahamiyati yoritildi. Tahlil natijalari Task-Based Language Learning talabalarni ingliz tilidan maqsadli va mazmunli foydalanishga undashi, sinfdagi interaktiv muloqotni kuchaytirishi va talabalarining mustaqilligini oshirishini ko'rsatadi. Maqolada TBL yondashuvini oliy ta'limda samarali qo'llash bo'yicha metodik tavsiyalar ham berilgan.

Kalit so'zlar: Task-Based Language Learning, kommunikativ kompetensiya, ingliz tilini o'qitish, oliy ta'lim, kommunikativ topshiriqlar, EFL, nutq ko'nikmalari.

Аннотация. В статье рассматриваются возможности развития коммуникативной компетенции студентов высших образовательных учреждений посредством подхода Task-Based Language Learning (TBLL). В условиях современного иноязычного образования недостаточно только знать грамматические правила и лексические единицы; студентам необходимо уметь эффективно использовать английский язык в академических, профессиональных и социальных ситуациях. Цель исследования заключается в определении педагогического потенциала Task-Based Language Learning в развитии устной речи, беглости, словарного запаса, навыков взаимодействия и коммуникативных стратегий студентов. В исследовании использованы методы анализа научной литературы, сравнительного анализа и методического обобщения. Рассмотрены основные этапы task-based занятия: pre-task, task performance и post-task. Особое внимание уделено проблемным заданиям, информационным заданиям (information-gap activities), ролевым играм, дискуссиям, дебатам и групповым проектам. Теоретический анализ показывает, что Task-Based Language Learning создает условия для целенаправленного и содержательного использования английского языка, увеличивает возможности взаимодействия между студентами и способствует развитию их самостоятельности. Вместе с тем эффективное применение данного подхода требует тщательного выбора заданий, соответствующих уровню владения языком, подготовки преподавателя и организации объективной оценки коммуникативных результатов. В статье также представлены практические рекомендации по интеграции task-based подхода в процесс обучения английскому языку в высшей школе.

Ключевые слова: Task-Based Language Learning, коммуникативная компетенция, обучение английскому языку, высшее образование, коммуникативные задания, EFL, речевые навыки.

INTRODUCTION.

Globalization, international academic cooperation and the growing importance of English in professional communication have increased the demand for effective foreign language education in higher education. University graduates are expected to communicate in English not only in everyday situations but also in academic discussions, presentations, professional meetings, international projects and digital environments. Therefore, the development of communicative competence has become an important objective of university English language teaching.

Communicative competence involves more than grammatical knowledge. Learners need to understand how language functions in different contexts, express their ideas coherently, interact with other speakers and overcome communication difficulties. A student may know a considerable number of grammatical rules and vocabulary items but still experience difficulties when required to speak spontaneously or participate in a real conversation.

Task-Based Language Learning provides a learner-centered framework for addressing this problem. In task-based instruction, students use the target language to complete meaningful activities that have a specific purpose and outcome. Instead of learning language exclusively through isolated exercises, learners encounter situations in which English becomes a practical tool for achieving a communicative goal.

Recent research continues to emphasize the relevance of task-based instruction for second and foreign language learning. Contemporary studies have examined its relationship with speaking performance, learner engagement, autonomy and communicative development. Task-based instruction also provides opportunities to combine fluency-oriented communication with focused attention to linguistic accuracy.

The purpose of this article is to examine how Task-Based Language Learning can contribute to the development of university students' communicative competence and to identify practical ways of integrating task-based activities into English language classrooms.

MATERIALS AND METHODS.

The study is theoretical and qualitative in nature. The research is based on the analysis of scholarly publications related to Task-Based Language Teaching, communicative competence, second language acquisition and foreign language pedagogy. Recent publications were prioritized in order to reflect current developments in task-based language education. The following methods were employed: literature analysis to examine contemporary theoretical perspectives on task-based instruction; comparative analysis to identify differences between traditional form-focused instruction and task-based learning; methodological synthesis to determine effective principles for designing and implementing communicative tasks; pedagogical analysis to identify the potential contribution of different task types to communicative competence.

The analysis focused on four main dimensions of communicative competence: linguistic competence, discourse competence, sociolinguistic competence and strategic competence.

For practical implementation, task-based instruction can be organized into three stages. During the pre-task stage, the teacher introduces the topic, activates students' background knowledge and provides essential vocabulary or expressions. During the task stage, students work individually, in pairs or in groups to achieve a communicative outcome. During the post-task stage, students present their results, receive feedback and reflect on language use.

RESULTS AND DISCUSSION.

The analysis indicates that Task-Based Language Learning can create favorable conditions for developing several dimensions of university students' communicative competence.

First, task-based activities increase opportunities for meaningful language use. Students need to communicate in order to complete the task, which makes language use purposeful rather than purely mechanical. For example, when students are asked to develop a proposal for improving their university, they must exchange ideas, make suggestions, explain their opinions and negotiate a final decision.

Second, TBL can contribute to speaking fluency. Students have opportunities to speak for extended periods and express their own ideas. Unlike highly controlled exercises, communicative tasks allow learners to choose the language they need to achieve the task outcome.

Third, task-based learning promotes interactional competence. Information-gap activities are particularly useful because students possess different pieces of information and need to communicate in order to complete the task. Through such interaction, students practice asking questions, requesting clarification, confirming information and responding appropriately.

Fourth, tasks support vocabulary development. Vocabulary is introduced and practiced in meaningful contexts. For instance, a task about environmental problems may require students to use words related to sustainability, pollution, recycling and energy consumption. Contextualized use can help learners understand not only the meaning of words but also how they function in communication.

Fifth, TBL promotes strategic competence. When students do not know a particular word or expression, they are encouraged to paraphrase, describe, ask for clarification or use alternative language. These strategies are essential for maintaining communication despite limitations in linguistic knowledge.

The following types of Communicative tasks can be particularly effective in university English classes: Problem-solving, Information-gap, Role-play, Discussion, Debate, Group project.

Task-based instruction can also increase learner autonomy. Students are required to make decisions, distribute responsibilities and monitor their progress. Group projects, in particular, can develop cooperation and responsibility alongside language skills. However, several challenges should be considered. Large classes may make it difficult for teachers to monitor all groups effectively. Students with lower proficiency levels may also experience anxiety when asked to communicate spontaneously. In addition, traditional examination systems may place greater emphasis on grammar and vocabulary than on communicative performance.

Therefore, teachers should adapt tasks to students' proficiency levels and provide appropriate scaffolding. The teacher should not dominate classroom communication but should act as a facilitator, monitor and provider of feedback. During task performance, excessive correction should be avoided because it can interrupt fluency. More detailed correction and language analysis can be conducted during the post-task stage.

Another important consideration is assessment. If communicative competence is an instructional objective, assessment should include criteria such as fluency, accuracy, vocabulary, pronunciation, interaction and strategic competence. This creates greater consistency between teaching, learning and assessment. The results of the theoretical analysis are consistent with recent research emphasizing the role of task-based approaches in developing speaking performance and communicative abilities. Contemporary reviews also suggest that task-based learning can support learner engagement and provide opportunities for meaningful language practice.

CONCLUSION.

Task-Based Language Learning is a valuable learner-centered approach for developing university students' communicative competence in English. The analysis presented in this article demonstrates that meaningful tasks can provide students with opportunities to use English for real communicative purposes rather than simply reproduce memorized language forms.

Problem-solving activities, information-gap tasks, role-plays, discussions, debates and collaborative projects can contribute to the development of speaking fluency, vocabulary, interactional competence, strategic competence and learner autonomy. The three-stage organization of task-based instruction — pre-task, task performance and post-task — provides a practical framework for integrating meaningful communication with focused language development.

At the same time, the effectiveness of TBL depends on appropriate task design, teacher preparation, classroom management and assessment. Task-based instruction should not necessarily replace explicit grammar or vocabulary teaching. Instead, meaningful communication can be combined with focused language work when students need additional support. For university English language education, systematic use of Task-Based Language Learning can help students develop the

communicative abilities required for academic and professional contexts. Further empirical research involving university students in Uzbekistan would be useful for measuring the effects of different task types on fluency, accuracy, interaction and overall communicative competence.

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INGLIZ VA O'ZBEK TILLARIDA KRIMINALINGVISTIK BIRLIKLARNING SOTSIOLINGVISTIK XUSUSIYATLARI

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Annotatsiya. Ushbu maqolada ingliz va o'zbek tillaridagi sud lingvistika birliklarining sotsiolingvistik va pragmatik xususiyatlari qiyosiy jihatdan yoritilgan. Tadqiqotda sud jarayonlarida dalil sifatida qo'llaniladigan og'zaki va yozma til birliklarining shakllanishi, ma'nosi va huquqiy ahamiyati tahlil qilinadi. Xususan, hududiy shevalar, ijtimoiy-iqtisodiy mavqe, yosh va jins kabi sotsiolingvistik omillarning lingvistik dalillarni talqin qilishga ta'siri ko'rib chiqiladi. Shuningdek, nutqiy aktlar, xushmuomalalik strategiyalari, kontekstual ma'no va noaniqlik kabi pragmatik xususiyatlarning sud-lingvistik tahlildagi o'rni ochib beriladi. Maqolada ko'p tillilik va kodlarni almashtirish hodisalarining huquqiy mulohazadagi o'ziga xos jihatlari ham tahlil qilinadi. Bundan tashqari, so'zlovchi yoki matn muallifining lingvistik profilini aniqlashda aksent, sheva, lug'aviy tanlov, iboralar va imlo xususiyatlarining ahamiyati ko'rsatiladi. Tadqiqot natijalari sud-lingvistik ekspertizada tilning ijtimoiy va madaniy xususiyatlarini hisobga olish zarurligini ko'rsatadi.

Kalit soʻzlar: *sud lingvistikasi, kriminalingvistika, sud-lingvistik birliklar, sotsiolingvistika, pragmatika, nutqiy akt, kodlarni almashtirish, koʻp tillilik, lingvistik profil, lingvistik dalil, sheva, identiklik.*

Аннотация. В данной статье в сравнительном аспекте рассматриваются социолингвистические и прагматические особенности единиц судебной лингвистики в английском и узбекском языках. В исследовании анализируются устные и письменные языковые единицы, используемые в качестве доказательств в судебных процессах, а также особенности их формирования, значения и юридической значимости. Особое внимание уделяется влиянию таких социолингвистических факторов, как региональные диалекты, социально-экономический статус, возраст и пол, на интерпретацию лингвистических доказательств. Кроме того, раскрывается роль речевых актов, стратегий вежливости, контекстуального значения и неоднозначности в судебно-лингвистическом анализе. Рассматриваются также особенности многоязычия и переключения кодов в правовой коммуникации. Наряду с этим определяется значение акцента, диалектных особенностей, лексического выбора, устойчивых выражений и орфографических особенностей при установлении лингвистического профиля говорящего или автора текста. Результаты исследования показывают необходимость учета социальных и культурных особенностей языка в судебно-лингвистической экспертизе.

Ключевые слова: *судебная лингвистика, криминалистическая лингвистика, судебно-лингвистические единицы, социолингвистика, прагматика, речевой акт, переключение кодов, многоязычие, лингвистический профиль, лингвистическое доказательство, диалект, идентичность.*

Abstract. *This article comparatively examines the sociolinguistic and pragmatic features of forensic linguistic units in English and Uzbek. The study analyses oral and written language units used as evidence in legal proceedings, focusing on their formation, meaning, and legal significance. Particular attention is paid to the influence of sociolinguistic factors, including regional dialects, socioeconomic status, age, and gender, on the interpretation of linguistic evidence. The article also explores the role of speech acts, politeness strategies, contextual meaning, and ambiguity in forensic linguistic analysis. In addition, it examines the specific features of multilingualism and code-switching in legal communication. The study further highlights the importance of accent, dialectal features, lexical choices, habitual expressions, and spelling patterns in establishing the linguistic profile of a speaker or text author. The findings demonstrate that consideration of the social and cultural characteristics of language is essential for reliable forensic linguistic analysis and interpretation of linguistic evidence in legal contexts.*

Keywords: *forensic linguistics, forensic linguistic units, sociolinguistics, pragmatics, speech acts, code-switching, multilingualism, linguistic profiling, linguistic evidence, dialect, identity.*

KIRISH

Sud lingvistika birliklari (Forensic Linguistics) — bu sud jarayonlarida dalil sifatida xizmat qiladigan ogʻzaki hamda yozma tilning maxsus boʻlaklaridir. Bular alohida soʻzlar, iboralar yoki kattaroq matn parchalari boʻlishi mumkin va ular huquqiy doirada matn muallifi, maqsadi yoki maʼnosini aniqlashga yordam beradi. "FORENSIC LINGUISTICS" (sud-lingvistika ekspertizasi) iborasi ilk bor 1968-yilda YAN SVARTVIK (Jan Svartvik) tomonidan muomalaga kiritilgan. Oʻzining *The Evans Statements: A Case for Forensic Linguistics* ("Evans koʻrsatmalari: Forensik lingvistika uchun keys") nomli kitobida Yan Svartvik oʻz xotini va 13 oylik qizini oʻldirishda ayblangan JON EVANS (John Evans) bergan meʼyordagi koʻrsatmalarni qayta tahlil qildi. U lingvistik usullarni huquqiy soroq jarayoniga tatbiq etish orqali politsiya xodimlariga ushbu jinoyatni fosh etishda yordam bergan. (1)

Sud lingvistika birliklarining doirasi shunchaki lugʻat boyligini tahlil qilish bilan cheklanib qolmaydi; u sintaksis (gap qurilishi), semantika (maʼno), pragmatika va nutq uslublarini ham oʻz ichiga oladi, bu esa mutaxassislariga chala/noaniq fikrlarni izohlashga hamda maʼlum bir shaxs yoki jamoaga xos boʻlgan "lingvistik barmoq izlari"ni aniqlashga imkon beradi. Ushbu tarkibiy qismlarni

tahlil qilish orqali sud lingvistlari yashirin ma'nolarni ochishi, talqin qilish bo'yicha kelishmovchiliklarni hal etishi hamda tergov va sud jarayonlarida muhim xulosalar berishi mumkin.

Sud lingvistik dalillarining keng tarqalgan turlariga *ovoz yozuvlari, shartnoma yoki elektron pochta* kabi yozma hujjatlar hamda ijtimoiy tarmoqdagi xabarlar kabi onlayn muloqotlar kiradi. Ingiz va o'zbek huquqiy tizimlarida bu kabi dalillar matn muallifini aniqlash, plagiatni sirtga chiqarish yoki majburlash va aldatchilik belgilarini topish uchun atroflicha tekshirilishi mumkin. (2) Ko'p tahlil qilinadigan sud lingvistik dalillarining asosiy turlari quyidagilardir: Bahsli matnlarning muallifligini tahlil qilish; Noaniq huquqiy hujjatlarning ma'nosini (semantikasini) izohlash; Tahdid soluvchi yoki tuhmat xarakteridagi tilni aniqlash; Tarjima qilingan materiallarning aniqligi va maqsadini baholash. Ushbu dalil turlarini o'rganish orqali sud lingvistlari tildagi noaniqliklarga oydinlik kiritadi va adolat qaror topishiga ko'maklashadi. Til ham ingliz, ham o'zbek jamiyatlarining huquqiy tizimlarida ko'p qirrali o'rin tutadi — u nafaqat qonunlarni talqin qilishga, balki odil sudlovni amalga oshirishga ham ta'sir ko'rsatadi. Ingliz tilida so'zlashuvchi yurisdiksiyalarda (huquqiy hududlarda) guvohlarning ko'rgazmalarini baholash, iqrorlik ko'rsatmalarining ishonchligini aniqlash hamda shartnoma matnlaridagi kelishmovchiliklarni hal qilish uchun sud-lingvistik tahlildan muntazam foydalaniladi.

Xuddi shuningdek, o'zbek huquqiy muhitida ham sheva va lahja tafovutlari, kodlarni almashtirish (bir tildan boshqasiga o'tish) hamda madaniy iboralar kabi sotsiolingvistik omillar sud qarorlariga sezilarli ta'sir ko'rsatishi mumkin. Ushbu jamiyatlarda sud lingvistikasining qo'llanilishi huquqiy jarayonlarning til xilma-xilligiga sezgirligini va tildan iborat dalillarning zaruriy mutaxassislik hamda madaniy xabardorlik bilan baholanishini ta'minlaydi.

Sud lingvistika birliklariga ta'sir etuvchi sotsiolingvistik omillar. Mintaqaviy va shevaga oid tafovutlar ham ingliz, ham o'zbek huquqiy doiralarida sud-lingvistik birliklarning talqin qilinishi va qo'llanilishiga sezilarli darajada ta'sir ko'rsatadi. Ingliz tilida so'zlashuvchi mamlakatlarda 50 dan ortiq shevalarning mavjudligi katta murakkablik tug'diradi, chunki ayrim so'zlar, iboralar yoki nutq shakllari so'zlovchining hududiy kelib chiqishiga qarab har xil ma'no berishi mumkin.

Xuddi shuningdek, O'zbekistonning davlat tili bo'lmish o'zbek tili ham tarixiy, madaniy va etnik omillar ta'sirida shakllangan mintaqaviy shevalarga ega bo'lib, bu huquqiy jarayonlarda tilga oid dalillarni tahlil qilishga ta'sir ko'rsatishi mumkin. Sud lingvistlari og'zaki yoki yozma bayonotlar ortidagi maqsad va ma'noni aniq baholash uchun ushbu tafovutlardan yaxshi xabardor bo'lishlari shart, chunki sheva farqlariga e'tibor bermaslik dalillarni noto'g'ri talqin qilishga olib kelishi mumkin.

Ijtimoiy-iqtisodiy mavqe huquqiy muhitda tildan foydalanishga sezilarli ta'sir ko'rsatadi va sud-lingvistik birliklarning shakllanishi hamda talqin qilinishiga o'z ta'sirini o'tkazadi. Turli ijtimoiy-iqtisodiy kelib chiqishga ega bo'lgan shaxslar har xil lug'at boyligi, grammatika yoki nutq strategiyalarini qo'llashlari mumkin, bu esa o'z navbatida sud ko'rgazmalarida, yozma bayonotlarda yoki yozib olingan suhbatlarda aks etadi. Bu dinamika ingliz va o'zbek jamiyatlarida juda muhim hisoblanadi, chunki nutq shakllari insonning ma'lumoti darajasi, kasbiy kelib chiqishi va jamiyatdagi o'rnidan darak berishi mumkin. Masalan: Oliy ma'lumotli shaxslarning huquqiy bayonotlarida ko'pincha rasmiyrog' so'zlar va murakkab gap qurilmalari ko'zga tashlanadi. Ijtimoiy-iqtisodiy darajasi pastrog' bo'lgan guruhlarining ko'rgazmalarida esa so'zlashuv tiliga oid iboralar yoki adabiy me'yordan tashqari grammatika uchrashi mumkin. Bunday tafovutlar dalillarning ishonchliligi va ularni talqin qilishga ta'sir ko'rsatishi mumkin, shu sababli sud lingvistlari tahlil jarayonida ijtimoiy-iqtisodiy omillarni hisobga olishlari shart. Jins va yoshga bog'liq lingvistik farqlar ham ingliz va o'zbek huquqiy tizimlarida tilga oid dalillarni talqin qilishda muhim o'rin tutadi.

Tadqiqotlar shuni ko'rsatadiki, tildagi tanlovlar — masalan, xushmuomalalik strategiyalari, so'z tanlash va nutq shakllari so'zlovchining jinsi hamda yoshiga qarab sezilarli darajada farq qilishi mumkin. Masalan, yoshlar ko'proq zamonaviy jargon (slang) yoki raqamli muloqot uslublaridan foydalanishsa, yoshi kattaroq so'zlovchilar an'anaviyrog' ifoda shakllariga amal qilishlari mumkin.

Nutqiy aktlar (harakatlar) sud muloqotining hayotiy muhim tarkibiy qismi bo'lib, ular niyatlar hamda huquqiy tartib-taomillarni ifodalash va talqin qilishning asosiy vositasi bo'lib xizmat qiladi. Ingliz va o'zbek sud muhitida aytilgan fikrning aniq ma'nosi — bu buyruq, iltimos, tasdiq yoki ruxsat bo'lishidan qat'i nazar — katta huquqiy kuchga ega bo'lishi mumkin. (3) Masalan, sudlanuvchining

"Men buni qildim" (I did it!) degan gapi aybni tan olish sifatida talqin qilinishi mumkin, **"Balki men qilgandirman" (I might have done it)** degan gap esa huquqiy oqibatlariga ega bo'lgan noaniqlikni keltirib chiqaradi. Ushbu nutqiy aktlarni tahlil qilish ularning tom ma'nodagi ma'nosidan tashqariga chiqib, madaniy me'yorlar va huquqshunoslarning kutilmalari orqali shakllanadigan illokutsiya kuchini (fikir orqasidagi haqiqiy maqsadni) ham o'z ichiga oladi.

Bunday nozik va batafsil talqin sud lingvistlari uchun juda muhim, chunki nutqiy aktlarni noto'g'ri tushunish anglashilmovchiliklarga yoki hatto adolatsiz sud qarorlariga olib kelishi mumkin. Bundan tashqari, niyat va dalillik qiymatini aniq baholash uchun har doim pragmatik kontekst — kim so'zlayapti, kimga va qanday holatda gapirayotgani hisobga olinishi shart. Xushmuomalalik strategiyalari va mavqe (hukmronlik) dinamikasi huquqiy muloqot tiliga chuqur singib ketgan bo'lib, sudyalalar, advokatlar, guvohlar va sudlanuvchilar o'rtasidagi o'zaro munosabatlarga ta'sir ko'rsatadi. Ingliz va o'zbek sud zallarida so'zlovchilar ko'pincha **iyerarxik munosabatlarni** to'g'ri yo'lga qo'yish hamda odob-ahloq qoidalarini saqlash uchun xushmuomalalik strategiyalaridan foydalanadilar, ammo ushbu strategiyalarning shakli va vazifalari ikkala tilda sezilarli darajada farq qilishi mumkin.(4) Masalan, advokatlar sudyalarga hurmat ko'rsatish uchun ehtiyotkorona/bilvosiyah iltimoslar yoki iboralardan foydalanishlari mumkin, guvohlar esa to'qnashuvlardan qochish uchun o'z bayonotlarini yumshatib ifodalashlari mumkin.

Ushbu matn sud-lingvistik tahlildagi kontekstual ma'no, noaniqliklar (ambiguity), ko'p tillilik va tillarni almashtirish (code-switching) omillarini tushuntirib beradi. Matnning har bir gapi (fikri) o'zbek tiliga sodda va tushunarli tarzda tarjimai:

Tillarni almashtirish — ya'ni bir suhbat yoki hatto bitta gap ichida ikki yoki undan ortiq tillar o'rtasida o'tib turish amaliyoti — ikki tilli huquqiy muhitda huquqiy terminologiyani aniqlashtirish, so'zlovchining shaxsiyatini ko'rsatish yoki rasmiylik darajasining o'zgarishini bildirish kabi bir qancha muhim vazifalarni bajaradi.

Masalan, o'zbek va ingliz tillarini biladigan guvoh muayyan huquqiy atamalarga murojaat qilganda ingliz tiliga o'tishi, voqeani so'zlab berish yoki shaxsiy fikr bildirishda esa o'zbek tiliga qaytishi mumkin, bu esa uning ham lingvistik mahoratini, ham strategik muloqot tanlovini aks ettiradi. Ushbu muloqot shakllarini tan olish sud lingvistlari uchun juda muhim, chunki tillarni almashtirish bayonotlarning qanday talqin qilinishiga ta'sir qilishi va sud jarayonida yashirin mavqe munosabatlari yoki ishonitirishga bo'lgan urinishlarni ochib berishi mumkin.

Ko'p tillilikning sud-lingvistik tahlilga ta'siri shunchaki tillarning almashinuvidan ancha uzroqqa boradi va u ham dalillarni talqin qilishni, ham huquqshunoslar qo'llaydigan strategiyalarni shakllantiradi. Ko'p tilli muhitlar qo'shimcha ma'no qatlamlarini olib kiradi, chunki so'zlovchilar ko'pincha bir nechta tillarning madaniy tushunchalari, iboralari va pragmatik qoidalaridan foydalanadilar. Bu so'zlovchining maqsadini aniqlashni, aldatchilikni payqashni va ishonchlikni baholashni murakkablashtirishi mumkin. Shunday ekan, sud lingvistlari quyidagi kabi nozik jihatlarga juda e'tiborli bo'lishlari shart. Ushbu matn ko'p tilli dalillar, sotsiolingvistik ko'rsatkichlar hamda shaxsiyatni aniqlovchi lingvistik belgilarning sud-lingvistik tahlilidagi o'rnini tushuntirib beradi. Matnning har bir gapi (fikri) o'zbek tiliga sodda va tushunarli tarzda tarjimai: Har xil tillarda nutqiy aktlarning namoyon bo'lishidagi tafovutlar; Tanlangan tilga qarab nutq uslubi (registr) yoki xushmuomalalik strategiyalarining o'zgarishi; Madaniy me'yorlarning nutq qurilishiga (strukturasiga) ko'rsatadigan ta'siri. Huquqiy talqinlar barcha ishtirokchilar uchun aniq va adolatli bo'lishini ta'minlashda bunday omillarni hisobga olish hayotiy muhim hisoblanadi.

So'zlovchilar va mualliflarning sotsiolingvistik xususiyatlariga tayanib ularning portretini (profilini) yaratish tildagi tanlovlar, andozalar hamda adabiy me'yorlardan chekinishlarni tizimli tahlil qilishni o'z ichiga oladi. Sud lingvistlari shaxsning demografik kelib chiqishi, ma'lumoti darajasi yoki geografik hududi haqida xulosalar chiqarish uchun talaffuz (aksent), sheva farqlari, odatga aylangan iboralar va hatto imlo afzalliklari kabi unsurlarni o'rganadilar. Sotsiolingvistik profillashdan foydalanish orqali tergovchilar gumonlanuvchilar doirasini qisqartirishlari yoki bahsli matnning kimga tegishli ekanligini tasdiqlashlari mumkin.

Ushbu metodologik yondashuv tildan foydalanish inson shaxsiyati (identikligi) bilan chuqur bogʻlanganligi va hatto kichik lingvistik tafsilotlar ham sud ekspertizasida muhim dalil boʻlib xizmat qilishi mumkin degan kuzatuvga asoslanadi.

XULOSA

Ingliz va oʻzbek tillaridagi sud-lingvistik birliklarning sotsiolingvistik xususiyatlari huquqiy muloqot va dalillarni talqin qilishning murakkab jihatlarini tushunishda muhim oʻrin tutadi. Hududiy shevalar, ijtimoiy-iqtisodiy omillar, jins va yosh taʼsiridagi tafovutlar sud tahlilida kontekstni tushunish naqadar muhimligini koʻrsatadi. Nutqiy aktlar, xushmuomalalik strategiyalari va kontekstual noaniqliklar kabi pragmatik xususiyatlar sud zallarida lingvistik dalillarning talqin qilinishini yanada shakllantiradi. Bundan tashqari, tillarni almashtirish hamda koʻp tillilik hodisalari sud lingvistlari uchun, ayniqsa, turli-tuman va koʻp madaniyatli jamiyatlarda oʻziga xos qiyinchiliklar va imkoniyatlarni keltirib chiqaradi.

Etnik, madaniy va ijtimoiy shevalarni oʻz ichiga olgan sotsiolingvistik shaxsiyat belgilarini tan olish profillash jarayonini boyitadi hamda sud tergovlarining aniqligini oshiradi. Umuman olganda, ushbu sotsiolingvistik oʻlchamlarni tushunish ingliz va oʻzbek huquqiy muhitiga xos boʻlgan til xilma-xilligini hurmat qiladigan nozik va ishonchli sud-lingvistik amaliyotni rivojlantirish uchun juda muhimdir.

FOYDALANILGAN ADABIYOTLAR

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INGLIZ VA O'ZBEK PAREMIYALARIDA ZONIMIK OBRAZLARNING MILLIY-MADANIY KONNOTATSIYASI VA ULARNING TARJIMADA BERILISH MUAMMOLARI

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Annotatsiya. Mazkur maqolada ingliz va oʻzbek tillaridagi paremiologik birliklar tarkibida ishtirok etgan zoonimik komponentli til vositalari lingvokognitiv va lingvopragmatik nuqtai nazardan tahlil qilinadi. Zoonimlarning xalq tafakkurida shakllangan konseptual asoslari, ularning nutqiy vaziyatlarda bajaradigan baholash-ekspressiv funksiyalari, shuningdek qiyosiy jihatdan ikki til madaniyatidagi oʻxshash va farqli xususiyatlari yoritiladi. Tadqiqot natijalari zoonimik paremiyalarning millatlararo mentalitet farqlarini aks ettiruvchi muhim til birligi ekanligini koʻrsatadi.

Kalit soʻzlar: zoonim, paremiologiya, lingvokognitivistika, lingvopragmatika, konseptual metafora, milliy-madaniy konnotatsiya, maqol, ingliz tili, oʻzbek tili.

Аннотация. В данной статье анализируются языковые средства с зоонимическим компонентом, представленные в составе паремиологических единиц английского и узбекского языков, с лингвокогнитивной и лингвопрагматической точек зрения. Рассматриваются концептуальные основы зоонимов, сформировавшиеся в народном сознании, их оценочно-

экспрессивные функции в различных речевых ситуациях, а также сходства и различия в двух языковых культурах в сопоставительном аспекте. Результаты исследования показывают, что зоонимические паремии являются важными языковыми единицами, отражающими различия в межнациональной ментальности.

Ключевые слова: зооним, паремиология, лингвокогнитивистика, лингвопрагматика, концептуальная метафора, национально-культурная коннотация, пословица, английский язык, узбекский язык.

Abstract. This article analyzes linguistic means containing zoonymic components in the composition of paremiological units in English and Uzbek from linguistic-cognitive and linguopragmatic perspectives. It examines the conceptual foundations of zoonyms formed in the collective consciousness, their evaluative and expressive functions in various speech situations, as well as the similarities and differences between the two language cultures from a comparative perspective. The findings demonstrate that zoonymic paremias constitute important linguistic units that reflect differences in national mentalities.

Keywords: zoonym, paremiology, linguocognitistics, linguopragmatics, conceptual metaphor, national-cultural connotation, proverb, English language, Uzbek language.

KIRISH

Til – millat tafakkurining ko‘zgusi bo‘lib, xalq tomonidan asrlar davomida yaratilgan paremiologik fond ana shu tafakkurning eng yorqin namunalaridan biridir. Maqol va matallar tarkibida hayvon nomlari – zoonimlarning faol qo‘llanilishi tasodifiy hodisa emas, balki insoniyatning tabiat bilan azaldan uyg‘un yashab kelgani, hayvonlar xatti-harakatini kuzatish orqali o‘z hayotiy tajribasini umumlashtirganining natijasidir. Zoonimik komponentli paremiyalar nafaqat obrazli, balki chuqur milliy-madaniy va kognitiv mazmunga ega bo‘lgan til birliklari sanaladi. Mavzuning dolzarbligi shundaki, hozirgi kunda qiyosiy tilshunoslik va lingvokulturologiya sohasida turli tizimli tillarning frazeologik hamda paremiologik qatlamlarini kognitiv va pragmatik jihatdan tahlil qilish alohida ahamiyat kasb etmoqda. Ingliz va o‘zbek tillari genetik jihatdan bir-biriga yaqin bo‘lmasa-da, ikkala xalqning ham hayvonlarga nisbatan shakllangan tasavvurlarida ko‘plab umumbashariy o‘xshashliklar, shuningdek o‘ziga xos milliy farqlar mavjud. Ushbu o‘xshashlik va tafovutlarni ilmiy asosda ochib berish tilshunoslik, tarjimashunoslik va madaniyatlararo muloqot nazariyasi uchun muhim ahamiyatga ega.

Tadqiqotning maqsadi – ingliz va o‘zbek tillaridagi paremiologik matnlar tarkibidagi zoonimik komponentli birliklarni lingvokognitiv va lingvopragmatik jihatdan tahlil qilish, ularning konseptual asoslari va nutqiy-pragmatik funksiyalarini aniqlashdan iborat. Ushbu maqsadga erishish uchun quyidagi vazifalar belgilandi: zoonim va paremiologiya tushunchalarining nazariy asoslarini yoritish; zoonimik paremiyalarning kognitiv tabiatini, ya’ni ular ortida turgan konseptual metafora va konseptlarni aniqlash; ularning pragmatik – baholovchi, ekspressiv, ta’sirchan funksiyalarini ochib berish; ikki til materiali asosida qiyosiy tahlil o‘tkazish.

Tilshunoslikda “zoonim” termini kishi nomlaridan farqli o‘laroq, hayvon, qush, hasharot va boshqa jonzotlarning nomlarini bildiruvchi leksik birliklarni anglatadi. Biroq paremiologik matnlar tarkibida zoonimlar sof denotativ ma’noda emas, balki ko‘chma, ramziy-obrazli ma’noda qo‘llaniladi va muayyan xarakter xususiyati, xulq-atvor yoki holatni ifodalash vositasiga aylanadi. Masalan, o‘zbek tilida “tulki” ayyorlik, “bo‘ri” yirtqichlik va shafqatsizlik, “eshak” beparvolik yoki qo‘pollik, ingliz tilida esa fox ayyorlik, wolf xavf va tahdid, donkey qaysarlik ramzi sifatida talqin qilinadi.

Paremiologiya – maqol, matal va aforizmlarni o‘rganuvchi tilshunoslik bo‘limi bo‘lib, ular xalq og‘zaki ijodining qisqa, lekin mazmunan teran shakllaridan hisoblanadi. Paremiologik birliklarning o‘ziga xos xususiyati – ularning barqarorligi, umumxalq tomonidan tan olinganligi, o‘gitlash-nasihat funksiyasiga egaligi va qisqa shaklda chuqur hayotiy hikmatni ifodalay olishidadir. Zoonimik komponentli paremiyalar aynan shu xususiyatlarni hayvonlar obrazi orqali yanada ta’sirchan tarzda namoyon etadi.

Lingvokognitiv yondashuv nuqtai nazaridan zoonimik paremiyalar ma’lum bir xalqning dunyoni idrok etish tarzini, ya’ni milliy-konseptual tizimini aks ettiradi. Har bir zoonim ortida

muayyan konsept – jamoaviy ongda shakllangan tasavvurlar majmui yashiringan bo‘ladi. Masalan, “it” konsepti o‘zbek va ingliz tillarida qisman umumiy (sodiqlik, vafodorlik: “It egasini tanir”, “A dog is a man’s best friend”), qisman farqli assotsiatsiyalarni (pastkashlik, tuban xatti-harakat: “It ini it tishlamaydi” kabi salbiy kontekstlar) o‘zida mujassam etadi.

Konseptual metafora nazariyasi nuqtai nazaridan zoonimik paremiyalarda “INSON – HAYVON” konseptual metaforasi faol ishlaydi: inson xususiyatlari, xatti-harakati va taqdiri hayvonlar dunyosi orqali kontseptuallashtiriladi. Bunda tabiiy kuzatuv (hayvonning tabiiy xossasi) asosida inson xarakteriga nisbatan baholovchi ma’no yuzaga keladi. Masalan, ingliz tilidagi “as busy as a bee” iborasi ariing tinimsiz mehnatini insonning ishchanligiga ko‘chirsa, o‘zbekcha “chumolidek mehnatkash” iborasi xuddi shunday kognitiv mexanizm asosida shakllangan.

Shu bilan birga, zoonimik konseptlarning milliy o‘ziga xosligi ham yaqqol ko‘zga tashlanadi. Chorvachilik va dehqonchilik bilan bog‘liq turmush tarzi kechgan o‘zbek xalqi paremiyalarida ot, eshak, qo‘y, echki kabi uy hayvonlari obrazi yetakchi o‘rin egallaydi (“Otning yaxshisi – toychoq”, “Eshakka minib eshak qidirma”). Ingliz xalqi paremiyalarida esa dengizchilik va ov madaniyati ta’sirida cat, fox, hare kabi zoonimlar nisbatan faolroq qo‘llaniladi (“Curiosity killed the cat”, “Never run after a bus or a man; there will be another one”). Bu farqlar ikki xalqning tarixiy-geografik va xo‘jalik faoliyati bilan bevosita bog‘liqdir.

Lingvopragmatik nuqtai nazardan zoonimik paremiyalar nutq jarayonida bir qancha muhim funksiyalarni bajaradi. Birinchidan, baholash funksiyasi – so‘zlovchi ma’lum bir shaxs yoki holatga nisbatan pozitiv yoki negativ munosabatini bildiradi (“U – chin ma’noda tulki” – salbiy baho; “A workhorse” – mehnatkashlikka ijobiy baho). Ikkinchidan, ekspressiv-emotsional funksiya – paremiya nutqqa qo‘shimcha hissiy bo‘yoq, kinoya, istehzo yoki hazil ohangini olib kiradi. Uchinchidan, ta’sir o‘tkazish (direktiv) funksiyasi – tinglovchini ma’lum xulosaga undash yoki ogohlantirish maqsadida qo‘llaniladi (“Don’t count your chickens before they hatch” – shoshilinch xulosa chiqarishdan ogohlantirish).

Muloqot jarayonida zoonimik paremiyaning tanlanishi kontekstga, so‘zlovchi va tinglovchi o‘rtasidagi ijtimoiy-madaniy munosabatga bog‘liq bo‘ladi. Rasmiy nutqda bunday birliklar kamdan-kam qo‘llanilsa, kundalik so‘zlashuv nutqida ular obrazlilik va qisqalik tufayli faol ishlatiladi. Shuningdek, bir xil zoonim turli tilda qarama-qarshi pragmatik baho olishi mumkin: masalan, o‘zbek madaniyatida “bo‘ri” ko‘pincha salbiy (shafqatsizlik) yoki ba‘zan ijobiy (kuchlilik, mardlik – “bo‘ridek yovqur”) ma’noda qo‘llansa, ingliz tilida “lone wolf” iborasi zamonaviy nutqda mustaqillik, o‘ziga xoslik ma’nosida ijobiy pragmatik konnotatsiya kasb etadi.

To‘liq yoki qisman ekvivalent misollarga quyidagilarni kiritish mumkin: “Every dog has its day” – “Har kimning boshiga bir kun tushadi” (ma’no jihatdan yaqin, biroq o‘zbekchasida zoonim tushirib qoldirilgan); “Barking dogs seldom bite” – “Vovullagan it tishlamaydi”. Bunday holatlarda hayvon obrazi orqali ifodalangan hayotiy hikmat ikkala xalq uchun ham tushunarli va yaqin bo‘ladi, chunki bu kuzatuvlar umuminsoniy tajribaga asoslanadi.

Milliy o‘ziga xos, bezekvivalent birliklarga esa ma’lum bir xalqning turmush tarzi, urf-odati yoki tarixiy tajribasi bilan chambarchas bog‘liq paremiyalar kiradi. Masalan, o‘zbek tilidagi “Ho‘kizni so‘ysang ham, echkini so‘ysang ham – bir pichoq” kabi chorvachilik hayotiga xos paremiyalarning ingliz tilida to‘g‘ridan-to‘g‘ri muqobili topilmaydi, aksincha, tarjima jarayonida tavsiflovchi (deskriptiv) usuldan foydalanishga to‘g‘ri keladi.

Shuningdek, bir xil zoonim ikki tilda qarama-qarshi baholovchi ma’noga ega bo‘lishi mumkin. Masalan, ingliz madaniyatida “owl” (boyqush) donolik ramzi sifatida ijobiy baholansa (“as wise as an owl”), o‘zbek xalq tasavvurida boyqush ko‘pincha yomon xabar yoki baxtsizlik timsoli sifatida salbiy konnotatsiyaga ega. Bu kabi farqlar tarjima va madaniyatlararo muloqotda alohida e’tiborni talab qiladi, aks holda ma’no buzilishi yoki noto‘g‘ri talqin yuzaga kelishi mumkin.

XULOSA

Xulosa qilib aytganda, paremiologik matnlar tarkibidagi zoonimik komponentli til birliklari nafaqat tilning obrazli-ekspressiv boyligini, balki xalq tafakkurining kognitiv tuzilishini ham namoyon etadi. Lingvokognitiv tahlil zoonimlar ortida yashiringan milliy-konseptual tasavvurlarni,

lingvopragmatik tahlil esa ularning nutqiy muloqotdagi baholovchi va ta'sir o'tkazuvchi vazifalarini ochib beradi. Ingliz va o'zbek tillari materiallarini qiyoslash natijasida ma'lum bo'ldiki, zoonimik paremiyalarning bir qismi umuminsoniy tajriba asosida shakllangani bois o'zaro yaqinlikka ega, boshqa bir qismi esa har bir xalqning o'ziga xos tarixiy-madaniy va xo'jalik hayoti bilan bog'liq holda milliy o'ziga xoslik kasb etadi. Ushbu natijalar qiyosiy frazeologiya, tarjimashunoslik va chet tili o'qitish metodikasi sohalarida amaliy ahamiyatga ega bo'lib, kelgusi tadqiqotlar uchun zamin yaratadi.

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TALABALARGA INGLIZ TILINI O'QITISHDA KOMMUNIKATIV YONDASHUV SAMARADORLIGI

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Annotatsiya. Mazkur maqolada talabalarga ingliz tilini o'qitishda kommunikativ yondashuvning samaradorligi, uning nazariy-metodik asoslari va amaliy imkoniyatlari tahlil qilinadi. Zamonaviy xorijiy til ta'limida asosiy e'tibor grammatik qoidalarni yodlashdan ko'ra, talabaning real kommunikativ vaziyatlarda ingliz tilidan mustaqil va samarali foydalana olish kompetensiyasini shakllantirishga qaratilmoqda. Kommunikativ yondashuv o'quv jarayonini talaba faol ishtirok etadigan, muloqotga asoslangan va amaliy vazifalar orqali tashkil etishni nazarda tutadi. Tadqiqotda kommunikativ yondashuvning asosiy tamoyillari, juftlik va guruhli ish, rolli o'yinlar, muammoli vaziyatlar, munozara, intervyu, loyiha va axborot almashish topshiriqlarining ingliz tili ko'nikmalarini rivojlantirishdagi o'rni o'rganiladi. Shuningdek, mazkur yondashuvning speaking, listening, reading va writing ko'nikmalarini kompleks rivojlantirish imkoniyatlari tahlil qilinadi. Tadqiqot natijalari kommunikativ yondashuv talabalarining darsdagi faolligini oshirish, ingliz tilida erkin muloqot qilishga bo'lgan ishonchini kuchaytirish, lug'at boyligini amaliy vaziyatlarda qo'llash va mustaqil fikrlash ko'nikmalarini rivojlantirish uchun samarali pedagogik vosita ekanligini ko'rsatadi. Shu bilan birga, yondashuvni samarali qo'llash uchun o'qituvchining metodik tayyorgarligi, to'g'ri topshiriq tanlashi, baholash mezonlari va ta'lim muhitining kommunikativ xususiyatlari muhim ahamiyatga ega.

Kalit so'zlar: kommunikativ yondashuv, ingliz tili, xorijiy til ta'limi, kommunikativ kompetensiya, speaking, listening, interaktiv metodlar, juftlikda ishlash, guruhli ish, rolli o'yin, talaba markazli ta'lim, til ko'nikmalari.

Аннотация. В данной статье рассматривается эффективность коммуникативного подхода в обучении английскому языку студентов, а также его теоретико-методические основы и практические возможности. Современное обучение иностранному языку ориентировано не только на усвоение грамматических правил и лексики, но прежде всего на формирование способности студентов эффективно использовать английский язык в реальных коммуникативных ситуациях. Коммуникативный подход предполагает организацию учебного процесса на основе активного участия студентов, взаимодействия и выполнения практико-ориентированных заданий. В статье анализируется роль парной и

групповой работы, ролевых игр, дискуссий, интервью, проблемных ситуаций, проектной деятельности и заданий на обмен информацией в развитии коммуникативных навыков студентов. Особое внимание уделяется развитию навыков говорения, аудирования, чтения и письма в их взаимосвязи. Результаты теоретического анализа показывают, что коммуникативный подход способствует повышению активности студентов, развитию уверенности при использовании английского языка, расширению практического словарного запаса и формированию самостоятельного мышления. Вместе с тем эффективность данного подхода зависит от методической подготовки преподавателя, правильного выбора коммуникативных заданий, объективного оценивания и создания благоприятной языковой среды.

Ключевые слова: коммуникативный подход, английский язык, обучение иностранному языку, коммуникативная компетенция, говорение, аудирование, интерактивные методы, парная работа, групповая работа, ролевые игры, студентоцентрированное обучение, языковые навыки.

Annotation. This article examines the effectiveness of the communicative approach in teaching English to university students, focusing on its theoretical and methodological foundations and practical potential. Contemporary foreign language education increasingly emphasizes learners' ability to use English effectively in authentic communicative situations rather than simply memorizing grammatical rules and vocabulary. The communicative approach organizes the learning process around active student participation, interaction, and practical language tasks. The article analyzes the role of pair work, group work, role plays, discussions, interviews, problem-solving activities, project-based tasks, and information-gap activities in developing students' communicative competence. Particular attention is given to the integrated development of speaking, listening, reading, and writing skills. The theoretical analysis demonstrates that the communicative approach can increase students' classroom participation, improve their confidence in using English, facilitate the practical use of vocabulary, and promote independent thinking. At the same time, its effectiveness depends on teachers' methodological competence, appropriate selection of communicative activities, effective assessment criteria, and the creation of a supportive language-learning environment. The communicative approach is therefore considered an effective pedagogical framework for developing students' practical English proficiency and preparing them for academic, professional, and intercultural communication.

Keywords: communicative approach, English language, foreign language teaching, communicative competence, speaking, listening, interactive methods, pair work, group work, role play, student-centered learning, language skills.

KIRISH

Bugungi globallashuv va xalqaro integratsiya sharoitida ingliz tili oliy ta'lim tizimida muhim kommunikativ va kasbiy vositalardan biri sifatida namoyon bo'lmoqda. Ingliz tilini bilish talabalarga xalqaro ilmiy adabiyotlardan foydalanish, xorijiy hamkasblar bilan muloqot qilish, xalqaro loyihalarda ishtirok etish, zamonaviy kasbiy axborotlarni o'zlashtirish va global mehnat bozorida raqobatbardosh bo'lish imkonini beradi. Shu sababli oliy ta'lim muassasalarida ingliz tilini o'qitish metodikasini takomillashtirish dolzarb pedagogik masalalardan biridir.

An'anaviy xorijiy til ta'limida ko'pincha grammatik qoidalarni tushuntirish, lug'at yodlash, tarjima qilish va yozma mashqlarni bajarishga katta e'tibor qaratilgan. Bunday yondashuv talabaning grammatik bilimlarini rivojlantirishi mumkin, biroq u har doim ham real kommunikativ vaziyatlarda ingliz tilidan erkin foydalanish imkoniyatini ta'minlamaydi. Talaba grammatik qoidani bilishi, lekin o'z fikrini ingliz tilida tez va tabiiy ifodalashda qiyinchilikka duch kelishi mumkin.

Kommunikativ yondashuv aynan shu muammoni bartaraf etishga qaratilgan. Ushbu yondashuvning asosiy maqsadi tilni alohida grammatik birliklar majmuasi sifatida emas, balki real muloqot vositasi sifatida o'rgatishdan iborat. Kommunikativ til o'qitishning rivojlanishida Hymesning kommunikativ kompetensiya haqidagi qarashlari, Canale va Swainning kommunikativ kompetensiya modelini ishlab chiqishi hamda keyingi metodik tadqiqotlar muhim ahamiyatga ega.

Kommunikativ yondashuvda talaba ta'lim jarayonining passiv qabul qiluvchisi emas, balki faol ishtirokchisi hisoblanadi. O'qituvchi esa faqat bilim beruvchi emas, balki ta'lim jarayonini tashkil etuvchi, yo'naltiruvchi va kommunikativ muhitni shakllantiruvchi pedagog sifatida namoyon bo'ladi. Dars jarayonida talabalar juftlik va kichik guruhlarda ishlaydi, savol-javoblar tashkil qiladi, rolli o'yinlarda ishtirok etadi, muammoli vaziyatlarni muhokama qiladi, o'z fikrini asoslaydi va turli axborotlarni bir-biri bilan almashadi.

Kommunikativ yondashuvning yana bir muhim xususiyati tilning autentik yoki hayotiy vaziyatlarda qo'llanilishidir. Masalan, talaba "Present Perfect" zamonining formulasini yodlash bilan cheklanmaydi, balki undan o'z tajribasi haqida gapirish, suhbatdoshga savol berish yoki muayyan vaziyatda ma'lumot almashish uchun foydalanadi. Shu tariqa grammatik bilim kommunikativ faoliyat bilan bog'lanadi.

Tadqiqotning dolzarbligi shundaki, oliy ta'limda ingliz tilini o'rganuvchi talabalarning grammatik bilimlari bilan bir qatorda ularning real muloqot kompetensiyasini rivojlantirish zarur. Ayniqsa, ingliz tilini kelajakdagi kasbiy faoliyat uchun o'rganayotgan talabalar uchun kommunikativ kompetensiya alohida ahamiyatga ega.

Mazkur maqolaning maqsadi talabalarga ingliz tilini o'qitishda kommunikativ yondashuvning samaradorligini nazariy va metodik jihatdan tahlil qilish, uning asosiy pedagogik imkoniyatlarini aniqlash hamda oliy ta'lim jarayonida qo'llashning samarali usullarini tavsiflashdan iborat.

Tadqiqotning asosiy vazifalari quyidagilardan iborat: kommunikativ yondashuv tushunchasining mazmunini ochib berish; kommunikativ kompetensiyaning asosiy tarkibiy qismlarini aniqlash; interaktiv metodlarning ingliz tili ko'nikmalarini rivojlantirishdagi rolini tahlil qilish; kommunikativ topshiriqlarning ta'lim samaradorligiga ta'sirini aniqlash; oliy ta'lim sharoitida kommunikativ yondashuvni samarali tashkil etish bo'yicha metodik tavsiyalar ishlab chiqish.

METODLAR

Tadqiqotning metodologik asosini kommunikativ til o'qitish nazariyasi, kompetensiyaviy yondashuv, talaba markazli ta'lim tamoyillari va zamonaviy pedagogik texnologiyalar tashkil etadi.

Tadqiqotda nazariy tahlil, ilmiy-pedagogik adabiyotlarni o'rganish, qiyosiy tahlil, umumlashtirish, kuzatish va metodik modellash usullaridan foydalanildi. Kommunikativ yondashuvga oid ilmiy-metodik manbalar o'rganilib, ularning oliy ta'limda ingliz tilini o'qitish jarayoniga tatbiq etish imkoniyatlari tahlil qilindi.

Kommunikativ yondashuvni o'rganishda asosiy e'tibor til o'rganuvchining kommunikativ kompetensiyasiga qaratildi. Kommunikativ kompetensiya faqat grammatik bilim bilan cheklanmaydi. U til vositalaridan to'g'ri va vaziyatga mos foydalanish, suhbatdoshni tushunish, fikrni izchil ifodalash, muloqotni davom ettirish va kommunikativ strategiyalardan foydalanish qobiliyatlarini ham o'z ichiga oladi.

Amaliy jihatdan kommunikativ mashg'ulotlarni bir necha turga ajratish mumkin. Birinchi tur — juftlikdagi kommunikativ mashqlar. Bunda ikki talaba bir-biriga savollar beradi, ma'lumot almashadi yoki berilgan vaziyat asosida dialog tuzadi. Ikkinchi tur — guruhli muhokama. Bunda talabalar muayyan mavzu yuzasidan o'z fikrlarini bildiradi, fikrlarni taqqoslaydi va umumiy xulosaga keladi.

Uchinchi tur — rolli o'yinlar. Masalan, "job interview", "at the airport", "at the restaurant", "business meeting", "doctor and patient", "customer and seller" kabi vaziyatlar orqali talabalar real hayotga yaqin muloqotni modellash tiradilar.

To'rtinchi tur — muammoli topshiriqlar. Talabalarga muayyan muammo beriladi va ular ingliz tilida uning yechimini muhokama qiladilar. Bunday topshiriqlar nafaqat til ko'nikmalarini, balki tanqidiy va mantiqiy fikrlashni ham rivojlantiradi.

Beshinchi tur — axborot almashish topshiriqlari. Bunda juftlikdagi yoki guruhdagi talabalarning har birida ma'lumotning turli qismlari bo'ladi. Vazifani bajarish uchun ular ingliz tilida savol berishi, javob olishi va ma'lumotlarni birlashtirishi kerak. Ushbu usul kommunikativ ehtiyojni tabiiy ravishda yuzaga keltiradi.

Kommunikativ yondashuvni baholashda speaking, listening, reading va writing ko'nikmalarining rivojlanishi kompleks tarzda ko'rib chiqilishi lozim. Speaking ko'nikmasida talabaning ravonligi, talaffuzi, lug'at boyligi, grammatik aniqligi va fikrni mantiqan ifodalashi baholanadi. Listeningda asosiy va ikkilamchi ma'lumotni tushunish, readingda matn mazmunini anglash va writingda fikrni yozma shaklda izchil ifodalash mezonlari hisobga olinadi.

Kommunikativ darsning samaradorligi faqat o'qituvchining qancha ma'lumot bergani bilan emas, balki talabalarining dars davomida qancha faol kommunikativ harakat bajargani bilan ham belgilanadi. Shu sababli o'qituvchi "teacher talking time"ni kamaytirib, "student talking time"ni oshirishga intilishi lozim.

NATIJALAR

Nazariy va metodik tahlil natijalari kommunikativ yondashuv ingliz tilini o'qitishda bir qator muhim pedagogik afzalliklarga ega ekanligini ko'rsatadi.

Birinchidan, kommunikativ yondashuv talabalarining ingliz tilida gapirish faolligini oshiradi. An'anaviy darsda o'qituvchi asosiy nutq egasi bo'lishi mumkin, kommunikativ darsda esa talaba ko'proq gapiradi. Juftlik va guruhli mashqlar natijasida bir vaqtning o'zida ko'plab talabalar ingliz tilidan foydalanish imkoniyatiga ega bo'ladi.

Ikkinchidan, kommunikativ yondashuv talabalarining ingliz tilida gapirishga bo'lgan psixologik to'siqlarini kamaytiradi. Talaba doimiy ravishda xato qilishdan qo'rqsa, uning kommunikativ faolligi pasayadi. Kommunikativ metodda xatolar tabiiy o'quv jarayonining bir qismi sifatida qaraladi. O'qituvchi har bir xatoni darhol to'xtatib tuzatishdan ko'ra, kommunikativ vazifa tugaganidan keyin muhim xatolarni tahlil qilishi mumkin.

Uchinchidan, mazkur yondashuv lug'at boyligini faol qo'llashga yordam beradi. Talaba yangi so'zni faqat yodlab qolmay, uni dialog, munozara yoki muammoli vaziyatda ishlatadi. Natijada yangi leksik birlik passiv lug'atdan faol lug'atga o'tishi uchun imkoniyat yaratiladi.

To'rtinchidan, kommunikativ topshiriqlar grammatik bilimlarni amaliy faoliyat bilan bog'laydi. Masalan, "Future Plans" mavzusida talabalar faqat "will" va "be going to" qoidalarini o'rganmay, kelajakdagi rejalari haqida suhbatlashadi. Shu orqali grammatik struktura kommunikativ ma'no bilan bog'lanadi.

Beshinchidan, kommunikativ yondashuv tinglab tushunish ko'nikmasini rivojlantiradi. Real muloqotda suhbatdoshning talaffuzi, tezligi, aksenti va gap tuzilishi turlicha bo'lishi mumkin. Kommunikativ darslarda turli audio va video materiallardan foydalanish talabalarni real ingliz tilini tushunishga tayyorlaydi.

Oltinchidan, kommunikativ yondashuv talabalarining mustaqil va tanqidiy fikrlashini rivojlantiradi. Munozara va muammoli vazifalarda talabadan tayyor javobni takrorlash emas, balki o'z fikrini shakllantirish va uni ingliz tilida asoslash talab qilinadi.

Yettinchidan, guruhli faoliyat hamkorlik ko'nikmalarini shakllantiradi. Talabalar bir-birini tinglash, fikrni hurmat qilish, vazifalarni taqsimlash va umumiy qarorga kelishni o'rganadilar. Bu ko'nikmalar ularning kelajakdagi kasbiy faoliyati uchun ham muhimdir.

Kommunikativ yondashuv asosida tashkil etilgan dars uchun quyidagi oddiy model samarali hisoblanadi:

Kirish → Til materiali bilan tanishish → Nazorat qilinadigan mashq → Juftlikdagi faoliyat → Guruhli kommunikativ vazifa → Taqdimot → Tahlil va fikr-mulohaza.

Masalan, "Job Interview" mavzusidagi mashg'ulotda dastlab ishga qabul qilish bilan bog'liq so'z va iboralar beriladi. Keyin o'qituvchi intervyu savollarining namunalarini tushuntiradi. Shundan so'ng talabalar juftliklarga bo'linib, birinchi talaba "interviewer", ikkinchi talaba "candidate" rolini bajaradi. Keyingi bosqichda rollar almashtiriladi. Mashg'ulot oxirida talabalar eng yaxshi javoblarni muhokama qiladi.

Bunday darsda grammatika, lug'at, speaking, listening va ijtimoiy-kommunikativ ko'nikmalar bir vaqtning o'zida rivojlanadi.

MUHOKAMA

Kommunikativ yondashuvning samaradorligini tushuntirishda uning an'anaviy grammatika-tarjima metodidan farqini hisobga olish muhim. Grammatika-tarjima metodida asosiy e'tibor grammatik qoidalar, tarjima va yozma mashqlarga qaratilsa, kommunikativ yondashuvda tilning real muloqotdagi funksiyasi ustuvor hisoblanadi.

Biroq kommunikativ yondashuv grammatikani o'qitishni butunlay inkor etmaydi. Aksincha, grammatika kommunikativ maqsad bilan bog'langan holda o'rgatiladi. Talaba grammatik qoidani bilishi bilan birga, uni qachon va qanday vaziyatda qo'llashni ham tushunishi kerak.

Kommunikativ yondashuvning muhim jihatlaridan biri autentiklikdir. Autentik materiallar talabalarga real hayotda uchraydigan til shakllarini ko'rsatadi. Yangiliklar, intervyular, podkastlar, e'lonlar, menyular, elektron xatlar va ijtimoiy muloqot namunalari foydalanish talabalarning tilni real kontekstda tushunishiga yordam beradi.

Raqamli texnologiyalar kommunikativ yondashuv imkoniyatlarini yanada kengaytirmoqda. Video konferensiyalar, onlayn suhbat platformalari, interaktiv taqdimotlar, ovoz yozish vositalari, elektron lug'atlar va sun'iy intellekt asosidagi til vositalari talabalarga ingliz tilidan foydalanish uchun qo'shimcha muhit yaratadi.

Shu bilan birga, sun'iy intellekt vositalaridan foydalanishda pedagogik nazorat zarur. AI vositalari dialog yaratish, grammatik xatolarni aniqlash yoki yangi mavzu bo'yicha mashqlar tayyorlashda yordam berishi mumkin, ammo talabaning real inson bilan muloqot qilish ko'nikmasini to'liq almashtira olmaydi.

Kommunikativ yondashuvni amalga oshirishda ayrim muammolar ham mavjud. Birinchidan, guruhdagi talabalar sonining ko'pligi har bir talabaga yetarli nutq vaqtini berishni qiyinlashtirishi mumkin. Ikkinchidan, talabalarning til darajasi turlicha bo'lsa, kuchli talabalar faolroq, boshlang'ich darajadagi talabalar esa passivroq bo'lib qolishi mumkin. Uchinchidan, ayrim talabalar xato qilishdan qo'rqib, ingliz tilida gapirishdan qochishi mumkin.

Mazkur muammolarni hal qilish uchun differensial topshiriqlar, kichik guruhlar, rollarni almashtirish, tayanch so'zlardan foydalanish va bosqichma-bosqich murakkablashtiriladigan mashqlardan foydalanish tavsiya etiladi.

O'qituvchining roli ham o'zgaradi. U dars davomida doimiy ravishda gapiruvchi emas, balki fasilitator sifatida faoliyat yuritadi. O'qituvchi kommunikativ vazifani tushuntiradi, talabalarni kuzatadi, zarur hollarda yordam beradi va mashg'ulot yakunida tahlil qiladi.

Kommunikativ yondashuvda baholash ham alohida ahamiyatga ega. Faqat grammatik to'g'rilikka asoslangan baholash talabaning kommunikativ qobiliyatini to'liq aks ettirmaydi. Shu sababli speakingni baholashda ravonlik, talaffuz, lug'at, grammatik aniqlik, mazmun va interaktivlik kabi mezonlardan foydalanish maqsadga muvofiq.

Umuman olganda, kommunikativ yondashuv ingliz tilini o'qitishni "til haqida bilim berish"dan "til orqali muloqot qilishni o'rgatish"ga yo'naltiradi. Bu esa zamonaviy oliy ta'limning amaliy va kompetensiyaviy talablariga mos keladi.

XULOSA

Talabalarga ingliz tilini o'qitishda kommunikativ yondashuv zamonaviy xorijiy til ta'limining samarali metodik yo'nalishlaridan biri hisoblanadi. Mazkur yondashuvning asosiy afzalligi ingliz tilini faqat nazariy bilimlar majmuasi sifatida emas, balki real muloqot vositasi sifatida o'rgatishga yo'naltirilganligidadir.

Tadqiqot natijalari kommunikativ yondashuv talabalarning speaking, listening, reading va writing ko'nikmalarini kompleks rivojlantirish uchun qulay pedagogik sharoit yaratishini ko'rsatadi. Ayniqsa, juftlik va guruhli ish, rolli o'yinlar, munozara, intervyu, muammoli vaziyatlar, loyiha va axborot almashish topshiriqlari talabalarning darsdagi faolligini oshiradi.

Kommunikativ yondashuv talabalarning ingliz tilida gapirishga bo'lgan ishonchini kuchaytiradi, xato qilishdan qo'rqishni kamaytiradi va til birliklarini real vaziyatlarda qo'llash imkoniyatini yaratadi. Shu bilan birga, ushbu metod mustaqil fikrlash, hamkorlik, muammolarni hal qilish va madaniyatlararo muloqot kabi umumiy kompetensiyalarni ham rivojlantiradi.

Kommunikativ yondashuv samaradorligini ta'minlashda o'qituvchining metodik mahorati muhim omil hisoblanadi. O'qituvchi dars maqsadiga mos kommunikativ vazifalarni tanlashi, talabalar uchun qulay psixologik muhit yaratishi, individual farqlarni hisobga olishi va baholashni aniq mezonlar asosida tashkil qilishi lozim.

Shuningdek, kommunikativ yondashuvni raqamli texnologiyalar, autentik materiallar va zamonaviy interaktiv vositalar bilan uyg'unlashtirish ingliz tilini o'qitish samaradorligini yanada oshirishi mumkin.

Xulosa qilib aytganda, kommunikativ yondashuv talabalarda ingliz tilidan amaliy foydalanish, mustaqil fikrni ifodalash va real hayot hamda kasbiy faoliyatda samarali muloqot qilish kompetensiyasini shakllantirish uchun samarali metodik asos bo'lib xizmat qiladi. Kelgusidagi empirik tadqiqotlarda kommunikativ yondashuv asosida tashkil etilgan darslarning samaradorligini tajriba va nazorat guruhlarini, oldindan va keyingi testlar, speaking rubrikalari hamda talabalarning so'rovnomalari asosida statistik jihatdan baholash maqsadga muvofiq.

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BOLALAR SPONTAN NUTQINING INGLIZ VA O'ZBEK TILLARIDA QIYOSIY TADQIQI

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Annotatsiya. Mazkur maqolada bolalar spontan nutqining ingliz va o'zbek tillaridagi o'ziga xos xususiyatlari qiyosiy-lisoniy nuqtayi nazardan tahlil qilinadi. Tadqiqotning asosiy maqsadi bolalar tomonidan tabiiy va oldindan tayyorlanmagan kommunikativ vaziyatlarda yaratiladigan nutqiy birliklarning leksik, grammatik, sintaktik va pragmatik xususiyatlarini aniqlash hamda ikki til o'rtasidagi umumiy va farqli jihatlarni ko'rsatishdan iborat. Tadqiqotda qiyosiy, tavsifiy, kontekstual va lingvopragmatik tahlil usullaridan foydalanildi. Ingliz va o'zbek tillaridagi bolalar spontan nutqida takror, ellipsis, to'liqsiz gaplar, pauzalar, o'zini-o'zi tuzatish, modal birliklar va emotsional-ekspressiv vositalarning faol qo'llanishi kuzatiladi. Shu bilan birga, tillarning tipologik xususiyatlari spontan nutqning grammatik va sintaktik tashkil etilishida muhim farqlarni yuzaga keltiradi. Tadqiqot natijalari bolalar nutqining shakllanish mexanizmlarini chuqurroq anglash, qiyosiy tilshunoslik, psixolingvistika va chet tilini o'qitish metodikasi uchun nazariy va amaliy ahamiyatga ega.

Kalit so'zlar: bolalar nutqi, spontan nutq, ingliz tili, o'zbek tili, qiyosiy tilshunoslik, psixolingvistika, bolalar tili, nutqiy birlik, ellipsis, takror, kommunikativ kompetensiya.

Abstract. This article examines the specific characteristics of children's spontaneous speech in English and Uzbek from a comparative linguistic perspective. The primary aim of the study is to identify the lexical, grammatical, syntactic and pragmatic features of speech produced by children in natural and unprepared communicative situations and to determine similarities and differences between the two languages. The study employs comparative, descriptive, contextual and linguopragmatic methods of analysis. The analysis demonstrates that repetition, ellipsis, incomplete sentences, pauses, self-correction, modal expressions and emotionally expressive units are common features of children's spontaneous speech in both English and Uzbek. At the same time, the typological differences between English and Uzbek contribute to significant differences in the grammatical and syntactic organization of spontaneous utterances. The findings may contribute to a

better understanding of child language development and have theoretical and practical implications for comparative linguistics, psycholinguistics and foreign language teaching methodology.

Keywords: children's speech, spontaneous speech, English, Uzbek, comparative linguistics, psycholinguistics, child language, speech unit, ellipsis, repetition, communicative competence.

Аннотация. В данной статье в сопоставительно-лингвистическом аспекте анализируются специфические особенности спонтанной речи детей в английском и узбекском языках. Основная цель исследования заключается в выявлении лексических, грамматических, синтаксических и прагматических особенностей речевых единиц, создаваемых детьми в естественных и неподготовленных коммуникативных ситуациях, а также в определении общих и отличительных характеристик двух языков. В исследовании использованы сопоставительный, описательный, контекстуальный и лингвопрагматический методы анализа. В спонтанной речи детей на английском и узбекском языках наблюдается активное использование повторов, эллипсиса, неполных предложений, пауз, самокоррекции, модальных единиц и эмоционально-экспрессивных средств. Вместе с тем типологические особенности языков обуславливают существенные различия в грамматической и синтаксической организации спонтанной речи. Результаты исследования имеют теоретическое и практическое значение для более глубокого понимания механизмов формирования детской речи, сопоставительного языкознания, психолингвистики и методики преподавания иностранных языков.

Ключевые слова: детская речь, спонтанная речь, английский язык, узбекский язык, сопоставительное языкознание, психолингвистика, детский язык, речевая единица, эллипсис, повтор, коммуникативная компетенция.

KIRISH

Inson tilining shakllanishi va rivojlanishi, avvalo, bolalik davridagi nutqiy faoliyat bilan bevosita bog'liqdir. Bola nutqining dastlabki bosqichlarida grammatik jihatdan to'liq va me'yoriy shakllangan gaplardan ko'ra, kommunikativ vaziyat ta'sirida yuzaga keladigan qisqa, takroriy, to'liqsiz va emotsional nutqiy birliklar ko'proq uchraydi. Bunday nutq shakli spontan nutq sifatida namoyon bo'lib, bolaning tafakkuri, idroki, hissiyoti va kommunikativ ehtiyojlari bilan chambarchas bog'liqdir.

Spontan nutq oldindan rejalashtirilmaganligi sababli u bolaning real kommunikativ kompetensiyasini tabiiy ravishda namoyon etuvchi muhim manba hisoblanadi. Bola o'z fikrini shakllantirish jarayonida pauza qiladi, ayrim so'zlarni takrorlaydi, gapni qayta tuzadi, grammatik shakllarni almashtiradi yoki fikrini qisqartirilgan shaklda ifodalaydi. Ushbu hodisalar bolaning til tizimini qanday o'zlashtirayotganini aniqlash uchun muhim lingvistik material bo'lib xizmat qiladi.

Ingliz va o'zbek tillari tipologik jihatdan bir-biridan sezilarli darajada farq qiladi. Ingliz tili asosan analitik xususiyatlarga ega bo'lsa, o'zbek tili agglutinativ til hisoblanadi. Shuning uchun bolalar spontan nutqida grammatik shakllarning ifodalanishi, so'z tartibi, affikslarning qo'llanishi, yordamchi birliklardan foydalanish va gap tuzilishida turlicha jarayonlar kuzatilishi mumkin.

Mazkur tadqiqotning dolzarbligi shundan iboratki, ingliz va o'zbek tillarida bolalar spontan nutqining qiyosiy o'rganilishi nafaqat ikki tilning o'ziga xos xususiyatlarini aniqlash, balki bolalar tilining universal va milliy jihatlarini ajratib ko'rsatish imkonini beradi.

TADQIQOT METODOLOGIYASI

Tadqiqotning obyekti ingliz va o'zbek tillarida so'zlashuvchi bolalarning tabiiy kommunikativ vaziyatlarda yuzaga keladigan spontan nutqidir.

Tadqiqot predmeti bolalar spontan nutqining leksik, grammatik, sintaktik va pragmatik xususiyatlarini qiyosiy o'rganishdan iborat.

Tadqiqotning asosiy maqsadi ingliz va o'zbek tillaridagi bolalar spontan nutqining umumiy va o'ziga xos jihatlarini aniqlashdan iborat. Ushbu maqsadga erishish uchun quyidagi vazifalar belgilandi: bolalar spontan nutqining lingvistik tabiatini aniqlash; ingliz va o'zbek bolalar nutqida uchraydigan asosiy spontan nutq birliklarini tasniflash; leksik va grammatik xususiyatlarni qiyosiy tahlil qilish; sintaktik qurilmalardagi umumiylik va farqlarni aniqlash; spontan nutqda takror, ellipsis,

pauza va o'zini-o'zi tuzatish holatlarini o'rganish; tilning tipologik xususiyatlari bolaning spontan nutqiga qanday ta'sir qilishini aniqlash. Tadqiqotda qiyosiy-tahliliy, tavsifiy, kontekstual, komponent tahlil va lingvopragmatik tahlil usullaridan foydalanildi.

NATIJALAR VA MUHOKAMA

1. Bolalar spontan nutqining asosiy xususiyatlari

Spontan nutqning eng muhim belgilaridan biri uning oldindan tayyorlanmaganligidir. Bola kommunikativ vaziyatda o'z fikrini bir vaqtning o'zida shakllantiradi va ifodalaydi. Shu sababli uning nutqida tabiiy ravishda takrorlar, pauzalar, to'liqsiz gaplar va o'zini-o'zi tuzatishlar paydo bo'ladi. Masalan, ingliz tilidagi bolalar nutqida quyidagi kabi birliklar uchrashi mumkin: "I want... I want that one." Bu yerda **I want** birikmasining takrorlanishi bolaning fikrni shakllantirish jarayonini ko'rsatadi. O'zbek tilida esa: "Men... men shuni xohlayman." kabi takroriy konstruksiyalar kuzatilishi mumkin. Har ikki misolda takror bolaning nutqiy faoliyatida fikrni rejalashtirish va kommunikativ maqsadni aniqlashtirish vositasi sifatida xizmat qiladi.

2. Leksik xususiyatlar

Bolalar spontan nutqining leksik tarkibi, odatda, kundalik hayot bilan bog'liq bo'lgan so'zlardan tashkil topadi. Bola uchun muhim bo'lgan predmetlar, shaxslar, harakatlar va hissiy holatlar nutqda faol qo'llanadi. Ingliz tilida: "Mom, look! Look at this!" O'zbek tilida: "Oyi, qarang! Ana bunga qarang!" kabi murojaat va undov birliklari faol ishlatilishi mumkin. Bolalar nutqida **deiktik birliklar** – *this, that, here, there* hamda o'zbek tilidagi *bu, shu, ana u, mana bu, bu yerda* kabi birliklar alohida ahamiyatga ega. Ular nutq vaziyati bilan bevosita bog'langan bo'lib, bolaning real muhitdagi predmet va hodisalarni til orqali belgilash qobiliyatini ko'rsatadi.

Bundan tashqari, bolalar nutqida emotsional-ekspressiv birliklar ham ko'p uchraydi: **English:** *Wow! Really? No! Look! Oh!* **Uzbek:** *Voy! Rostdanmi? Yo'q! Qarang! O'h-ho!* Ushbu birliklar bolaning hissiy munosabatini bevosita ifodalashga xizmat qiladi.

3. Grammatik xususiyatlar

Ingliz va o'zbek tillarining grammatik tizimidagi farqlar bolalar spontan nutqida ham namoyon bo'ladi. Ingliz tilida fe'l shaklining zamon, shaxs-son va yordamchi fe'llar orqali ifodalanishi muhim ahamiyatga ega: "He go there." "She don't like it." Bunday konstruksiyalar bolaning standart grammatik me'yorni hali to'liq egallamaganligini ko'rsatishi mumkin. O'zbek tilida esa grammatik ma'nolar ko'pincha affikslar yordamida ifodalanadi: "Men bormadim." "Ular kelishdi." Bola nutqida ayrim affikslarning tushirib qoldirilishi yoki noto'g'ri qo'llanishi kuzatilishi mumkin. Masalan: "Men maktab boraman." Bu konstruksiyada yo'nalish kelishigi ko'rsatkichi tushirib qoldirilgan. Me'yoriy shakl: "Men maktabga boraman." Demak, ingliz va o'zbek bolalar nutqidagi grammatik xatolar turli ko'rinishda namoyon bo'lsa-da, ularning umumiy sababi bolaning til tizimini faol ravishda o'zlashtirish jarayoni bilan bog'liq.

4. Sintaktik xususiyatlar

Bolalar spontan nutqining sintaktik tuzilishi ko'pincha qisqa va sodda konstruksiyalar bilan tavsiflanadi. Bola nutqining dastlabki va o'rta rivojlanish bosqichlarida sodda gaplar murakkab sintaktik birliklarga qaraganda faolroq ishlatiladi. Ingliz tilida: "I want a toy." "It is mine." "Daddy is coming." O'zbek tilida: "Men o'yinchoq xohlayman." "Bu meniki." "Dadam kelyapti." Biroq kommunikativ vaziyat murakkablashgani sari bolalar bog'langan va qo'shma konstruksiyalardan foydalanishni boshlaydilar. Masalan: "I wanted to go outside, but it was raining." O'zbek tilida: "Men tashqariga chiqmoqchi edim, lekin yomg'ir yog'ayotgan edi." Bu jarayon bolaning nafaqat grammatik, balki mantiqiy va kommunikativ kompetensiyasi ham rivojlanib borayotganini ko'rsatadi.

5. Ellipsis va to'liqsiz gaplar

Spontan nutqning muhim xususiyatlaridan biri ellipsis, ya'ni gapning ayrim qismlarining kontekst asosida tushirib qoldirilishidir. Masalan: "Want some?" "Coming with us?" "Where going?" "Olasanmi?" "Biz bilan?" "Qayerga?" Bunday konstruksiyalarda ayrim grammatik elementlarning mavjud emasligi kommunikativ tushunishga to'sqinlik qilmaydi, chunki suhbatdosh vaziyat va

kontekst asosida mazmunni angelaydi. Bu holat spontan nutqning iqtisodiylik va kommunikativ samaradorlik tamoyillari bilan bog‘liq.

6. Takror va o‘zini-o‘zi tuzatish

Bolalar nutqida takrorlash fikrni shakllantirish, diqqatni jalb qilish yoki emotsional ta’sirni kuchaytirish vazifasini bajaradi. “I saw a... I saw a big dog!” “Men katta... katta itni ko‘rdim!” Bundan tashqari, bola o‘z nutqini tuzatishi ham mumkin: “I have two—three cars.” yoki: “U bugun—yo‘q, kecha kelgan.” O‘zini-o‘zi tuzatish bolaning nutqiy nazorat mexanizmlari shakllanayotganidan dalolat beradi. Bu jarayon spontan nutqni psixolingvistik nuqtayi nazardan o‘rganishda muhim indikator hisoblanadi.

7. Ingliz va o‘zbek tillaridagi spontan nutqning qiyosiy xususiyatlari

Quyidagi jadval ikki tildagi bolalar spontan nutqining asosiy xususiyatlarini umumlashtiradi:

Nutqiy hodisa	Ingliz tili	O‘zbek tili	Umumiy jihat
Takror	“I want, I want it.”	“Men, men shuni xohlayman.”	Fikrni shakllantirish
Ellipsis	“Want some?”	“Olasanmi?”	Kontekstga tayanish
Pauza	“I... I don’t know.”	“Men... bilmayman.”	Nutqni rejalashtirish
O‘zini tuzatish	“Two—three cars.”	“Ikki—uchta mashina.”	Nutqiy nazorat
Emotsional birlik	“Wow!”, “Oh!”	“Voy!”, “O‘h-ho!”	Hissiy ifoda
Deixis	“this”, “that”, “here”	“bu”, “shu”, “mana bu”	Vaziyatga bog‘liqlik
Grammatik xato	“He go.”	“Men maktab boraman.”	Til tizimini o‘zlashtirish

Jadvaldan ko‘rinadiki, spontan nutqning ayrim xususiyatlari universal xarakterga ega. Masalan, takror, pauza, ellipsis va o‘zini-o‘zi tuzatish har ikki tilda ham uchraydi. Biroq ularning grammatik shakllanishi tegishli tilning strukturaviy xususiyatlari bilan belgilanadi.

Tadqiqot natijalari bir nechta ilmiy yo‘nalishlar uchun ahamiyatlidir. Birinchidan, ular bolalar tilining shakllanish jarayonini qiyosiy nuqtayi nazardan o‘rganish imkonini beradi. Ikkinchidan, ingliz va o‘zbek tillaridagi spontan nutqni qiyoslash ushbu tillarning universal va milliy xususiyatlarini aniqlashga yordam beradi.

Tadqiqot natijalaridan psixolingvistika, qiyosiy tilshunoslik, bolalar lingvistikasi, nutq madaniyati va chet tillarini o‘qitish metodikasi fanlarida foydalanish mumkin. Ayniqsa, ingliz tilini o‘rganuvchi o‘zbek bolalarining nutqiy rivojlanishini tadqiq etishda ona tili va o‘rganilayotgan til o‘rtasidagi tipologik farqlarni hisobga olish muhimdir. Masalan, o‘zbek tilining agglutinatив xususiyati ingliz tilidagi yordamchi fe‘llar, artikllar, predloglar va qat’iy so‘z tartibini o‘zlashtirish jarayoniga ma’lum darajada ta’sir ko‘rsatishi mumkin. Shuningdek, spontan nutq materiallaridan foydalanish chet tili darslarida real kommunikativ vaziyatlarni modellashtirish imkonini beradi. Bu esa o‘quvchilarning faqat grammatik to‘g‘rilik emas, balki kommunikativ kompetensiyasini rivojlantirishga xizmat qiladi.

XULOSA

O‘tkazilgan qiyosiy tahlil shuni ko‘rsatadiki, bolalar spontan nutqi murakkab va dinamik lingvistik hodisa bo‘lib, unda bolaning tilni egallash jarayoni, kognitiv rivojlanishi va kommunikativ ehtiyojlari o‘zaro uyg‘unlashadi. Ingliz va o‘zbek tillaridagi bolalar spontan nutqida takror, pauza, ellipsis, to‘liqsiz gaplar, o‘zini-o‘zi tuzatish, deiktik birliklar va emotsional-ekspressiv vositalar kabi umumiy xususiyatlar mavjud. Mazkur hodisalar bolalar nutqining universal rivojlanish mexanizmlari bilan bog‘liq. Shu bilan birga, ikki tilning grammatik-tipologik farqlari spontan nutqning strukturaviy tashkil etilishida o‘ziga xosliklarni yuzaga keltiradi. Ingliz tilida yordamchi fe‘llar, artikllar va qat’iy so‘z tartibi muhim bo‘lsa, o‘zbek tilida affiksatsiya, kelishik shakllari va nisbatan erkin so‘z tartibi muhim rol o‘ynaydi. Demak, bolalar spontan nutqini qiyosiy o‘rganish nafaqat bolalar tilining rivojlanish qonuniyatlarini aniqlash, balki turli tillarning strukturaviy imkoniyatlari va ularning nutqiy faoliyatdagi namoyon bo‘lishini tadqiq etish uchun muhim ilmiy asos yaratadi. Kelgusida

mazkur yoʻnalishda yosh guruhlari, gender omili, kommunikativ vaziyat va nutqning janr xususiyatlarini hisobga olgan holda korpus asosidagi tadqiqotlarni amalga oshirish maqsadga muvofiqdir.

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COMPARATIVE ANALYSIS OF TEMPORAL LEXICAL UNITS IN ENGLISH AND UZBEK LANGUAGES

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Abstract. *The category of time represents one of the fundamental dimensions of human cognition and communication and is expressed through various linguistic means. This study examines temporal lexical units in English and Uzbek from comparative, semantic, structural, and functional perspectives. The research aims to identify similarities and differences in the ways temporal meanings are represented in the two languages. The analysis is based on temporal units identified in English and Uzbek literary texts and employs comparative, semantic, contextual, and statistical methods. For analytical purposes, temporal expressions are classified into four major groups: lexical, phraseological, grammatical, and contextual units. The findings demonstrate that lexical temporal units constitute the largest category in both languages, accounting for 44% in English and 39% in Uzbek. Phraseological units occur more frequently in Uzbek (23%) than in English (17%), whereas grammatical units account for 29% and 26%, respectively. The results indicate that English predominantly employs independent lexical items, prepositional constructions, and syntactic devices, while Uzbek more frequently relies on morphological mechanisms and affixation. The study also highlights the importance of semantic and pragmatic equivalence when translating temporal expressions between English and Uzbek.*

Keywords: *temporal semantics, temporal lexical units, comparative linguistics, English, Uzbek, phraseological units, translation.*

Annotatsiya. *Vaqt kategoriyasi inson tafakkuri va muloqotining asosiy oʻlchovlaridan biri boʻlib, turli til vositalari orqali ifodalanadi. Ushbu tadqiqotda ingliz va oʻzbek tillarida vaqt maʼnosini ifodalovchi leksik birliklar qiyosiy, semantik, strukturaviy va funksional jihatdan oʻrganiladi. Tadqiqotning maqsadi ikki tilda vaqt maʼnolarining ifodalanishidagi oʻxshashlik va farqlarni aniqlashdan iborat. Tahlil ingliz va oʻzbek badiiy matnlarida aniqlangan vaqtga oid birliklarga asoslanadi hamda qiyosiy, semantik, kontekstual va statistik metodlar yordamida amalga oshiriladi. Tahlil maqsadida vaqtni ifodalovchi vositalar toʻrtta asosiy guruhga ajratiladi: leksik, frazeologik, grammatik va kontekstual birliklar. Natijalar har ikki tilda leksik birliklar eng katta guruhni tashkil etishini koʻrsatadi: ingliz tilida 44%, oʻzbek tilida esa 39%. Frazeologik birliklar*

ingliz tiliga (17%) nisbatan o'zbek tilida (23%) ko'proq uchraydi; grammatik birliklarning ulushi esa mos ravishda 29% va 26% ni tashkil etadi. Natijalar ingliz tilida mustaqil leksik birliklar, predlogli konstruksiyalar va sintaktik vositalar ustunligini, o'zbek tilida esa morfologik vositalar va affiksatsiyadan ko'proq foydalanilishini ko'rsatadi. Tadqiqot, shuningdek, vaqt ma'nosini ifodalovchi birliklarni ingliz va o'zbek tillari o'rtasida tarjima qilishda semantik va pragmatik muqobillikning ahamiyatini yoritadi.

Kalit so'zlar: temporal semantika, vaqt ma'nosini ifodalovchi leksik birliklar, qiyosiy tilshunoslik, ingliz tili, o'zbek tili, frazeologik birliklar, tarjima.

Аннотация. Категория времени является одним из основных измерений человеческого мышления и общения и выражается различными языковыми средствами. В данном исследовании единицы, выражающие значение времени в английском и узбекском языках, рассматриваются в сопоставительном, семантическом, структурном и функциональном аспектах. Цель исследования — выявить сходства и различия в выражении временных значений в двух языках. Анализ основан на единицах со значением времени, выявленных в английских и узбекских художественных текстах, и проводится с применением сопоставительного, семантического, контекстуального и статистического методов. Для анализа средства выражения времени разделены на четыре основные группы: лексические, фразеологические, грамматические и контекстуальные единицы. Результаты показывают, что лексические единицы составляют самую многочисленную группу в обоих языках: 44% в английском и 39% в узбекском. Фразеологические единицы встречаются в узбекском языке чаще (23%), чем в английском (17%); доля грамматических единиц составляет соответственно 29% и 26%. Результаты также свидетельствуют о преобладании в английском языке самостоятельных лексических единиц, предложных конструкций и синтаксических средств, тогда как в узбекском языке чаще используются морфологические средства и аффиксация. Исследование также освещает значение семантической и прагматической эквивалентности при переводе единиц со значением времени между английским и узбекским языками.

Ключевые слова: темпоральная семантика, лексические единицы со значением времени, сопоставительное языкознание, английский язык, узбекский язык, фразеологические единицы, перевод.

INTRODUCTION

Time is a universal conceptual category reflected in all languages; however, languages differ considerably in the ways temporal relations are linguistically encoded. Temporal meaning is not limited to grammatical tense. It can also be expressed through lexical items, phraseological expressions, morphological forms, prepositional constructions, and contextual devices. Consequently, the investigation of temporal lexical units provides important insights into the semantic and structural organization of languages.

English and Uzbek are typologically different languages. English belongs to the Germanic branch of the Indo-European language family and is characterized by predominantly analytic structures, whereas Uzbek belongs to the Turkic language family and has an agglutinative structure. These differences influence the linguistic representation of temporal meanings. English frequently uses independent lexical items and syntactic constructions, while Uzbek makes extensive use of morphological markers and affixation.

The relevance of the present study is determined by the need to understand how temporal concepts are represented across typologically different languages. Such a comparison is particularly significant for comparative linguistics and translation studies because accurate interpretation of temporal meanings requires attention not only to grammatical forms but also to semantic and pragmatic correspondence.

The aim of this study is to comparatively analyze temporal lexical units in English and Uzbek and identify their principal semantic, structural, and functional characteristics. The research also seeks

to determine the major similarities and differences in the linguistic representation of temporal concepts in the two languages.

MATERIALS AND METHODS

The research employs comparative, semantic, contextual, and statistical methods. The material consists of temporal units selected from English and Uzbek literary texts. The selected expressions were analyzed according to their semantic functions, structural characteristics, and contextual usage.

For the purposes of comparative analysis, temporal units were divided into four principal categories:

1. **Lexical temporal units;**
2. **Phraseological temporal units;**
3. **Grammatical temporal units;**
4. **Contextual temporal units.**

The semantic classification also includes specific time expressions, frequency expressions, duration expressions, and sequential expressions. For example, English *today*, *yesterday*, and *tomorrow* correspond to Uzbek *bugun*, *kecha*, and *ertaga*, while frequency expressions include *always*, *often*, and *sometimes* and their Uzbek equivalents *doimo*, *tez-tez*, and *ba'zan*.

RESULTS AND DISCUSSION

The comparative analysis reveals both common and language-specific patterns in the expression of temporal meanings. Both English and Uzbek possess lexical units that indicate specific points or periods of time, frequency, duration, and sequence. Nevertheless, their structural realization differs considerably.

In English, temporal relations are frequently expressed through independent lexical items and prepositional constructions such as *in the morning*, *at night*, and *during the year*. This tendency reflects the analytic structural organization of English. Uzbek, in contrast, frequently employs morphological mechanisms and affixation. Expressions such as *ertalabda*, *kechqurunlari*, and *yil davomida* demonstrate the importance of morphological and postpositional structures in temporal expression.

The statistical distribution of the analyzed temporal units is presented below:

Type of temporal unit	English (%)	Uzbek (%)
Lexical units	44	39
Phraseological units	17	23
Grammatical units	29	26
Contextual units	10	12

The results show that lexical units represent the largest category in both languages. However, their proportion is somewhat higher in English (44%) than in Uzbek (39%). At the same time, phraseological temporal units demonstrate a higher frequency in Uzbek (23%) compared with English (17%). This difference suggests that phraseological resources play a particularly important role in expressing temporal meanings in Uzbek discourse.

Another important distinction concerns the degree of temporal specification. English frequently employs precise temporal markers, including expressions such as *at 5 p.m.* and *on Monday*. Uzbek also possesses corresponding expressions, but temporal interpretation may more frequently depend on contextual information. Expressions such as *kechqurun* (“in the evening”) may refer to a relatively broad period rather than a strictly defined point in time.

The analysis further demonstrates that English temporal meanings are commonly associated with lexical and syntactic structures, whereas Uzbek temporal meanings are frequently realized through morphological mechanisms, including suffixes and postpositional elements such as *-gacha* (“until”), *-dan beri* (“since”), *-dan keyin* (“after”), and *-davomida* (“during”).

From a semantic perspective, the two languages share several basic temporal functions. Both systems contain expressions referring to specific time, frequency, duration, and sequence. However, differences in structural organization influence how these meanings are realized in actual discourse. English tends to provide more explicit temporal specification through grammatical and lexical combinations, while Uzbek frequently relies on morphological structures and contextual interpretation.

These differences are particularly relevant to translation. A formally equivalent expression does not always guarantee complete semantic or pragmatic equivalence. Therefore, translators working between English and Uzbek need to consider the contextual meaning and communicative function of temporal expressions rather than relying exclusively on direct lexical correspondence.

CONCLUSION

The comparative analysis demonstrates that temporal meaning has a universal semantic basis in both English and Uzbek, while the linguistic mechanisms used to express it differ significantly. English predominantly employs independent lexical units, prepositional constructions, and syntactic devices, whereas Uzbek relies more extensively on morphological mechanisms, affixation, and contextual interpretation.

The statistical findings show that lexical temporal units are the most frequent category in both languages, while phraseological units occur proportionally more often in Uzbek. These differences reflect the typological characteristics of the two languages and demonstrate that languages employ different structural strategies for conceptualizing and expressing temporal relations.

The findings are relevant to comparative linguistics, translation studies, linguocultural research, and language teaching. In particular, the study emphasizes that successful English–Uzbek translation requires the preservation of semantic and pragmatic temporal relationships in addition to formal grammatical equivalence. Further research based on larger language corpora could provide a broader account of the frequency, contextual distribution, and linguocultural characteristics of temporal expressions in the two languages.

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STRUCTURAL FEATURES OF COVID-19-RELATED NEOLOGISMS IN THE ENGLISH LANGUAGE

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Abstract: The COVID-19 pandemic has had a significant impact not only on global health, economy, education, and social life, but also on language development. This paper examines the structural features of English neologisms associated with COVID-19, with particular attention to the major word-formation processes involved in their creation. The analysis focuses on abbreviations, blending, compounding, affixation, clipping, and multi-word formations. The findings demonstrate that pandemic-related neologisms reflect the flexibility of the English lexicon and its ability to respond rapidly to major social changes.

Keywords: COVID-19, neologism, English language, word formation, blending, compounding, linguistic change, abbreviation, lexical innovation, pandemic vocabulary.

Annotatsiya: COVID-19 pandemiyasi nafaqat global sog'liqni saqlash, iqtisodiyot, ta'lim va ijtimoiy hayotga, balki til taraqqiyotiga ham sezilarli ta'sir ko'rsatdi. Mazkur maqolada COVID-19 bilan bog'liq ingliz tilidagi neologizmlarning strukturaviy xususiyatlari, ayniqsa, ularning shakllanishida ishtirok etgan asosiy so'z yasash jarayonlari tahlil qilinadi. Tadqiqotda qisqartirish, blending, kompozitsiya, affiksatsiya, clipping (so'zning qisqartirilishi) va ko'p so'zli birliklarning hosil bo'lishiga alohida e'tibor qaratiladi. Tadqiqot natijalari pandemiya bilan bog'liq neologizmlar ingliz tili lug'at tarkibining moslashuvchanligi va yirik ijtimoiy o'zgarishlarga tezkor javob berish qobiliyatini aks ettirishini ko'rsatadi.

Kalit so'zlar: COVID-19, neologizm, ingliz tili, so'z yasalishi, blending, kompozitsiya, qisqartma, leksik innovatsiya, pandemiyaga oid leksika, lingvistik o'zgarish.

Аннотация: Пандемия COVID-19 оказала значительное влияние не только на глобальное здравоохранение, экономику, образование и социальную жизнь, но и на развитие языка. В данной статье рассматриваются структурные особенности английских неологизмов, связанных с COVID-19, при этом особое внимание уделяется основным словообразовательным процессам, участвующим в их создании. Анализ охватывает такие способы, как аббревиация, блендинг, словосложение, аффиксация, усечение и образование многокомпонентных единиц. Результаты исследования демонстрируют, что неологизмы, возникшие в период пандемии, отражают гибкость английской лексики и ее способность оперативно реагировать на масштабные социальные изменения.

Ключевые слова: COVID-19, неологизм, английский язык, словообразование, блендинг, словосложение, аббревиация, лексическая инновация, лексика периода пандемии, языковые изменения.

INTRODUCTION

Language is a dynamic system that constantly responds to changes taking place in society. Major historical, political, technological, and social events frequently result in the emergence of new lexical units or changes in the meanings and functions of existing words. The COVID-19 pandemic represents one of the most significant examples of such a relationship between social change and linguistic innovation in the twenty-first century.

The spread of COVID-19 resulted in the rapid emergence and dissemination of terminology related to medicine, public health, social restrictions, remote work, online education, digital communication, and everyday life. According to linguistic research, the pandemic generated a considerable number of new words and expressions and stimulated various word-formation processes in English, including blending, compounding, affixation, clipping, and acronym formation. The importance of studying COVID-19-related neologisms lies in the fact that they provide valuable evidence of how language reacts to new social realities. The Oxford English Dictionary also documented the exceptional speed and scope of lexical adaptation during the pandemic, using large-scale language corpora and digital textual sources to trace emerging words and meanings

A neologism can generally be defined as a newly created lexical unit or an existing word that acquires a new meaning or becomes newly prominent in a particular period. However, the classification of pandemic vocabulary requires some caution. Not every word that became common during COVID-19 was newly created during the pandemic. For example, *quarantine*, *isolation*, *vaccine*, and *lockdown* existed in English before COVID-19. Nevertheless, their frequency, communicative importance, and contextual meanings changed considerably during the pandemic. Similarly, expressions such as *social distancing* and *community transmission* acquired extraordinary prominence in public discourse.

Salazar and Wild note that the COVID-19 pandemic introduced a large number of words and expressions into general English and that existing words and expressions also acquired new senses or special significance.

Therefore, COVID-19 vocabulary can be divided into at least two broad categories: 1. newly created lexical formations; 2. existing lexical units that gained new meanings, functions, or communicative prominence. This distinction is important for an accurate linguistic analysis of pandemic-related neology.

Abbreviations and Acronyms. One of the most visible structural characteristics of COVID-19 vocabulary is the extensive use of abbreviations and acronyms. The most prominent example is COVID-19, which stands for *Coronavirus Disease 2019*. The term was introduced as an official disease name and subsequently became a globally recognized lexical item.

Another important example is PPE, an abbreviation of *Personal Protective Equipment*. During the pandemic, this term moved beyond specialized medical discourse and became familiar to the general public.

Similarly, PCR, referring to *polymerase chain reaction*, became widely used in everyday media discourse because of the increased importance of diagnostic testing.

The productivity of abbreviations during the pandemic can be explained by the need for linguistic economy. Complex medical and administrative expressions needed to be communicated quickly and repeatedly, particularly in news reports, official announcements, social media posts, and scientific publications.

Research on COVID-19 neologisms confirms that abbreviations and acronyms were among the word-formation mechanisms used extensively during the pandemic.

Blending as a Productive Word-Formation Process. Blending is one of the most interesting mechanisms involved in the formation of COVID-19-related neologisms. A blend is created by combining parts of two or more words to form a new lexical item. Several pandemic-related examples illustrate this process:

infodemic = *information* + *epidemic*, covidiot = *COVID* + *idiot*

coronasomnia = *corona* + *insomnia*

The word infodemic is particularly significant. It refers to an excessive amount of information, including misleading or inaccurate information, circulating during a health crisis. Although the term predates COVID-19, its use became particularly prominent during the pandemic.

The formation of covidiot demonstrates the expressive potential of blending. The word combines *COVID* with *idiot* and was used informally to refer to a person who disregarded public-health recommendations. The term therefore carries not only denotative meaning but also a strong evaluative and pragmatic component.

Another example, coronasomnia, combines *corona* and *insomnia* and refers to sleep problems associated with the stress and lifestyle changes of the pandemic.

Studies of COVID-19 vocabulary have identified blending as one of the most productive mechanisms of pandemic-related lexical innovation. In a corpus of 208 COVID-19-inspired neologisms, Al-Salman and Haider found a wide range of word-formation processes, with compounding and blending among the particularly prominent mechanisms.

Compounding and Compound Formations. Compounding is another productive mechanism in the formation of COVID-19-related vocabulary. It involves combining two or more lexical elements to create a new word or lexical unit. Examples include: self-isolation, self-quarantine, zoom-

bombing, COVID-positive, COVID-negative. The word self-isolation consists of *self* and *isolation*. Its structure emphasizes that the individual voluntarily or officially separates themselves from others.

Similarly, self-quarantine combines *self* with *quarantine*. These formations illustrate how an existing lexical element can be combined with a productive modifier to express new pandemic-related practices.

The term zoom-bombing emerged in connection with the rapid expansion of videoconferencing during the pandemic. The first component refers to the digital communication platform Zoom, while *bombing* conveys the idea of an unwanted or unauthorized intrusion into an online meeting.

Compound formations therefore demonstrate the ability of English to create compact lexical units for newly emerging social practices.

Not all pandemic-related lexical innovations were single words. A significant number took the form of multi-word expressions. Examples include: social distancing, physical distancing, contact tracing, mass testing, remote learning, working from home, mask mandate.

The expression social distancing became one of the central expressions of pandemic discourse. It refers to maintaining physical distance between individuals in order to reduce the spread of infection. Similarly, contact tracing became a common public-health expression describing the process of identifying people who may have been exposed to an infected person.

The increased use of working from home and remote learning reflected major transformations in employment and education. Although these expressions existed before the pandemic, their frequency and social significance increased dramatically during COVID-19.

Affixation and Morphological Productivity. Affixation also contributed to the expansion of pandemic vocabulary. Existing lexical items were combined with productive morphological elements to create new adjectives and other formations. Examples include: COVID-related, coronavirus-related, COVID-positive, COVID-negative

The suffix-like element *-related* became particularly productive in pandemic discourse because it allowed speakers and writers to identify phenomena associated with COVID-19. For example, *COVID-related restrictions*, *COVID-related deaths*, and *COVID-related symptoms* became frequent constructions in media and academic discourse. Similarly, the formations COVID-positive and COVID-negative became widely used in medical and general communication to describe test results. These formations demonstrate that pandemic vocabulary was not created through isolated lexical inventions alone; rather, it relied heavily on existing morphological patterns of English.

A particularly important feature of COVID-19 vocabulary is the semantic activation of words that were already part of the English lexicon.

The word lockdown, for example, existed before the pandemic. However, COVID-19 transformed it into one of the most frequently discussed terms in public discourse. Its meaning became closely associated with government-imposed restrictions on movement, business, education, and social activities.

Similarly, words such as quarantine, isolation, vaccine, mask, outbreak, transmission, and testing were not necessarily new lexical formations. Their extraordinary frequency during the pandemic, however, gave them a new level of social and communicative significance.

CONCLUSION

The COVID-19 pandemic stimulated substantial lexical innovation in English. The rapid emergence of new social, medical, technological, and behavioral realities created an urgent need for new linguistic forms and contributed to the increased prominence of existing vocabulary. The analysis demonstrates that several word-formation processes were particularly significant in the development of COVID-19-related English vocabulary. These include abbreviation, blending, compounding, affixation, clipping, and multi-word formation. At the same time, it is important to distinguish genuinely new lexical formations from existing words that acquired new meanings or exceptional communicative significance during the pandemic. Terms such as *lockdown*, *quarantine*, *vaccine*, and

social distancing illustrate how major social events can transform the frequency, context, and pragmatic importance of existing vocabulary.

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DIGITAL TECHNOLOGIES AND ICT TOOLS IN TEACHING FOREIGN LANGUAGES IN UZBEK-MEDIUM SCHOOLS

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Annotatsiya. Ushbu maqolada ta'lim o'zbek tilida olib boriladigan maktablarda chet tillarini o'qitishga axborot-kommunikatsiya texnologiyalarini (AKT) joriy etish istiqbollari kengaytirilgan va batafsil shaklda ko'rib chiqiladi. Oxirgi o'n yillikda O'zbekistonda xalq ta'limining jadal raqamlashishi chet tili o'qituvchilariga an'anaviy grammatik tarjima va audio-lingval metodlardan chekinib, interfaol, texnologiyalar vositasidagi kommunikativ o'qitishga o'tish imkonini beruvchi yangi institutsional va pedagogik sharoitlarni yaratdi. Kompyuter ko'magida til o'rganishning (CALL) xalqaro nazariy modellari hamda mintaqaviy empirik tadqiqotlarga tayangan holda, maqolada umumta'lim maktablaridagi raqamli infratuzilmaning hozirgi holati tahlil qilinadi, o'qituvchilar foydalanishi mumkin bo'lgan raqamli vositalarning asosiy turlari tasniflanadi, texnologiyalarni integratsiyalashga yo'naltirilgan pedagogik tizimlar muhokama qilinadi, tajribasinov amaliyotidan misollar keltiriladi hamda joriy etish ko'lami va sifatini cheklab turgan tarkibiy va kadrlar bilan bog'liq to'siqlar aniqlanadi. Maqolada AKT o'quvchilarning kommunikativ kompetensiyasini rivojlantirishda haqiqiy katalizator bo'lib xizmat qilishi mumkinligi, biroq bunga faqat texnologiyalarni o'zlashtirish o'qituvchilar malakasini oshirishga doimiy sarmoya kiritish, o'quv dasturlarini muvofiqlashtirish hamda shahar va qishloq maktablari o'rtasida teng huquqli kirish imkoniyatini ta'minlash bilan birga olib borilgandagina erishish mumkinligi haqida xulosaga kelingan.

Kalit so'zlar: axborot-kommunikatsiya texnologiyalari, chet tilini o'qitish, raqamli savodxonlik, ta'lim o'zbek tilidagi maktablar, elektron ta'lim, kompyuter ko'magida til o'rganish, TPACK, SAMR modeli, raqamli tafovut, interfaol doska.

Аннотация. В данной статье в расширенной и подробной форме рассматриваются перспективы интеграции информационно-коммуникационных технологий (ИКТ) в обучение иностранным языкам в школах с узбекским языком обучения. Стремительная цифровизация народного образования в Узбекистане за последнее десятилетие создала новые институциональные и педагогические условия, при которых учителя иностранных языков могут перейти от традиционных грамматико-переводческих и аудиolingвальных методов к интерактивному коммуникативному обучению с использованием технологий. Опираясь на международные теоретические модели компьютерного обучения языкам (CALL), а также на региональные эмпирические исследования, статья анализирует текущее состояние цифровой инфраструктуры в общеобразовательных школах, классифицирует основные виды

цифровых инструментов, доступных учителям, обсуждает устоявшиеся педагогические подходы к интеграции технологий, приводит наглядные примеры из экспериментальной практики и выявляет структурные и кадровые барьеры, которые продолжают ограничивать масштабы и качество внедрения. В статье делается вывод о том, что ИКТ могут служить подлинным катализатором развития коммуникативной компетенции учащихся, но только тогда, когда внедрение технологий сопровождается непрерывными инвестициями в подготовку учителей, согласованием учебных программ и обеспечением равного доступа между городскими и сельскими школьными округами.

Ключевые слова: информационно-коммуникационные технологии, обучение иностранным языкам, цифровая грамотность, школы с узбекским языком обучения, электронное обучение, компьютерное обучение языкам, TPACK, модель SAMR, цифровой разрыв, интерактивная доска.

Abstract. This article examines, in expanded and detailed form, the prospects of integrating information and communication technologies (ICT) into foreign language instruction in schools where the medium of instruction is Uzbek. The rapid digitalization of public education in Uzbekistan over the past decade has created new institutional and pedagogical conditions under which foreign language teachers can move beyond traditional grammar-translation and audio-lingual methods toward interactive, technology-mediated communicative instruction. Drawing on international theoretical models of computer-assisted language learning (CALL) as well as on regional empirical studies, the article analyzes the current state of digital infrastructure in secondary schools, categorizes the principal types of digital tools available to teachers, discusses established pedagogical frameworks for guiding technology integration, presents illustrative examples from pilot practice, and identifies the structural and human-resource barriers that continue to limit the scale and quality of implementation. The article concludes that ICT can serve as a genuine catalyst for developing learners' communicative competence, but only when technology adoption is accompanied by sustained investment in teacher training, curricular alignment, and equitable access across urban and rural school districts.

Keywords: information and communication technologies, foreign language teaching, digital literacy, Uzbek-medium schools, e-learning, computer-assisted language learning, TPACK, SAMR model, digital divide, interactive whiteboard.

INTRODUCTION

The role of digital technology in second and foreign language acquisition has been the subject of sustained scholarly attention for more than four decades, evolving alongside successive waves of computing innovation. Warschauer and Healey proposed an influential three-phase periodization of computer-assisted language learning, distinguishing a behavioristic phase centered on repetitive drill-and-practice software, a communicative phase emphasizing meaningful exchange through early networked applications, and an integrative phase in which multimedia and internet-based resources are woven into the fabric of everyday instruction rather than treated as occasional supplements[28]. This periodization remains a standard reference point for situating contemporary digital practices within a broader historical trajectory.

LITERATURE REVIEW

Building on this foundation, Chapelle offered a systematic account of how computer applications can be evaluated according to their capacity to promote language learning, arguing that the pedagogical value of any digital tool depends less on its technical sophistication than on the quality of the interaction it affords between the learner and comprehensible, meaningful input[4]. Levy extended this line of reasoning by emphasizing that CALL research must attend simultaneously to context and conceptualization, recognizing that identical software may produce markedly different learning outcomes depending on the sociocultural and institutional environment in which it is deployed[17].

Godwin-Jones has repeatedly documented the shift toward mobile and cloud-based applications, noting that contemporary tools increasingly allow learners to engage with authentic

target-language input outside the physical classroom, thereby extending the effective boundaries of formal instruction into learners' daily lives[8]. Kern has further argued that technology reshapes not merely the delivery of language content but the very nature of literacy itself, as learners increasingly compose, read, and interact across multiple semiotic modes, including text, image, and sound [14].

Two frameworks have proven particularly influential in guiding the practical integration of technology into language classrooms. Mishra and Koehler's Technological Pedagogical Content Knowledge (TPACK) framework conceptualizes effective technology use as the product of overlapping teacher competencies in content, pedagogy, and technology, arguing that training focused on technology skills alone, without attention to their pedagogical application within a specific subject, is unlikely to produce meaningful classroom change[20]. Puentedura's SAMR model complements this perspective by proposing a hierarchy of technology integration ranging from simple Substitution and Augmentation of existing tasks to more transformative Modification and Redefinition of the tasks themselves, offering teachers a practical heuristic for assessing whether a given digital tool merely replicates traditional practice or genuinely expands pedagogical possibility[24].

Within the specific context of the post-Soviet Central Asian region, and Uzbekistan in particular, a smaller but growing body of national scholarship has begun to document both the achievements and the persistent gaps in technology-enhanced language education. Yuldashev has traced the state program for digitalization of education, describing the distribution of computer classes and interactive whiteboards to secondary schools as a necessary but insufficient condition for genuine pedagogical transformation[30]. Islamova, drawing on classroom observation across several regions, similarly concluded that the availability of hardware has outpaced teachers' methodological readiness to exploit it for communicative purposes, with many educators continuing to use interactive whiteboards as static display screens rather than as interactive instructional tools[10].

Blake has cautioned, on the basis of comparative international research, that technology-enhanced instruction is not inherently superior to well-designed traditional teaching, and that the decisive variable is always the pedagogical reasoning that governs how a tool is used rather than the mere fact of its presence in the classroom[1]. Taken together, this body of literature suggests that while the theoretical and empirical case for thoughtfully integrated ICT is strong, its practical realization in Uzbek-medium schools depends heavily on institutional support, coherent teacher training, and the availability of curricular materials adapted to local conditions.

MAIN PART.

1. The Current State of Digital Infrastructure in Uzbek-Medium Schools

An analysis of the present infrastructural situation in Uzbek-medium secondary schools reveals a picture of significant, though uneven, progress. Over the past several years, the state education system has invested considerably in equipping schools with computer classes, projectors, and, in a growing number of institutions, interactive whiteboards, reflecting a broader national commitment to the digitalization of public education[31].

Nevertheless, disparities remain pronounced between urban centers such as Tashkent, Samarkand, and Bukhara, where schools typically enjoy stable internet connectivity and a favorable student-to-computer ratio, and rural districts, where intermittent electricity supply, limited bandwidth, and outdated hardware continue to constrain what teachers can realistically attempt in the classroom. This uneven distribution mirrors patterns observed more broadly in developing educational systems undergoing rapid digital transformation, where infrastructure investment tends to concentrate initially in urban and administratively prioritized areas[26].

A further dimension of the infrastructural analysis concerns the availability of digital content specifically adapted to the Uzbek national curriculum. Many of the most widely used international language-learning platforms and textbooks are designed for learners in different educational systems, and teachers frequently report the need to adapt materials substantially before they can be aligned with local syllabi and examination requirements[11].

2. Principal Categories of Digital Tools Employed in Foreign Language Instruction

The digital tools currently available to Uzbek-medium foreign language teachers can be usefully organized into several broad categories. The first comprises presentation and display technologies, principally interactive whiteboards and projectors, which allow teachers to present multimedia content, annotate texts collaboratively, and incorporate video and audio materials directly into the flow of a lesson. When used interactively, rather than as a substitute for a traditional chalkboard, such tools can substantially increase the variety and authenticity of input to which learners are exposed[8].

A second category consists of learning management systems and online platforms that allow teachers to assign homework, distribute reading and listening materials, and track individual student progress over time. Although the adoption of such systems remains at an early stage in most Uzbek-medium schools, pilot initiatives in specialized language schools suggest considerable potential for organizing independent practice outside class hours[18].

A third category comprises corpora and authentic digital text resources, including online newspapers, video-sharing platforms, and podcast archives, which expose learners to naturally occurring language use rather than the simplified or artificial language often found in traditional textbooks. Kern has argued that access to such authentic materials fundamentally changes what it means to be literate in a foreign language, requiring learners to navigate genuine communicative complexity rather than pre-digested pedagogical simplifications[15].

Finally, video-conferencing platforms constitute an increasingly important fourth category, enabling Uzbek learners to engage in real-time spoken interaction with native speakers or learners in other countries, a form of authentic communicative practice that was largely unavailable prior to the widespread availability of reliable internet connections[2].

3. Pedagogical Frameworks Guiding Effective Technology Integration

The mere presence of digital hardware in a classroom does not guarantee pedagogically sound instruction, a point emphasized consistently throughout the reviewed literature. The TPACK framework offers a useful analytical lens for understanding why some teachers succeed in exploiting technology for genuine communicative purposes while others do not. According to this framework, effective integration requires teachers to possess not only technical familiarity with a given tool but also a clear understanding of how that tool interacts with specific content and with sound pedagogical principles for language teaching[21].

Applying the SAMR model to the Uzbek context, classroom observation suggests that the majority of current practice remains concentrated at the Substitution and Augmentation levels, in which digital tools replace analogous traditional activities, such as displaying a printed text on a screen, without fundamentally altering the underlying pedagogical task. Movement toward the higher Modification and Redefinition levels, in which technology enables entirely new types of task that would be inconceivable without it, such as real-time collaborative writing with international partner classes, remains comparatively rare and depends heavily on individual teacher initiative rather than systemic support[25].

This analysis suggests that professional development programs should be explicitly organized around these frameworks, helping teachers to self-assess the pedagogical depth of their technology use and to progress deliberately toward more transformative applications rather than treating any use of digital hardware as inherently innovative[9].

4. Illustrative Examples from Pilot Practice

Several specialized schools and gymnasiums with intensified foreign language programs have begun to experiment with more ambitious forms of technology integration, offering useful illustrative examples for the broader system. In some institutions, teachers have organized joint video-conferencing lessons with partner schools abroad, during which Uzbek students exchange presentations and engage in guided discussion with peers in the target language[13].

Other pilot initiatives have involved the use of digital storytelling platforms, through which students produce short multimedia narratives in the target language, combining written text, recorded narration, and images. Teachers involved in such projects report that the requirement to produce a

polished, shareable final product increases student investment in accuracy and expression well beyond what is typically observed in conventional writing assignments[23].

A further example concerns the use of online formative-assessment platforms that generate instant quizzes and provide automated feedback on vocabulary and grammar exercises, freeing classroom time for speaking practice while still ensuring that students receive prompt correction of written work. Such practices align closely with the integrative phase of CALL described in the foundational periodization discussed above, in which technology is woven into the ongoing rhythm of instruction rather than treated as an occasional novelty[29].

5. Structural and Human-Resource Barriers to Implementation

Despite these encouraging examples, the analysis identifies several substantial barriers that continue to constrain the scale and consistency of ICT integration across the system as a whole. The first and most frequently cited barrier concerns teacher digital literacy: many practicing teachers received their own professional training prior to the widespread availability of educational technology and have had limited subsequent opportunity for systematic upskilling[6].

A second barrier relates to the urban-rural digital divide referenced earlier, which manifests not only in hardware availability but also in the reliability of internet connectivity required for video-based and cloud-based applications, effectively excluding a substantial proportion of rural learners from the more technologically ambitious forms of instruction documented in pilot institutions[27].

A third barrier concerns assessment: national and school-level examinations in foreign languages have generally not been redesigned to reflect or reward the kinds of communicative, technology-mediated skills that innovative instruction seeks to develop, creating a structural disincentive for teachers to depart from more traditional, examination-aligned methods regardless of the pedagogical resources theoretically available to them[5].

6. Recommendations for Policy and Classroom Practice

On the basis of the preceding analysis, several concrete recommendations can be formulated. First, teacher-training institutes should embed the TPACK and SAMR frameworks explicitly within pre-service and in-service professional development, ensuring that technology training is always anchored in specific pedagogical and content objectives rather than delivered as generic digital-literacy instruction disconnected from language teaching[22].

Second, infrastructure investment should be accompanied by parallel investment in the development or adaptation of digital content specifically aligned with the Uzbek national curriculum, reducing teachers' reliance on ad hoc adaptation of foreign materials and ensuring closer fit between technology use and required learning outcomes[16].

Third, policymakers should consider phased revision of assessment instruments to incorporate communicative, technology-supported tasks, thereby aligning incentive structures with the pedagogical goals that ICT integration is intended to serve, and closing the gap between innovative classroom practice and the examinations that ultimately determine student and teacher priorities[19].

Finally, targeted infrastructural support should be directed toward rural districts specifically, recognizing that national-level averages in hardware distribution can mask substantial local disparities that, left unaddressed, risk entrenching a two-tier system of foreign language education divided along urban-rural lines[12].

CONCLUSION

The expanded analysis presented in this article confirms that the prospects for ICT-based innovation in foreign language teaching within Uzbek-medium schools are considerable, but that these prospects cannot be realized through hardware distribution alone. The literature reviewed and the classroom evidence examined here converge on a single central conclusion: digital technology functions as an amplifier of existing pedagogical practice rather than as an independent driver of improvement, meaning that its ultimate educational value depends entirely on the methodological competence and communicative orientation of the teacher who deploys it. Where teachers possess a clear understanding of frameworks such as TPACK and SAMR, and where they are supported by curricular materials genuinely adapted to the Uzbek educational context, digital tools ranging from

interactive whiteboards to video-conferencing platforms and online formative-assessment systems can measurably increase learner motivation, expand access to authentic language input, and create opportunities for communicative practice that traditional methods alone cannot easily provide. Where such support is absent, however, the same hardware risks being reduced to an expensive substitute for the traditional blackboard, reproducing familiar transmission-oriented pedagogy in a superficially modernized form. Future progress therefore depends on a coordinated, multi-level strategy encompassing sustained teacher professional development grounded in established pedagogical frameworks, the systematic development of curriculum-aligned digital content, targeted infrastructural investment in underserved rural districts, and gradual reform of assessment instruments to reward the communicative competencies that innovative instruction seeks to cultivate. Only through such a comprehensive approach can the considerable theoretical promise of educational technology, documented extensively in the international literature, be translated into consistent and equitable practical benefit for foreign language learners across the whole of Uzbekistan.

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LITERARY AND AESTHETIC CONCEPTS AND PHILOLOGICAL PARADIGMS IN TRANSLATION

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Annotatsiya. Mazkur maqolada Jeyn Ostinning “Emma” va “G‘urur va andisha” romanlari tahlili asosida tarjima nazariyasidagi adabiy-estetik konseptlar va filologik paradigmalar o‘rtasidagi o‘zaro bog‘liqlik tadqiq etiladi. Tadqiqotda muallifning estetik dunyoqarashi, bayon uslubi, kinoyasi, obrazlar tavsifi hamda ijtimoiy jihatdan shartlangan ma’nolarni manba tilidan boshqa lingvistik va madaniy tizimga ko‘chirish jarayonida yuzaga keladigan muammolarga e’tibor qaratiladi. Ayniqsa, semantik ekvivalentlik va estetik ekvivalentlikning o‘zaro munosabati tahlil qilinadi, chunki badiiy tarjimada nafaqat axborotni, balki asarning badiiy ta’sirini ham qayta yaratish talab etiladi. Tadqiqot Yevgeniy Nayda, Roman Jakobson, Syuzan Bassnett, Lourens Venuti, Andre Lefever va Mona Beyker tomonidan ishlab chiqilgan asosiy nazariy yondashuvlarga tayanadi. Ostin romanlari kinoya, o‘zlashtirma-o‘zlashtirma gap (free indirect discourse), dialog, personajlar xarakteristikasi va ijtimoiy me’yorlar mazmun shakllanishida muhim rol o‘ynaydigan murakkab badiiy matnlar sifatida ko‘rib chiqiladi. Tahlil shuni ko‘rsatadiki, tarjimon manba matnning har bir formal xususiyatini mexanik tarzda saqlab qola olmaydi. Aksincha, tarjima jarayoni originalning estetik funksiyasini tarjima tilida qayta yaratishga qaratilgan talqin va ijodiy qarorlarni o‘z ichiga oladi. Maqolada ijodiy parallelizm ushbu jarayonni tushunish uchun samarali yondashuv sifatida qaralib, u tarjimonlarga til birliklarini tarjima o‘quvchilarining ehtiyoj va kutilmalariga moslashtirgan holda semantik, uslubiy, madaniy va emotsional munosabatlarni saqlash imkonini berishi asoslanadi.

Kalit so‘zlar: tarjima 1, estetika 2, filologiya 3, ekvivalentlik 4, parallelizm 5.

Аннотация. В статье исследуется взаимосвязь литературно-эстетических концептов и филологических парадигм в теории перевода на материале романов Джейн Остин «Эмма» и «Гордость и предубеждение». Основное внимание уделяется проблемам передачи эстетического мировоззрения автора, повествовательной манеры, иронии, характеристик персонажей и социально обусловленных смыслов из исходного языка в другую языковую и культурную систему. Особое внимание уделяется взаимодействию семантической и эстетической эквивалентности, поскольку художественный перевод предполагает воспроизведение не только информации, но и художественного воздействия оригинала. Исследование опирается на основные теоретические подходы, разработанные Юджином Найдой, Романом Якобсоном, Сюзан Басснетт, Лоуренсом Венути, Андре Лефевром и Мона Бейкер. Романы Остин рассматриваются как сложные художественные тексты, в которых ирония, несобственно-прямая речь, диалог, характеристика персонажей и социальные нормы участвуют в формировании смысла. Анализ показывает, что переводчик не может механически сохранять каждую формальную особенность исходного текста. Напротив, перевод предполагает интерпретационные и творческие решения, направленные на реконструкцию эстетической функции оригинала в языке перевода. В статье утверждается, что творческий параллелизм представляет собой продуктивную основу для понимания данного процесса, позволяя переводчикам сохранять семантические, стилистические, культурные и эмоциональные связи при адаптации языковых структур к ожиданиям читателей переводного текста.

Ключевые слова: перевод 1, эстетика 2, филология 3, эквивалентность 4, параллелизм

5.

Abstract. *This article examines the relationship between literary-aesthetic concepts and philological paradigms in translation theory through the analysis of Jane Austen's Emma and Pride and Prejudice. The study focuses on the problems involved in transferring the author's aesthetic worldview, narrative style, irony, characterization, and socially conditioned meanings from the source language into another linguistic and cultural system. Particular attention is paid to the interaction between semantic equivalence and aesthetic equivalence, since literary translation requires the reproduction not only of information but also of artistic effect. The research draws upon major theoretical approaches developed by Eugene Nida, Roman Jakobson, Susan Bassnett, Lawrence Venuti, André Lefevere, and Mona Baker. Austen's novels are considered as complex literary texts in which irony, free indirect discourse, dialogue, characterization, and social conventions contribute to the formation of meaning. The analysis demonstrates that a translator cannot preserve every formal feature of the source text mechanically. Instead, translation involves interpretative and creative decisions that reconstruct the aesthetic function of the original in the target language. The article argues that creative parallelism provides a productive framework for understanding this process, allowing translators to maintain semantic, stylistic, cultural, and emotional relationships while adapting linguistic structures to the expectations of target readers.*

Keywords: translation 1, aesthetics 2, philology 3, equivalence 4, parallelism 5.

INTRODUCTION.

Literary translation occupies a distinctive position within translation studies because a literary work communicates through both what it says and how it says it. In contrast to purely informational texts, literary works contain aesthetic structures, stylistic patterns, cultural references, characterization techniques, emotional associations, and authorial perspectives. Consequently, translating literature involves the transfer of a complex interaction between linguistic meaning and artistic form.

Jane Austen's *Pride and Prejudice* (1813) and *Emma* (1815) provide particularly productive material for investigating these problems. Austen's prose is characterized by irony, subtle characterization, carefully structured dialogue, social observation, and sophisticated narrative perspective. Recent scholarship describes *Pride and Prejudice* as a work in which ethical and aesthetic dimensions are closely interconnected. Similarly, scholarship on *Emma* emphasizes the novel's experimental narrative perspective and its use of free indirect style.

The importance of style in literary translation has long been recognized. Roman Jakobson famously stated that "poetry by definition is untranslatable", while at the same time proposing the concept of "creative transposition" as an alternative way of understanding literary transfer (Jakobson, 1959). This idea is particularly relevant to Austen because her artistic effect frequently depends on linguistic choices that cannot simply be reproduced word for word.

Eugene Nida's theory of equivalence also provides an important foundation. His distinction between formal and dynamic equivalence shifted attention from purely structural correspondence toward the effect produced on the target reader. Nida and Taber subsequently connected translation with the reproduction of meaning and effect rather than mechanical linguistic substitution. Susan Bassnett similarly places literary translation within a broader cultural and textual framework.

Lawrence Venuti, meanwhile, problematizes the transparency of translation and emphasizes the translator's cultural and ideological intervention. The difference between Nida's emphasis on equivalence and Venuti's approach to foreignization and domestication demonstrates that translation theory contains several competing paradigms rather than one universally applicable model.

Therefore, the purpose of this article is to examine how literary-aesthetic concepts and philological paradigms can be applied to the translation of Austen's *Emma* and *Pride and Prejudice*, with particular attention to irony, narrative perspective, characterization, social meaning, and creative parallelism.

MATERIALS AND METHODS.

The research is based primarily on Jane Austen's *Pride and Prejudice* and *Emma* as source literary texts. The theoretical framework incorporates concepts from translation studies, literary

stylistics, comparative literature, and philology. Particular attention is given to the theories of Roman Jakobson, Eugene Nida, Susan Bassnett, Lawrence Venuti, André Lefevere, and Mona Baker.

The study employs comparative textual analysis, stylistic analysis, contextual analysis, and interpretative analysis. These methods make it possible to examine not only lexical and grammatical correspondence but also the preservation of literary function.

Comparative analysis is used to identify relationships between source-text structures and possible target-language equivalents. Stylistic analysis focuses on irony, dialogue, narrative voice, characterization, lexical selection, and syntactic organization. Contextual analysis considers the social and cultural meanings embedded in Austen's novels.

The concept of translator's style is particularly relevant. Mona Baker argues that translation studies has traditionally concentrated on the style of the original writer while paying insufficient attention to the possibility that "individual literary translators can be shown to use distinctive styles of their own." This observation allows the translator to be regarded not simply as a linguistic mediator but as an active participant in literary communication.

The methodological approach therefore treats translation as a process of creative reconstruction. The objective is not to determine whether a translated sentence is identical to the original but to investigate whether its literary function, aesthetic effect, characterization, and communicative significance can be recreated.

RESULTS AND DISCUSSION.

1. *Literary-aesthetic concepts in Austen's prose*

Austen's literary aesthetics are strongly connected with irony, social observation, psychological characterization, and the relationship between appearance and reality. Her characters frequently misunderstand situations, interpret other people incorrectly, or construct judgments based on incomplete information.

In *Pride and Prejudice*, Elizabeth Bennet's interpretation of Darcy demonstrates how perception influences narrative development. Her initial judgment is gradually challenged as additional information becomes available. Consequently, the novel's aesthetic organization depends not only on plot but also on the gradual transformation of the protagonist's perception. Marilyn Butler observes that *Pride and Prejudice* has been widely recognized for its entertaining quality while nevertheless containing significant intellectual and social dimensions. This combination creates a particular translation challenge: excessive literalness may preserve the surface meaning while weakening the irony and social implications. For example, the famous opening sentence, "It is a truth universally acknowledged, that a single man in possession of a good fortune, must be in want of a wife."

It contains a complex relationship between assertion and irony. The sentence appears authoritative, but its exaggerated generalization immediately establishes Austen's ironic perspective on marriage and social expectations. A translator must therefore reproduce not only the proposition but also the humorous distance between the narrator's statement and the social reality being represented.

In *Emma*, the problem becomes even more complex because the reader frequently encounters events through Emma's limited understanding. Scholarship describes the novel's narrative technique as a form of perspective-shifting associated with free indirect style. Consequently, the translator must preserve ambiguity: the target reader should be able to distinguish between what Emma believes and what the narrative ultimately reveals.

2. *Philological paradigms and translation*

A philological approach to translation considers the relationship between language, culture, historical context, and textual interpretation. From this perspective, translation cannot be separated from the historical and social environment in which the original work was produced. Austen's novels contain numerous references to nineteenth-century British social relations, marriage conventions, class distinctions, inheritance, education, and gender expectations. Such elements may have no direct equivalent in the target culture. The translator therefore has to decide whether to retain

the foreign cultural feature, explain it, replace it, or reconstruct its function through another linguistic form.

Roman Jakobson's distinction among intralingual, interlingual, and intersemiotic translation remains useful in this context. Interlingual translation is not simply substitution between two codes; it involves interpretation of verbal signs through another linguistic system. Thus, the transfer of Austen's prose requires interpretation before linguistic reconstruction.

Nida's approach provides another dimension. Dynamic equivalence encourages translators to consider the response of target readers. However, Venuti's theory warns against making the translated text excessively transparent or domestic. These positions demonstrate an important tension between readability and foreignness. For Austen, this tension is especially significant. If historical forms of address, social titles, or culturally specific concepts are excessively domesticated, the social structure of the original may become less visible. Conversely, excessive foreignization may make the text difficult for contemporary readers.

Therefore, an effective translation requires a balance between linguistic accessibility and preservation of cultural-aesthetic identity.

3. Irony as an aesthetic translation problem

Irony is one of Austen's most recognizable stylistic characteristics. It frequently operates through the contrast between literal statement and implied meaning. This creates a major difficulty for translation because irony may depend on word choice, syntactic structure, cultural expectations, and narrative context simultaneously.

In *Pride and Prejudice*, Mr. Collins provides an especially useful example. His excessively formal and self-important speech contributes to his characterization. Translating his words literally may preserve their dictionary meaning but fail to reproduce the comic characterization. A translator must therefore consider the function of the language. The question is not merely "What does this sentence mean?" but also "What does this sentence do in the literary structure?"

This principle corresponds with research emphasizing that literary style involves more than lexical meaning. Studies of literary translation have argued that translators creatively reproduce stylistic effects through sentence patterns, rhetorical forms, idiomatic expressions, diction, and contextual associations.

Accordingly, the translation of Austen's irony requires functional equivalence rather than mechanical equivalence.

4. Creative parallelism as a translation strategy

The concept of creative parallelism can be used to describe the translator's attempt to recreate the artistic relationship between source and target texts. It does not imply complete formal identity. Instead, it suggests the preservation of corresponding aesthetic functions.

Creative	parallelism	can	operate	at	several	levels:
Semantic	parallelism	–	preservation	of	the	central meaning.
Stylistic	parallelism	–	recreation	of	the	author's characteristic manner of expression.
Aesthetic	parallelism	–	reproduction	of	artistic	and emotional effect.
Cultural	parallelism	–	transmission	of	socially	and historically significant meanings.
Narrative	parallelism	–	preservation	of	perspective,	characterization, and narrative organization.

This model is particularly appropriate for Austen because her meaning is distributed across several textual levels. For instance, a character's words may simultaneously communicate information, reveal personality, create irony, and establish social position.

The translator consequently becomes an interpreter of the literary system rather than a simple replacer of words. André Lefevere's concept of rewriting is useful here because translations can be understood as new textual constructions shaped by literary and cultural circumstances. Research on Austen's adaptation likewise demonstrates that literary works generate new perspectives through translation, imitation, adaptation, and appropriation.

5. Translator's individuality and aesthetic reconstruction

Another important result concerns the role of translator individuality. A literary translator inevitably makes choices concerning vocabulary, rhythm, syntax, punctuation, cultural references, and

characterization. These choices create a recognizable target-text style. Mona Baker's research is particularly important because it proposes studying the distinctive linguistic habits of translators themselves rather than evaluating translation only according to how closely it reproduces an author's style.

This perspective changes the understanding of literary translation. The translator does not disappear completely behind the original author. Instead, translation represents an interaction between authorial individuality and translator individuality. In Austen's case, this interaction is particularly important because her apparently simple prose frequently contains complex pragmatic and aesthetic information. The translator must reconstruct these relationships within the grammatical, lexical, stylistic, and cultural possibilities of the target language.

Thus, translation can be understood as a form of secondary artistic creation. It remains dependent upon the original text but requires independent creative decisions.

CONCLUSION.

The analysis demonstrates that the translation of Jane Austen's *Emma* and *Pride and Prejudice* involves considerably more than the transfer of lexical and grammatical meaning. Austen's literary identity is constructed through irony, narrative perspective, characterization, dialogue, social observation, and subtle relationships between explicit and implicit meaning.

Theories developed by Jakobson, Nida, Bassnett, Venuti, Lefevere, and Baker provide complementary perspectives for understanding these problems. Jakobson highlights the creative nature of interlingual transfer; Nida emphasizes equivalence and reader response; Venuti draws attention to the cultural position of translation; Lefevere conceptualizes translation as rewriting; and Baker demonstrates the importance of translator style.

The concept of creative parallelism provides an integrated way of understanding these approaches. It recognizes that complete formal equivalence is frequently impossible while maintaining that semantic, stylistic, aesthetic, cultural, and narrative relationships can be reconstructed.

Consequently, successful translation of Austen's novels requires both philological precision and literary creativity. The translator must understand the historical-cultural context of the original while simultaneously recreating its artistic effect in the target language. In this sense, literary translation becomes a form of intercultural literary communication in which the aesthetic identity of the original is not mechanically copied but creatively reconstructed.

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RAQAMLI TA'LIM MUHITIDA BO'LAJAK NEMIS TILI FANI O'QITUVCHILARINING KO'P TILLI KOMPETENSIYALARINI SHAKLLANTIRISHNING ZAMONAVIY VOSITALARI

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Annotatsiya. Ushbu tezisda raqamli ta'lim sharoitida bo'lajak nemis tili o'qituvchilarining ko'p tilli (plurilingual) kompetensiyasini shakllantirish muammosi ko'rib chiqiladi. Yevropa Kengashining CEFR Companion Volume hujjatida ilgari surilgan ko'p tillilik va ko'p tillik (plurilingvizm) tushunchalari farqi, Germaniya, Ukraina va Qozog'istondagi xorijiy tajriba hamda O'zbekiston oliy ta'lim muassasalaridagi milliy amaliyot tahlil qilinadi. Tadqiqot natijasida raqamli o'quv platformalari, mobil ilovalar, MOOC kurslari, virtual almashinuv (telecollaboration) va sun'iy intellektga asoslangan vositalarning bo'lajak nemis tili o'qituvchisi kasbiy tayyorgarligida ko'p tilli kompetensiyani shakllantirishdagi o'rni ilmiy asoslagan hamda tavsiyalar ishlab chiqilgan.

Kalit so'zlar: ko'p tilli kompetensiya, plurilingvizm, raqamli ta'lim muhiti, bo'lajak nemis tili o'qituvchisi, kasbiy kompetentlik, CEFR, MOOC, aralash ta'lim, telekhamkorlik, madaniyatlararo kompetensiya.

Аннотация. В данной работе рассматривается проблема формирования многоязычной компетенции будущих преподавателей немецкого языка в контексте цифрового образования. Анализируются различия между понятиями многоязычия и плюрилингвизма, представленными в Сопроводительном томе CEFR Совета Европы, зарубежный опыт Германии, Украины и Казахстана, а также национальная практика в высших учебных заведениях Узбекистана. В результате исследования научно обоснована роль цифровых образовательных платформ, мобильных приложений, онлайн-курсов (MOOC), виртуального обмена (телесотрудничества) и инструментов на основе искусственного интеллекта в формировании многоязычной компетенции в профессиональной подготовке будущих преподавателей немецкого языка, а также разработаны рекомендации.

Ключевые слова: многоязычная компетенция, плюрилингвизм, цифровая образовательная среда, будущий преподаватель немецкого языка, профессиональная компетенция, CEFR, MOOC, смешанное обучение, удаленная работа, межкультурная

Abstract. This paper examines the issue of developing plurilingual competence among future German language teachers within a digital educational environment. It analyzes the distinction between multilingualism and plurilingualism as outlined in the Council of Europe's CEFR Companion Volume, as well as foreign practices in Germany, Ukraine, and Kazakhstan and national practices in Uzbekistan's higher education institutions. The study scientifically substantiates the role of digital learning platforms, mobile applications, MOOCs, virtual exchange (telecollaboration), and AI-based tools in fostering plurilingual competence during the professional training of future German language teachers, and offers relevant recommendations.

Keywords: plurilingual competence, plurilingualism, digital educational environment, future German language teacher, professional competence, CEFR, MOOC, blended learning, telecollaboration, intercultural competence.

KIRISH

Globalashuv jarayonlari, xalqaro hamkorlikning kengayishi va O'zbekiston Respublikasida ta'lim tizimini raqamlashtirish bo'yicha qabul qilingan davlat dasturlari bo'lajak chet tili o'qituvchilaridan nafaqat bitta xorijiy tilni, balki bir necha tilni funksional darajada egallash va bu tillar o'rtasidagi o'zaro ta'sirdan pedagogik maqsadlarda foydalana olishni talab etmoqda. Nemis tili fani o'qituvchisi, qoida tariqasida, ona tili (o'zbek/rus), birinchi xorijiy til (ingliz) va mutaxassislik tili (nemis) doirasida faoliyat yuritadi, shu sababli uning kasbiy kompetensiyasi tarkibida ko'p

tillilikni boshqarish, tillar orasidagi transfer imkoniyatlaridan foydalanish va o'quvchilarda xuddi shunday kompetensiyani shakllantirish ko'nikmalari alohida ahamiyat kasb etadi.

Zamonaviy pedagogika fanida bu muammo ikki yo'nalishda – ko'p tilli (plurilingual) kompetensiya nazariyasi va raqamli ta'lim texnologiyalari nazariyasi kesishmasida o'rganilmoqda. Biroq amaliyotda bo'lajak nemis tili o'qituvchilarini tayyorlash dasturlarida ushbu ikki yo'nalish ko'pincha alohida-alohida ko'rib chiqiladi: raqamli vositalar asosan bitta tilni o'qitish uchun, ko'p tillilik masalasi esa nazariy kurslar doirasida yoritiladi. Ushbu tezisning maqsadi – milliy va xorijiy ilmiy-amaliy tajribani tahlil qilish asosida raqamli ta'lim muhitida bo'lajak nemis tili o'qituvchilarining ko'p tilli kompetensiyasini shakllantirishning zamonaviy, o'zaro bog'liq vositalar tizimini ilmiy asoslashdir.

1. Ko'p tilli kompetensiya: nazariy-metodologik asoslar

Yevropa Kengashining Tillarni o'rganish, o'qitish va baholashning umumevropa kompetensiyalari (CEFR) Kengaytirilgan nashrida (Companion Volume) “ko'p tillilik” (multilingualizm) va “ko'p tillik” (plurilingualizm) tushunchalari farqlanadi: birinchisi jamiyatda yoki alohida shaxsda bir nechta tilning mavjudligini, ikkinchisi esa shaxsning turli tillar va madaniyatlar bilan o'zaro aloqadorlikda shakllanadigan yagona, dinamik va notekis rivojlanadigan til repertuarini anglatadi [1]. E. Piccardoning tahliliga ko'ra, ko'p tilli kompetensiya shaxsning bir tildan ikkinchisiga o'tish, bir tilda ifodalab, boshqasida tushunish, hamda turli tillardagi qisman bilimlardan muloqot maqsadlarida birgalikda foydalanish qobiliyatini o'z ichiga oladi [2]. Bu yondashuv o'qituvchilar tayyorlashda muhim pedagogik xulosaga olib keladi: bo'lajak nemis tili o'qituvchisi nafaqat nemis tilini alohida o'rgatuvchi mutaxassis, balki o'quvchining umumiy til repertuarini rivojlantiruvchi mediator sifatida shakllantirilishi lozim.

Ko'p tilli kompetensiyaning tarkibiy qismlari sifatida odatda kommunikativ, lingvistik, madaniyatlararo va raqamli-texnologik kompetensiyalar ajratiladi. Xususan, K. Begmatovning tadqiqotida nemis tili materiallari asosida kommunikativ va madaniyatlararo kompetensiyalarni shakllantirish usullari tahlil qilinib, innovatsion texnologiyalarning bu jarayondagi samaradorligi asoslab berilgan [6]. Shunga o'xshash, O.Jalilov chet tilini o'qitishda semantik, umummadaniy, ta'lim-kognitiv va axborot kompetensiyalarining o'zaro bog'liqligini ko'rsatib, kompetensiyaviy yondashuvning amaliy mashqlar tizimidagi o'rnini yoritadi [8]. Bu ikki tadqiqot ko'p tilli kompetensiyaning yakka til doirasida emas, balki kompetensiyalar majmuasi sifatida shakllantirilishi zarurligini tasdiqlaydi.

2. Xorijiy tajriba: Yevropa va MDH mamlakatlaridagi amaliyot

Germaniyada o'qituvchilar tayyorlash tizimida raqamlashtirish va ko'p tillilik masalalari birgalikda o'rganilishi tobora kuchaymoqda. T. Verfelning tadqiqotida til ta'limi va raqamlashtirish bilan bog'liq kompetensiyalar bo'lajak o'qituvchilar tayyorlashning majburiy tarkibiy qismi sifatida asoslab berilgan; muallif raqamli vositalardan foydalanishning o'zigina yetarli emasligini, ularni tilga oid didaktik bilim bilan uyg'unlashtirish zarurligini ta'kidlaydi [3]. Germaniya universitetlarida amalga oshirilayotgan loyihalar (masalan, virtual reallik texnologiyalari yordamida ko'p tilli va madaniyatlararo kompetensiyalarni rivojlantirish, hamda “Mehrsprachiges und interkulturelles Lernen” platformalarini yaratish) shuni ko'rsatadiki, zamonaviy nemis pedagogikasida ko'p tillilik endi alohida mavzu emas, balki raqamli ta'lim dizaynining ajralmas qismiga aylanmoqda.

Ukrainalik tadqiqotchilar O. Osova va hammualliflarining Xarkiv gumanitar-pedagogika akademiyasi hamda H.S. Skovoroda nomidagi Xarkiv milliy pedagogika universiteti negizida 196 nafar talaba ishtirokida o'tkazgan tajriba-sinov ishi bo'lajak chet tili o'qituvchilarining lingvistik-metodik kompetensiyasi motivatsion-qadriyat, mazmun-faoliyat va reflektiv komponentlardan iboratligini, bu komponentlarni samarali shakllantirish uchun raqamli vositalarni qo'llash zarurligini eksperimental tasdiqlagan; bunda interaktiv o'quv materiallari va virtual darslar muhim rol o'ynaydi [10]. Qozog'istonlik olimlar M. Akishev va A. Jaytapovanning tadqiqotida ommaviy ochiq onlayn kurslar (MOOC) bo'lajak chet tili o'qituvchilarining raqamli kompetensiyasini shakllantirishning samarali platformasi sifatida ko'rib chiqilib, bunday kurslarning turli ta'lim muassasalaridan bilim olish va masofadan turib malaka oshirish imkoniyatini beruvchi afzalliklari yoritilgan [4]. Ushbu tajribalar birgalikda shuni ko'rsatadiki, xorijda ko'p tilli va raqamli kompetensiyalarni shakllantirish

alohida emas, balki yaxlit tizim – eksperimental tekshirilgan metodika, institutsional platforma va uzluksiz malaka oshirish shaklida amalga oshirilmoqda.

3. Milliy tajriba: O‘zbekistonda bo‘lajak nemis tili o‘qituvchilarini tayyorlash

O‘zbekiston oliy ta’lim muassasalarida bo‘lajak chet tili o‘qituvchilarini raqamli ta’lim sharoitida tayyorlash bo‘yicha so‘nggi yillarda bir qator tadqiqotlar amalga oshirilmoqda. Y. Ismailovning O‘zbekiston davlat jahon tillari universiteti negizidagi tadqiqotida nemis tili darslarida raqamli vositalar yordamida topshiriqlarni taqsimlash tajribasi tasvirlanib, o‘qitish usullarining texnologiya rivojidan orqada qolmasligi, o‘qituvchining raqamli, kognitiv va kommunikativ kompetensiyalarni birgalikda o‘zlashtirishi zarurligi asoslab berilgan [5]. Bu tadqiqot amaliy jihatdan muhim xulosaga olib keladi: raqamli vosita o‘z-o‘zidan samara bermaydi, u faqat kompetensiyaviy yondashuv bilan uyg‘unlashganda natija beradi.

K. Begmatovning tadqiqotida nemis tili materiallari misolida kommunikativ yondashuv, madaniyatlararo kompetensiya, muammoli o‘qitish va integratsiyalashgan yondashuvlarning samaradorligi tajriba yo‘li bilan tasdiqlangan; xususan, “Duolingo”, “Busuu”, “Babbel” kabi mobil ilovalarning talabalar motivatsiyasini oshirishdagi o‘rni alohida qayd etilgan [6]. S. Muxamedjanova va T. Beshimovning tadqiqotida kompetensiyaviy yondashuvga asoslangan davlat ta’lim standartlarining joriy etilishi hamda xorijiy til kompetensiyalarini innovatsion texnologiyalar yordamida amaliyotga samarali tatbiq etish yo‘llari yoritilgan [7]. Bo‘lajak ingliz tili o‘qituvchilari misolida olib borilgan tadqiqotda esa (Xatamova, 2025) raqamli savodxonlikni oshirish va aralash ta’lim (blended learning) strategiyalarini amalga oshirish bo‘yicha ilg‘or amaliyotlar tavsiflangan [9]. Ushbu natijalar, tilning turiga qaramasdan, nemis tili o‘qituvchilarini tayyorlash metodikasiga ham to‘liq tatbiq etilishi mumkin, chunki raqamli kompetensiya komponentlari (axborot-kommunikatsiya savodxonligi, virtual sinflarni boshqarish, raqamli baholash vositalaridan foydalanish) til turidan qat’i nazar umumiy xususiyatga ega.

Shunday qilib, milliy tajriba tahlili ko‘p tilli kompetensiyani shakllantirishning uch asosiy yo‘nalishini ochib beradi: 1) raqamli vositalar orqali topshiriqlarni individuallashtirish [5]; 2) kommunikativ va madaniyatlararo kompetensiyalarni mobil ilovalar yordamida rivojlantirish [6]; 3) davlat ta’lim standartlari darajasida kompetensiyaviy yondashuvni institutsionallashtirish [7]. Biroq mavjud tadqiqotlarda ko‘p tillilik (uch va undan ortiq til o‘rtasidagi o‘zaro transfer) alohida tadqiqot predmeti sifatida deyarli o‘rganilmagan – bu O‘zbekiston sharoitida dolzarb ilmiy bo‘shliqni tashkil etadi va ushbu tezisning ilmiy yangiligini belgilaydi.

4. Ko‘p tilli kompetensiyani shakllantirishning zamonaviy raqamli vositalari

O‘tkazilgan tahlil asosida bo‘lajak nemis tili o‘qituvchilarining ko‘p tilli kompetensiyasini raqamli ta’lim muhitida shakllantirish uchun quyidagi vositalar tizimi taklif etiladi:

Birinchidan, ko‘p tilli elektron ta’lim platformalari va MOOC kurslari – bular talabaga nemis, ingliz va o‘zbek/rus tillarini parallel rivojlantirish, tillararo taqqoslash topshiriqlarini bajarish imkonini beradi [4]. Ikkinchidan, mobil til o‘rganish ilovalari (Duolingo, Busuu, Babbel kabi) – talabaning mustaqil ta’lim faoliyatini qo‘llab-quvvatlovchi, o‘z malakasini nazorat qilish imkonini beruvchi vosita sifatida [6]. Uchinchidan, virtual almashinuv va telekhamkorlik (telecollaboration) loyihalari – nemis tilida so‘zlashuvchi mamlakatlardagi universitetlar bilan onlayn video-konferentsiyalar, hamkorlikdagi loyihalar orqali haqiqiy ko‘p tilli muloqot muhitini yaratish. To‘rtinchidan, virtual reallik (VR) va simulyatsiya texnologiyalari – madaniyatlararo va ko‘p tilli vaziyatlarni modellashtirish orqali talabaning amaliy tayyorgarligini oshirish. Beshinchidan, elektron portfolio (e-Portfolio) – talabaning turli tillardagi kompetensiyalarini vaqt davomida kuzatish va reflektiv baholash instrumenti sifatida [10]. Oltinchidan, o‘quv boshqaruv tizimlari (LMS) asosidagi aralash ta’lim (blended learning) modeli – auditoriya va masofaviy komponentlarni uyg‘unlashtirib, ko‘p tilli topshiriqlarni tizimli tashkil etish imkonini beradi [9].

Bu vositalarning samarali qo‘llanilishi uchun ular alohida-alohida emas, balki yagona metodik konsepsiya doirasida – ya’ni bo‘lajak nemis tili o‘qituvchisi tayyorlash o‘quv rejasiga “Ko‘p tilli didaktika va raqamli texnologiyalar” nomli integrallashgan modulni kiritish orqali qo‘llanilishi maqsadga muvofiqdir. Bunday modulda talaba nafaqat raqamli vositalardan texnik foydalanishni, balki tillararo transferni pedagogik jihatdan boshqarish strategiyalarini ham egallashi lozim.

5. Ko‘p tilli kompetensiyani shakllantirish bosqichlari va baholash mezonlari

Amaliy tajriba shuni ko‘rsatadiki, ko‘p tilli kompetensiyani raqamli muhitda shakllantirish bir martalik chora emas, balki bosqichma-bosqich rivojlanadigan jarayondir. Birinchi – diagnostik bosqichda talabaning mavjud til repertuari (ona tili, ingliz tili, nemis tili darajasi) raqamli test tizimlari yordamida aniqlanadi. Ikkinchi – shakllantiruvchi bosqichda yuqorida sanab o‘tilgan vositalar (MOOC, mobil ilovalar, telekhamkorlik, VR-simulyatsiyalar) tizimli tarzda o‘quv jarayoniga joriy etiladi, bunda har bir topshiriq kamida ikki tilni qiyosiy tahlil qilishni talab qiladigan tarzda loyihalashtiriladi [6; 9]. Uchinchi – reflektiv-baholov bosqichida talaba e-portfolio orqali o‘z yutuqlarini hujjatlashtiradi, o‘qituvchi esa CEFR Companion Volume’dagi plurilingual tavsif shkalalaridan (deskriptorlardan) foydalangan holda kompetensiya darajasini baholaydi [1; 2].

Baholash mezonlari sifatida quyidagilarni taklif etish mumkin:

- tillararo vositachilik (mediatsiya) qobiliyati – talaba bir tildagi axborotni boshqa til vositasida qayta ifodalay olishi;
- kod almashtirish (code-switching) strategiyalarini pedagogik maqsadda qo‘llash mahorati;
- raqamli resurslardan ko‘p tilli material yaratish va moslashtirish ko‘nikmasi;
- madaniyatlararo vaziyatlarda muloqotni boshqarish qobiliyati.

Ushbu mezonlar nemis tili o‘qituvchisi tayyorlash dasturining yakuniy attestatsiya talablariga kiritilishi, ko‘p tilli kompetensiyaning nafaqat nazariy, balki amaliy jihatdan ham baholanishini ta‘minlaydi.

XULOSA

O‘tkazilgan tahlil shuni ko‘rsatadiki, raqamli ta‘lim muhitida bo‘lajak nemis tili o‘qituvchilarining ko‘p tilli kompetensiyasini shakllantirish murakkab, ko‘p qatlamli jarayon bo‘lib, u nazariy jihatdan CEFR Companion Volume‘da ishlab chiqilgan plurilingvizm konsepsiyasiga [1; 2], metodik jihatdan esa Germaniya, Ukraina va Qozog‘istondagi xorijiy tajribaga [3; 4; 10] hamda O‘zbekistondagi milliy ilmiy-amaliy ishlanmalarga [5; 6; 7; 8; 9] tayanadi. Xorijiy tajriba ko‘p tillilik va raqamlashtirishning institutsional darajada, eksperimental tekshirilgan metodikalar asosida birlashtirilishini ko‘rsatsa, milliy tajriba asosan alohida kompetensiya turlarini (kommunikativ, madaniyatlararo, raqamli) shakllantirishga qaratilgan bo‘lib, ularni yaxlit ko‘p tilli tizim sifatida integratsiya qilish hali yetarli darajada o‘rganilmagan.

Shu sababli quyidagilar tavsiya etiladi: 1) bo‘lajak nemis tili o‘qituvchilari tayyorlash dasturlariga ko‘p tilli didaktika asoslarini o‘rgatuvchi maxsus kursni kiritish; 2) MOOC, mobil ilovalar, virtual almashinuv va e-portfolio kabi raqamli vositalarni yagona metodik tizimga birlashtirish; 3) xorijiy universitetlar bilan telekhamkorlik loyihalarini kengaytirish; 4) ko‘p tilli kompetensiyani baholashning aniq mezonlarini ishlab chiqish. Ushbu chora-tadbirlarning amalga oshirilishi bo‘lajak nemis tili o‘qituvchilarining raqamli va ko‘p tilli kasbiy kompetentligini xalqaro standartlar darajasiga yaqinlashtirishga xizmat qiladi.

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THE RUSSIAN WRITER'S VIEWS ON EDGAR ALLAN POE'S WORKS

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Annotatsiya. Maqolada rus adibi F. M. Dostoyevskiyning Edgar Allan Po ijodiga oid qarashlari tahlil qilinadi. Po hikoyalaridagi fantastika, psixologizm, tasavvur kuchi va badiiy detallarning ahamiyati yoritiladi.

Kalit so'zlar: Dostoyevskiy, Edgar Allan Po, fantastika, psixologizm, tasavvur, badiiy detal.

Аннотация. В статье анализируются взгляды русского писателя Ф. М. Достоевского на творчество Эдгара Аллана По. Рассматриваются фантастика, психологизм, сила воображения и значение художественных деталей в рассказах По.

Ключевые слова: Достоевский, Эдгар Аллан По, фантастика, психологизм, воображение, художественная деталь.

Abstract. The article analyzes the Russian writer F. M. Dostoevsky's views on Edgar Allan Poe's works. It examines fantasy, psychological depth, the power of imagination, and the importance of artistic details in Poe's short stories.

Keywords: Dostoevsky, Edgar Allan Poe, fantasy, psychological depth, imagination, artistic detail.

INTRODUCTION.

F. M. Dostoevsky occupies a special place in the recognition and scholarly-aesthetic evaluation of Edgar Allan Poe's works in Russia. In his article titled "Preface to the Publication of 'Three Tales of Edgar Poe'," published in the journal *Vremya* in 1861, the Russian writer analyses the fantastic nature, psychological depth, imaginative power, and skilful use of artistic details in the American author's short stories. Dostoevsky's observations represent one of the earliest serious interpretations of Poe's works in Russian literary-critical thought.

RESEARCH METHODOLOGY.

This article employs intertextual, psychoanalytic, descriptive-analytical, literary, contextual, hermeneutic, psychological, and textual methods of analysis.

RESULTS AND DISCUSSION.

Dostoevsky characterises Edgar Allan Poe as "an extremely strange writer, though one of great talent." The word "strange" in this description does not carry a negative meaning; rather, it indicates that Poe's artistic thinking transcends conventional modes of representation. According to

Dostoevsky, Poe selects extraordinary, supernatural, and seemingly incredible events for his stories. However, the writer presents these events convincingly through logical arguments, precise details, and psychological observations rather than portraying them vaguely or abstractly. Therefore, Dostoevsky does not consider Poe a writer of fantasy in the fullest sense of the term. Dostoevsky describes Poe's fantastic mode as "external fantasy." Poe initially assumes, conditionally, that a supernatural event may occur. In the subsequent development of the plot, however, he strictly follows the principles of reality, logic, and cause-and-effect relationships. For example, the resurrection of a dead person, the revival of an ancient mummy through galvanism, or a human being's entry into an extraordinary state may appear scientifically impossible. Nevertheless, after introducing such a hypothetical event, Poe depicts all its details in accordance with the laws of reality. As a result, the reader temporarily believes that the supernatural event might actually occur.

Dostoevsky distinguishes Edgar Poe's fantasy from that of E. T. A. Hoffmann. Hoffmann personifies the forces of nature through witches, spirits, and other supernatural figures, presenting the mysterious world as an independent and higher reality. Poe follows an entirely different path: he does not move beyond the boundaries of real life but artistically investigates an unusual event that might occur within reality itself. Whereas Hoffmann's fantastic world acquires an independent existence, Poe's fantasy appears as an extraordinary form of reality. For this reason, Dostoevsky calls Poe the possessor of a "capricious talent" rather than simply a writer of fantasy. The Russian writer identifies the extraordinary psychological condition of the protagonist as one of the central features of Poe's short stories. Poe usually portrays not a person in an ordinary situation but an individual placed in a borderline condition associated with fear, crime, guilt, psychological tension, death, or the loss of sanity. The protagonist is placed in "the most extraordinary external or psychological situation," and the character's inner experiences are carefully observed. Under such circumstances, psychological qualities that remain hidden in everyday life become visible.

Events in Poe's stories are often perceived through the protagonist's inner world. Therefore, an organic connection develops between external events and psychological states. Elements such as frightening settings, darkness, mysterious sounds, signs of death, and enclosed rooms become external expressions of the protagonist's psyche. Dostoevsky particularly emphasises Poe's ability to depict such complex states of the human soul with extraordinary depth and remarkable precision. From this perspective, Poe's stories are not merely accounts of terrifying events but also artistic and psychological investigations demonstrating how fear develops in the human mind. Dostoevsky also highly values the power of imagination in Poe's works. In his view, the principal quality distinguishing Poe from other writers is not simple fantasy but his ability to give imagination a precise and convincing form. The event described by Poe may never occur in real life, yet all its components are developed so perfectly that the reader believes in the logical integrity of the narrative. Consequently, the fantastic event temporarily acquires the status of reality in the reader's mind.

Dostoevsky explains this mastery through the concept of "the power of detail." Poe does not limit himself to general or abstract descriptions. He consistently depicts such minor elements as time, space, objects, sounds, movements, and the protagonist's physical and psychological condition. Every detail strengthens the credibility of the event. As a result, the reader perceives the depicted occurrence as though they had witnessed it personally. Thus, fantasy and reality are not opposed to one another in Poe's stories; on the contrary, realistic details ensure the credibility of the fantastic event. Artistic detail in Poe's works does not perform a merely descriptive function. It gradually intensifies the feeling of fear, creates psychological tension, and prepares the story's final effect. For example, details such as a recurring sound, a dark room, an eye, a beating heart, the colour black, or an enclosed space express the fear and guilt within the protagonist's consciousness. Dostoevsky's observation concerning "the power of detail" serves as an important theoretical foundation for studying psychological and mythopoetic details in Poe's stories. Dostoevsky associates another important feature of Poe's stories with the materialisation of fantastic events. In Poe's works, the product of imagination does not remain abstract; it acquires a definite form, setting, time, and movement. The writer transforms an extraordinary event into a component of the material world. Therefore, Poe's fantasy does not merely amaze the reader but also produces a psychological and emotional effect.

Although the reader understands that the event is fictional, the narrative compels them to believe in its reality while reading the story. In comparing the works of Poe and Hoffmann, Dostoevsky also identifies differences in their treatment of the artistic ideal. In Hoffmann's works, the ideals of beauty, purity, and humanity are expressed more explicitly. In Poe's works, however, the ideal is not directly articulated; it is manifested through fantasy, a longing for beauty, and the desire to transcend the boundaries of everyday reality. Dostoevsky acknowledges that Poe also possesses a "thirst for beauty" and a "radiant ideal." Nevertheless, this ideal is revealed not through images of ordinary life but through mysterious, extraordinary, and terrifying figures.

CONCLUSION.

Dostoevsky identifies the following principal features of Edgar Allan Poe's short stories: the construction of fantasy on realistic and logical foundations; the placement of the protagonist in an extraordinary psychological condition; the profound and precise portrayal of the human psyche; powerful artistic imagination; the creation of credibility through minute details; the materialisation of fantastic events; the gradual intensification of fear and psychological tension; and a concealed aspiration towards beauty and a radiant ideal. Dostoevsky's views on Poe make it possible to interpret the American writer's stories not merely as examples of Gothic or horror literature but as artistic and psychological works that investigate borderline states of human consciousness. In Dostoevsky's interpretation, Poe's greatness lies not simply in inventing supernatural events but in transforming them into a convincing reality for the reader through precise details, rigorous logic, and profound psychological analysis.

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A RULE-BASED ALGORITHM AND SOFTWARE TOOL FOR AUTOMATIC SIMPLE SENTENCE IDENTIFICATION IN UZBEK TEXTS

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Annotatsiya: Mazkur maqolada o'zbek tilidagi matnlarda sodda gaplarni avtomatik aniqlashga mo'ljallangan sakkiz bosqichli qoidalarga asoslangan algoritm hamda uning dasturiy amalga oshirilishi UzSentence Analyzer taqdim etiladi. Tadqiqotda sodda gapning strukturaviy turi fe'l shakllari soniga emas, balki mustaqil predikativ markazlar soniga bog'liq ekanligi haqidagi hamroh tadqiqotda belgilangan formal mezonga asoslaniladi. Algoritm dastlab xom matnni Universal Dependencies tizimiga asoslangan UDPipe yordamida qayta ishlaydi. UDPipe matnni segmentatsiyalash, tokenizatsiyalash, morfologik teglash va bog'lanishlarga asoslangan sintaktik tahlilni amalga oshiradi. Shundan so'ng konverblar, siftdoshlar va yordamchi fe'lli analitik konstruksiyalar kabi mustaqil bo'lmagan shakllarni chiqarib tashlashga qaratilgan tilga xos filtrlash qoidalari qo'llanadi. Natijada gapni tasniflash uchun asos bo'ladigan predikativ markazlar aniqlanadi. UzSentence Analyzer mazkur algoritmni interaktiv interfeys orqali amalga oshiradi. Dastur faqat yakuniy natijani emas, balki qayta ishlashning har bir oraliq bosqichini ham ko'rsatadi. Bu esa noto'g'ri tasniflash holatlarining manbasini aniqlash va xatoning yuzaga kelish jarayonini kuzatish imkonini beradi. Ingliz tilidagi parallel misol algoritm arxitekturasini tillararo universal xususiyatga ega ekanligini, ayni paytda uning muayyan qoidalari tilga xos bo'lib qolishini ko'rsatadi. Algoritm samaradorligini baholash uchun precision, recall va F1 ko'rsatkichlariga asoslangan baholash protokoli taklif etiladi. Ushbu protokol sodda gaplar, bir nechta fe'l ishtirokidagi konstruksiyalar, konverbli konstruksiyalar, analitik fe'l konstruksiyalari hamda uyushiq kesimli konstruksiyalarga nisbatan qo'llanadi.

Kalit so‘zlar: o‘zbek tili, Universal Dependencies, UDPipe, predikativ markaz, qoidalarga asoslangan algoritm, tabiiy tilni qayta ishlash, gaplarni avtomatik tasniflash, UzSentence Analyzer.

Аннотация: В статье представлен восьмиэтапный алгоритм на основе правил для автоматического определения простых предложений в узбекских текстах, а также его программная реализация UzSentence Analyzer. Основываясь на формальном критерии, установленном в сопутствующем исследовании, согласно которому структурный тип предложения определяется количеством самостоятельных предикативных центров, а не количеством глагольных форм, алгоритм сначала обрабатывает исходный текст с помощью UDPipe конвейера Universal Dependencies, выполняющего сегментацию, токенизацию, морфологическую разметку и синтаксический анализ зависимостей. Затем применяются языково-специфические правила фильтрации, исключаящие несамостоятельные формы, такие как конвербы, причастия и аналитические конструкции с вспомогательными глаголами, что позволяет выделить предикативные центры, на основе которых осуществляется классификация. UzSentence Analyzer реализует данный алгоритм в интерактивном интерфейсе, отображающем каждый промежуточный этап обработки, а не только конечный результат. Это позволяет определить источник ошибочной классификации и проследить процесс её возникновения. Параллельно приведённый пример на английском языке показывает, что архитектура алгоритма является универсальной для разных языков, тогда как конкретные правила остаются языково-специфичными. Для оценки эффективности алгоритма предлагается использовать протокол оценки на основе показателей precision, recall и F1, применяемый к простым предложениям, конструкциям с несколькими глаголами, конвербным конструкциям, аналитическим глагольным конструкциям и конструкциям с однородными сказуемыми.

Ключевые слова: узбекский язык, Universal Dependencies, UDPipe, предикативный центр, алгоритм на основе правил, обработка естественного языка, автоматическая классификация предложений, UzSentence Analyzer.

Abstract: This article presents an eight-stage, rule-based algorithm for automatic simple sentence identification in Uzbek texts, along with its software implementation, UzSentence Analyzer. Building on a formal criterion established in a companion study that a sentence's structural type depends on the number of independent predicative centers, not verb forms the algorithm first processes raw text with UDPipe, a Universal Dependencies pipeline performing segmentation, tokenization, tagging, and dependency parsing, then applies language-specific filtering rules that discard non-independent forms (converbs, participles, auxiliary constructions) to isolate the predicative centers on which classification depends. UzSentence Analyzer implements this pipeline in an interactive interface that exposes every intermediate stage, not just the final result, so misclassifications can be traced to their source. A parallel worked example in English shows the algorithm's architecture to be language-universal, while its concrete rules remain language-specific. A precision–recall–F1 evaluation protocol is proposed for assessing performance across simple, multi-verb, converb, analytic-verb, and coordinate-predicate constructions.

Keywords: Uzbek language, Universal Dependencies, UDPipe, predicative center, rule-based algorithm, natural language processing, automatic sentence classification, UzSentence Analyzer.

INTRODUCTION

Computational resources for the Uzbek language remain modest by comparison with typologically similar and unrelated languages alike: the UD_Uzbek-UT treebank currently comprises only 500 sentences and 33 dependency relation types, of which just four occur with subtypes, against the roughly sixteen thousand sentences and fifty-one relations of UD_English-EWT. This scarcity is particularly consequential for a task that appears elementary from a purely descriptive standpoint but is far from trivial computationally: distinguishing a simple sentence from a complex one.

A companion study has argued that the number of independent predicative centers, rather than the number of verb forms, is the operative criterion for this distinction, and has formalized the criterion as a chain running from raw verb forms to predicate candidates, to independent predicates,

to predicative centers. The present article builds on that formal model to specify an algorithm that operationalizes the criterion over Uzbek text, and describes a software tool, UzSentence Analyzer, that implements it.

Background: Universal Dependencies and UDPipe

Universal Dependencies (UD) is a framework for cross-linguistically consistent morphosyntactic annotation, allowing treebanks for typologically diverse languages, Uzbek among them, to be built with a shared inventory of parts of speech, morphological features, and dependency relations [1]. UDPipe is a trainable, language-independent pipeline that performs tokenization, morphological analysis, part-of-speech tagging, lemmatization, and dependency parsing over UD-annotated treebanks for a wide range of languages, Uzbek included, without requiring additional external resources [2]. Its dependency output for a sentence such as “Men ishlab, uyga qaytdim” (“Having worked, I returned home”) identifies qaytdim as the syntactic root, ishlab as an adverbial clause modifier (advcl) attached to it, Men as the nominal subject (nsubj), and uyga as an oblique nominal (obl).

UDPipe's output is a necessary but not sufficient basis for simple/complex sentence classification in Uzbek: converb forms, participial constructions, compound-verb constructions, and null-subject sentences all require additional, language-specific rules layered on top of the generic UD analysis before an independent predicative center can be reliably identified [7]. The algorithm presented below supplies exactly this layer.

The eight-stage algorithm

Given an input text T , the algorithm proceeds through the following stages, each operating on the output of the one before it [3; 5]:

Stage 1 – Segmentation. T is split into a set of sentences $G = \{g_1, g_2, \dots, g_n\}$.

Stage 2 – Tokenization. Each sentence g_i is split into word- and punctuation-level tokens W .

Stage 3 – Morphological analysis. Each token in W is tagged for part of speech and morphological features; verb forms receive particular attention, yielding the set V .

Stage 4 – Predicate-candidate extraction. A filtering function F identifies which members of V could, in principle, serve as a predicate on morphological grounds, yielding the candidate set $K_n = \{v_i \in V \mid F(v_i) = 1\}$.

Stage 5 – Syntactic filtering. Candidates in K_n are evaluated against a set of syntactic criteria S – person-number agreement, tense, mood, and the subject–predicate relation that exclude converbs, participles, and other non-independent forms.

Stage 6 – Independent predicate extraction. Candidates satisfying S form the set of independent predicates $K = \{k_i \in K_n \mid S(k_i) = 1\}$.

Stage 7 – Predicative-center identification. Coordinate predicates sharing one subject (e.g., *turdi* and *yugurdi* in “U oʻrnidan turdi va yugurdi”) are merged into a single predicative center, yielding the set P , with $|P| \leq |K|$.

Stage 8 – Decision. The sentence is classified by $|P|$: a simple sentence if $|P| = 1$, a complex sentence if $|P| \geq 2$, and a predicative-center-free construction (an interjective word-sentence such as *albatta* or *ha*) if $|P| = 0$.

A cross-linguistic worked example

The Uzbek sentence “U kechgacha ishlab, daladan qaytdi” (“Having worked until evening, he returned from the field”) yields two predicate candidates at Stage 4: *ishlab* and *qaytdi*. At Stage 5, *ishlab* is excluded as a converb lacking person-number and tense marking, leaving *qaytdi* as the sole independent predicate; the sentence is therefore classified as simple ($|P| = 1$).

Applying the same eight stages to the English sentence “Having finished his work, he went home” produces an analogous result. Tokenization yields *Having*, *finished*, *his*, *work*, *he*, *went*, *home*; morphological analysis identifies *having finished* as a non-finite (perfect participle) form and *went* as a finite past-tense form; both are provisionally admitted as predicate candidates at Stage 4, but syntactic filtering at Stage 5 excludes *having finished* for lacking person-tense marking, exactly as with the Uzbek converb. Only *went* remains as an independent predicate, and the sentence is again classified as simple ($|P| = 1$).

The parallel confirms that the algorithm's architecture reject non-finite predicate candidates before counting predicative centers is language-universal, while the concrete morphological and syntactic tests that implement each stage are language-specific: person-number affixation in Uzbek, the finite/non-finite verb-form distinction in English. The current implementation of UzSentence Analyzer has been tested on Uzbek material only. The English example above is a manual application of the algorithm's logic, offered to demonstrate its cross-linguistic architecture rather than as a claim about the tool's coverage.

UzSentence Analyzer: implementation and interface

UzSentence Analyzer implements the eight-stage algorithm as an interactive desktop application, following the general design pattern of pipeline-based NLP tools that expose intermediate annotation layers to the user [6]. The interface is organized into functional panels: a text-entry panel, in which the user types or pastes the sentence to be analyzed; a result panel, which reports the sentence's structural type (simple or complex) together with the value of $|P|$; a predicative-center table, listing each identified predicate, whether it was accepted as a predicative center, and a brief justification; and a computation panel, summarizing the count of predicate candidates, independent predicates, and predicative centers alongside the decision rule applied ($|P| = 1 \rightarrow$ simple sentence; $|P| \geq 2 \rightarrow$ complex sentence).

This design reflects one of the five properties claimed for the underlying model: that it supports an explanatory decision mechanism, reporting not only the final classification but the linguistic evidence that produced it. This traceability is intended to support both linguistic research use, where a researcher may wish to inspect why a borderline construction was classified as it was, and software debugging, where it localizes the algorithmic stage responsible for an incorrect result.

EVALUATION METHODOLOGY

Assessing the algorithm's practical accuracy requires a test set stratified across the sentence types that are most likely to challenge the syntactic-filtering stage: ordinary simple sentences. Sentences with multiple verb forms but a single predicative center; converb-containing sentences; analytic verb constructions; sentences with coordinate predicates; and sentences with two or more independent predicative relations. Rather than checking only the final simple/complex label, evaluation should verify each intermediate stage the extraction of predicate candidates, the identification of independent predicates, and the count of predicative centers since an error at an earlier stage may coincide with a correct final label by chance.

Standard classification metrics apply [3; 4]: precision $P = TP/(TP+FP)$, recall $R = TP/(TP+FN)$, and their harmonic mean, $F1 = 2PR/(P+R)$, where TP, FP, and FN denote sentences correctly identified as simple, incorrectly labeled as simple, and simple sentences the algorithm failed to identify, respectively. Overall classification accuracy is given by $N_{correct}/N_{test}$ across the full test set. A full quantitative evaluation on this protocol, with the corresponding numerical results, is reported separately as the test corpus is finalized.

CONCLUSION

The algorithm described here operationalizes a language-universal criterion the count of independent predicative centers through a chain of UD-based preprocessing and Uzbek-specific syntactic filtering, and UzSentence Analyzer demonstrates that this chain can be implemented as an interactive, explanatorily transparent tool. The cross-linguistic worked example indicates that extending the approach to further languages is primarily a matter of substituting language-specific filtering rules at Stage 5, rather than redesigning the overall architecture. Future work includes completing the stratified evaluation outlined in Section 6 and extending the rule set to additional Uzbek-specific constructions, such as null-subject sentences and reported-speech converb chains.

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STRUCTURAL ANALYSIS OF FINANCIAL-ECONOMIC TERMS: SIMPLE, DERIVED, COMPOUND, AND TERMINOLOGICAL UNITS

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Abstract. *This article examines the structural organization of contemporary English financial-economic terminology, with particular attention to simple terms, derived terms, compounds, and multi-word terminological units. The study aims to identify the principal structural patterns used to name financial and economic concepts, describe their morphological and semantic characteristics, and determine how structural organization affects translation into Uzbek. A descriptive comparative approach is employed. The analyzed terminology is grouped according to the number and type of lexical components and the degree of semantic and terminological unity. The analysis shows that simple terms form the basic lexical layer of the system, while derived terms expand this layer through productive affixes expressing processes, states, qualities, agents, and relations. Compound and multi-word units are especially prominent because economic concepts frequently involve relationships between institutions, processes, instruments, policies, and measurable variables. In the analyzed distribution, simple terms account for 13 percent and derived terms for 24 percent, whereas compound and terminological units together account for 63 percent. The findings also indicate a close relationship between structural type and translation strategy. Simple terms generally have direct Uzbek equivalents; derived terms often allow morphological adaptation; compounds may require calquing or semantic adjustment; and longer terminological units frequently require descriptive translation. The study contributes to terminology research and provides practical implications for bilingual economic dictionaries, translation practice, and the teaching of financial-economic English.*

Keywords: *financial-economic terminology; structural analysis; simple terms; derived terms; compound terms; terminological units; translation strategies.*

Аннотация. *В статье исследуется структурная организация современной англоязычной финансово-экономической терминологии, особое внимание уделяется простым терминам, производным терминам, сложным словам и многокомпонентным терминологическим единицам. Цель исследования заключается в выявлении основных структурных моделей, используемых для обозначения финансово-экономических понятий, описании их морфологических и семантических характеристик, а также определении влияния структурной организации на их перевод на узбекский язык. В исследовании применяется описательно-сопоставительный подход. Анализируемая терминология классифицируется в соответствии с количеством и типом лексических компонентов, а также степенью*

семантического и терминологического единства. Результаты анализа показывают, что простые термины образуют базовый лексический слой данной системы, тогда как производные термины расширяют этот слой посредством продуктивных аффиксов, выражающих процессы, состояния, качества, субъектов действия и отношения. Сложные и многокомпонентные терминологические единицы занимают особенно значительное место, поскольку экономические понятия часто отражают взаимосвязи между учреждениями, процессами, инструментами, политикой и измеряемыми показателями. Согласно полученному распределению, простые термины составляют 13 %, а производные — 24 %, тогда как сложные и терминологические единицы в совокупности составляют 63 %. Результаты также свидетельствуют о тесной взаимосвязи между структурным типом термина и стратегией его перевода. Простые термины, как правило, имеют прямые узбекские эквиваленты; производные термины часто допускают морфологическую адаптацию; при переводе сложных терминов может применяться калькирование или семантическая адаптация; более протяжённые терминологические единицы нередко требуют описательного перевода. Исследование вносит вклад в развитие терминологических исследований и имеет практическое значение для составления двуязычных экономических словарей, переводческой практики и преподавания финансово-экономического английского языка.

Ключевые слова: финансово-экономическая терминология; структурный анализ; простые термины; производные термины; сложные термины; терминологические единицы; переводческие стратегии.

Annotatsiya. Mazkur maqolada zamonaviy ingliz tilidagi moliyaviy-iqtisodiy terminologiyaning strukturaviy tashkil etilishi tadqiq etilib, bunda sodda terminlar, yasama terminlar, qo'shma terminlar va ko'p komponentli terminologik birliklarga alohida e'tibor qaratiladi. Tadqiqotning maqsadi moliyaviy va iqtisodiy tushunchalarni ifodalashda qo'llaniladigan asosiy strukturaviy modellarning xususiyatlarini aniqlash, ularning morfologik va semantik tavsiflarini yoritish hamda strukturaviy tashkil etilishning o'zbek tiliga tarjimaga ta'sirini belgilashdan iborat. Tadqiqotda tavsifiy-qiyosiy yondashuvdan foydalanildi. Tahlil qilinayotgan terminologiya leksik komponentlarning soni va turiga, shuningdek, semantik hamda terminologik yaxlitlik darajasiga ko'ra guruhlarga ajratildi. Tahlil natijalari sodda terminlar mazkur tizimning asosiy leksik qatlamini tashkil etishini, yasama terminlar esa jarayon, holat, sifat, harakat subyekti va munosabatlarni ifodalovchi mahsuldor affikslar yordamida ushbu qatlamni kengaytirishini ko'rsatdi. Qo'shma va ko'p komponentli terminologik birliklar ayniqsa muhim o'rin egallaydi, chunki iqtisodiy tushunchalar ko'pincha muassasalar, jarayonlar, vositalar, siyosat va o'lchanadigan ko'rsatkichlar o'rtasidagi munosabatlarni ifodalaydi. Aniqlangan taqsimotga ko'ra, sodda terminlar 13 foizni, yasama terminlar 24 foizni tashkil etadi, qo'shma va terminologik birliklar esa jami 63 foizni tashkil qiladi. Tadqiqot natijalari, shuningdek, terminning strukturaviy turi bilan uning tarjima strategiyasi o'rtasida uzviy bog'liqlik mavjudligini ko'rsatadi. Sodda terminlar, odatda, o'zbek tilida bevosita ekvivalentlarga ega; yasama terminlar ko'pincha morfologik moslashtirish imkonini beradi; qo'shma terminlarni tarjima qilishda kalkalash yoki semantik moslashtirishdan foydalanish mumkin; uzunroq terminologik birliklar esa ko'pincha tavsifiy tarjimani talab qiladi. Tadqiqot terminologiya sohasidagi izlanishlarga hissa qo'shadi hamda ikki tilli iqtisodiy lug'atlar tuzish, tarjima amaliyoti va moliyaviy-iqtisodiy ingliz tilini o'qitish uchun amaliy ahamiyat kasb etadi.

Kalit so'zlar: moliyaviy-iqtisodiy terminologiya; strukturaviy tahlil; sodda terminlar; yasama terminlar; qo'shma terminlar; terminologik birliklar; tarjima strategiyalari.

INTRODUCTION

Financial-economic terminology represents one of the most dynamic layers of specialized vocabulary in contemporary English. The rapid development of international markets, digital finance, banking services, investment instruments, taxation systems, and economic policy has generated a continuous need to name new concepts and to refine existing terminology. As economic activity

becomes increasingly interconnected across national boundaries, English functions as an important medium for international financial communication. Consequently, the structural organization of English financial-economic terms deserves systematic linguistic attention, particularly when such terms are transferred into Uzbek. Terminology is not simply a collection of specialized words. It is an organized system in which lexical units correspond to concepts, conceptual relations, processes, institutions, instruments, and properties within a particular field. In economics, the relationships among concepts are often reflected directly in the form of terms. A basic lexical item such as “market” can serve as a foundation for further formations such as “marketing” and “marketability,” while combinations such as “market economy,” “market price,” and “foreign exchange market” make increasingly specific distinctions. Structural analysis therefore helps reveal how a terminological system expands and how specialized meanings are encoded. The relevance of the present study is also connected with translation. A translator working with economic texts must not only recognize the dictionary meaning of an English term but also understand how its components interact. The translation of “price” as “narx” is comparatively straightforward, whereas the translation of “consumer price index” requires attention to the relationship among the components and to the established Uzbek terminology. Similarly, “balance of payments” cannot be translated effectively by simply reproducing the English word order. Structural awareness is thus an important condition for terminological accuracy. Previous terminology-oriented work has emphasized the systematic nature of specialized vocabulary and the importance of distinguishing lexical structure from conceptual structure. Economic dictionaries and lexicons likewise demonstrate that the field contains both highly frequent basic words and increasingly specialized combinations (Black et al., 2009; Ergashev, 2020; Routledge, 2012). The present study develops this perspective by organizing financial-economic terms into four broad structural categories: simple terms, derived terms, compound terms, and terminological units. The purpose of this study is to provide a structural and comparative analysis of English financial-economic terminology and to examine how the four structural categories function in the terminology system and in Uzbek translation. The study addresses three principal questions: (1) What structural types characterize English financial-economic terminology? (2) What morphological and semantic functions distinguish simple, derived, compound, and multi-word terminological units? (3) How does structural type influence the translation strategy used to render English terms in Uzbek? The objectives are to identify the major structural models; describe productive derivational patterns; examine the semantic contribution of components; compare English structures with their Uzbek equivalents; and formulate practical observations for terminology development, bilingual lexicography, translation, and English for Specific Purposes (ESP) teaching. Review of literature can be merged into the introduction. Existing economic reference works provide extensive evidence that specialized economic vocabulary contains single lexical items as well as complex combinations. Black, Hashimzade, and Myles (2009), for example, document a broad range of economic concepts and demonstrate the importance of precise lexical distinctions. The Routledge Dictionary of Economics (2012) similarly presents terminology across finance, markets, macroeconomics, microeconomics, and economic policy. Uzbek-oriented resources also emphasize the need for consistent equivalents and explanations when economic concepts are transferred into Uzbek (Ergashev, 2020; Vahobov et al., 2004). Studies of English economic terminology commonly distinguish word-formation processes such as derivation and compounding from syntactic combinations. From a practical perspective, however, the boundary between a compound and a multi-word term can be difficult to establish because both may function as stable naming units. For this reason, the present study uses “compound terms” for relatively compact combinations whose components form a conventional lexical unit, while “terminological units” is used for longer, conceptually integrated expressions, including noun phrases and policy or model names. The classification is therefore functional as well as formal.

METHOD

The study employs a descriptive-comparative methodology combining structural, morphological, semantic, and translation-oriented analysis. The principal object of analysis is a

working set of English financial-economic terms represented in economic dictionaries and specialized economic usage. The terminology includes lexical items associated with banking, finance, taxation, investment, markets, labor, production, trade, and macroeconomic policy. The reference materials used in the underlying study include English economic dictionaries and Uzbek terminology resources (Black et al., 2009; Ergashev, 2020; Routledge, 2012; Vahobov et al., 2004). Terms were classified according to their formal structure. Simple terms were treated as single lexical bases, including items such as bank, cash, debt, tax, price, value, profit, market, loan, money, cost, demand, risk, liquidity, and investment. Derived terms were identified where a base has been extended through productive affixation or a related word-formation process, as in capitalization, management, employment, liquidity, economist, investor, competitive, financial, and monetary. Compound terms were represented by stable combinations of independent lexical components such as balance sheet, base rate, exchange rate, fixed cost, market economy, and working capital. Multi-word terminological units included longer expressions naming specific economic concepts, models, instruments, policies, or institutional phenomena.

The quantitative component is descriptive rather than inferential. The distribution reported in the study is expressed as percentages of the analyzed terminology: simple terms constitute 13 percent, derived terms 24 percent, and compound plus multi-word terminological units 63 percent. These proportions are used to identify tendencies in structural organization rather than to claim universal frequencies for all English economic vocabulary. Because terminology varies across subfields and sources, the percentages should be understood as descriptive results for the analyzed set. Structural analysis proceeded in four stages. First, each term was assigned to a structural category. Second, its morphological composition was examined, including the base and productive affixes where relevant. Third, the semantic relationship between the components was considered. Fourth, the English term was compared with its Uzbek equivalent in order to identify direct equivalence, morphological adaptation, calquing, semantic adjustment, or descriptive translation. Particular attention was given to derivational suffixes that occur productively in financial-economic vocabulary. The analysis considered formations with -tion/-ation, -ment, -ity, -ism, -ist, -er/-or, -able/-ible, -ive, -al, -ous, -ic, -y, -ure, -age, and -ance/-ence. The purpose was not to treat every word ending as a productive suffix in every lexical item, but to identify recurring morphological patterns that contribute to terminology formation.

Respondents. No human respondents were required for the linguistic analysis because the study is based on documentary and lexical data. The unit of analysis is the term itself. This is appropriate for a terminology-focused investigation in which the primary evidence consists of lexical forms, definitions, structural patterns, and established translations.

Instruments. The principal instruments were a terminology classification scheme, bilingual lexical comparison, structural analysis, and descriptive frequency calculation. Reference dictionaries served as supporting lexical resources. A term-analysis table can be used in subsequent corpus development to record the English term, structural type, English definition, Uzbek equivalent, Uzbek definition, translation strategy, and example of use.

Procedures. The procedure began with the identification of financial-economic terms, followed by structural classification and morphological segmentation where applicable. The terms were then compared with Uzbek equivalents. Examples were grouped according to the dominant translation strategy. Finally, the distribution of structural categories was interpreted in relation to the conceptual complexity of economic discourse.

Data analysis. Descriptive percentages were used to characterize the distribution of structural types. Qualitative analysis was used to interpret the semantic role of components and the relationship between English structure and Uzbek translation. No statistical significance testing was applied because the purpose of the study is linguistic description rather than hypothesis testing on a population sample.

FINDINGS AND DISCUSSION

The structural classification demonstrates that financial-economic terminology is internally heterogeneous but not random. The four categories represent different levels of lexical and conceptual complexity. Simple terms provide basic conceptual labels; derived terms create systematic semantic extensions; compounds connect two or more lexical concepts into a specialized unit; and longer terminological units encode complex relationships among economic entities and processes. The distribution reported in the analysis is summarized in Table 1. The largest share is represented by compound and multi-word terminological units together. This result is theoretically meaningful because economic concepts are frequently relational. An economic term often has to specify an actor, object, process, measurement, institutional context, or direction of a relationship. For example, “rate” by itself is broad, whereas “interest rate,” “exchange rate,” and “employment rate” specify different measurable economic relationships.

Table 1

Distribution of the main structural types in the analyzed terminology

Structural type	Description	Share
Simple terms	Single lexical bases	13%
Derived terms	Terms formed through derivation/affixation	24%
Compound and multi-word units	Stable combinations and longer terminological expressions	63%

Simple financial-economic terms consist of a single lexical base and normally denote fundamental concepts. Examples identified in the study include bank, cash, debt, tax, price, value, profit, market, firm, bond, share, loan, rent, wage, money, cost, demand, unemployment, productivity, investment, saving, risk, liquidity, solvency, assets, liabilities, equity, dividend, and interest. These terms occupy a foundational position because more specialized formations can be built from them. The semantic stability of simple terms makes them comparatively efficient in professional communication. In many cases, their Uzbek equivalents are also single words: bank—bank, price—narx, tax—soliq, debt—qarz, and profit—foyda. Such equivalence reduces translation complexity, although context can still influence the preferred meaning. For instance, “interest” may refer to a financial return in one context and to a general concern or involvement in another. Terminological context is therefore essential even for structurally simple forms. Simple terms also have a productive function. The lexical base market participates in formations such as marketability, marketer, marketing, supermarket, and marketplace. The same general principle occurs throughout the economic lexicon: a core lexical item can become the source of a family of related terms. Consequently, simple terms should not be viewed merely as isolated dictionary entries; they function as nodes in a wider derivational and combinational network. The relatively smaller proportion of simple terms in the analyzed distribution does not imply lower importance. On the contrary, their conceptual centrality makes them indispensable. The low percentage reflects the fact that highly specialized economic discourse tends to modify basic concepts through derivation and combination. A research paper may therefore contain relatively few unmodified bases while repeatedly using compounds and longer units constructed around those bases.

Derived terms extend a lexical base by means of affixes or other word-formation mechanisms. In financial-economic terminology, derivation is especially useful for naming processes, conditions, properties, participants, and relations. The analyzed material includes capitalization, liberalization, privatization, stabilization, amortization, allocation, assessment, management, employment, adjustment, development, payment, liquidity, productivity, capitalism, economist, investor, broker, consumer, producer, trader, adjustable, convertible, sustainable, competitive, financial, commercial, economic, and monetary. The suffix -tion/-ation is strongly associated with processes and results of processes. Forms such as capitalization, privatization, stabilization, and allocation refer to organized economic activities or processes. The Uzbek equivalents frequently employ nominal forms, for example capitalization may be rendered through a noun corresponding to capitalization, while

globalization is conventionally represented as globallashuv. This illustrates a general tendency toward morphological adaptation rather than word-for-word substitution. The suffix -ment is also productive in naming processes, results, states, and institutional activities. Examples include assessment, management, employment, adjustment, development, establishment, payment, and requirement. Although the semantic contribution of -ment is not identical in every lexical item, the recurring pattern helps speakers recognize relationships among terms and assists terminology learners in interpreting unfamiliar vocabulary. Forms ending in -ity frequently denote qualities, states, or abstract properties, as in liquidity, elasticity, productivity, commodity, equity, facility, integrity, and utility. In Uzbek, many international economic terms have become integrated through transliteration or adapted morphological forms, such as liquidity—likvidlik and productivity—mahsuldorlik. The translation strategy therefore depends on both lexical convention and structural compatibility. Agentive suffixes such as -er and -or identify participants in economic activity: investor, broker, consumer, producer, trader, borrower, lender, and manager. These formations are semantically transparent because the suffix contributes the meaning of an actor or participant associated with the base. Uzbek commonly expresses this relationship through lexical or derivational equivalents, for example investor—investor and economist—iqtisodchi. Adjectival formations such as competitive, effective, efficient, financial, commercial, industrial, fiscal, and monetary perform an important classificatory function. They allow a basic noun to be narrowed into a specialized combination: fiscal policy, monetary policy, financial market, commercial bank, industrial production, and competitive advantage. In this way, derivation and compounding interact rather than operating as completely separate mechanisms. Translation of derived terms can be structurally direct when Uzbek has a corresponding derivational resource, but it can also require semantic or descriptive reformulation. Terms such as affordability and marketability illustrate the issue: a formally parallel suffix may not always produce the most natural Uzbek term. The translator must therefore consider established usage, conceptual meaning, and the communicative context.

Compound terms combine independent lexical components into a stable specialized expression. The study includes such examples as absolute advantage, active fiscal policy, adverse selection, balance of payments, balance sheet, base rate, economic growth, economic integration, effective demand, electronic commerce, employment rate, equilibrium price, equity capital, excess demand, exchange rate, excise duty, factor cost, fixed capital, fixed cost, fixed exchange rate, unemployment benefit, unit cost, value added, variable cost, venture capital, wage rate, and working capital. The prominence of these combinations is closely connected with the conceptual structure of economics. A basic noun is often insufficient to distinguish among related concepts. The term rate, for example, becomes more precise when combined with interest, exchange, employment, or wage. Likewise, capital can be specified as fixed capital, equity capital, venture capital, or working capital. The modifier supplies a semantic restriction that allows specialists to distinguish one concept from another. English frequently places the modifier before the head noun. Uzbek, by contrast, often uses a reversed relationship. Thus, market economy corresponds to bozor iqtisodiyoti, foreign trade to tashqi savdo, and interest rate to foiz stavkasi. The translation is not simply a mechanical reversal; the translator must identify the semantic head and reproduce the conceptual relation naturally in Uzbek. Some combinations contain prepositions, especially of, and these require particular attention. Balance of payments is translated as to'lov balansi rather than by reproducing the English sequence. Rate of interest similarly corresponds to foiz stavkasi. These examples show that English prepositional structures can map onto Uzbek possessive or izofa relations. Calquing is often effective where the component relationships are transparent and an established Uzbek model exists. However, literal translation is not always appropriate. Business cycle, for example, may be rendered as iqtisodiy sikl in accordance with established conceptual usage rather than as a literal lexical sequence. Translation therefore involves semantic normalization as well as structural transfer.

Multi-word terminological units represent the highest level of structural complexity considered in the study. They include expressions such as absolute income hypothesis, ad valorem tax, adverse supply shock, agency theory, capital asset pricing model, certificate of deposit, consumer price index, direct foreign investment, discount rate, disposable income, division of labour, effective

exchange rate, tariff barrier, tax evasion, tax haven, terms of trade, transfer income, unemployment insurance, and value added tax. These units are not merely long strings of words. They function as established names for specific concepts, models, institutional practices, or measurable indicators. The expression consumer price index, for instance, refers to a recognized economic indicator rather than to an arbitrary combination of consumer, price, and index. Similarly, capital asset pricing model names a specific theoretical model. The semantic unity of such terms is therefore greater than the sum of the dictionary meanings of their individual components. Longer terms are particularly important in academic and policy discourse because economic science increasingly requires precise conceptual distinctions. New theories, financial products, regulations, statistical indicators, and policy mechanisms frequently receive names containing several components. This explains why the combined share of compound and multi-word units is high in the analyzed material. Translation of multi-word terms requires a clear understanding of the internal hierarchy of the expression. In English, modifiers usually precede the head, whereas Uzbek frequently uses post-positioned modifiers, possessive constructions, or other syntactic patterns. The translator must determine which element is the semantic head and which elements restrict its meaning. Two broad strategies are especially visible. The first is calquing, in which the conceptual structure is transferred into Uzbek using corresponding lexical resources. Gross domestic product—*yalpi ichki mahsulot* and value added tax—*qo‘shilgan qiymat solig‘i* illustrate this tendency. The second is descriptive or explanatory translation, which is useful when a direct equivalent is unavailable or would be misleading. The choice depends on established terminology, transparency, and the communicative needs of the target text.

The reported distribution—13 percent simple, 24 percent derived, and 63 percent compound and multi-word—suggests that financial-economic terminology is predominantly analytic. The result supports the observation that economic concepts are often constructed through the combination of several semantic components. A single lexical item may identify a general category, while additional components specify the relevant actor, process, object, measurement, or institutional context. The 13 percent share of simple terms represents the conceptual core of the terminology. These items are short, highly reusable, and often productive in further word formation and combination. The 24 percent share of derived terms demonstrates the importance of morphological productivity. Economic language requires nouns for processes and agents, adjectives for classification, and abstract nouns for qualities and states. Derivation provides an economical way to create such labels. The 63 percent combined share of compounds and multi-word units is the most significant finding from a structural perspective. It indicates that specialized economic naming frequently relies on combination. The result can be related to the principle of terminological precision: as the number of possible concepts increases, additional semantic specification becomes necessary. This is particularly evident in finance, where small differences between instruments, rates, risks, and policy mechanisms can have substantial practical consequences. The categories should nevertheless not be understood as completely isolated. A derived word can become the component of a compound, and a simple word can occur inside a long terminological unit. For example, investment is structurally related to invest and can participate in expressions such as direct foreign investment. Similarly, value occurs in value added and value added tax. The terminology system is therefore networked, with structural categories interacting at multiple levels.

Table 2

Representative examples and translation tendencies

Type	English example	Uzbek equivalent/example	Dominant strategy
Simple	profit	Foyda	direct equivalence
Derived	liquidity	Likvidlik	morphological adaptation
Compound	market economy	bozor iqtisodiyoti	semantic/structural adaptation

Compound	balance of payments	to‘lov balansi	calque + syntactic adaptation
Multi-word	value added tax	qo‘shilgan qiyamat solig‘i	Calque
Multi-word	consumer price index	iste‘mol narxlari indeksi	structural adaptation

The structural form of a term provides an important clue to its likely translation strategy, but it does not determine the strategy automatically. Simple terms generally permit direct equivalence because they refer to basic concepts that have conventional Uzbek names. Derived terms often permit morphological adaptation, especially when international terminology has already entered Uzbek usage. Compounds require analysis of the semantic relationship between components, while longer terminological units demand hierarchical parsing and attention to established terminology. Direct equivalence is illustrated by bank—bank, price—narx, tax—solig, debt—qarz, and profit—foyda. These pairs demonstrate that English and Uzbek can share or closely match a basic conceptual label. Nevertheless, a translator should always check the domain context because common English words may have specialized financial meanings. Morphological adaptation is especially visible in international economic vocabulary. Liquidity can be rendered as likvidlik, capitalism as kapitalizm, economist as iqtisodchi, and competitive as raqobatbardosh. The examples show that adaptation may involve borrowing, native derivation, or semantic restructuring. The target-language form should be selected according to established professional usage rather than by formal symmetry alone. Calquing is effective for many compounds and longer units when the conceptual relations can be reproduced naturally. Balance of payments—to‘lov balansi and value added tax—qo‘shilgan qiyamat solig‘i are useful examples. Such translations preserve the conceptual structure while respecting Uzbek syntax. Descriptive translation becomes necessary when a structural counterpart is unavailable or when literal translation would obscure the concept. The translator may need to explain a process, property, or institutional mechanism in a phrase that is not formally parallel to the English term. This is particularly relevant to newly emerging financial terminology, where Uzbek equivalents may still be developing. Terminological consistency is another major issue. Once an equivalent has been selected for a key term in a scientific or institutional text, repeated variation can reduce clarity. Bilingual dictionaries and institutional glossaries therefore play an important role in stabilizing usage. The development of Uzbek economic terminology should combine linguistic naturalness with conceptual precision and consistency.

The findings have direct implications for the construction of an Uzbek-English and English-Uzbek financial-economic terminology database. A useful bilingual resource should not record only a term and its translation. It should also include structural type, definition, grammatical category, derivational information where relevant, semantic field, translation strategy, and authentic examples. Such information would allow researchers and learners to understand not only what a term means but also how it behaves in professional discourse. A parallel corpus can provide additional evidence for terminological equivalence. When English economic texts and their Uzbek translations are aligned, recurring translation pairs can be identified and compared. This makes it possible to distinguish established equivalents from occasional contextual translations. Corpus evidence can also reveal variation, preferred collocations, and changes in terminology over time. The present structural classification can serve as one layer in a larger corpus annotation scheme. A future database may assign each term a structural label such as SIMPLE, DERIVED, COMPOUND, or MULTI-WORD, together with semantic domain labels such as BANKING, TAXATION, INVESTMENT, TRADE, LABOUR, MACROECONOMICS, or ACCOUNTING. Such annotation would support quantitative research into how terminology is formed and translated. For dictionary users, examples are particularly important. A definition tells the reader what a term denotes, whereas a corpus example shows how the term functions in context. For advanced financial-economic terminology, examples should ideally be bilingual and source-based. This approach would be valuable for researchers, translators, economics students, and ESP teachers. Structural awareness can also improve the teaching of English for Specific Purposes. Students of economics frequently encounter long noun phrases and

derived forms before they have developed enough lexical knowledge to process them comfortably. Teaching students to identify the head noun, modifiers, and derivational suffixes can make complex terminology more manageable. For example, when students meet the expression employment rate, they can identify rate as the head and employment as the modifier. In consumer price index, index is the head, while consumer and price progressively narrow the meaning. In value added tax, tax is the semantic head and value added specifies the type of tax. Such structural parsing strategies can support both reading comprehension and translation.

Derivational families can also be taught systematically. A lesson may connect invest, investment, investor, and investable; compete, competitive, competitiveness, and competitor; or manage, management, manager, and managerial. This allows students to expand vocabulary through morphological relationships rather than memorizing isolated words. Finally, translation exercises can be organized by structural type. Students can first translate simple terms, then derived forms, then compounds, and finally multi-word terms. They can compare literal translation with established professional equivalents and explain why one version is more appropriate. Such activities connect vocabulary learning with terminology awareness and professional communication.

The findings confirm that the structure of financial-economic terminology reflects the conceptual organization of the discipline. Basic concepts are represented by simple terms, while increasingly specialized concepts are frequently encoded through derivation and combination. The dominance of compound and multi-word units is therefore not merely a formal characteristic; it reflects the need to express precise relations among economic entities and processes. The results also demonstrate that structural analysis and translation analysis should not be separated. A translator who recognizes a term as a prepositional or multi-word unit is better positioned to identify its semantic head and reproduce the relation in Uzbek. Conversely, translation difficulties can reveal structural distinctions that deserve closer linguistic study. An important practical conclusion is that terminology management should distinguish between literal equivalence and functional equivalence. The best translation is not necessarily the one that reproduces the greatest number of English components. It is the one that communicates the same specialized concept using an accepted and intelligible target-language form. This principle is especially important for emerging economic terms. The study has limitations. The reported percentages describe the analyzed terminology and should not be generalized to every economic text or every subfield without further corpus-based verification. In addition, the boundary between compound terms and longer terminological units can vary according to the theoretical framework adopted. Future research should therefore apply the classification to a larger balanced parallel corpus and test the stability of the categories across banking, accounting, taxation, investment, trade, and macroeconomics.

Future work can also investigate directionality in translation. English-to-Uzbek and Uzbek-to-English translations may display different structural preferences because English and Uzbek organize modifiers, possession, and nominal groups differently. A parallel-corpus study could measure which English structures most frequently correspond to which Uzbek structures and could identify recurrent translation shifts.

FURTHER COMPARATIVE DISCUSSION

One methodological issue in terminology research is that structural categories may overlap. A form that appears as a two-word combination may function as a highly conventionalized compound in one analytical framework and as a syntactic noun phrase in another. Financial-economic terminology contains many such borderline cases because professional usage continuously develops through repeated combinations. Expressions such as balance sheet, exchange rate, working capital, and venture capital have a high degree of terminological stability, even though their formal structure remains transparent. This observation suggests that classification should consider at least three dimensions: formal structure, semantic unity, and conventionality. Formal structure identifies the number and type of components; semantic unity asks whether the expression denotes one specialized concept; and conventionality considers whether the expression is repeatedly used in professional discourse as an established label. A combined approach reduces the risk of treating every frequent

noun phrase as an independent lexical compound. The distinction is particularly relevant for corpus annotation. If a corpus project marks only orthographic compounds, it may overlook important multiword terminology. If it marks every noun phrase as a term, however, the dataset may become excessively broad. A practical solution is to record the structural form and terminological status separately. For example, exchange rate may be coded as MULTIWORD + ESTABLISHED TERM, while a temporary descriptive phrase may be coded as MULTIWORD + CONTEXTUAL COMBINATION.

The components of financial-economic terms enter different semantic relations. In market economy, market identifies the type or sphere of economy. In wage rate, wage identifies the object to which rate applies. In unemployment benefit, unemployment specifies the condition associated with the benefit. In capital asset pricing model, the components progressively narrow the conceptual field until the full expression identifies a particular model. Recognizing these relations is important for both linguistic description and translation. Complex terms can therefore be analyzed from the head toward the modifiers. In English, the rightmost noun is frequently the grammatical and semantic head of a noun phrase. In Uzbek, the same concept may be expressed with the head noun followed by modifiers or through possessive constructions. This contrast explains why literal linear translation often produces unnatural or inaccurate results. Semantic relations also help distinguish apparently similar terms. The words price, cost, value, and rate belong to related economic fields but do not denote identical concepts. Their combinations create further distinctions: price index, production cost, market value, interest rate, exchange rate, and wage rate. Terminology teaching should therefore focus on collocational and conceptual networks rather than isolated vocabulary lists.

Financial-economic terminology is strongly influenced by international communication. Many terms circulate across languages through borrowing, transliteration, adaptation, or calquing. Uzbek economic discourse contains internationally recognizable forms alongside native Uzbek equivalents. The coexistence of these forms can facilitate communication among specialists, but it can also create variation if terminology is not standardized. Borrowing is particularly common when the concept itself enters a language together with a new institution, technology, financial instrument, or professional practice. Morphologically adapted forms such as *likvidlik* and *kapitalizm* illustrate how international vocabulary can be integrated into Uzbek. At the same time, native expressions such as *raqobatbardosh* can provide semantically transparent alternatives to international forms such as *competitive*. The choice between borrowing and translation should be guided by conceptual clarity, professional convention, linguistic naturalness, and consistency. A bilingual terminology database can support this process by recording alternative equivalents and indicating which form is preferred in a particular institutional or academic context.

A parallel corpus offers an especially useful environment for extending the present study because it allows structural form and translation behavior to be examined together. An English term can be aligned with its Uzbek translation, and the pair can then be classified according to structural type and translation strategy. Repeated alignments can reveal whether a particular English pattern normally receives a direct equivalent, a calque, a structural shift, or a descriptive rendering. For example, a corpus can compare simple items such as profit and tax with derived items such as liquidity and capitalization and with complex units such as balance of payments or consumer price index. The researcher can then examine whether complexity correlates with greater translation restructuring. Such analysis would move beyond dictionary-level comparison toward evidence from actual professional discourse. Corpus-based research can also investigate variation. The same English term may have more than one Uzbek equivalent across sources, while one Uzbek expression may correspond to several English forms. Instead of treating variation automatically as an error, researchers can investigate whether it reflects differences in subfield, register, institution, period, or translation purpose. This would make the resulting terminology database more informative and realistic.

Based on the structural and translation findings, several recommendations can be proposed for the development of bilingual financial-economic terminology. First, basic terms should be maintained as stable entries because they serve as the foundation for derivational and combinational

networks. Second, derived terms should be grouped into word families where this improves conceptual understanding. Third, established compounds and multi-word units should be recorded as complete terminological entries rather than reconstructed only from their individual components. Fourth, each complex term should ideally be accompanied by a definition and an authentic example. Fifth, alternative translations should be distinguished from preferred equivalents rather than presented without qualification. Sixth, newly emerging terms should be monitored over time because usage can change as institutions, legislation, and professional practice develop. Finally, terminology work should involve both linguistic and subject-field expertise so that formal naturalness does not come at the expense of conceptual accuracy.

CONCLUSION

The structural analysis of English financial-economic terminology demonstrates that the vocabulary of economics is organized through several complementary mechanisms. Simple terms form the conceptual and lexical foundation; derived terms extend this foundation by expressing processes, states, qualities, and participants; compound terms specify relations among economic concepts; and longer terminological units name complex theories, models, indicators, policies, instruments, and institutional phenomena. The reported distribution is particularly significant: simple terms account for 13 percent, derived terms for 24 percent, and compound and multi-word units together for 63 percent of the analyzed terminology. The predominance of the latter group indicates the strongly analytic and descriptive character of financial-economic naming. Economic concepts frequently require more than one lexical component because specialists must distinguish closely related processes, instruments, variables, and institutional contexts. The analysis also establishes a clear relationship between structural organization and translation. Simple terms are generally translated through direct equivalents. Derived terms often permit morphological adaptation, although descriptive translation may be required when a natural target-language counterpart is unavailable. Compound terms are commonly translated through calquing or semantic adjustment, while longer terminological units require careful analysis of internal structure and often benefit from calquing or descriptive reformulation. The practical value of the findings lies in their application to bilingual terminology databases, parallel-corpus development, economic translation, lexicography, and ESP teaching. A terminology resource should record structural information together with definitions, equivalents, and corpus examples. For translators and students, structural parsing provides a practical method for understanding complex economic expressions. For researchers, the classification offers a basis for further quantitative investigation.

Overall, the study shows that financial-economic terminology should be treated as a structured and interconnected system rather than as a simple list of specialized words. Understanding its structural patterns contributes to more accurate analysis, more consistent translation, and more effective teaching of professional English. Further corpus-based research with larger and balanced datasets will help refine the quantitative distribution and reveal additional relationships between English term formation and Uzbek terminological practice.

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DEVELOPING UNIVERSITY EFL STUDENTS' COMMUNICATIVE COMPETENCE THROUGH TASK-BASED INTEGRATED SKILLS INSTRUCTION

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Annotatsiya. Ushbu maqolada oliy ta'lim bosqichida ingliz tilini chet tili sifatida o'rganuvchi talabalarning kommunikativ kompetensiyasini vazifaga asoslangan (task-based) va ko'nikmalarni integratsiyalashgan holda o'qitish orqali rivojlantirish masalalari yoritilgan. Maqolada kommunikativ kompetensiya tushunchasining tarkibiy qismlari (grammatik, sotsiolingvistik, diskursiv va strategik kompetensiyalar) hamda vazifaga asoslangan til o'qitish (Task-Based Language Teaching) metodologiyasining nazariy asoslari ko'rib chiqilgan. Tadqiqot natijalari shuni ko'rsatdiki, tinglab tushunish, gapirish, o'qish va yozish ko'nikmalarini bitta kommunikativ vazifa doirasida integratsiya qilish talabalarning nutqiy faolligini, o'zaro muloqot ko'nikmalarini va tilni real vaziyatlarda qo'llash qobiliyatini sezilarli darajada oshiradi. Maqola universitet ta'lim amaliyoti uchun amaliy tavsiyalar bilan yakunlanadi.

Kalit so'zlar: kommunikativ kompetensiya, vazifaga asoslangan o'qitish, ko'nikmalarni integratsiyalash, chet tili sifatida ingliz tili, oliy ta'lim, til o'qitish metodikasi.

Аннотация. В данной статье рассматриваются вопросы развития коммуникативной компетенции студентов вузов, изучающих английский язык как иностранный, посредством заданного (task-based) и интегрированного по видам речевой деятельности обучения. В статье анализируются составляющие коммуникативной компетенции (грамматическая, социолингвистическая, дискурсивная и стратегическая компетенции), а также теоретические основы методики обучения языку на основе заданий (Task-Based Language Teaching). Результаты исследования показывают, что интеграция аудирования, говорения, чтения и письма в рамках единого коммуникативного задания значительно повышает речевую активность студентов, их навыки взаимодействия и способность использовать язык в реальных ситуациях общения. Статья завершается практическими рекомендациями для вузовской практики преподавания.

Ключевые слова: коммуникативная компетенция, обучение на основе заданий, интеграция навыков, английский язык как иностранный, высшее образование, методика обучения языку.

Abstract. This article addresses the development of communicative competence among university students learning English as a foreign language (EFL) through task-based instruction that integrates the four language skills. The paper examines the components of communicative competence — grammatical, sociolinguistic, discourse, and strategic competence — and outlines the theoretical foundations of Task-Based Language Teaching (TBLT). The findings indicate that integrating listening, speaking, reading, and writing within a single communicative task substantially increases students' oral participation, interactional skills, and ability to use the language in authentic communicative situations. The article concludes with practical recommendations for university-level EFL instruction.

Keywords: communicative competence, task-based language teaching, integrated skills, English as a foreign language, higher education, language teaching methodology.

INTRODUCTION

The primary goal of contemporary foreign language education is not merely the accumulation of grammatical or lexical knowledge, but the development of learners' ability to communicate effectively in real-life situations. This ability, generally referred to as communicative competence,

was theoretically framed by Canale and Swain as comprising grammatical, sociolinguistic, discourse, and strategic components, each of which contributes to a learner's overall capacity to use language appropriately and successfully in context.

At the university level, EFL instruction has traditionally separated the four language skills — listening, speaking, reading, and writing — into distinct, often disconnected classroom activities, which limits students' opportunities to practise language in the integrated way it is used outside the classroom. Task-Based Language Teaching (TBLT), as developed in the work of Ellis, Willis, and Nunan, offers an alternative in which meaning-focused, outcome-oriented tasks serve as the organising principle of instruction, naturally requiring learners to combine several skills to complete a communicative goal.

The relevance of this study lies in the need to bridge the gap between skill-isolated classroom practice and the integrated, purposeful language use that communicative competence presupposes. The aim of this article is to examine how task-based instruction that integrates listening, speaking, reading, and writing can be organised to develop the communicative competence of university EFL students, and to identify the pedagogical conditions under which such instruction is most effective.

MATERIALS AND METHODS

The study is based on an analysis of theoretical and methodological literature on communicative competence and Task-Based Language Teaching, complemented by classroom observation of EFL sessions conducted with university-level students using integrated-skills tasks (e.g., an information-gap task requiring students to listen to a short recording, discuss it in pairs, read a related text, and produce a written summary or opinion piece). The methods employed include descriptive analysis, pedagogical observation, and a comparative examination of task design principles, following the three-stage task cycle proposed by Willis: pre-task, task cycle, and language focus.

Tasks were evaluated according to criteria commonly used in TBLT research: authenticity of the communicative goal, the degree to which the task required genuine information exchange, the number of skills naturally activated by the task, and the opportunities the task provided for meaningful learner-learner interaction.

RESULTS AND DISCUSSION

The analysis shows that tasks integrating multiple skills around a single communicative goal create considerably richer conditions for developing communicative competence than skill-isolated exercises. When students first listen to or read authentic input, then discuss it orally, and finally produce a written response, they are required to negotiate meaning, request clarification, and reformulate their language — processes that directly build strategic and discourse competence, in addition to reinforcing grammatical accuracy and sociolinguistic appropriateness.

Observation of classroom practice indicated that the pre-task stage, in which students are introduced to the topic and key language, is critical for reducing the cognitive load of the subsequent task cycle and for increasing learners' confidence to participate actively. During the task cycle itself, students working in pairs or small groups showed substantially higher rates of spontaneous speech production compared with traditional teacher-led, skill-isolated lessons, as the task provided a genuine reason to communicate rather than to practise language for its own sake.

The language-focus stage, in which learners' output is reviewed and specific grammatical or lexical forms are highlighted, was found to be essential for ensuring that fluency gained through task performance is accompanied by continued attention to accuracy. This confirms Ellis's observation that task-based instruction does not exclude explicit attention to form but integrates it as a response to learners' own communicative needs rather than as a pre-determined syllabus item.

Overall, the results suggest that integrated-skills, task-based instruction supports the simultaneous development of all four components of communicative competence identified by Canale and Swain, and does so more effectively than approaches in which skills are taught and assessed in isolation from one another.

CONCLUSION

The study confirms that task-based instruction integrating listening, speaking, reading, and writing around meaningful communicative goals is an effective means of developing university EFL students' communicative competence. By requiring learners to combine skills in the pursuit of an authentic outcome, such instruction develops not only grammatical accuracy but also the sociolinguistic, discourse, and strategic abilities that together constitute genuine communicative competence. For university-level EFL practice, the findings suggest that course designers and instructors should prioritise integrated, outcome-oriented tasks over isolated skill-based drills, structure lessons according to the pre-task – task cycle – language focus framework, and ensure that attention to linguistic form is provided in response to learners' communicative performance. Further research could investigate the comparative impact of specific task types on individual components of communicative competence through controlled experimental study.

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USING FORMATIVE ASSESSMENT TO SUPPORT ENGLISH LANGUAGE LEARNING

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Аннотация. В статье рассматривается роль формирующего оценивания в процессе изучения английского языка. Основное внимание уделяется использованию оценивания в ходе обучения для определения трудностей учащихся и планирования дальнейшей работы. На основе анализа научной литературы рассматриваются взгляды исследователей на формирующее оценивание, обратную связь, самооценивание и взаимооценивание. Показано, что данные инструменты могут поддерживать развитие языковых навыков и самостоятельности учащихся.

Ключевые слова: формирующее оценивание, английский язык, обратная связь, самооценивание, взаимооценивание, EFL, языковое обучение.

Annotatsiya. Maqolada formativ baholashning ingliz tilini o'rganish jarayonidagi o'rni tahlil qilinadi. Asosiy e'tibor dars davomida baholash orqali o'quvchilarning qiyinchiliklarini aniqlash va keyingi ta'limni rejalashtirishga qaratiladi. Ilmiy adabiyotlar asosida formativ baholash, fikr-mulohaza, o'z-o'zini baholash va o'zaro baholash bo'yicha tadqiqotchilarning qarashlari ko'rib chiqiladi. Ushbu vositalar til ko'nikmalari va o'quvchilarning mustaqilligini rivojlantirishga xizmat qilishi ko'rsatiladi.

Kalit so'zlar: formativ baholash, ingliz tili, fikr-mulohaza, o'z-o'zini baholash, o'zaro baholash, EFL, til ta'limi.

Abstract. The article examines the role of formative assessment in English language learning. Particular attention is given to the use of assessment during instruction to identify learners' difficulties and plan subsequent teaching. On the basis of a review of scholarly literature, the views of researchers on formative assessment, feedback, self-assessment and peer assessment are

considered. The article shows how these practices can support language development and learner independence.

Keywords: *formative assessment, English language learning, feedback, self-assessment, peer assessment, EFL, language teaching.*

INTRODUCTION

Assessment is an important part of language education because it provides information about learners' progress. In many classrooms, however, assessment is still associated mainly with tests, marks and final results. Such assessment can show what a learner has achieved, but it does not always show what should happen next. This is especially important in English language learning, where vocabulary, grammar, pronunciation, fluency, reading and writing develop at different rates.

Black and Wiliam argue that classroom assessment supports learning when evidence of students' understanding is used to make decisions about teaching and learning. This principle is particularly relevant to English language classrooms. A learner may complete a grammar exercise successfully and still have difficulty using the same structure while speaking. In such a case, the result is more useful when it helps the teacher decide what kind of further practice is needed. Sadler similarly emphasizes that learners need to understand the standard expected of them and compare their current performance with that standard. In language learning, clear criteria and examples can make broad expectations such as "speak fluently" or "write clearly" more concrete.

The purpose of this article is to examine how formative assessment can support English language learning and to relate established assessment principles to practical EFL classroom work. The article is based on a review and comparison of scholarly literature and on the author's pedagogical analysis of its relevance to language teaching.

MATERIALS OF RESEARCH AND METHODS

The materials of the research include scholarly works on formative assessment, feedback, self-regulated learning and assessment in education. The theoretical foundation is provided by the works of Black and Wiliam, Sadler, Hattie and Timperley, Nicol and Macfarlane-Dick, and Carless. Recent EFL-focused studies were also considered, including research on formative assessment in university writing, online formative assessment, teacher assessment literacy and systematic research on formative assessment in EFL education. These sources were selected because they represent both foundational ideas and more recent evidence from language-teaching contexts.

The research is theoretical in nature. The methods include analysis of scientific literature, comparison of researchers' views, synthesis of related principles and their pedagogical interpretation. The selected ideas were considered in relation to English language learning, especially speaking, writing, reading and listening. The article does not involve primary data collection or statistical analysis; its contribution lies in connecting established assessment principles with practical EFL teaching situations.

Black and Wiliam's understanding of assessment provides a useful starting point. They emphasize that assessment becomes valuable when information about students' learning is used to improve teaching. Therefore, a formative assessment activity does not have to be a formal test. A teacher's question, a short writing task, an exit question or observation during pair work can provide formative evidence when the information is interpreted and followed by an appropriate learning action.

This distinction is important in English language teaching. For example, while students are describing a past experience, a teacher may notice that most learners use the past simple correctly but have difficulty distinguishing it from the past continuous. The observation itself is not the final purpose of assessment. Its value appears when the teacher uses it to adjust the next activity, perhaps through a short explanation followed by communicative practice. Formative assessment therefore connects evidence of learning with instructional decisions.

Feedback is another central element. Hattie and Timperley describe feedback as information that can help learners understand their present performance and the direction of further improvement. In an English class, comments such as "good" or "wrong" provide little guidance. More useful

feedback identifies a specific feature and indicates a possible next step. For writing, for example, a teacher can point out that the main idea is clear but that supporting evidence needs further development. The learner can then revise the paragraph rather than simply receiving a mark.

Nicol and Macfarlane-Dick connect formative assessment with self-regulated learning and emphasize the learner's active role in monitoring progress. This is relevant to language learning because students eventually need to recognize their own strengths and difficulties without waiting for constant teacher correction. Self-assessment can be supported by short checklists, learning journals or questions such as "What can I do now that I could not do before?" Such practices are more meaningful when learners know the criteria against which their performance is being considered.

Peer assessment can support the same process. Carless argues that learning-oriented assessment should involve learners actively and that assessment tasks can themselves become learning opportunities. In an English class, students can exchange short pieces of writing and use two or three criteria provided by the teacher. They may identify one successful feature and one point for improvement. Recent research on university EFL writing also shows that self- and peer-assessment are among the formative practices that teachers may use, although their implementation is not always equally developed. Peer assessment therefore needs preparation: students should be shown how to give specific, respectful and useful comments rather than simply exchanging marks.

Recent EFL research also shows why the classroom context matters. A 2024 systematic review of formative assessment in K–12 EFL education identified teacher and student beliefs, the effectiveness of different assessment practices and contextual challenges as important areas of concern. Research with secondary-school EFL teachers has likewise reported limitations in teachers' practical understanding of formative assessment, suggesting that assessment literacy and professional development remain important. These findings support the view that introducing a technique alone is not enough; teachers need to understand why the technique is being used and how its evidence should influence subsequent instruction.

Formative assessment can be incorporated into all four language skills. In speaking, teachers can observe pair and group activities and focus on a small number of features such as fluency, interaction and use of target language. In listening, prediction questions and short comprehension checks can reveal where learners experience difficulty. In reading, questions about the main idea or supporting evidence can provide information about comprehension. Writing offers especially clear opportunities because it can be organized as a process of planning, drafting, feedback and revision. Recent research on English writing has also examined how formative assessment can be integrated into writing instruction and how teacher engagement affects its use.

In the author's view, the most important feature of formative assessment is not the number of techniques used but the connection between evidence and the next learning step. A teacher may use only one question or one short observation in a lesson, yet it can be more useful than a large amount of assessment data if it reveals a specific difficulty and leads to an appropriate response. This is particularly practical in large EFL classes, where continuous assessment of every learner is difficult. Short, focused forms of evidence can make assessment manageable while still supporting learning.

The learner's role is equally important. If the teacher remains the only person who evaluates performance, students may become dependent on external correction. Self-assessment and peer assessment can gradually increase learner responsibility, but they should be introduced with clear criteria, examples and practice. In this way, formative assessment can become part of everyday learning rather than an additional task placed beside teaching.

Formative assessment can support English language learning by connecting classroom evidence with subsequent teaching and learning. The literature reviewed here points to several closely related elements: clear expectations, purposeful feedback, learner participation, self-monitoring and appropriate instructional response. In EFL classrooms, questioning, observation, self-assessment, peer assessment and revision can all function formatively when the information they produce is used to decide what learners should do next. The approach is therefore less about adding more tests and more about making ordinary classroom activities informative for both teachers and learners.

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MULTICULTURALISM AND ITS LITERARY AND ARTISTIC FORMATION FEATURES

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Abstract: *This topic aims to study the essence of the concept of multiculturalism, its significance in modern society, and the forms of its reflection in literature and artistic creativity. Multiculturalism is analyzed as a socio-humanistic concept that ensures the peaceful coexistence of people of different nationalities, races, religions, and cultures, while preserving their uniqueness and respecting each other. The topic examines how ideas of inter-ethnic relations, intercultural dialogue, and tolerance are expressed in literary and artistic works.*

Keywords: *multiculturalism, intercultural literature, multi-racial, multi-religious, melting pot*

Annotatsiya: *Mazkur mavzu multikulturalizm tushunchasining mazmun-mohiyatini, uning zamonaviy jamiyatdagi ahamiyatini hamda adabiyot va badiiy ijoddagi aks etish shakllarini o'rganishga qaratilgan. Multikulturalizm turli millat, irq, din va madaniyat vakillarining tinch-totuv yashashi, bir-birini hurmat qilgan holda o'ziga xosligini saqlab qolishini ta'minlaydigan ijtimoiy-gumanistik konsepsiya sifatida tahlil qilinadi. Mavzuda adabiy-badiiy asarlarda millatlararo munosabatlar, madaniyatlararo dialog, tolerantlik g'oyalari qanday ifoda topgani ko'rib chiqiladi.*

Kalit so'zlar: *multikulturalizm, madaniyatlararo adabiyot, multi-irq, multi-diniy, erituvchi qozon*

Аннотация: *Данная тема направлена на изучение сущности понятия мультикультурализма, его значения в современном обществе, а также форм его отражения в литературе и художественном творчестве. Мультикультурализм анализируется как социально-гуманистическая концепция, предоставляющая возможность представителям разных национальностей, рас, религий и культур жить вместе в мире и гармонии, уважая друг друга и сохраняя свою самобытность. В данной теме рассматривается, как идеи*

межэтнических отношений, межкультурного диалога и толерантности выражаются в литературных и художественных произведениях.

Ключевые слова: мультикультурализм, межкультурная литература, многорасовый, многоконфессиональный, плавильный котел

INTRODUCTION

Since the beginning of the 20th century, the concept of multiculturalism has emerged, and in the last decade, the global community has been using the terms “rebirth and conclusion” in conjunction with multiculturalism. At the global level, a number of concepts have emerged, such as “multiculturalism”, “multiculturalism”, “multicultural society”, and “multicultural”. Today's multicultural society was originally called “multi-national”, “multi-ethnic”, “multi-religious”, “multi-racial”. Although the term “multiculturalism” was first introduced in Canada in the 1960s, the concept has been used in American literary studies since the 1970s. The goal of multiculturalism includes cultural diversity and ethnic equality. Western literary critic Emmanuel S. Nelson argues that the world is made up of different cultures, and that each of them has contributed to human civilization, requiring respect for the differences between cultural diversity and everyday lifestyles. This emphasizes the importance of striving to live in mutual understanding. [1.]

LITERATURE ANALYSIS

Multiculturalism has been supported by many scholars in academic papers and treatises. First, multiculturalism is based on the belief that minorities should preserve their culture. Second, multiculturalism can increase the competitiveness of national culture, as cultures can interact with each other and quickly become popular. Third, global multiculturalism can create a tolerant, positive social environment through the integration of different cultures. Russian literary scholar O.B.Karasik does not consider the concept of multiculturalism to be exclusive to the United States. In his opinion, this trend is now rapidly developing around the world, but in America it is unique. First, the progress of the colonies in an independent state was record high. Second, the communal races and ethnic groups on Earth exist in the United States. Third, American culture is characterized by its constant concern with racial identity, regional and ethnic issues. [2] Another Russian literary scholar, I.V. Kozlik in his academic treatise “Multiculturalism I metodologicheskie problemi literaturovedeniya” [3] argues that multiculturalism, despite being a modern trend, has fallen into the eyes of literary scholars with different methods and different manifestations-especially among those interested in intercultural dialogue, multinational literature and the large scale of cultural traditions in it-has become the main topic of discussion, and believes that:

- 1) the relevance of multiculturalism problems in the hierarchy of modern human development;
- 2) multiculturalism is not a literary concept;
- 3) Multiculturalism is a complex issue and it is inappropriate to consider it as a single scientific system.

RESEARCH METHODOLOGY

I.V.Kozlik believes that the work of these streamers cannot be directed to any specific national literature. U.S. rugby is racial in nature, and in conjunction it is distinct from other national literatures. The appearance of many cultures in literature appeared in the middle of the last century and became the basis for the concept of “multiculture”, as well as the theory of “multiculturalism”. O.B. Karasik is one of the founders of the concept of multiculturalism in his scientific research. V. Tlostanova's interpretation of multiculturalism is positive: “it (multiculturalism), on the contrary, is an interdisciplinary hoisa that encompasses ideology, philosophy and artistic aspects and operates in the fields of Anthropology, Sociology, Political Science, Economics, pedagogy and, finally, literary studies”. [4] At the turn of the 20th and 21st centuries, national-ethnic components were identified and accepted in the general literary process of the United States, such as Indian, African, Mexican, and Asian-American. Asian-American fiction appeared later than all the others. Interest in ethnic literature has increased in American literary criticism. This is the most important feature of the last decades of the last century that caused

fundamental changes in the literature map of the United States: the “American-Central” madanian model, represented by the mainstream (mainstay), was replaced by pluralism, and “marginal literature” began to fulfill an important task. The uniqueness of American literary criticism lies in the study and analysis of ethnic literature. In the late 1980s, “border studies” () were formed in the United States-that is, attempts began to explore the experience of Mexican-American culture. This direction later spurred huge research. The concept has become a center of discussion, and the recognition of the importance of a multicultural phenomenon in U.S. literature has been attributed to foreign researchers (V. Sollars, V. Boelhauer, T. Ferrari, E. Ling, E. Kim, M.Heung, S.Carter) sparked their scientific interest. As a result, the number of anthologies and scientific works on the study of multiculturalism has increased, and the works of writers and poets working in this direction have been studied. The tendency to increase the role of cultural diversity in literature in the historical and literary process in the United States has been rightly emphasized in the works of many Russian and American scholars. Russian scholar A.V. Vashenko argues that "cultural diversity has become a factor in the global redistribution of creative energy in world literature and art" [5].

ANALYSIS AND RESULTS

Multiculturalism is a complex social, cultural, and literary phenomenon that reflects the coexistence and interaction of different ethnic, cultural, linguistic, and religious communities within a particular society. In literary studies, multiculturalism is not limited to the simple representation of cultural diversity. Rather, it functions as an important artistic principle through which writers explore cultural identity, migration, belonging, cultural conflict, hybridity, and the interaction between different systems of values. Therefore, the formation of multiculturalism in literature can be understood as a dynamic process shaped by historical, social, and cultural transformations. One of the most significant literary and artistic features of multiculturalism is the representation of cultural identity. Multicultural literary works frequently focus on characters who experience a complex relationship between their inherited cultural traditions and the cultural environment in which they live. Such characters may occupy an intermediate position between two or more cultures. Their experiences demonstrate that identity is not always fixed or homogeneous but can be continuously reconstructed through cultural interaction. As a result, multicultural literature often presents identity as a dynamic and multifaceted phenomenon. Another important feature is the representation of cultural hybridity. Writers from multicultural backgrounds frequently combine different cultural traditions, languages, symbols, customs, and narrative techniques in their works. This combination creates a hybrid literary space in which several cultural perspectives coexist. Hybrid identity can be reflected through the characters’ behavior, language, worldview, family relationships, and attitudes toward both their native and adopted cultures. Consequently, multicultural literature challenges the traditional idea that an individual must belong exclusively to one cultural identity. The literary representation of migration and displacement also plays a significant role in the formation of multicultural artistic discourse. Migration often causes individuals to encounter unfamiliar cultural norms and social structures. Literary works dealing with migration may therefore depict feelings of alienation, nostalgia, cultural shock, isolation, and the search for belonging. At the same time, migration can provide opportunities for cultural exchange and the development of new forms of identity. Through such narratives, writers reveal both the difficulties and the productive possibilities of intercultural communication. Language is another essential element of multicultural literary expression. Multicultural writers may incorporate several languages, dialects, culturally specific expressions, or untranslated words into their literary texts. The use of different linguistic elements allows authors to preserve cultural specificity and demonstrate the coexistence of multiple cultural voices. In this context, language becomes not only a means of communication but also a marker of identity and cultural memory. The combination of languages may further emphasize the hybrid nature of the characters and the multicultural environment in which the narrative develops. The use of cultural symbols, traditions, myths, and customs is also characteristic of multicultural literature. Writers frequently employ traditional food, clothing, religious practices, family rituals, historical memories, national symbols, and folklore as artistic devices. These elements help construct an

authentic cultural atmosphere and provide readers with insight into the worldview of a particular community. At the same time, the interaction of different cultural symbols within one literary text creates a dialogue between cultures and contributes to the development of a multicultural aesthetic. An additional characteristic of multicultural literature is the representation of cultural conflict and intercultural dialogue. The encounter between different cultures may result in misunderstanding, prejudice, discrimination, or social tension. However, literature can transform such conflicts into opportunities for dialogue and mutual understanding. Through the perspectives of different characters, authors may challenge stereotypes and demonstrate the importance of tolerance, empathy, and cultural recognition. Thus, multicultural literature can perform not only an aesthetic function but also an important social and educational function. The formation of multiculturalism is also closely connected with the concept of "otherness." Multicultural literary texts often examine how individuals or communities are perceived as "others" because of their ethnic origin, language, religion, appearance, or cultural practices. By presenting the experiences of marginalized or culturally diverse characters, writers can question dominant cultural narratives and provide alternative perspectives. This approach expands the boundaries of literary representation and allows previously underrepresented voices to become part of the broader cultural discourse. From an artistic perspective, multiculturalism can also influence narrative structure and characterization. Some multicultural works employ multiple narrators, parallel storylines, fragmented memories, flashbacks, and different points of view. Such techniques enable the author to represent several cultural perspectives simultaneously. The coexistence of different voices creates a dialogic structure and reflects the complexity of multicultural experience. Characters are often portrayed as individuals negotiating between personal, familial, national, and cultural identities. Therefore, the literary and artistic formation of multiculturalism can be examined through several interconnected dimensions: cultural identity, hybridity, migration, language, cultural memory, symbolism, intercultural conflict, otherness, and narrative diversity. These elements demonstrate that multiculturalism in literature is not merely a thematic phenomenon but also an important aesthetic and structural principle. It influences the ways in which authors construct characters, organize narratives, use language, and represent cultural experiences.

In the early 20th century, the only American nation emerged and was given the metaphorical name "melting pot". Its meaning is to Melt representatives of different races in one pot and build a single American culture. However, in the 1950s and 1960s of the 20th century, the concept of multiculturalism emerged, which is more in line with American culture. Its main task was to preserve the relevant culture and its characteristics under the single national American culture, while maintaining the representatives of this trend. Multicultural writers have contributed to the development of national US literature with their works, while simultaneously adding their ethnic flavor to works of fiction. An important element of American multicultural literature is ethnic and racial relations. It is important to study the characteristics of "mainstream" literature in understanding the concept of multiculturalism. Basically, this literature covers the work of the "WASP" (White Anglo-Saxon Protestant). With the mainstream, various ethnic groups have entered American literature. Currently, the interest in studying the work of representatives of ethnic literature is becoming an increasingly relevant topic among scholars. For example, the work of the famous African-American writer of Literature, Nobel Prize winner Tony Morrison, "Beloved", as a work dedicated to the part of slaves as well as images of the fate of innocent women, fell into the eyes of readers in the style of classical literature in the second half of the 20th century. Only a woman who can accurately assess her inner world can show in her work that she can be independent in her development in a modern, fast-paced society. The novel depicts the psychological state of black people who are constantly looked down upon by white people. T. Morrison connects her story to the events of the seventeenth century, telling the history of the United States through the prism of women's perception, presenting a vision of a country that is focused on modernity with its unique multiculturalism and desire to realize the "American Dream." The works of African American literary figures have been widely received by literary critics and readers. Many scholars recognize Toni Morrison's work as an example of modern American literature. Another representative of African-

American writers was Percival Everett and his famous novel, “I am not Sidney Poitier” (“I am not Sidney Puat”), and the title theme in the work was also closely related to the perception of identity, a major problem of U.S. multiculturalism literature. The events are described artistically aesthetically based on the drawings of the fate of Sydney, the main character of the work. Scott Momadei's novel “House Made of Dawn”, dedicated to Hindu mythology, was accepted for the Pulitzer Prize as an offshoot of “mainstream” literature. The skillful incorporation of Native American culture and folklore into his work gives Scott Momaday's work a unique flair.

CONCLUSIONS.

Given that multiculturalism, which is considered a topical issue in modern literary criticism, is a phenomenon that is emerging as a literary trend with its own historical roots, it has been observed that this direction requires consistent, monographic, and systematic research. The development and expansion of multiculturalism has encouraged Asian Americans to unite and fight to improve their position in American society. However, it is important to note that the efforts of Asian Americans in the United States have made a significant contribution to multiculturalism and have been reflected in the works of writers of the period. By representing cultural diversity and intercultural relationships, multicultural literature creates a space for dialogue between cultures and encourages readers to reconsider conventional ideas about identity, belonging, and cultural boundaries. Consequently, the study of multiculturalism and its literary-artistic formation features provides an important theoretical framework for understanding the diversity and complexity of modern literature.

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A CORPUS-BASED ANALYSIS OF UZBEK MODAL UNITS AND THEIR ENGLISH EQUIVALENTS

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Abstract. *This article presents a corpus-based analysis of ten Uzbek modal units and their potential English equivalents: albatta, aftidan, balki, ehtimol, shubhasiz, chamasi, shekilli, mabodo, darhaqiqat, and hoynahoy. The study combines two complementary sources: the explanatory dictionary of Uzbek modal units compiled by Bakhtiyor Mengliyev and Maftuna Mustafayeva (2025) and corpus evidence obtained from Uzbek literary and other textual materials. The analysis integrates corpus frequency, concordance examination, semantic-functional classification, and translation-oriented comparison. Particular attention is given to the distinction between raw frequency and modal frequency because several Uzbek forms are polyfunctional. The results show that the selected units express certainty, confirmation, probability, inference, hypothetical possibility, approximation, and related discourse meanings. The analysis further demonstrates that an Uzbek modal unit does not necessarily correspond to one fixed English modal verb. Depending on context, English equivalents may be modal auxiliaries, modal adverbs, lexical phrases, discourse markers, or restructured clauses. The study argues that corpus evidence provides an important complement to lexicographic description and can support more context-sensitive Uzbek-English translation of modality.*

Keywords: Uzbek modality, modal units, corpus linguistics, English equivalents, translation, epistemic modality, concordance analysis.

Annotatsiya. Ushbu maqolada o'zbek tilidagi o'nta modal birlik — albatta, aftidan, balki, ehtimol, shubhasiz, chamasi, shekilli, mabodo, darhaqiqat va hoynahoy hamda ularning ingliz tilidagi muqobillari korpus asosida tahlil qilinadi. Tadqiqotda ikki asosiy manba o'zaro uyg'unlashtirilgan: Baxtiyor Mengliyev va Maftuna Mustafayeva tomonidan 2025-yilda tuzilgan "O'zbek tilidagi modal birliklarning izohli lug'ati" hamda o'zbek badiiy va boshqa matn materiallaridan olingan korpus ma'lumotlari. Tahlilda korpus chastotasi, konkordans namunalarini o'rganish, semantik-funksional tasniflash va tarjimaga yo'naltirilgan qiyosiy tahlil usullaridan foydalanildi. O'zbek tilidagi ayrim birliklarning ko'p funksiyali ekanligi sababli ularning umumiy chastotasi va modal qo'llanish chastotasini farqlashga alohida e'tibor qaratildi. Natijalar tanlangan modal birliklar qat'iy ishonch, tasdiq, ehtimollik, xulosa chiqarish, faraziy imkoniyat, taxminiylilik va boshqa diskursiv ma'nolarni ifodalashini ko'rsatdi. Shuningdek, o'zbek tilidagi modal birlik har doim ham ingliz tilidagi bitta muayyan modal fe'lga to'g'ridan-to'g'ri mos kelmasligi aniqlandi. Kontekstga qarab ularning inglizcha muqobillari modal yordamchi fe'llar, modal ravishlar, leksik birikmalar, diskurs markerlari yoki sintaktik jihatdan qayta tuzilgan konstruksiyalar orqali ifodalanishi mumkin. Tadqiqot natijalari korpus ma'lumotlari leksikografik tavsifni to'ldirishi va o'zbek tilidagi modallikni ingliz tiliga yanada kontekstual va aniq tarjima qilishga xizmat qilishi mumkinligini ko'rsatadi.

Kalit so'zlar: O'zbek modalligi, modal birliklar, korpus lingvistikasi, inglizcha muqobillar, tarjima, epistemic modallik, konkordans tahlili.

Аннотация. В статье представлен корпусный анализ десяти модальных единиц узбекского языка — albatta, aftidan, balki, ehtimol, shubhasiz, chamasi, shekilli, mabodo, darhaqiqat и hoynahoy — и их возможных английских эквивалентов. В исследовании комплексно используются два взаимодополняющих источника: «Толковый словарь модальных единиц узбекского языка», составленный Бахтиёром Менглиевым и Мафтуной Мустафаевой в 2025 году, и корпусные данные, полученные из узбекских художественных и других текстовых материалов. Анализ включает изучение корпусной частотности, конкордансных примеров, семантико-функциональную классификацию и сопоставительный анализ, ориентированный на перевод. Особое внимание уделяется разграничению общей частотности и частотности модального употребления, поскольку некоторые узбекские единицы характеризуются полифункциональностью. Результаты показывают, что исследуемые единицы выражают значения уверенности, подтверждения, вероятности, вывода, гипотетической возможности, приблизительности и другие дискурсивные значения. Анализ также показывает, что узбекская модальная единица не всегда имеет прямое соответствие в виде одного определённого английского модального глагола. В зависимости от контекста её английским эквивалентом могут выступать модальные вспомогательные глаголы, модальные наречия, лексические словосочетания, дискурсивные маркеры или синтаксически перестроенные конструкции. Исследование подтверждает, что корпусные данные могут существенно дополнять лексикографическое описание и способствовать более контекстуально обусловленному переводу средств модальности с узбекского языка на английский.

Ключевые слова: узбекская модальность, модальные единицы, корпусная лингвистика, английские эквиваленты, перевод, эпистемическая модальность, конкордансный анализ.

INTRODUCTION

Modality is a major linguistic category through which speakers express their attitude toward the proposition being communicated. It may encode certainty, probability, possibility, necessity, obligation, permission, supposition, evaluation, and other forms of commitment to the truth or desirability of an event. In English, modality is strongly associated with modal auxiliaries such as must, may, might, can, could, and should, although modal meaning is also expressed by semi-modals, adverbs, adjectives, lexical verbs, and discourse expressions. The literature discussed in the present

study emphasizes that modality is not merely a grammatical phenomenon; it also has semantic, pragmatic, and stylistic dimensions (Palmer, 2001; Depraetere & Reed, 2020).

Uzbek presents a particularly productive field for the study of lexical modality. Uzbek modal units may occur as independent modal words, historically or functionally modalized forms, and lexical expressions that acquire modal force in discourse. The theoretical material underlying this article notes that Uzbek modal units can express certainty, doubt, supposition, sequence of thought, emotional attitude, confirmation, and related meanings. Examples traditionally associated with modal words include *albatta*, *shubhasiz*, *chamasi*, *ehtimol*, and *shekilli*. The category is therefore broader than a direct one-to-one correspondence with English modal auxiliaries.

Translation creates an additional difficulty. A lexical Uzbek modal unit may correspond in English to a modal auxiliary, a modal adverb, a phrase, or a discourse marker, depending on its contextual function. For example, *albatta* may be rendered by *certainly*, *definitely*, or *of course*, whereas *darhaqiqat* may correspond to *indeed* or *in fact*. Likewise, probability-oriented units such as *ehtimol*, *balki*, *aftidan*, *shekilli*, and *hoynahoy* may overlap semantically with *perhaps*, *maybe*, *probably*, *presumably*, or *seemingly*, but these equivalents are not interchangeable in every context.

The need for context-sensitive analysis is especially important in literary translation. The doctoral research underlying this article identifies semantic, syntactic, pragmatic, and stylistic factors as significant in translating modal meaning. The accompanying explanatory dictionary records semantic features, English equivalents, and contextual examples for a large set of Uzbek modal units. These resources provide a useful basis for testing dictionary-based observations against actual corpus usage.

The aim of this article is to examine ten Uzbek modal units through corpus evidence and to relate their observed functions to English translation equivalents. The objectives are: (1) to identify the frequency of the selected units in the corpus; (2) to distinguish modal from non-modal uses where necessary; (3) to classify the main semantic-functional values of the units; and (4) to identify English equivalents that preserve their contextual modal force.

MATERIALS AND METHODS

The study employs a corpus-based comparative and descriptive methodology. Two main sources were used. The first is *O'zbek tilidagi modal birliklarning izohli lug'ati* [Explanatory Dictionary of Uzbek Modal Units], compiled by Baxtiyor Mengliyev and Maftuna Mustafayeva (Qarshi, 2025). The dictionary brings together roughly 120 modal words and expressions selected from modern literary language, literary texts, and linguistic research, and groups them according to modalized, becoming-modalized, and modal-like types. Each entry provides semantic information, translation variants, and contextual examples.

The second source is the Uzbek Electronic Corpus (*O'zbek tili elektron korpusi*), which contains texts comprising more than 200 million words, including literary and other textual materials. The selected units were searched using lemma-based retrieval. For each query, the total number of occurrences and documents was recorded. Concordance lines were then examined manually to determine whether the target item was functioning as a modal unit in the given context. This step is essential because a word's raw corpus frequency does not automatically equal its modal frequency.

The clearest example is *balki*. Its total corpus frequency in the present dataset is 919 occurrences in 241 documents. However, many examples occur in constructions such as *nafaqat...*, *balki...*, *emas, balki...*, and *nainki...*, *balki...*, where *balki* functions as a conjunction rather than as an epistemic modal. Modal uses, by contrast, express possibility or conjecture. Consequently, raw frequency is reported separately from the qualitative modal analysis.

The same principle was applied to other potentially polyfunctional items. *Chamasi* can indicate approximate quantity or measurement, but it can also express supposition. *Aniq* and *so'zsiz* were considered during corpus screening but were not retained as principal units because the reviewed occurrences were predominantly non-modal or yielded insufficient modal evidence. *Darhaqiqat* and *hoynahoy* were retained despite their relatively low frequencies because their attested contexts clearly demonstrate confirmative and epistemic functions.

The analytical procedure consisted of four stages. First, each target lemma was searched and its corpus frequency was recorded. Second, concordance lines were examined and modal/non-modal uses were distinguished. Third, modal contexts were coded according to their dominant function, such as certainty, probability, inference, hypothetical possibility, approximation, or confirmation. Fourth, the observed function was compared with the English equivalents recorded in the dictionary and with contextually appropriate English expressions.

The study does not claim that the ten selected units represent the entire Uzbek modal system. They were selected as a manageable analytical sample illustrating several important semantic-functional areas. The corpus counts reported below are descriptive measurements of the searched corpus. The Uzbek Electronic Corpus contains texts comprising more than 200 million words; however, because its publicly stated size is given as “more than 200 million words” rather than as an exact fixed corpus size, normalized frequencies per million words were not calculated.

Table 1. Corpus frequency of the selected Uzbek modal units

No.	Modal unit	Documents	Occurrences	Dominant function
1	albatta	48	166	certainty / assurance
2	aftidan	2	2	inference / probability
3	balki	241	919	possibility / probability*
4	ehtimol	14	29	probability / supposition
5	shubhasiz	4	13	certainty
6	chamasi	11	14	supposition / approximation*
7	shekilli	3	3	inference / supposition
8	mabodo	26	33	hypothetical possibility / condition
9	darhaqiqat	1	1	confirmation / emphasis
10	hoynahoy	7	11	probability / supposition

*** Raw frequency includes non-modal uses that were filtered during qualitative analysis.**

RESULTS

The corpus results reveal substantial differences in frequency and distribution among the selected modal units. Albatta is relatively frequent, with 166 occurrences across 48 documents, whereas aftidan occurs only twice. Balki is by far the most frequent item in the selected sample, with 919 occurrences in 241 documents, but its high raw frequency is partly explained by non-modal conjunctive uses. Ehtimol occurs 29 times in 14 documents, while shubhasiz occurs 13 times in four documents. Chamasi occurs 14 times in 11 documents, shekilli three times in three documents, mabodo 33 times in 26 documents, darhaqiqat once, and hoynahoy 11 times in seven documents.

Certainty and confirmation

Albatta is one of the most productive items in the sample. The concordance evidence shows that its dominant value is certainty or assurance, although contextual meanings may include expectation, commitment, emphasis, and necessity. Examples such as “Men albatta qaytib kelaman” express a strong commitment, while contexts containing albatta ... kerak may combine certainty with necessity. This polyfunctionality is important for translation because a fixed equivalent such as certainly does not necessarily reproduce every pragmatic value of albatta.

The dictionary-based English equivalents of albatta include certainly, definitely, and of course. The corpus evidence supports these equivalents for certainty and confirmation. In contexts of strong commitment, however, the translator may need a construction such as will certainly, while

contexts involving necessity may require must, should, or need to. Thus, the English realization depends on the semantic contribution of the whole clause rather than on the Uzbek word in isolation.

Shubhasiz is more semantically restricted toward strong certainty. The 13 occurrences in four documents consistently indicate a high degree of confidence, corresponding to undoubtedly, certainly, unquestionably, or without doubt. Compared with albatta, shubhasiz tends to present the proposition as beyond reasonable doubt.

Darhaqiqat has a very low corpus frequency in the present search, with one occurrence in one document: “To‘rtinchi jildda darhaqiqat maktub bor edi.” In this context, the item confirms the truth of the proposition and strengthens the assertion. The dictionary and the theoretical translation material give indeed, in fact, and truly as English equivalents. Although the frequency is insufficient for quantitative generalization, the example is valuable because it illustrates a confirmative function distinct from probability.

Probability, supposition, and inference

Aftidan, ehtimol, shekilli, and hoynahoy form a closely related group because all four may signal an inference or a speaker’s uncertainty concerning the proposition. Aftidan occurs twice, and both recorded contexts indicate inference. Its most appropriate English equivalents are apparently, seemingly, and, in some contexts, evidently.

Ehtimol is more frequent than aftidan, with 29 occurrences in 14 documents. The corpus contexts demonstrate probability, supposition, conjecture, and uncertainty. Examples include “Ehtimol shu oylar orasida to‘y o‘lur emish” and “Ehtimol bir kun borib yarashardik.” In English, perhaps, maybe, possibly, and probably are potential equivalents. The selection should reflect the strength of the speaker’s commitment: probably generally suggests a stronger expectation than perhaps or maybe.

Shekilli occurs three times in the reviewed corpus and consistently carries inferential or suppositional meaning. Its function is particularly interesting because the form may signal that the speaker has reached a conclusion indirectly. Apparently, seemingly, and perhaps are possible English realizations, but apparently or seemingly may better preserve the inferential character when the conclusion is based on evidence.

Hoynahoy provides another clear epistemic category. The corpus contains 11 occurrences in seven documents, and the reviewed concordance lines consistently show probability or supposition. Examples include “Hoynahoy u hozir yo‘q,” “Hoynahoy shu yerdadirlar,” and “Hoynahoy domajonning nabiralari bog‘lashgandir.” The closest English equivalents are probably, presumably, perhaps, and likely. Compared with perhaps, probably often provides a stronger degree of speaker commitment; presumably may be appropriate when the inference is based on assumed evidence.

Possibility and hypothetical meaning

Balki presents the most complex corpus profile. Its 919 raw occurrences in 241 documents make it the most frequent item in the selected sample, but qualitative inspection shows that a considerable portion of these occurrences are not modal. In constructions such as nafaqat..., balki... and emas, balki..., balki functions as a conjunction rather than an epistemic marker. Modal uses, by contrast, express possibility or conjecture, as in contexts corresponding to “Balki borarman” or “Balki boshqa gapi bordir.” These uses can be translated by perhaps, maybe, possibly, or, in some contexts, might.

The case of balki demonstrates why corpus research on modal language requires contextual annotation. A frequency table alone would incorrectly suggest that all 919 occurrences represent modal usage. The researcher must distinguish lexical frequency from functional frequency and retain the raw count only as a descriptive corpus measure.

Mabodo has a different functional profile. Its 33 occurrences in 26 documents frequently introduce a hypothetical or conditional possibility, as in contexts equivalent to “Mabodo topilsa ham...” and “Mabodo ro‘yxatga kirmay qolsa....” English realizations may include if by any chance, in case, should, or a conditional construction. The most appropriate translation therefore depends on whether the sentence emphasizes hypothetical possibility, precaution, or condition.

Approximation and polyfunctionality

Chamasi is particularly useful for demonstrating the interaction between modality and approximation. The corpus contains 14 occurrences in 11 documents. Many examples express approximate quantity or measurement, for instance references to “o‘n daqiqa chamasi” or “olti milliard yorug‘lik yili chamasi.” Such uses are not necessarily modal in the narrow sense. However, other contexts, including “Chamasi otaxonga ro‘para kelishi...” and “qush chamasi uxlab yotgan bo‘lsa kerak,” show suppositional force. The unit may therefore occupy an intermediate area between approximation and epistemic modality.

This polyfunctionality has direct translation implications. When chamasi modifies a quantity, English approximately, about, or around is usually appropriate. When it contributes to an inference, apparently, presumably, or perhaps may be more suitable. The translation cannot therefore be determined without identifying the local semantic function.

Table 2. Semantic-functional and translation profile

Unit	Main function	Possible English equivalents	Translation consideration
albatta	certainty / assurance	certainly; definitely; of course	may shift to must/should in necessity contexts
aftidan	inference	apparently; seemingly; evidently	preserve inferential force
balki	possibility	perhaps; maybe; possibly; might	filter conjunctive non-modal uses
ehtimol	probability	perhaps; maybe; possibly; probably	choose according to degree of certainty
shubhasiz	strong certainty	undoubtedly; certainly; unquestionably	retain strong speaker commitment
chamasi	approximation / supposition	about; approximately; presumably	depends on quantity vs inference
shekilli	inference / supposition	apparently; seemingly; perhaps	context determines evidential strength
mabodo	hypothetical possibility	if by any chance; in case; should	often requires restructuring
darhaqiqat	confirmation	indeed; in fact; truly	discourse position and emphasis matter
hoynahoy	probability / supposition	probably; presumably; perhaps	degree of probability is context-sensitive

DISCUSSION

The corpus findings support a view of Uzbek modality as a semantically and functionally heterogeneous domain. The ten selected units do not form a single homogeneous group in terms of meaning or grammatical behavior. Instead, they cover several related areas: strong certainty (albatta, shubhasiz), confirmation (darhaqiqat), epistemic probability and inference (aftidan, ehtimol, shekilli, hoynahoy), hypothetical possibility (mabodo), possibility (modal uses of balki), and approximation with possible modal force (chamasi). This distribution is consistent with the broader theoretical position that modality involves both the speaker’s commitment to a proposition and the communicative interpretation of that proposition.

One important result concerns the relationship between frequency and grammatical function. The very high frequency of balki does not by itself demonstrate that it is the most frequent modal unit. Corpus evidence must be interpreted through concordance analysis. This finding has methodological consequences for corpus-based lexicography: researchers should distinguish lemma frequency from functional or annotated frequency.

The results also show that English equivalents should be treated as contextual realizations rather than permanent lexical substitutes. For example, albatta may be translated as certainly when it expresses certainty, but a sentence in which albatta strengthens a requirement may need must, should, or need to. Similarly, chamasi may correspond to approximately in a quantitative expression but to

presumably or perhaps in an inferential context. This confirms the importance of semantic and pragmatic analysis in translation.

A further observation concerns the asymmetry between Uzbek modal words and English modal auxiliaries. English modality has a well-developed grammatical system of modal auxiliaries and semi-modals, while Uzbek frequently uses lexical and discourse-level units. Consequently, translation is not necessarily a process of replacing one modal word with one English modal verb. An Uzbek modal adverb may correspond to an English modal adverb, a modal auxiliary, a phrase, a discourse marker, or a syntactic reorganization.

The explanatory dictionary used in the study is valuable in this respect because it records both English equivalents and contextual examples. Its classification of modalized, becoming-modalized, and modal-like units provides a broader descriptive framework than a narrow list of grammatical modal auxiliaries. The corpus analysis complements that framework by showing which functions are attested in a particular textual dataset.

The study also highlights the importance of negative evidence. Some candidate forms were screened but excluded from the final sample when their corpus occurrences were predominantly non-modal. So‘zsiz, for example, was found in contexts expressing unconditionally or in an adverbial manner rather than modal commitment. Aniq likewise showed many ordinary lexical uses, with insufficient clearly modal examples in the reviewed material. Excluding such forms prevents the modal inventory from being inflated by superficially similar adverbs.

At the same time, low-frequency items should not automatically be excluded. Darhaqiqat occurs only once in the searched corpus, but its context clearly demonstrates a confirmative function. Such an example is useful for qualitative analysis, although it should not be used to make quantitative claims about the general distribution of the unit. This distinction between qualitative relevance and statistical representativeness is essential in a small corpus-based study.

CONCLUSION

The corpus-based analysis demonstrates that Uzbek modal units constitute a diverse functional system in which certainty, probability, inference, hypothetical possibility, confirmation, and approximation interact with context. The ten units examined in this study show different corpus profiles, from the high raw frequency of balki and albatta to the very low frequency of darhaqiqat and aftidan. These differences underline the importance of combining quantitative corpus information with qualitative concordance analysis.

The study further demonstrates that raw frequency cannot be equated with modal frequency. Polyfunctional units must be manually or computationally annotated so that modal and non-modal uses can be separated. The analysis of balki provides the clearest example of this problem, while chamasi illustrates how approximation and epistemic supposition can overlap within the same form.

From a translation perspective, the results indicate that Uzbek modal units should not be translated mechanically through fixed English equivalents. The appropriate English form depends on semantic force, degree of certainty, syntactic position, discourse function, and pragmatic context. Depending on these factors, an Uzbek modal unit may correspond to an English modal auxiliary, modal adverb, lexical phrase, discourse marker, or a restructured clause.

The findings support the usefulness of integrating lexicographic and corpus-based methods in the study of Uzbek-English modality. The explanatory dictionary supplies a systematic inventory and translation-oriented descriptions, while corpus concordances reveal actual contextual behavior. A logical next stage of the research would be the development of an Uzbek-English parallel corpus with sentence alignment and modal annotation. Such a resource would make it possible to compare original Uzbek modal units with their attested English translations and to calculate translation patterns more systematically.

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NOMINATIVE SENTENCES IN ENGLISH AND UZBEK: A COMPARATIVE ANALYSIS OF THEIR THEORETICAL AND LINGUISTIC INTERPRETATIONS

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Annotatsiya. Ushbu maqolada ingliz va o'zbek tillaridagi atov gaplarning (nominative sentences) nazariy talqinlari qiyosiy jihatdan tahlil qilinadi. Tadqiqotda ikkala tilning sintaktik tizimidagi bir tarkibli gaplar tipologiyasi, ularning grammatik, semantik va uslubiy xususiyatlari ko'rib chiqiladi. Ingliz tilshunosligida atov gaplar "naming sentences" yoki "nominal sentences" sifatida, o'zbek tilshunosligida esa "atov gap" atamasi ostida o'rganiladi. Maqolada har ikki tildagi atov gaplarning tuzilishi, funksiyasi va matn ichidagi o'rni qiyoslanadi hamda o'xshash va farqli jihatlar aniqlanadi. Tadqiqot natijalari ikki til sintaksisini o'rgatishda, tarjima nazariyasida va qiyosiy tilshunoslikda amaliy ahamiyatga ega.

Kalit so'zlar: atov gap, bir tarkibli gap, nominativ konstruktsiya, ingliz tili sintaksisi, o'zbek tili sintaksisi, qiyosiy tilshunoslik, gap bo'laklari, sintaktik tipologiya.

Аннотация. В данной статье проводится сопоставительный анализ теоретических интерпретаций номинативных (назывных) предложений в английском и узбекском языках. Рассматривается типология односоставных предложений в синтаксических системах обоих языков, их грамматические, семантические и стилистические особенности. В английском языкознании номинативные предложения обозначаются терминами "naming sentences" или "nominal sentences", тогда как в узбекском языкознании используется термин "atov gap". В статье сопоставляются структура, функции и текстовая роль номинативных предложений в обоих языках, выявляются их сходства и различия. Результаты исследования имеют практическое значение для преподавания синтаксиса, теории перевода и сопоставительного языкознания.

Ключевые слова: номинативное предложение, односоставное предложение, номинативная конструкция, синтаксис английского языка, синтаксис узбекского языка, сопоставительное языкознание, члены предложения, синтаксическая типология.

Abstract. This article presents a comparative analysis of the theoretical interpretations of nominative sentences in English and Uzbek. The study examines the typology of one-member sentences within the syntactic systems of both languages, along with their grammatical, semantic, and stylistic properties. In English linguistics, nominative sentences are treated under the labels "naming sentences" or "nominal sentences," while in Uzbek linguistics the corresponding category is discussed as "atov gap." The article compares the structure, functions, and textual role of nominative sentences in the two languages and identifies their points of convergence and divergence. The findings are of practical relevance for the teaching of syntax, translation theory, and comparative linguistics.

Keywords: nominative sentence, one-member sentence, nominal construction, English syntax, Uzbek syntax, comparative linguistics, sentence parts, syntactic typology.

INTRODUCTION

The study of sentence structure occupies a central place in syntactic theory, and among the various sentence types distinguished by grammarians, the nominative (or nominal) sentence holds a particular position because of its reduced, predicate-less structure. A nominative sentence is traditionally defined as a one-member construction whose sole grammatical core is a noun or a noun phrase in the nominative case, expressing the existence or presence of an object, phenomenon, or state without an explicit finite verb. Such sentences are widely used in descriptive prose, dramatic stage directions, poetry, newspaper headlines, and everyday spontaneous speech, where economy of expression and immediacy of perception are stylistically desirable.

Although the phenomenon of predicate-less, noun-centered utterances is attested in typologically distant languages, its theoretical treatment differs considerably depending on the grammatical tradition. English linguistics, shaped largely by the Anglo-American descriptive and functional schools, tends to discuss such structures under headings such as “naming sentences,” “nominal sentences,” or, within generative frameworks, as instances of ellipsis of the copula or of a null predicate. Uzbek linguistics, which developed within the broader Turkic and Soviet structuralist tradition, treats the same phenomenon as a distinct, fully legitimate sentence type — the *atov gap* (“naming/nominative sentence”) — classified alongside verbal and other nominal one-member sentences (*bir bosh bo‘lakli gaplar*) as an integral part of sentence typology.

The relevance of a comparative study of nominative sentences in English and Uzbek is threefold. First, it contributes to general and comparative syntax by clarifying how typologically different languages — an analytic, fixed-word-order language such as English and an agglutinative, relatively free-word-order language such as Uzbek — encode the same communicative function through different morphosyntactic means. Second, it has applied value for translation studies, since the transfer of nominative constructions between English and Uzbek frequently requires structural transformation rather than literal correspondence. Third, it is pedagogically significant, since learners of English with an Uzbek linguistic background (and vice versa) often transfer native-language patterns of one-member sentence formation, which can lead to interference errors.

The aim of this article is to compare the theoretical interpretations of nominative sentences in English and Uzbek grammatical traditions, to identify the structural, semantic, and functional-stylistic features that these constructions share, and to establish the points at which the two systems diverge.

LITERATURE REVIEW

The classification of sentences into two-member (double-nucleus) and one-member (single-nucleus) types is a long-standing distinction in general syntax. In the English tradition, Jespersen’s notion of “amorphous” sentences and later descriptions within Quirk et al.’s comprehensive grammar of the block-language or “verbless” sentence provided the earliest systematic accounts of noun-headed utterances lacking a finite verb. Functional grammarians, including those working within Hallidayan systemic-functional linguistics, treat such structures as minor clauses that nonetheless carry full communicative and textual functions, particularly the function of setting a scene or introducing a referent into the discourse.

In generative approaches, nominative or “verbless” sentences are frequently analyzed as instances of ellipsis, in which an underlying copular or existential predicate is syntactically present but phonologically unrealized. This analysis accounts for sentences such as “Silence.” or “A cold, grey morning.” as reduced variants of fuller propositions such as “There was silence” or “It was a cold, grey morning.” While the ellipsis account captures certain semantic intuitions, it has been criticized on the grounds that many nominative sentences do not readily reconstruct a single unambiguous underlying predicate, which suggests that they should instead be recognized as an independent, non-derived sentence type with its own communicative function.

Uzbek linguistics approaches the same phenomenon from within a well-developed indigenous tradition of sentence typology. Scholars such as A. G‘ulomov, R. Sayfullayeva, A. Nurmonov, and Sh. Rahmatullayev, among others, classify Uzbek simple sentences first into *ikki bosh bo‘lakli gaplar* (two-principal-part sentences) and *bir bosh bo‘lakli gaplar* (one-principal-part sentences). Within the

latter category, a further distinction is drawn between fe'lli gaplar (verbal one-member sentences, such as definite-personal, indefinite-personal, generalized-personal, and impersonal sentences) and otli gaplar or atov gaplar (nominal/nominative sentences). The atov gap is defined as a sentence whose sole principal part is expressed by a noun (or a substantivized word) in the nominative case, denoting the existence, presence, or naming of an object or event at the moment of speech, without any indication of a process.

A recurrent theme in both traditions is the distinction between the naming (existential) function of nominative sentences and their descriptive or evaluative function, often accompanied by qualifying attributes. Uzbek grammarians commonly subdivide atov gaplar into sof atov gaplar (bare naming sentences, consisting of a noun alone), yig'iq atov gaplar (extended nominative sentences with attributes), and undov-atov gaplar (exclamatory nominative sentences expressing emotional evaluation). A broadly parallel, though less formally codified, subdivision can be observed in English descriptions of naming sentences, which distinguish simple noun-phrase utterances from expanded noun phrases containing premodification and postmodification, and from exclamatory nominal constructions introduced by "what" or bare intonational emphasis.

RESEARCH METHODOLOGY

The present study adopts a qualitative, descriptive-comparative method. Nominative sentence constructions were identified in English and Uzbek reference grammars, scholarly monographs, and illustrative literary and journalistic texts in both languages. The collected examples were classified according to structural type (bare, extended, exclamatory), morphological marking, and discourse function (scene-setting, headline, stage direction, emotive expression). The comparative procedure follows the standard contrastive-linguistic model: description of the phenomenon in language A, description of the phenomenon in language B, and juxtaposition of the two descriptions in order to establish correspondences, partial correspondences, and divergences. Given the qualitative and typological orientation of the study, statistical or corpus-quantitative methods were not applied; the analysis instead prioritizes structural and functional depth over frequency counts.

RESULTS AND DISCUSSION

1. Structural correspondence.

Both English and Uzbek nominative sentences share the core structural property of consisting of a noun or noun phrase without a finite verb: English "Night. Silence. A single lit window." corresponds structurally to Uzbek "Tun. Sukunat. Yorug' bitta deraza." In both languages the nominal head may be expanded by attributive modifiers, and in both languages the construction is capable of standing as an independent, intonationally and punctuationally complete sentence, typically closed by a full stop or an exclamation mark.

The principal structural divergence lies in the morphosyntactic means by which the two languages mark the nominal head and its modifiers. English, as an analytic language with fixed pre-nominal or post-nominal modification and no case inflection on common nouns, relies primarily on word order and function words (articles, prepositions) to build the nominative sentence: "A quiet street in early morning." Uzbek, as an agglutinative language, marks the nominative case with a zero (unmarked) ending, but modification is expressed through a rigid modifier-before-head order and through agglutinated affixes on the noun where further grammatical relations (possession, plurality) are relevant: "Erta tongdagi jimjit ko'cha." Because Uzbek lacks an article system, the definiteness or indefiniteness that English encodes through "a" or "the" must be inferred from context, word order, or, where necessary, from demonstrative or numeral determiners.

2. Semantic and functional-stylistic correspondence.

Semantically, nominative sentences in both languages perform an existential-presentative function: they assert the presence of a referent in a given spatio-temporal frame without predicating any action or process upon it. This function is exploited stylistically in both literary traditions for scene-setting at the opening of narrative passages, for creating a cinematic, sequential presentation of details, and for conveying the immediacy of perception in first-person or free indirect narration. Both

English and Uzbek dramatic and screenwriting conventions use nominative constructions in stage directions and shot descriptions for the same economy-driven reasons.

A further shared function is the use of nominative sentences as headlines and titles. English newspaper headlines such as “New Hope for Peace Talks” and Uzbek headlines such as “Yangi bozor — yangi imkoniyatlar” both exploit the compressed, verb-free nominal structure to achieve brevity and attention-grabbing effect. In both languages, exclamatory nominative sentences additionally serve an emotive-evaluative function, expressing surprise, admiration, or indignation: English “What a night!” parallels Uzbek “Qanday ajoyib kecha!”, although the Uzbek construction, unlike the English one, retains an overt exclamatory particle (*qanday*) that most Uzbek grammarians treat as an integral part of the *undov-atov* gap type rather than as a separate interjection.

3. Divergent theoretical status within each grammatical tradition.

Perhaps the most significant difference between the two traditions is not structural but theoretical: the degree of grammatical autonomy granted to the nominative sentence. Uzbek school and academic grammars consistently list the *atov* gap as one of the canonical one-member sentence types, on equal footing with definite-personal and impersonal sentences, and devote separate sections of syntax textbooks to its subtypes and punctuation. English grammars, by contrast, rarely grant naming sentences the same taxonomic status as a fully-fledged sentence type; they are more often treated as a peripheral or “minor” clause type, frequently discussed together with other instances of ellipsis, irregular sentences, or block language, and their subclassification is far less standardized across different grammars. This difference reflects broader tendencies in the two grammatical traditions: the Uzbek (and, more broadly, the Turkic and post-Soviet structuralist) tradition favors an exhaustive, hierarchically organized taxonomy of sentence types, whereas the English descriptive and functional traditions favor a flexible, function-oriented account in which the same surface form can receive different analyses depending on discourse context.

This theoretical divergence has practical consequences for translation and language teaching. A translator rendering an Uzbek *atov* gap into English need not, and often should not, preserve the bare nominal structure, since English stylistic norms tolerate strings of nominative sentences less readily than Uzbek literary prose does; conversely, translators into Uzbek may legitimately convert an English elliptical or verbless construction into a fully elaborated *atov* gap, since this is a native and stylistically unmarked option in Uzbek narrative and journalistic registers. For pedagogical purposes, Uzbek learners of English should be alerted to the more restricted stylistic distribution of naming sentences in English, while English-speaking learners of Uzbek should be introduced explicitly to the *atov* gap as a distinct, productively used sentence type rather than as a marginal stylistic device.

CONCLUSION

The comparative analysis undertaken in this article demonstrates that nominative sentences in English and Uzbek share a common communicative core — the presentation of a referent without an accompanying predication — realized through structurally comparable noun-centered constructions in both languages. At the same time, the two languages differ in the grammatical means by which this construction is built, reflecting their contrasting typological profiles: English relies on word order and function words in the absence of case inflection, while Uzbek relies on agglutinative marking and a fixed modifier-head order in the absence of an article system. The most consequential difference, however, is not structural but taxonomic: Uzbek grammatical tradition assigns the *atov* gap full and stable status as a one-member sentence type with an elaborated subclassification, whereas English grammatical tradition treats the corresponding naming or nominal sentence as a peripheral, less systematically classified phenomenon, often subsumed under ellipsis or minor-clause analysis. These findings have direct implications for comparative syntax, translation practice, and the teaching of English and Uzbek as foreign languages, and they point to the need for further corpus-based research quantifying the relative frequency and stylistic distribution of nominative sentences across genres in the two languages.

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FEELING IN WORDS: STYLISTIC DEVICES AND FEMALE VOICE IN JANE AUSTEN'S *SENSE AND SENSIBILITY*

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Abstract. *The article examines the stylistic devices Jane Austen uses to represent women's inner lives in *Sense and Sensibility*, arguing that her lexical choices, above all epithets, function as a covert form of female agency in a period when women had no formal political voice. Drawing on close reading of the contrasting heroines Elinor Dashwood and Marianne Dashwood, the study shows how epithet, metaphor, oxymoron, simile and parallel construction are distributed unevenly across the two characters to dramatise the conflict between sense and sensibility. The article situates this stylistic analysis within the historical status of women in late eighteenth and early nineteenth century England, where marriage functioned as an economic institution rather than a personal choice. It concludes that Austen's stylistic technique anticipates a feminist narrative strategy, using the language of feeling to grant her heroines an interiority that the society around them denied.*

Keywords: *Jane Austen, *Sense and Sensibility*, stylistic devices, epithet, female voice, feminist literary criticism, women's status in 18th–19th century England.*

Аннотация. *В статье рассматриваются стилистические средства, которые Джейн Остин использует для изображения внутреннего мира женщин в романе «Чувство и чувствительность». Утверждается, что лексический выбор писательницы, прежде всего эпитеты, выполняет функцию скрытой формы женской субъектности в эпоху, когда*

женщины не имели официального политического голоса. На основе внимательного анализа контрастных героинь Элино́р и Марианны Дэшвуд показано, как эпитет, метафора, оксюморон, сравнение и параллельные конструкции распределены между персонажами неравномерно, драматизируя конфликт между разумом и чувством. Стилистический анализ соотнесён с историческим положением женщин в Англии конца XVIII и начала XIX века, где брак функционировал как экономический институт, а не как личный выбор. Делается вывод, что стилистическая техника Остин превосходит феминистскую повествовательную стратегию, используя язык чувства для придания героиням внутренней глубины, в которой им отказывало общество.

Ключевые слова: Джейн Остин, «Чувство и чувствительность», стилистические средства, эпитет, женский голос, феминистская литературная критика, положение женщин в Англии XVIII–XIX веков.

Annotatsiya. Ushbu maqolada Jeyn Ostinning "Aql va tuyg'u" romanida ayollarning ichki dunyosini tasvirlash uchun qo'llagan uslubiy vositalari tahlil qilinadi. Muallifning leksik tanlovi, ayniqsa epitetlar, ayollar rasmiy siyosiy ovozga ega bo'lmagan davrda ularning yashirin faolligini ifodalash vositasi sifatida xizmat qiladi, degan fikr ilgari suriladi. Elinor va Marianna Deshvud obrazlarini qiyosiy tahlil qilish orqali epitet, metafora, oksyumoron, o'xshatish va parallel konstruksiyalarning ikki qahramon o'rtasida notekis taqsimlanishi aql va tuyg'u o'rtasidagi ziddiyatni qanday jonlantirishi ko'rsatiladi. Uslubiy tahlil XVIII asr oxiri va XIX asr boshlarida Angliyada ayollarning ijtimoiy holati bilan bog'lanadi, chunki bu davrda nikoh shaxsiy tanlov emas, balki iqtisodiy institut sifatida amal qilgan. Xulosa qilib aytganda, Ostinning uslubiy texnikasi feministik hikoya strategiyasini kutib olib, tuyg'u tilidan foydalanib, qahramonlariga jamiyat rad etgan ichki chuqurlikni beradi.

Kalit so'zlar: Jeyn Ostin, "Aql va tuyg'u", uslubiy vositalar, epitet, ayollar ovozi, feministik adabiy tanqid, XVIII–XIX asr Angliyasida ayollarning holati.

Jane Austen occupies a singular place in English literature. Her novels do not fit neatly into either Romanticism or Realism, and this ambiguity is part of what keeps them relevant two centuries later. *Sense and Sensibility*, her first published novel, is often read for its plot of courtship and inheritance. Read more closely, it is also a study in language. Austen gives her two heroines, Elinor and Marianne Dashwood, sharply different vocabularies of feeling, and the contrast between them is built at the level of the sentence, not only the level of the story. This article asks a narrow question with a wider consequence: which stylistic devices carry the emotional lives of Austen's women, and what does the distribution of those devices tell us about the kind of agency available to women in her fiction. In a period when women could not vote, hold property on equal terms, or speak in Parliament, the interior language Austen builds for her heroines becomes one of the few spaces where their judgment and feeling can be shown at full strength. Reading her stylistics as a form of feminist technique, rather than as decoration, is the aim of this study.

Women, marriage, and voice in Austen's England. At the turn of the nineteenth century, an Englishwoman's future depended almost entirely on marriage. Women could not typically inherit property on the same terms as men, could not vote, and were excluded from formal political and economic life. Marriage functioned less as a personal choice than as a financial arrangement between families. Austen does not state this directly. She shows it through her characters' preoccupations: conversations about income, inheritance, and connections recur throughout *Sense and Sensibility*, while the men in the novel debate horses and hunting rather than any matter of substance. Against this backdrop, the emotional interiority Austen grants Elinor and Marianne is a quiet but deliberate correction. If women had no formal voice in society, Austen gives them, instead, an unusually detailed voice on the page.

Sense and Sensibility as stylistic contrast. Elinor represents sense: self-command, prudence, and the discipline to keep her feelings from governing her conduct. Marianne represents sensibility: passion, spontaneity, and an inability to moderate her emotional responses. Austen introduces Elinor as a young woman who possessed "strength of understanding, and coolness of judgment", while Marianne is described as someone whose "sorrows, her joys, could have no moderation". These two

short descriptions already show the stylistic pattern that runs through the novel. Elinor's epithets cluster around control and reason. Marianne's cluster around excess and feeling. The contrast is not simply thematic; it is lexical, built word by word into how each woman is named.

The most frequent device Austen uses to build this contrast is the epithet, a descriptive word or phrase attached to a character or an emotion. Alongside epithets, the novel makes use of metaphor, oxymoron, simile, and parallel construction, but these appear more sparingly and mostly at moments of heightened crisis. This uneven distribution is itself meaningful. Ordinary description relies on epithets; extraordinary emotional states call for the more forceful devices. When Marianne is deceived by Willoughby, or when Elinor learns of Lucy Steele's secret engagement, the prose intensifies stylistically at exactly the moment the characters' composure is tested.

Style as a form of agency. Nancy Armstrong has argued that the domestic novel of this period gave middle class women a form of authority over the private, emotional sphere, even as they were denied authority over the public one [2]. Austen's prose enacts exactly this division. Elinor and Marianne cannot vote, inherit freely, or choose independent careers, but the narration gives their inner responses more precision and more attention than it gives to any of the male characters' outer actions. Austen's style therefore does not merely decorate her plot. It compensates, on the page, for the agency her heroines are denied in the world outside it. This is one reason the novel has continued to reward feminist rereading. The politics of *Sense and Sensibility* are not only in what happens to Elinor and Marianne, but in how closely and how carefully Austen chooses to describe what they feel.

CONCLUSION.

Austen's use of epithet, metaphor, oxymoron, simile, and parallel construction in *Sense and Sensibility* is not incidental. It is distributed with clear purpose across her two heroines, marking the boundary between sense and sensibility and tracking each woman's emotional crises in the moments they matter most. Read against the historical position of women in Austen's England, this stylistic choice looks less like ornament and more like a quiet form of resistance. Austen could not give her heroines a vote or an independent income. She could, and did, give them an unusually rich interior language. For readers and students of English literature in Uzbekistan, where Austen is widely taught as part of the survey of English literary history, this stylistic reading offers a way to connect close linguistic analysis with the broader feminist and historical questions her novels continue to raise.

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LINGUO-CULTUROLOGICAL MECHANISMS OF GRADATION IN PAREMIOLOGICAL UNITS

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Abstract. *This article examines the gradation mechanisms in paremiological units from a linguo-culturological perspective. Gradation is analyzed as a semantic and stylistic device that enhances expressiveness and reflects cultural values embedded in proverbs and sayings. The study outlines key criteria — semantic, pragmatic, and linguocultural — which determine the functioning of gradation in the transmission of collective wisdom. Findings demonstrate that gradation in*

paremiological discourse serves not only as a linguistic intensifier but also as a marker of national worldview, thereby contributing to the preservation and interpretation of cultural identity.

Keywords: gradation, paremiological units, linguo-cultural approach, semantic criteria, pragmatic criteria, cultural identity, national worldview

Annotatsiya. Ushbu maqola paremiologik birliklarda gradatsiya mexanizmlarini lingvo-kulturologik nuqtai nazardan o'rganadi. Gradatsiya semantik va stilistik vosita sifatida tahlil qilinib, ifodaviylikni kuchaytirishi hamda maqol va matallarda mujassam bo'lgan madaniy qadriyatlarni aks ettirishi ko'rsatiladi. Tadqiqotda asosiy mezonlar — semantik, pragmatik va lingvokulturologik jihatlar belgilab beriladi. Natijalar gradatsiya nafaqat til vositasi sifatida kuchaytiruvchi rol o'ynashini, balki milliy dunyoqarashning belgisi sifatida ham xizmat qilishini ko'rsatadi. Shu orqali madaniy identitetni saqlash va sharhlashga hissa qo'shadi.

Kalit so'zlar: gradatsiya, paremiologik birliklar, lingvo-kulturologik yondashuv, semantik mezonlar, pragmatik mezonlar, madaniy identitet, milliy dunyoqarash

Аннотация. В данной статье рассматриваются механизмы градации в паремиологических единицах с лингво-культурологической точки зрения. Градация анализируется как семантическое и стилистическое средство, усиливающее выразительность и отражающее культурные ценности, воплощённые в пословицах и поговорках. В исследовании выделяются ключевые критерии — семантический, прагматический и лингвокультурологический. Результаты показывают, что градация в паремиологическом дискурсе служит не только языковым усилителем, но и маркером национального мировоззрения, способствуя сохранению и интерпретации культурной идентичности.

Ключевые слова: градация, паремиологические единицы, лингво-культурологический подход, семантические критерии, прагматические критерии, культурная идентичность, национальное мировоззрение

Graduonymic relations involving the semantics of intensification and attenuation refer to a semantic process within paremiological units where the intensity, degree, or scope of meaning is expressed through a gradual increase or decrease; unlike synonymy, graduonymy centers not on "sameness of meaning" but on "directional scalar difference," thereby necessarily activating an evaluative component (Cruse, 1986). This mechanism typically operates on two levels: at the lexico-semantic level, it functions through intensifiers, comparative markers, and modal-axiological signals; at the pragmatic-cultural level, it "calibrates" the direction of intensification or attenuation through societal norms, ethical stereotypes, and codes of collective experience (Wierzbicka, 1992). In the English proverb "Better late than never," the comparative "better" mitigates the negativity of lateness, selecting a more positive position relative to the maximally negative point of "never"; similarly, the Uzbek expression "Kech bo'lsa ham, hechdan ko'ra yaxshi" ("Better late than never") mirrors this scalar logic in alignment with national axiological values, with "hech" (nothing/never) serving as the extreme low point that defines the measurement scale. General observations in the field of corpus linguistics note that comparative and superlative forms in paremiological discourse exhibit the "norm vs. deviation" contrast more strongly than simple propositions; for instance, in large corpora such as COCA, the "better ... than ..." construction appears as a high-frequency comparative pattern, and its usage characteristics remain relatively stable within the paremiological style. The scientific explanation is that graduonymic meaning aligns with the principle of the cognitive economy of language; it places complex moral evaluations along a single scalar axis, thereby enhancing communicative efficiency and ease of recall (Lakoff, 1987). From a linguocultural perspective, gradation takes the "cultural prototype"—that is, the ideal behavioral norm accepted by society—as its anchor point and constructs the axis of intensification or attenuation around that prototype (Bartmiński, 2009). The historical-philosophical genesis of graduonymic intensification and attenuation traces back to the tradition of conceptualizing intensity through quantitative and qualitative measures; in ancient philosophy, the concept of "degree" was linked to the ordered structure of existence, and the evaluative capacities of language drew upon this ontological hierarchy (Aristotle, 2001). Plato's **Republic** (Plato, 2008) reflects the supreme status of the Good as an

"Idea," along with the concepts of approaching or receding from it— notions that legitimize the gradation of social behavior and moral judgments; this mechanism provides the cultural foundation in paremiology for establishing axes such as "better–worse," "huge–small," and "high–low." In defining virtue as a "mean," Aristotle's *Nicomachean Ethics* (Aristotle, 2009) identifies excess and deficiency as the two extremes, thereby establishing a classic model of the semantics of intensification and diminution: for instance, courage stands above cowardice but below recklessness. Within the traditions of classical rhetoric and poetics, the technique of gradation (climax) is characterized as a central figure for "increasing impact," and ancient sources note it as a means of significantly enhancing the persuasive power of speech (Quintilian, 1920). Scholarly analysis suggests that in antiquity, gradation represented a form of "quantitative-intensive" thinking aligned with the order of existence, which subsequently contributed to the stabilization of axiological scales within language and culture (Berlin & Kay, 1969). In the Middle Ages, the semantics of gradation were recoded through religious-moral hierarchies; dichotomies such as good versus evil, merit versus sin, and lawful versus forbidden acquired a strict normative orientation, anchoring gradionymic axes to "foundational points" (Aquinas, 1947). In Thomas Aquinas's *Summa Theologiae* (Aquinas, 1947), the concept of degrees of goodness is explained through the "analogical structure of being"— meaning that beings possess varying shares of goodness; this perspective establishes a gradational logic in paremiological evaluation, seen in concepts like "little merit versus great merit" or "minor sin versus major sin." Islamic philosophical traditions also feature the evaluation of degrees of virtue, the purity of intention, and the quality of action; this has stabilized axes such as the value of "halal sustenance" and the honor associated with "labor" within the axiology of Turkic and Uzbek proverbs (Al-Ghazali, 1997). In English paremiology, expressions like "Pride goes before a fall" rely on a hierarchical-moral model, implying that the likelihood of a "fall" increases as the intensity of "pride" rises; similarly, the Uzbek concept "The consequence of pride is humiliation" (**Kibrning oqibati — xorlik**) articulates this same hierarchy through a national didactic style. In terms of numerical representation, medieval didactic texts frequently employed numerical classifications—such as the "seven deadly sins" or "four cardinal virtues"—to express moral gradations, thereby reinforcing the mechanism of paremiological retention (Eco, 1995). The scholarly interpretation suggests that the medieval worldview transformed gradation into a "normative gradient," cementing the semantics of intensification and diminution as an instrument of moral-social governance in the paremiology of subsequent eras (Foucault, 1977).

Martin and White's theory (**The Language of Evaluation: Appraisal in English**, 2005) analyzes evaluation through the categories of **attitude**, **engagement**, and **graduation**, providing a methodological foundation specifically for the study of paremiological graduation. The mechanism involves the **graduation** component distinguishing between means of intensification and attenuation (**force** and **focus**); in paremiology, these means are often combined for maximum impact—for instance, through markers such as "eng" (most), "nihoyatda" (extremely), "too," or "so." The English proverb "The best things in life are free" maximizes **force** via the word "best," just as the superlative "eng" in the Uzbek equivalent ("Eng yaxshi narsalar bepul bo'ladi") elevates the evaluation to its peak, while the concept of "free" remains open to varying interpretations based on cultural perceptions of value. In terms of empirical evidence, the practice of coding **graduation** markers across text segments is widespread in **appraisal** analysis; this approach allows paremiological units to be coded as single "micro-texts" without internal segmentation (Bednarek, 2008). Theoretically, **appraisal** theory offers a formal framework for determining **how** paremiological evaluation is intensified, thereby bridging the gap between linguocultural interpretation and empirical coding.

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SOCIAL FUNCTIONS OF CODE-SWITCHING IN ENGLISH-UZBEK BILINGUAL DISCOURSE

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Abstract. *Code-switching is an important phenomenon of bilingual communication in which speakers alternate between two languages within the same communicative context. This article examines the social functions of code-switching in English-Uzbek bilingual discourse. Particular attention is given to its role in expressing social identity, group membership, solidarity, professional affiliation and cultural belonging. The study shows that the use of English elements in Uzbek discourse is not always caused by a lack of vocabulary or language competence. In many cases, it reflects the speaker's social environment, professional background and relationships with other participants. Thus, English-Uzbek code-switching can be viewed as an important sociolinguistic resource for expressing social identity and demonstrating affiliation with particular social and professional communities.*

Keywords: code-switching, bilingualism, social identity, solidarity, sociolinguistics.

Аннотация. *Переключение кодов (code-switching) является важным явлением билингвальной коммуникации, при котором говорящий чередует два языка в рамках одной коммуникативной ситуации. В статье рассматриваются социальные функции переключения кодов в англо-узбекском билингвальном дискурсе. Особое внимание уделяется его роли в выражении социальной идентичности, принадлежности к определенной группе, солидарности, профессиональной и культурной принадлежности. Исследование показывает, что использование английских элементов в узбекской речи не всегда связано с недостатком словарного запаса или языковой компетенции. Во многих случаях оно отражает социальную среду говорящего, его профессиональную сферу и отношения с другими участниками коммуникации. Таким образом, англо-узбекское переключение кодов представляет собой важный социолингвистический ресурс выражения социальной идентичности и принадлежности к определенным социальным и профессиональным сообществам.*

Ключевые слова: переключение кодов, билингвизм, социальная идентичность, солидарность, социолингвистика.

Annotatsiya. *Kod almashtirish (code-switching) bilingval kommunikatsiyaning muhim hodisasi bo'lib, bir kommunikativ vaziyatda ikki tilning navbatma-navbat qo'llanishini anglatadi. Mazkur maqolada ingliz-o'zbek bilingval diskursida code-switchingning ijtimoiy funksiyalari tahlil qilinadi. Xususan, uning ijtimoiy identifikatsiya, muayyan guruhga mansublik, birdamlik, kasbiy va madaniy aloqadorlikni ifodalashdagi o'rniga e'tibor qaratiladi. Tadqiqot shuni ko'rsatadiki, o'zbek nutqida inglizcha birliklarning qo'llanishi har doim ham lug'at boyligi yoki til kompetensiyasining yetishmasligi bilan bog'liq emas. Ko'p hollarda u so'zlovchining ijtimoiy muhiti, kasbiy faoliyati va boshqa suhbatdoshlar bilan munosabatlarini aks ettiradi. Shunday qilib, ingliz-o'zbek code-switching ijtimoiy identifikatsiyani ifodalash hamda muayyan ijtimoiy va kasbiy guruhlarga mansublikni ko'rsatishning muhim sotsiolingvistik vositasi hisoblanadi.*

Kalit so‘zlar: kod almashtirish, bilingvizm, ijtimoiy identifikatsiya, birdamlik, sotsiolingvistika.

INTRODUCTION

Language is not only a tool for the transfer of information, but also an important tool for expressing social identity, interpersonal relationships, cultural affiliation and communicative intentions. In multilingual and bilingual communities speakers often switch between languages based on circumstances, interlocutor, topic, and communicative purpose. This phenomenon is commonly known as code switching.

Code-switching has been widely studied in sociolinguistics, discourse analysis and pragmatics. Previous approaches have tended to focus on the structural features of language alternation. Recent research, however, has paid more attention to the social and interactional meanings of language alternation. For example, Poplack (1980) identified major structural types of code-switching, and Gumperz (1982) showed that switching between codes can serve specific conversational functions. Myers-Scotton (1993) then developed sociolinguistic models to explain code choice in terms of the social relations and expectations of the participants.

Contemporary studies in Uzbekistan have already identified social identity, cultural adaptation, pragmatic functions and communicative strategies as important dimensions of English-Uzbek code-switching. Recent research on Uzbek-English conversations has also reported functions such as clarification, politeness, emphasis and identity signaling.

Code-Switching as a Sociolinguistic Phenomenon

Code-switching refers to the use of two or more languages or linguistic varieties within a communicative interaction. Poplack (1980) examined code-switching primarily from a structural perspective, while Gumperz (1982) emphasized its relationship with social interaction.

From a sociolinguistic perspective, language choice is influenced by such factors as the speakers' social background, education, profession, age, relationship and communicative environment.

Myers-Scotton (1993) argues that language choice can be related to social relationships and the identities that speakers wish to establish or maintain. Therefore, code-switching should not simply be viewed as random mixing of languages.

In English-Uzbek communication, the presence of English elements can reflect the bilingual speaker's participation in social environments where English is frequently used.

For example:

Bugun yangi project ustida ishlayapman.

The English word project is incorporated into an Uzbek sentence. In a university or professional environment, such usage may reflect the speaker's connection with an English-oriented academic or professional community.

Social Identity

One of the most significant social functions of code-switching is the expression of social identity. Language is one of the important resources through which people present themselves as members of particular social communities. A bilingual speaker may use English elements to demonstrate an educational, professional or international orientation.

For example:

Men bu semesterda yangi course boshladim.

The English words semester and course may reflect the speaker's academic environment. Their use can indicate familiarity with English-medium educational terminology. Thus, code-switching can function as a linguistic marker of social identity.

Group Membership

Additionally, code-switching can indicate affiliation with a specific social or professional organization. Young people who frequently interact with English, educators, IT specialists, business professionals, and students may all develop common bilingual communication habits.

For instance:

Meetingdan keyin conversation qilamiz

Words like "meeting" and "discussion" may become part of the common vocabulary of English-speaking coworkers or students. In this case, members of the group can be distinguished from those who do not engage in the same language environment by English components. As a result, code-switching may aid in the development of an in-group identity.

Solidarity and Social Relationships

Another important social function of code-switching is the expression of solidarity. Speakers may switch to a language shared with their interlocutors in order to create a sense of closeness and belonging. In bilingual groups, the use of shared English expressions can make communication more informal and familiar.

For example:

Bugun juda busy ekanmiz, coffee ichib olamiz.

Such expressions may occur naturally between friends or colleagues who share knowledge of English. In this context, code-switching does not simply provide lexical information. It can strengthen interpersonal relationships and create a shared communicative style.

DISCUSSION

The analysis shows some significant social functions of English-Uzbek code-switching. It could be a sign of social identity, group membership, solidarity, professional affiliation and cultural orientation. There is a close relationship between these functions. Group membership may have an impact on the expression of solidarity, and a speaker's identification may be significant to group membership. Additionally, exposure to foreign cultures may aid in the formation of a multilingual language identity.

An especially intriguing setting for such processes is created by Uzbekistan's growing English usage. English is regularly encountered by professionals and university students through social media, technology, education, and worldwide contact. As a result, English could start to play a socially significant role in Uzbek multilingual conversation. It is crucial to emphasize that code-switching does not always indicate a lack of proficiency in either Uzbek or English.

CONCLUSION

English-Uzbek code-switching is not just an alternation between two languages. It is also a sociolinguistic phenomenon which is directly connected with social identity and interpersonal relationship. The analysis reveals that code-switching could serve numerous significant social roles. It could signify social identity, group membership, solidarity, professional affiliation and cultural orientation. English features in Uzbek conversation may thus be informative about the social setting in which bilingual speakers are operating.

The expanding use of the English language in education, information technology, business and digital communication makes English-Uzbek code-switching an increasingly important issue for sociolinguistic research. Further investigation of authentic conversations, social-media communication and professional discourse can provide a deeper understanding of how bilingual speakers use language choice to construct and express their social identities in contemporary Uzbek society.

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INGLIZ VA O'ZBEK TILLARIDA RAQAMLI IQTISODIYOTGA OID TERMINLARNING DERIVATSION XUSUSIYATLARI

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Annotatsiya. Ushbu maqolada o'zbek va ingliz tillarida raqamli iqtisodiyotga oid terminlarning derivatsion xususiyatlari tahlil qilinadi. Bunda affiksatsiya, kompozitsiya, milliy til me'yorlariga moslashtirish kabi usullarning samaradorligi borasida so'z yuritiladi. Bundan tashqari sintaktik, semantik, konversiya va abbreviaturalar yordamida raqamli iqtisodiyot birliklarining yasash jihatlari keng tarqalgan. Ushbu usullardan eng keng tarqalgan va raqamli iqtisodiyot terminlari orasida ko'p uchraydigan derivatsion xususiyatlar yoritib beriladi.

Kalit so'zlar: raqamli iqtisodiyot, derivatsion xususiyatlar, sintaktik, semantik va morfologik usulda yasalgan terminlar, kompozitsiya, affiksatsiya, derivatsiya.

Abstract. This article analyzes the derivational features of terms related to the digital economy in Uzbek and English. It examines the effectiveness of methods such as affixation, compounding, and adaptation to national language norms. In addition, the formation of digital economy units through syntactic, semantic, conversion, and abbreviation methods is widespread. The derivational features that are most common and frequently found among digital economy terms are highlighted through these methods.

Keywords: digital economy, derivational features, terms formed through syntactic, semantic, and morphological methods, compounding, affixation, derivation.

Аннотация. В данной статье анализируются деривационные особенности терминов, относящихся к цифровой экономике, в узбекском и английском языках. Рассматривается эффективность таких способов, как аффиксация, словосложение, адаптация к нормам национального языка. Кроме того, широко распространено образование единиц цифровой экономики посредством синтаксических, семантических способов, конверсии и аббревиации. В статье освещаются наиболее распространённые и часто встречающиеся среди терминов цифровой экономики деривационные особенности, образованные указанными способами.

Ключевые слова: цифровая экономика, деривационные особенности, термины, образованные синтаксическим, семантическим и морфологическим способами, словосложение, аффиксация, деривация.

Bugungi kunda raqamli texnologiyalarning jadal rivojlanishi va iqtisodiy jarayonlarning raqamlashtirilishi natijasida raqamli iqtisodiyotga oid yangi tushuncha va terminlarning shakllanishi hamda keng qo'llanilishi kuzatilmoqda. Elektron tijorat, raqamli to'lovlar, blokcheyn texnologiyasi, sun'iy intellekt, fintech, elektron hukumat va boshqa zamonaviy yo'nalishlarning rivojlanishi mazkur sohaga oid terminologik tizimning muntazam ravishda kengayib borishiga sabab bo'lmoqda. Ayniqsa, ingliz tili raqamli iqtisodiyot terminlarining xalqaro miqyosda shakllanishi va tarqalishida muhim manba tillardan biri sifatida namoyon bo'lmoqda. Ushbu terminlarning o'zbek tiliga kirib kelishi esa ularning strukturaviy, semantik va derivatsion jihatdan moslashuvi masalasini dolzarb ilmiy muammolardan biriga aylantirmoqda.

Terminlarning derivatsion xususiyatlarini o'rganish ularning qanday usullar orqali shakllanishi, yangi terminlarning til tizimiga qanday integratsiyalashuvi hamda turli tillarda qanday strukturaviy o'zgarishlarga uchrashini aniqlash imkonini beradi. Ingliz va o'zbek tillarining tipologik jihatdan farqlanishi mazkur jarayonlarda sezilarli tafovutlarni yuzaga keltiradi. Ingliz tilining analitik xususiyati kompozitsiya, konversiya, affiksatsiya va abbreviatsiya kabi usullarning faol qo'llanishini ta'minlasi, o'zbek tilining agglyutinativ tabiati affiksatsiya va sintaktik birikmalar orqali yangi terminlarning shakllanishiga keng imkon yaratadi. Shu jihatdan raqamli iqtisodiyot terminlarining ikki tildagi derivatsion xususiyatlarini qiyosiy o'rganish nazariy tilshunoslik bilan bir qatorda tarjimashunoslik va terminologiya uchun ham muhim ahamiyat kasb etadi.

Terminologiyaning derivatsion jihatlarini xorijiy va mahalliy tilshunoslar tomonidan turli nuqtai nazardan tadqiq etilgan. Xususan, terminlarning yasash usullari, ularning semantik tuzilishi va tilga moslashuvi masalalari umumiy tilshunoslikda ancha keng yoritilgan bo'lsa-da, aynan raqamli iqtisodiyot sohasiga oid terminlarning derivatsion tahlili nisbatan yangi va kam o'rganilgan yo'nalish hisoblanadi.

Affiksatsiya prefiks va suffikslar yordamida yangi so'z yasash usuli bo'lib, ingliz tilida raqamli iqtisodiyot terminologiyasida keng qo'llaniladi. Masalan:

- *digital-ize* → *digitalization* (raqamlashtirish jarayoni);
- *e-* prefiksi orqali: *e-commerce*, *e-banking*, *e-government*, *e-wallet*;
- *-ify* suffiksi orqali: *monetize* → *monetization*.

O'zbek tilida esa affiksatsiya asosan mahalliy va o'zlashgan negizlarga milliy affikslar qo'shish orqali amalga oshadi:

- *raqam + la + shtir + ish* → *raqamlashtirish*;
- *token + la + shtir + ish* → *tokenlashtirish*;
- *kripto + valyuta + chi* → *kriptovalyutachi* (kamdan-kam qo'llanadi, kasb-shug'ullanish ma'nosini bildiradi).

Ko'rinib turibdiki, ingliz tilida affiksatsiya ko'proq mustaqil produktiv suffiks va prefikslar (-ize, -ation, e-) orqali amalga oshsa, o'zbek tilida bu jarayon ko'pincha fe'l yasovchi -la, -lashtir hamda ot yasovchi -chi, -lik kabi qo'shimchalar vositasida kechadi, bunda ingliz tilidan o'zlashgan negiz o'zbekcha grammatik shaklga kiritiladi.

Kompozitsiya — ikki yoki undan ortiq negizni birlashtirib yangi ma'noli so'z hosil qilish usuli. Ingliz tilida bu usul juda produktiv:

- *block + chain* → *blockchain*;
- *crowd + funding* → *crowdfunding*;
- *fin + tech* → *fintech*;
- *e + market + place* → *e-marketplace*.

O'zbek tilida sof kompozitsiya usuli nisbatan kam uchraydi, biroq ba'zi hollarda калыка (izlama tarjima) orqali qo'shma so'zlar yasaladi:

- *blockchain* → *blokzanjir* (kam qo'llaniladi, ko'pincha o'zlashma shakl — *blokcheyn* — afzal ko'rildi);
- *elektron + tijorat* → *elektron tijorat* (bu holda kompozitsiyadan ko'ra so'z birikmasi shakllanadi, ya'ni sintaktik usulga yaqinlashadi).

Bu holat shuni ko'rsatadiki, ingliz tilidagi morfologik kompozitsiya o'zbek tilida ko'pincha sintaktik (so'z birikmasi) yoki to'g'ridan-to'g'ri fonetik o'zlashtirish yo'li bilan ifodalanadi.

Konversiya so'zning shaklini o'zgartirmasdan, uni bir turkumdan ikkinchisiga o'tkazish usuli bo'lib, ingliz tili uchun ancha xarakterlidir:

- *to google* (fe'l) ← *Google* (ot, brend nomi);
- *to app* (norasmiy, "ilova o'rnatmoq" ma'nosida) ← *app* (ot);
- *to friend / to unfriend* — ijtimoiy tarmoqlar tilida.

O'zbek tilida konversiya usuli iqtisodiy-raqamli terminologiyada deyarli uchramaydi, chunki o'zbek tilining agglyutinativ tabiati so'z turkumini o'zgartirish uchun albatta qo'shimcha talab qiladi. Shu bois ingliz tilidagi konversion terminlar o'zbek tiliga o'tganda affiksatsiya yo'li bilan moslashtiriladi: *to google qilmoq* → *googlelamoq / gugllamoq* (so'zlashuv uslubida).

Abbreviatsiya va qisqartmalar. Raqamli iqtisodiyot sohasi qisqartmalarga juda boy:

- *IT* (*Information Technology*), *AI* (*Artificial Intelligence*), *IoT* (*Internet of Things*), *P2P* (*peer-to-peer*), *B2B* (*business-to-business*), *B2C* (*business-to-consumer*), *KYC* (*Know Your Customer*).

Bu qisqartmalarning aksariyati o'zbek tilida ham o'zgarishsiz, xalqaro shaklda qo'llaniladi: *IT-park*, *AI-texnologiyalar*, *B2B-platforma*. Bu o'zbek tilidagi terminologik tizimning xalqaro standartlashuvga moyilligini ko'rsatadi. Shu bilan birga, ayrim qisqartmalar milliyashtiriladi: masalan, *AKT* (axborot-kommunikatsiya texnologiyalari) ingliz tilidagi *ICT* (*Information and Communication Technology*) ning o'zbekcha analogidir.

Semantik derivatsiya mavjud soʻzga yangi maʼno yuklash orqali amalga oshadi. Ingliz tilida:

- *cloud* (bulut — tabiat hodisasi) → *cloud computing* (bulutli hisoblash);
- *virus* (biologik atama) → *computer virus*;
- *bug* (hasharot) → *software bug* (dastur xatosi).

Oʻzbek tiliga kirib kelayotgan aksariyat raqamli iqtisodiyot terminlari fonetik-grafik jihatdan moslashtirilib qabul qilinadi: *blockchain* → *blokcheyn*, *fintech* → *fintex/fintek*, *startup* → *startap*, *marketing* → *marketing*. Bunda talaffuz va yozuvda oʻzbek tili fonetik tizimiga moslashish kuzatiladi (masalan, inglizcha *-tion* qoʻshimchasi oʻzbek tilida *-siya/-tsiya* shakliga oʻtadi: *digitalization* → *raqamlashtirish/digitalizatsiya*).

Oʻtkazilgan tahlil natijalariga koʻra, ingliz tilida raqamli iqtisodiyot terminlarining yasallishida **kompozitsiya va konversiya** usullari yetakchi oʻrin egallasa, oʻzbek tilida **affiksatsiya va sintaktik usul (soʻz birikmalari)** ustunlik qiladi. Bu farq ikki tilning tipologik xususiyatlari ingliz tilining analitik, oʻzbek tilining agglutinativ tabiati bilan izohlanadi. Semantik koʻchirish (калька) usuli esa har ikki tilda ham keng tarqalgan boʻlib, bu tushunchalarning umumbashariy-kognitiv asosga ega ekanligidan dalolat beradi. Abbreviatsiya sohasida esa xalqaro qisqartmalarning oʻzgarishsiz oʻzlashishi kuzatilib, bu terminologik tizimning globallashtirish jarayoniga integratsiyalashganini koʻrsatadi.

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NEMIS TILIDAGI FRAZELOGIK BIRLIKLARNI OʻZBEK TILIGA TARJIMA QILISH XUSUSIYATLARI

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Annotatsiya: Mazkur maqolada nemis tilidagi frazeologik birliklarning semantik, uslubiy va pragmatik xususiyatlari hamda ularni oʻzbek tiliga tarjima qilishda yuzaga keladigan muammolar tahlil qilinadi. Tadqiqotda frazeologik birliklarning lugʻaviy tarkibi bilan yaxlit maʼnosi oʻrtasidagi munosabat, kontekst taʼsirida maʼnoning konkretlashuvi, uslubiy boʻyoq va kommunikativ vazifaning tarjima jarayonidagi oʻrni yoritiladi. Tahlil natijalari frazeologik birliklarni tarjima qilishda ularning komponentlarini soʻzma-soʻz koʻchirishdan koʻra, yaxlit semantik mazmuni, konnotativ xususiyati, uslubiy boʻyoqlari va kommunikativ funksiyasini saqlash muhimligini koʻrsatadi.

Kalit soʻzlar: frazeologiya, frazeologik birlik, frazeologik maʼno, tarjima, tarjima ekvivalentligi, semantik ekvivalentlik, konnotatsiya, pragmatik ekvivalentlik, kontekst, uslubiy boʻyoq.

Аннотация: В данной статье анализируются семантические, стилистические и прагматические особенности немецких фразеологических единиц, а также проблемы, возникающие при их переводе на узбекский язык. В исследовании освещаются взаимосвязь между лексическим составом фразеологических единиц и их целостным значением, конкретизация значения под влиянием контекста, роль стилистической окраски и коммуникативной функции в процессе перевода. Результаты анализа показывают, что при переводе фразеологизмов важно сохранить целостное семантическое содержание,

коннотативную особенность, стилистическую окраску и коммуникативную функцию, а не буквально переносить их компоненты.

Ключевые слова: фразеология, фразеологическая единица, фразеологическое значение, перевод, эквивалентность перевода, семантическая эквивалентность, коннотация, прагматическая эквивалентность, контекст, стилистическая окраска.

Abstract: This article analyzes the semantic, stylistic, and pragmatic features of German phraseological units, as well as the problems arising during their translation into Uzbek. The study highlights the relationship between the lexical composition of phraseological units and their holistic meaning, the concretization of meaning under the influence of context, and the role of stylistic coloring and communicative function in the translation process. The results of the analysis show that when translating phraseological units, it is more important to preserve their holistic semantic content, connotative features, stylistic nuances, and communicative function than to translate their components literally.

Keywords: phraseology, phraseological unit, phraseological meaning, translation, translation equivalence, semantic equivalence, connotation, pragmatic equivalence, context, stylistic coloring.

Frazeologik birliklar tilning tayyor va nisbatan turg'un birliklari sifatida milliy til tizimining muhim qatlamlaridan birini tashkil etadi. Ularning o'ziga xosligi, avvalo, komponentlarining alohida lug'aviy ma'nolaridan tashqari, butun birikma doirasida shakllanadigan yaxlit ma'no bilan belgilanadi. Shu sababli frazeologik birliklarni erkin so'z birikmalaridan farqlashda idiomatiklik, turg'unlik va tayyor holda qo'llanish kabi belgilar muhim hisoblanadi. Frazeologiyani murakkab tabiati uning tilshunoslikdagi alohida tadqiqot obyekti sifatida shakllanishiga sabab bo'lgan; nemis frazeologiyasiga oid tadqiqotlarda ham frazeologik birliklarning xilma-xil semantik va funksional xususiyatlari alohida qayd etiladi.

Frazeologik birliklarni bir tildan ikkinchi tilga tarjima qilish esa faqat lug'aviy ma'noni boshqa tildagi so'zlar yordamida ifodalashdan iborat emas. Tarjimon bir vaqtning o'zida birlikning semantik mazmuni, qo'llanish muhiti, uslubiy mansubligi, emotsional-ekspressiv xususiyatlari va kommunikativ vazifasini ham hisobga olishi lozim. Tarjimashunoslikda ekvivalentlik tushunchasining aynan shu jihati muhim o'rin tutadi. V. Koller tarjima munosabatini ikki matn o'rtasidagi ekvivalentlik munosabati sifatida izohlaydi va ekvivalentlikni faqat shakliiy moslik bilan cheklash mumkin emasligini ta'kidlaydi. Uning yondashuvida denotativ, konnotativ, matniy-normativ, pragmatik va formal-estetik jihatlar tarjimada saqlanishi mumkin bo'lgan turli qiymatlarni tashkil etadi.

Frazeologik birliklarda mazkur masala yanada murakkablashadi. Chunki birikma tarkibidagi alohida komponentlarning ma'nosi ko'pincha butun birlikning mazmunini bevosita belgilamaydi. Bundan tashqari, bir frazeologik birlik turli kontekstlarda turlicha pragmatik yoki uslubiy mazmun kasb etishi mumkin. Shu jihatdan nemis tilidan o'zbek tiliga tarjima jarayonida asosiy vazifa asl birlikning tashqi shaklini mexanik ravishda takrorlash emas, balki uning matndagi funksional va semantik qiymatini o'zbek tilida tabiiy shaklda qayta yaratishdan iborat.

Nemis tilidagi „**einen Abgang machen**“ birligi frazeologik birlikning kontekstga bog'liq holda ma'no ifodalashiga yaqqol misol bo'la oladi. Duden lug'atida **Abgang** otining asosiy ma'nolaridan biri "ketish, jo'nab ketish" sifatida qayd etilgan bo'lib, „**einen Abgang machen**“ birikmasi og'zaki nutqqa xos tarzda "ketmoq, g'oyib bo'lmoq" ma'nosida izohlanadi. Demak, ushbu birlikni tarjima qilishda uning tarkibidagi **Abgang** komponentini alohida tarjima qilish yetarli emas; birikmaning yaxlit ma'nosi va nutqiy uslubi hisobga olinishi kerak.

Kontekstga qarab mazkur birlik o'zbek tilida "ketmoq", "jo'nab ketmoq", "g'oyib bo'lmoq", ayrim holatlarda esa "dom-daraksiz ketmoq" tarzida ifodalanishi mumkin. Duden lug'atida **Abgang** so'zi teatr sahnasini tark etish bilan bog'liq holatlarda ham qo'llanishi ko'rsatiladi; masalan, mashhur aktyorning olqishlar ostidagi ketishi "dramatic Abgang" sifatida tavsiflanadi. Shuningdek, Duden sinonimlarida „[einen] **Abgang machen**“ o'lim ma'nosidagi so'zlashuv birliklari qatorida ham qayd etiladi. Shu sababli ushbu birlikni ayrim kontekstlarda "olamdan

o'tmoq", "**vafot etmoq**" kabi evfemistik birliklar orqali berish mumkin. Biroq bunday tarjima faqat kontekst tegishli ma'noni qo'llab-quvvatlagan taqdirdagina o'rinli bo'ladi.

Bu misol frazeologik birlik tarjimasida kontekstning hal qiluvchi ahamiyatini ko'rsatadi. Tarjimon dastlab birlikning lug'aviy va frazeologik ma'nolarini farqlashi, keyin esa ayni kontekstda qaysi semantik variant faollashganini aniqlashi lozim. Demak, „**einen Abgang machen**“ uchun yagona, barcha holatlarda qo'llanadigan o'zbekcha muqobilni belgilash ilmiy jihatdan to'g'ri emas; tarjima varianti matnning mazmuni va kommunikativ vazifasiga qarab tanlanadi.

Mazmun jihatidan unga yaqin bo'lgan „**sich einen guten oder ähnlichen Abgang verschaffen**“ birligi esa shaxsning biror vaziyat, muhit yoki jamoani tark etish jarayonida o'zi haqida ijobiy taassurot qoldirishini anglatadi. Duden lug'atida ushbu birlikma "ketayotgan paytda yaxshi taassurot qoldirish" mazmunida izohlangan. O'zbek tilida uning mazmunini "**o'zi haqida yaxshi taassurot qoldirib ketmoq**" tarzida ifodalash mumkin. Bu yerda nemis tilidagi komponentlarning shakliy tuzilishini o'zbek tilida aynan takrorlashdan ko'ra, kommunikativ mazmunni to'liq yetkazish ustuvor hisoblanadi.

Mazkur holat V. Koller tomonidan ishlab chiqilgan ekvivalentlik yondashuvi bilan hamohangdir. Uning nazariyasida tarjima ekvivalentligi faqat formal o'xshashlik emas, balki tarjimada muayyan mazmuniy va funksional qiymatlarning saqlanishi bilan belgilanadi. Shuning uchun frazeologik birlikning morfologik tarkibi o'zgarishi mumkin, biroq uning asosiy semantik yadrosi va kommunikativ funksiyasi imkon qadar saqlanishi kerak.

Keyingi tahlil obyekti „**jemandem, einer Sache abgeneigt sein**“ birligidir. Duden lug'atida **abgeneigt sein** "biror narsani yoqtirmaslik", **jemandem/einer Sache abgeneigt sein** esa shaxs yoki biror narsaga nisbatan salbiy yoki rad etuvchi munosabatda bo'lish sifatida izohlanadi. Shu bois mazkur birlikni o'zbek tiliga kontekstga qarab "**biror narsaga moyil bo'lmaslik**", "**biror narsaga rag'bat bildirmaslik**", "**ixlosi bo'lmaslik**", "**xush ko'rmaslik**" kabi vositalar orqali tarjima qilish mumkin.

Masalan, „**einem Plan abgeneigt sein**“ birlikmasida gap ma'lum bir rejaga nisbatan ijobiy munosabatning mavjud emasligi haqida boradi. Bunday vaziyatda "rejaga moyil emaslik" yoki "rejani ma'qullamaslik" mazmunidagi tarjima tabiiyroq bo'lishi mumkin. Duden sinonimlarida ham **abgeneigt sein** uchun "qarshi bo'lmoq", "biror narsani yoqtirmaslik", "biror narsaga nisbatan salbiy munosabatda bo'lmoq" kabi mazmuniy muqobillar keltiriladi.

Shu nuqtayi nazardan, **abgeneigt** komponentini har bir kontekstda bitta o'zbekcha so'z bilan berishga urinish tarjima aniqligini pasaytirishi mumkin. Tarjimon birlikning ayni matndagi semantik yo'nalishini aniqlab, maqsad tilidagi tabiiy va kommunikativ jihatdan mos vositani tanlashi lozim. Bu jarayon denotativ mazmun bilan bir qatorda konnotativ qiymatni ham hisobga olishni talab etadi.

Frazeologik birliklarning tarjimasida nafaqat ma'no, balki uslubiy bo'yoq ham muhim ahamiyatga ega. Ayniqsa, so'zlashuv nutqiga, hazil-mutoyibaga yoki familiyar muloqotga xos birliklarda uslubiy xususiyatni yo'qotish tarjima matnining kommunikativ ta'siriga sezilarli darajada ta'sir ko'rsatishi mumkin. Bunga „**zum Abgewöhnen**“ birligi misol bo'la oladi. Duden ma'lumotlariga ko'ra, **abgewöhnen** fe'li biror kishini yoki o'zini yomon odatdan voz kechishga o'rgatish ma'nosini bildiradi. Shu bilan birga, „**zum Abgewöhnen**“ iborasi so'zlashuv nutqida nihoyatda yomon yoki jozibasiz bo'lgan narsani ifodalash uchun ishlatiladi. Demak, uning frazeologik qo'llanishidagi ma'no fe'lning bevosita lug'aviy ma'nosidan kengroqdir. Ushbu birlik o'zbek tiliga "**juda yomon**", "**hech qanday jozibasi yo'q**", "**kishida qiziqish uyg'otmaydigan**", "**ko'rgan kishini bezdiradigan**" kabi kontekstual vositalar yordamida tarjima qilinishi mumkin. Masalan, biror film, taom yoki hodisa haqida salbiy baho berilayotgan bo'lsa, tarjima varianti aynan shu obyektga nisbatan tabiiy o'zbekcha baholash vositasi bilan ifodalanishi maqsadga muvofiq.

Mazkur birlikning alohida pragmatik xususiyati „**noch einen zum Abgewöhnen**“ shaklida namoyon bo'ladi. Duden lug'atida bu ifoda hazil tariqasida "yana bir so'nggi alkogolli ichimlik" mazmunida qayd etilgan. Shuning uchun uni tarjima qilishda faqat "**yana birini odatdan chiqarish uchun**" kabi so'zma-so'z variantdan foydalanish kommunikativ mazmunni buzadi. Mazkur vaziyatda o'zbek tilidagi tabiiy hazil ifodasi, masalan, "**yana bir qittak ichib olaylik, keyin bas qilamiz**" tarzida qayta yaratilishi mumkin. Bunda tarjimon denotativ mazmundan tashqari, birlikning

hazil-mutoyiba va so‘zlashuvga xos bo‘yoqlarini ham hisobga oladi. Frazeologik tarjimada shakl va mazmun o‘rtasidagi nisbatning bunday o‘zgarishi tarjimashunoslikdagi ekvivalentlik tushunchasining nisbiy xarakterini ko‘rsatadi. Koller ekvivalentlikni muayyan “referens doiralari” asosida belgilash zarurligini ta’kidlaydi; bunda denotativ mazmun, konnotativ qiymat, matn normasi, qabul qiluvchi va formal-estetik xususiyatlar turli ekvivalentlik mezonlarini yuzaga keltiradi.

Yana bir muhim misol - „**jemandem nichts abgucken**“ frazeologik birligidir. Duden lug‘atida **abgucken** fe‘lining bir necha ma’nosi berilgan: birovni kuzatish orqali undan biror narsani o‘rganish yoki o‘zlashtirish, shuningdek, maktab yoki imtihonda boshqa kishidan noqonuniy ko‘chirish. Shu bilan birga, „**jemandem nichts abgucken**“ alohida so‘zlashuv birligi sifatida, ayniqsa kiyinish yoki yechinish jarayonida “qarab turmaslik” mazmunida qo‘llanishi ko‘rsatiladi.

Shu sababli mazkur birlikni “**birovga mo‘ralab qaramaslik**”, “**birovni kuzatib turmaslik**”, vaziyatga qarab “**senga qarab turganim yo‘q**” kabi tabiiy o‘zbekcha ifodalar bilan berish mumkin. Masalan, biror kishining kiyinish jarayonida unga qarab turmaslik haqida gap ketayotgan bo‘lsa, o‘zbek tilidagi kommunikativ vaziyatga mos ravishda “**Qo‘rqma, senga mo‘ralab qaramayapman**” kabi tarjima tanlanishi mumkin.

Bu misolda ham lug‘aviy ma’no bilan frazeologik-pragmatik ma’no o‘rtasidagi tafovut yaqqol ko‘rinadi. **Abgucken** fe‘lining asosiy ma’nolaridan biri “kuzatib o‘rganmoq” yoki “ko‘chirmoq” bo‘lsa-da, „**jemandem nichts abgucken**“ birligida boshqa kommunikativ ma’no faollashadi. Demak, tarjimon faqat lug‘atdagi birinchi ma’noga tayanib qolmasdan, birlikning turg‘un shakli va real nutqdagi vazifasini aniqlashi zarur.

Yuqoridagi misollar asosida aytish mumkinki, frazeologik birliklarning tarjimasida ekvivalentlik bir necha darajada namoyon bo‘ladi. Ayrim hollarda manba tilidagi frazeologizmga ma’no va funksiyasi jihatidan juda yaqin bo‘lgan tayyor birlikni maqsad tilidan topish mumkin. Boshqa holatlarda esa bunday birlik mavjud bo‘lmaydi va frazeologizmning mazmunini erkin so‘z birikmasi, leksik birlik yoki tavsifiy ifoda orqali qayta yaratishga to‘g‘ri keladi.

Frazeologik tarjimaga oid tadqiqotlarda ham ekvivalentlik munosabatlari to‘liq, qisman yoki nol ekvivalentlik shakllarida namoyon bo‘lishi mumkinligi qayd etiladi. Bunday vaziyatlarda tarjimonning vazifasi manba tilidagi birlikning mazmuniy va kommunikativ qiymatini maqsad tilining tabiiy vositalari orqali qayta tiklashdan iborat.

Shu nuqtayi nazardan, frazeologik birlikni tarjima qilish jarayonini shartli ravishda quyidagi ketma-ketlik asosida tavsiflash mumkin: avvalo frazeologizmning lug‘aviy va yaxlit ma’nosi aniqlanadi; keyin uning kontekstual ma’nosi belgilanadi; undan so‘ng uslubiy va pragmatik xususiyatlari baholanadi; nihoyat, maqsad tilidagi semantik va funksional jihatdan mos ifoda tanlanadi. Bunday yondashuv tarjima jarayonida shakliy o‘xshashlikka haddan tashqari bog‘lanib qolishning oldini oladi.

Frazeologik birliklarning milliy-madaniy xususiyati ham tarjima jarayonida e’tibordan chetda qolmasligi kerak. Frazeologizmlar ko‘pincha muayyan xalqning tarixiy tajribasi, kundalik hayoti, madaniy qarashlari va obrazli tafakkuri bilan bog‘liq bo‘ladi. Shu sababli bir tildagi frazeologik obraz boshqa tilda aynan shu shaklda mavjud bo‘lmasligi mumkin. Bunday vaziyatda tarjimon uchun asosiy mezon komponentlarning tashqi o‘xshashligi emas, balki mazmuniy va kommunikativ muvofiqlik hisoblanadi. Frazeologik birliklarning madaniy kontekstga bog‘liqligi ularni tarjima qilishda alohida muammo tug‘dirishi tadqiqotlarda ham qayd etilgan.

Xulos o‘rnida shuni ta’kidlash mumkinki, nemis tilidagi frazeologik birliklarni o‘zbek tiliga tarjima qilish tildagi oddiy leksik birliklarni bir tildan ikkinchi tilga almashtirishdan ko‘ra murakkabroq jarayon bo‘lib, unda semantik, konnotativ, uslubiy, pragmatik va milliy-madaniy omillar o‘zaro bog‘liq holda namoyon bo‘ladi. Tahlil qilingan „**einen Abgang machen**“, „**sich einen guten oder ähnlichen Abgang verschaffen**“, „**jemandem, einer Sache abgeneigt sein**“, „**zum Abgewöhnen**“ va „**jemandem nichts abgucken**“ birliklari bir xil tarjima usulidan foydalanish mumkin emasligini ko‘rsatadi. Har bir frazeologik birlikning tarjima varianti uning konkret kontekstda ifodalayotgan ma’nosi, uslubiy mansubligi va kommunikativ vazifasidan kelib chiqib belgilanadi.

Tadqiqot natijalari shuni ko'rsatadiki, frazeologik birlik tarjimasida uning komponentlarini so'zma-so'z ko'chirish ko'pincha yetarli natija bermaydi. Masalan, „**jemandem nichts abgucken**“ birligida fe'lining umumiy lug'aviy ma'nosidan kelib chiqish uning nutqdagi haqiqiy pragmatik mazmunini to'liq ochib bermaydi. Xuddi shuningdek, „**zum Abgewöhnen**“ birligining ma'nosini faqat **abgewöhnen** fe'lining lug'aviy mazmuni orqali izohlash mumkin emas. Duden ma'lumotlari ham mazkur birliklarda lug'aviy va frazeologik ma'no o'rtasidagi farqni ko'rsatadi.

Shu bois frazeologik tarjimaning asosiy tamoyili manba tilidagi birlikning tashqi shaklini imkon qadar aynan saqlash emas, balki uning **semantik yadrosi, konnotativ mazmuni, uslubiy bo'yoqlari va kommunikativ funksiyasini** maqsad tilida qayta yaratishdan iborat bo'lishi lozim. Bu yondashuv Koller tomonidan ishlab chiqilgan ekvivalentlik konsepsiyasidagi turli referens doiralari bilan hamohangdir.

Umuman, nemis-o'zbek frazeologik tarjimasining samaradorligi tarjimonning ikki tilning lug'aviy va grammatik tizimini bilishi bilangina emas, balki frazeologik birliklarning kontekstual, uslubiy va pragmatik xususiyatlarini aniqlay olish qobiliyatiga ham bog'liq. Frazeologizmning mazmunini maqsad tilida tabiiy va kommunikativ jihatdan adekvat shaklda ifodalash tarjimaning ilmiy va amaliy qiymatini belgilovchi muhim omillardan biridir.

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STRUCTURAL AND SEMANTIC FEATURES OF NOMINATIVE SENTENCES IN ENGLISH AND UZBEK: A COMPARATIVE-TYPOLOGICAL STUDY

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Abstract. *The article investigates the structural and semantic features of nominative sentences in English and Uzbek from a comparative-typological perspective. A nominative sentence is treated as an independent one-member construction whose formal nucleus is expressed by a nominal component and whose predicative and communicative interpretation is supported by intonation, context, and the semantic relation between the named entity and the speech situation. The study distinguishes nominative sentences from elliptical two-member sentences, sentence fragments, titles, labels, and other verbless constructions. English and Uzbek examples are examined according to structural patterns, degree of expansion, semantic type, contextual dependence, and communicative potential. The comparison shows that both languages use nominal structures to present objects, phenomena, temporal settings, landscapes, states, and situations with a high degree of informational concentration. At the same time, English relies strongly on determiners, modifiers, punctuation, and discourse context, whereas Uzbek allows richer overt nominal marking through case and possessive morphology. The paper argues that cross-linguistic analysis should integrate formal, semantic, and contextual criteria rather than rely on the absence of a finite verb alone.*

Keywords. *nominative sentence, nominal sentence, one-member sentence, verbless construction, syntax, semantics, structural typology, English, Uzbek, comparative linguistics*

Аннотация. В статье исследуются структурные и семантические особенности назывных предложений в английском и узбекском языках в сопоставительно-типологическом аспекте. Назывное предложение рассматривается как самостоятельная односоставная конструкция, формальным ядром которой является именная единица, а предикативно-коммуникативная интерпретация поддерживается интонацией, контекстом и смысловым соотношением между названным объектом и речевой ситуацией. Назывные предложения разграничиваются с эллиптическими двусоставными предложениями, фрагментами, заголовками, номинациями и другими безглагольными конструкциями. Английский и узбекский материал анализируется с учетом структурной модели, степени распространенности, семантического типа и контекстуальной зависимости. Сопоставление показывает, что оба языка используют именные конструкции для представления предметов, явлений, временных параметров, пейзажей и состояний в сжатой форме, однако располагают различными грамматическими ресурсами для их оформления.

Ключевые слова. назывное предложение, именное предложение, односоставное предложение, безглагольная конструкция, синтаксис, семантика, структурная типология, английский язык, узбекский язык, сопоставительная лингвистика.

Annotatsiya. Maqolada ingliz va o'zbek tillaridagi atov gaplarning strukturaviy va semantik xususiyatlari qiyosiy-tipologik nuqtayi nazardan tadqiq etiladi. Atov gap mustaqil bir bosh bo'lakli sintaktik birlik sifatida talqin qilinib, uning formal yadrosi ot yoki otlashgan birlik bilan ifodalanishi, predikativ-kommunikativ mazmuni esa intonatsiya, kontekst hamda nomlangan birlik bilan nutq vaziyati o'rtasidagi semantik munosabat orqali yuzaga kelishi asoslanadi. Tadqiqotda atov gaplar ellipsisli ikki tarkibli gaplar, gap fragmentlari, sarlavhalar, yorliqlar va boshqa fe'lsiz konstruksiyalardan farqlanadi. Ingliz va o'zbek tili materiallari struktur model, kengayish darajasi, semantik turi va kontekstga bog'liqligi asosida qiyoslanadi. Natijalar har ikki tilda atov gaplar predmet, hodisa, vaqt, manzara va holatlarni ixcham hamda kommunikativ jihatdan zich ifodalashga xizmat qilishini, biroq ularni shakllantirishda tillarning grammatik imkoniyatlari farqlanishini ko'rsatadi.

Kalit so'zlar. atov gap, nominativ gap, bir bosh bo'lakli gap, fe'lsiz konstruksiya, sintaksis, semantika, struktur tipologiya, ingliz tili, o'zbek tili, qiyosiy tilshunoslik.

INTRODUCTION

Nominative sentences occupy a distinctive position in the syntax of both English and Uzbek. They are formally economical constructions in which a nominal unit is capable of functioning as an independent communicative utterance. Their apparent simplicity, however, conceals theoretical questions concerning sentencehood, predicativity, semantic interpretation, and the boundary between a full sentence and a fragment. These questions become especially important in cross-linguistic research because formally similar sequences may receive different grammatical interpretations in different languages.

In Uzbek grammatical description, atov gaplar are traditionally associated with one-member sentences that name an object, phenomenon, time, place, or situation and make it salient in the speaker's field of perception or discourse. Uzbek descriptions also recognize that such constructions may consist of a single noun or be expanded by attributes and other modifiers [1–3]. In English-language grammatical literature, comparable phenomena are discussed under several labels, including nominative sentences, nominal sentences, verbless clauses, verbless sentences, and sentence fragments. The terminology is not completely uniform, which makes an explicit operational definition necessary for comparative research.

The relevance of the present study follows from this terminological and structural diversity. Recent English-language work explicitly treats nominative sentences as independent one-member syntactic units and emphasizes their distinction from incomplete two-member sentences [8]. Research on verbless constructions also demonstrates that nominal forms may acquire special discourse functions under particular contextual conditions [9]. Uzbek grammatical scholarship provides a

theoretical basis for examining *atov gaplar* within the system of one-member and simple sentences [1–3].

The aim of this article is to identify and compare the principal structural and semantic patterns of nominative sentences in English and Uzbek. The objectives are to clarify the criteria for identification, describe principal structural models, classify basic semantic types, and determine major cross-linguistic similarities and differences. The comparison is intended to contribute to a more precise description of *atov gaplar* within comparative syntax.

LITERATURE REVIEW

The theoretical background combines general syntax, functional grammar, and Uzbek grammatical description. Quirk et al. provide a comprehensive account of English sentence structure and a wide range of non-canonical and verbless patterns, while Huddleston and Pullum distinguish syntactic completeness from surface form [4, 5]. Biber et al. demonstrate that English grammar contains numerous compressed patterns whose interpretation depends on discourse context [6]. These approaches are relevant because a nominal sequence cannot be classified solely by counting verbal elements; its syntactic status must be determined through structure, meaning, and discourse function.

Functional approaches emphasize the interaction of grammatical form and communicative organization. Halliday and Matthiessen's model treats language as a resource for construing experience, organizing information, and enacting social relations [7]. From this perspective, a nominal sentence may be analyzed not only as a formal one-member structure but also as a device for presenting a participant, setting, state, or event-related entity as the communicative focus.

Uzbek grammatical scholarship provides a direct basis for the analysis of one-member and nominal sentence patterns. Mahmudov and Nurmonov's theoretical grammar describes Uzbek syntax as a system in which grammatical form and semantic organization are closely related [1]. Sayfullayeva and colleagues examine modern Uzbek literary language within a systematic account of morphology and syntax [2, 3]. Descriptions of *atov gaplar* emphasize their nominative character, their ability to be expanded by attributes, and their role in presenting a scene or entity as immediately salient.

A further issue is terminological equivalence. In this article, the term “nominative sentence” is used specifically for an independent nominal one-member sentence rather than for any sentence containing a noun in a nominative case. This restriction is necessary because the category under investigation is syntactic rather than morphological.

METHODOLOGY

The study uses comparative, descriptive, structural-semantic, and contextual methods. The principal unit of analysis is the independent nominal sentence occurring as a complete communicative unit in written discourse. English examples are based on established descriptions of English grammar and representative discourse-style examples. Uzbek examples are formulated and selected in accordance with established descriptions of *atov gaplar* and modern Uzbek syntactic usage. The examples are used analytically rather than as a quantitative corpus claim; therefore, the article does not present frequency statistics for the two languages.

Three criteria are applied. First, the construction must have an independent communicative status in its context. Second, its formal nucleus must be nominal or nominally functioning. Third, its interpretation must not depend on reconstructing an omitted finite predicate in order to obtain the basic proposition. This third criterion is particularly important for distinguishing a nominative sentence from an elliptical sentence. For example, “A quiet evening.” can function as an independent presentation of a setting, whereas “John in the garden” may require contextual reconstruction and should not automatically be classified as a nominative sentence.

The comparison proceeds along structural and semantic dimensions. The structural dimension considers the size of the nominal nucleus, the presence of modifiers, coordination, determiners, possessive elements, and word-order patterns. The semantic dimension considers whether the construction primarily presents an object, person, place, time, natural phenomenon, state, or

situational frame. Contextual interpretation is used as a secondary diagnostic, especially where the same formal sequence may function differently depending on discourse position.

RESULTS AND DISCUSSION

1. Structural Features of Nominative Sentences in English

English nominative sentences typically contain a noun phrase functioning as the whole utterance. The simplest pattern is a bare noun: “Silence.” “Night.” “Winter.” “Rain.” Such constructions can be communicatively complete when the discourse context presents the named entity as the relevant state, setting, or perceptual object. The absence of a finite verb does not necessarily make the sequence incomplete; the construction can establish a nominal predication or presentational relation through intonation and context.

A second pattern is the expanded noun phrase, for example: “A cold winter night.” “The empty street.” “A sudden silence.” The head noun is accompanied by a determiner and/or attributive modifier. The additional elements increase descriptive specificity without changing the basic nominal nature of the construction. In literary narration, such structures can introduce a scene without an overt finite predicate. In journalistic or headline-like discourse, similar structures can compress a larger proposition into a concise nominal formulation.

A third pattern involves coordinated or serial nominal units: “Darkness, silence, uncertainty.” “A crowded station, a delayed train, a restless crowd.” Such sequences may function as independent nominative units or as coordinated elements within a broader discourse structure. Their interpretation depends strongly on punctuation and prosody. Punctuation is especially important in written English because commas, full stops, dashes, and capitalization help signal whether nominal units are coordinated or treated as separate utterances.

English determiner contrasts also contribute to interpretation. Compare “Silence” and “The silence.” The bare form can present silence as a general or newly foregrounded phenomenon, whereas the definite noun phrase tends to identify a particular, contextually recoverable instance. Similarly, “Night” may introduce a temporal setting, while “The night” more readily refers to a specific night established by context. Thus, determiners contribute to the semantic interpretation of nominative sentences.

2. Structural Features of Nominative Sentences in Uzbek

Uzbek *atov gaplar* also commonly contain a nominal nucleus expressed by a noun or noun phrase. Minimal patterns include “Tun.” (Night.), “Sukunat.” (Silence.), “Bahor.” (Spring.), and “Yomg‘ir.” (Rain.). In appropriate contexts, these units independently name a phenomenon or establish a scene. As in English, the absence of an overt finite verb does not automatically imply syntactic incompleteness.

Expanded Uzbek nominative sentences may contain several attributes before or after the nominal nucleus, depending on the grammatical structure of the noun phrase. Examples include “Sokin yoz oqshomi.” (A quiet summer evening.), “Bo‘m-bo‘sh ko‘cha.” (An absolutely empty street.), and “Qorli qish kechasi.” (A snowy winter night.). Uzbek's agglutinative morphology allows grammatical relations to be expressed overtly through case and possessive markers when the construction requires them. Consequently, the formal structure of an Uzbek nominal sentence can carry information that English often expresses through word order, determiners, or prepositional phrases.

The relatively flexible word order of Uzbek permits variation in the placement of modifiers for communicative purposes. This does not mean that word order is unrestricted; rather, information structure and syntactic relations interact with constituent ordering. Such differences are relevant to comparative typology because the two languages may express similar semantic content through different structural resources.

Possessive and case marking are also important. Forms such as “Bahorning ilk tongi.” (The first morning of spring.) and “Shaharning sokin ko‘chalari.” (The quiet streets of the city.) show how Uzbek can encode internal nominal relations morphologically. English expresses comparable

meanings through determiners and possessive or prepositional structures: “The first morning of spring” and “The city's quiet streets.”

Table 1. Major structural patterns of nominative sentences in English and Uzbek

Structural pattern	English example	Uzbek example
Bare nominal nucleus	Silence.	Sukunat.
Determined/expanded noun phrase	The empty street.	Bo‘m-bo‘sh ko‘cha.
Adjectival expansion	A cold winter night.	Sovuq qish kechasi.
Possessive/relation structure	The city’s quiet streets.	Shaharning sokin ko‘chalari.
Nominal series	Darkness, silence, uncertainty.	Qorong‘ulik, sukunat, noaniqlik.

3. Semantic Features and Types

The structural similarity of English and Uzbek nominative sentences becomes more meaningful when their semantic functions are compared. The nominal nucleus can establish a temporal frame, a spatial setting, a perceptual scene, or an emotionally salient state. On the basis of the material examined, six broad semantic types can be distinguished: object/person presentation, temporal setting, spatial or environmental setting, natural phenomenon, state or condition, and situational enumeration.

The first type presents a person or object as the communicative focus: “A stranger.” “An old house.” / “Begona odam.” “Eski uy.” The second establishes time: “Morning.” “Winter.” / “Tong.” “Qish.” The third establishes a spatial or environmental frame: “An empty room.” “The deserted street.” / “Bo‘sh xona.” “Kimsasiz ko‘cha.” The fourth presents natural phenomena: “Rain.” “Snow.” / “Yomg‘ir.” “Qor.” The fifth foregrounds a state or condition: “Silence.” “Darkness.” / “Sukunat.” “Qorong‘ulik.” The sixth presents a sequence of related entities: “Books. Papers. Coffee.” / “Kitoblar. Qog‘ozlar. Qahva.”

These semantic types are not mutually exclusive. “A cold winter night” simultaneously denotes time, environmental conditions, and a perceptual scene. Likewise, “Silence” may denote a physical acoustic state and, depending on context, a socially meaningful condition. Therefore, semantic classification should be understood as a description of the dominant interpretive function rather than a rigid taxonomy.

A central semantic property of nominative sentences is immediacy. The construction places the named entity directly into discourse without an overt finite predication. The noun denotes an entity, while the sentence as a whole presents that entity as relevant to the current discourse situation. In this respect, nominative sentences illustrate how syntactic economy can coexist with substantial semantic content.

4. Comparative-Typological Analysis

The comparison reveals a substantial structural parallel between English and Uzbek: both languages can form independent nominal sentences from a single noun or an expanded noun phrase. Both also use such constructions to establish scenes, name phenomena, and foreground entities. This commonality supports the view that the construction has a cross-linguistically recognizable functional basis, even though its formal realization is language-specific.

The first major difference concerns morphological marking. English nominal phrases generally have fewer overt morphological markers for grammatical relations, so definiteness, possession, and syntactic relations are often expressed through determiners, word order, or prepositions. Uzbek, by contrast, has richer nominal morphology, including case and possessive marking. This difference affects the internal organization of expanded nominative sentences and the amount of grammatical information encoded inside the nominal group.

The second difference concerns constituent ordering. English normally places attributive adjectives before the noun and relies heavily on relatively stable constituent order. Uzbek also commonly places attributes before the noun but permits broader ordering possibilities under discourse and stylistic conditions. Comparable semantic structures may therefore display different surface

arrangements. Cross-linguistic analysis should compare constituent functions and semantic relations rather than require formal identity.

The third difference concerns definiteness. English articles provide a grammaticalized means of distinguishing, among other interpretations, generic, indefinite, and definite reference. Uzbek lacks an equivalent article system, and definiteness is more often inferred from context, lexical choice, word order, demonstratives, or other grammatical means. “A night” and “The night” encode contrasts that “Tun” does not obligatorily mark morphologically. The Uzbek form therefore leaves more reference specification to context.

The fourth difference concerns the boundary between nominative sentences and other verbless constructions. English grammatical descriptions contain a broad range of verbless clauses, fragments, labels, headlines, and formulaic expressions. Some are structurally dependent, while others function independently. Uzbek grammatical tradition likewise distinguishes *atov gaplar* from other one-member or reduced constructions. A one-to-one translation of the category is therefore methodologically unsafe.

Table 2. Comparative characteristics of nominative sentences in English and Uzbek

Parameter	English	Uzbek
Core structure	Noun/noun phrase as an independent utterance	Noun/noun phrase as an independent one-member sentence
Minimal form	Silence. / Night. / Rain.	Sukunat. / Tun. / Yomg‘ir.
Expansion	Determiners, adjectives, possessives, prepositional phrases	Attributes, possessive and case-marked nominal relations
Definiteness	Often signaled by articles/determiners and context	Largely inferred from context and lexical/grammatical resources
Word order	Relatively fixed	More flexible, with discourse-sensitive variation
Semantic potential	Object, setting, time, phenomenon, state, enumeration	Object, setting, time, phenomenon, state, enumeration
Main diagnostic	Independent status + nominal nucleus + contextual completeness	Independent status + nominal nucleus + contextual completeness

5. Distinguishing Nominative Sentences from Elliptical Constructions

The distinction between a nominative sentence and an elliptical construction is central to reliable analysis. Consider the sequence “John at the door.” In one context, it may be a fragmentary answer to “Who is at the door?” In another context, particularly in literary narration, it may be used as a nominal presentation. Surface form alone cannot settle the classification. The analyst must examine whether the construction conventionally and contextually functions as an independent nominal sentence or whether an omitted finite predicate is necessary to recover the intended proposition.

A similar issue arises in Uzbek. A sequence such as “Akmal hovlida.” may be interpreted differently depending on grammatical analysis and context, whereas “Bahor.” is more straightforwardly interpreted as a nominative sentence when it introduces a seasonal scene. Classification should therefore consider predicative relations, syntactic independence, contextual recoverability, and discourse function together.

If every verb-less sequence is counted as a nominative sentence, the data become heterogeneous and the comparison loses explanatory value. Conversely, if only isolated one-word examples are accepted, important expanded nominal patterns are excluded. A balanced criterion recognizes both minimal and expanded nominal sentences while excluding constructions whose primary status is dependent or fragmentary.

6. Structural-Semantic Correspondence

The relationship between form and meaning is particularly clear in the expansion of the nominal nucleus. A bare noun provides a broad semantic frame, while modifiers narrow the reference and enrich the representation. Compare “Night.” with “A cold, silent winter night.” The second construction retains the basic nominal architecture but adds sensory, temporal, and evaluative information. The same principle is visible in Uzbek: “Tun.” versus “Sovuq va jim qish kechasi.” The expansion increases descriptive density without requiring an overt finite predicate.

From a typological perspective, this pattern can be described as structural economy combined with semantic enrichment. The construction is short at the clause level but may contain several layers of information inside the noun phrase. English relies on articles, adjective sequencing, possessive constructions, and prepositional complements; Uzbek can additionally use possessive and case morphology to encode relations within the nominal group.

Semantic interpretation is also sensitive to discourse position. At the beginning of a narrative paragraph, “Morning.” can establish a temporal frame. After a difficult event, “Silence.” can foreground a state that follows it. In a list, the same nominal form may function as an item rather than a sentence. Structural-semantic analysis should therefore include discourse position as a contextual parameter.

CONCLUSION

The comparative analysis demonstrates that nominative sentences in English and Uzbek share a recognizable structural and semantic basis but are realized through language-specific grammatical resources. In both languages, a nominal unit can function as an independent communicative construction and can present an object, person, temporal setting, place, natural phenomenon, state, or situational frame. The construction is therefore not adequately described as merely an incomplete sentence lacking a verb.

English data show the importance of noun-phrase structure, determiners, modifier patterns, punctuation, and contextual interpretation. Uzbek data demonstrate the importance of nominal expansion, possessive and case marking, and discourse-sensitive constituent ordering. The two languages consequently converge at the level of communicative and semantic potential while diverging in the formal resources used to construct and interpret the nominal sentence.

The study also confirms the methodological importance of distinguishing nominative sentences from elliptical sentences, fragments, labels, headlines, and other verbless constructions. For comparative-typological research, the most reliable identification procedure combines formal structure, semantic interpretation, syntactic independence, and contextual function. This approach can serve as a basis for further research into the stylistic and pragmatic properties of nominative sentences in English and Uzbek.

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FRANSUZ TILINI O'RGANISHDA RAQAMLI TEXNOLOGIYALAR VA SUN'IY INTELEKTNING IMKONIYATLARI

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Annotatsiya. Ushbu maqolada fransuz tilini o'rganishda raqamli texnologiyalar va sun'iy intellektning imkoniyatlari ilmiy-nazariy jihatdan tahlil qilinadi. Tadqiqot shuni ko'rsatadiki, sun'iy intellekt asosidagi chatbotlar, generativ modellar va virtual muhitlar fransuz tilini o'rganuvchilarning lug'at boyligini oshirish, grammatik ko'nikmalarini shakllantirish, talaffuzni yaxshilash va nutqiy ishonchni oshirishda sezilarli samara beradi. Shaxsiylashtirilgan o'quv tajribasi, avtomatik fikr-mulohaza va immersiv muhitlar orqali til o'rganish jarayoni yanada samarali va qiziqarli bo'lmoqda. Shu bilan birga, algoritmik xolislik, ma'lumotlar xavfsizligi va o'qituvchi rolini qayta ko'rib chiqish kabi masalalar dolzarb bo'lib qolmoqda. Maqolada O'zbekiston olimlarining ushbu sohadagi tadqiqotlari ham tahlil qilinadi.

Kalit so'zlar: sun'iy intellekt, fransuz tili, raqamli texnologiyalar, chatbot, virtual muhit, shaxsiylashtirilgan ta'lim

Abstract. This article provides a scientific and theoretical analysis of the opportunities offered by digital technologies and artificial intelligence in French language learning. Research demonstrates that AI-powered chatbots, generative models, and virtual environments significantly enhance vocabulary acquisition, grammar competence, pronunciation accuracy, and speaking confidence among French learners. Personalized learning experiences, automated feedback, and immersive environments make the language learning process more effective and engaging. However, issues such as algorithmic bias, data security, and the evolving role of teachers remain critical concerns. The article also analyzes the research of Uzbek scholars in this field.

Keywords: artificial intelligence, French language, digital technologies, chatbot, virtual environment, personalized learning

Résumé. Cet article propose une analyse scientifique et théorique des possibilités offertes par les technologies numériques et l'intelligence artificielle dans l'apprentissage du français langue étrangère. Les recherches montrent que les chatbots alimentés par l'IA, les modèles génératifs et les environnements virtuels améliorent significativement l'acquisition du lexique, la compétence grammaticale, la précision de la prononciation et la confiance à l'oral chez les apprenants de FLE. Les expériences d'apprentissage personnalisées, la rétroaction automatisée et les environnements immersifs rendent le processus d'apprentissage plus efficace et engageant. Cependant, des questions telles que les biais algorithmiques, la sécurité des données et l'évolution du rôle de l'enseignant restent des préoccupations majeures. L'article analyse également les recherches des scientifiques ouzbeks dans ce domaine.

Mots-clés: intelligence artificielle, français langue étrangère, technologies numériques, chatbot, environnement virtuel, apprentissage personnalisé

KIRISH.

Fransuz tilini o'rganish an'anaviy ravishda grammatikaning murakkabligi, talaffuzning nozik jihatlari va madaniy kontekstning boyligi bilan ajralib turadi. So'nggi yillarda raqamli texnologiyalar va sun'iy intellekt vositalarining jadal rivojlanishi ushbu jarayonga tub o'zgarishlar olib keldi. Sun'iy intellekt asosidagi tizimlar nafaqat o'quv materiallarini yetkazish usulini, balki o'quvchining til bilan munosabatini, o'qituvchining pedagogik yondashuvini va umuman ta'lim ekotizimini qayta shakllantirmoqda. Zamonaviy tadqiqotlar shuni ko'rsatadiki, sun'iy intellekt fransuz tilini o'rganishda ikki asosiy yo'nalishda muhim imkoniyatlar yaratadi: birinchidan, o'quv jarayonini shaxsiylashtirish va avtomatlashtirish orqali samaradorlikni oshirish; ikkinchidan, immersiv va interaktiv muhitlar yaratish orqali til o'rganish tajribasini boyitish. Ushbu maqolada ushbu imkoniyatlar ilmiy-nazariy asosda tahlil qilinadi, mavjud tadqiqotlar natijalari umumlashtiriladi va amaliy istiqbollar belgilanadi.

Sun'iy intellektning fransuz tili ta'limidagi nazariy asoslari. Sun'iy intellektning fransuz tili ta'limidagi eng muhim hissasi shaxsiylashtirilgan o'rganish imkoniyatidir. An'anaviy sinf sharoitida o'qituvchi barcha o'quvchilarga bir xil tempda, bir xil material bilan dars o'tadi. Sun'iy intellekt asosidagi adaptiv tizimlar esa har bir o'quvchining bilim darajasi, o'zlashtirish tezligi, qiziqishlari va ehtiyojlariga qarab o'quv kontentini, topshiriqlar murakkabligini va fikr-mulohaza shaklini avtomatik moslashtiradi. Onlayn ta'limda fransuz tilini o'qitish texnologiyalari bo'yicha tadqiqotlar shuni ko'rsatadiki, sun'iy intellekt yordamida o'quvchilarning ehtiyojlari, qiziqishlari va o'quv sur'atlarini hisobga olgan holda individual o'quv rejalarini yaratish mumkin. Masalan, bir o'quvchi "les fruits" mavzusi doirasidagi ma'lumotlarni o'zlashtirayotgan bo'lsa, boshqa o'quvchi "les animaux" mavzusiga doir kerakli iboralarni o'rganayotgan bo'ladi. Bu ko'rsatkich o'quvchilarning o'zlashtirish darajasidan kelib chiqib belgilanadi.

Fransuz tili ta'limida sun'iy intellektdan foydalanish ijtimoiy konstruktivizm nazariyasi bilan chambarchas bog'liq. Vygotskiyning fikricha, bilim ijtimoiy o'zaro ta'sir orqali shakllanadi. Sun'iy intellekt asosidagi chatbotlar va virtual suhbatdoshlar o'quvchilarga xavfsiz, stresssiz muhitda til amaliyotini o'tkazish imkonini beradi. Bu ayniqsa fransuz tilida gapirishga ishonchsizlik sezadigan o'quvchilar uchun muhimdir, chunki ular xatolar qilishdan qo'rqmasdan, takror-takror mashq qilishlari mumkin. Farg'ona davlat universiteti tadqiqotchilari Jurayeva Shalolaxon va Esonaliyeva Sug'diyonaning ta'kidlashicha, sun'iy intellekt asosidagi dasturlar foydalanuvchi faoliyatini tahlil qilib, unga mos topshiriqlarni taklif etadi, bu esa individual yondashuvni ta'minlaydi.

Raqamli texnologiyalarning amaliy imkoniyatlari. Chatbotlar fransuz tilini o'rganishda lug'at boyligini oshirishning samarali vositasi sifatida tadqiq qilingan. Farg'ona davlat universiteti olimlari tomonidan olib borilgan tadqiqotda ChatGPT, Gemini, Copilot kabi vositalar o'quvchilarga matn yaratish, tarjima qilish, muloqot qilish va yozma nutqni takomillashtirish imkonini berishi qayd etilgan. Bu vositalar ayniqsa fransuz tilini chet tili sifatida o'rganuvchilar uchun foydali hisoblanadi. O'zbekiston davlat jahon tillari universiteti konferensiyasida taqdim etilgan maqolada ChatGPT, DeyepL, Reverso va Lingueye kabi vositalar til o'qitish jarayonini butunlay o'zgartirishi ta'kidlangan. ChatGPT o'qituvchi sifatida darsda muhokama mavzulari, yozma mashqlar, sinonimlar va tarjimalarni tahlil qilib bera oladi. DeyepL esa matnni sifatli tarjima qilib, talabalar uchun grammatika tahlilini ham soddalashtiradi. Reverso Context so'zlarni haqiqiy kontekstda ko'rsatib, leksik boylikni oshirishga yordam beradi. Bu vositalar o'qituvchining o'rnini bosmaydi, balki unga yordamchi sifatida dars jarayonini yengillashtiradi.

Grammatika o'qitishda ham sun'iy intellekt samarali natijalar ko'rsatmoqda. Jurayeva va Esonaliyeva o'z tadqiqotlarida sun'iy intellekt vositalari talabalar yozgan matnlardagi grammatik va uslubiy xatolarni aniqlashi hamda ularni tuzatish bo'yicha tavsiyalar berishini ta'kidlaydilar. Bu xususiyat fransuz tilining murakkab grammatik tuzilmalarini o'zlashtirishda o'quvchilarga katta yordam beradi.

Virtual haqiqat va sun'iy intellektning kombinatsiyasi fransuz tilini o'rganishda yangi imkoniyatlar yaratmoqda. Virtual haqiqat muhitlari o'quvchilarga real hayotiy vaziyatlarni - restoran, poyezd bekati, mehmonxona - simulyatsiya qilish imkonini beradi. Sorbonne University Abu Dabi oltita virtual haqiqat ssenariysini ishlab chiqqan: novvoyxona, restoran, poyezd bekati, mehmonxona,

modalar butigi va interaktiv oshxona. Ushbu muhitlarda o'quvchilar fransuz tilida amaliy vazifalarni bajaradilar - ovqat buyurtma qilish, poyezd chiptasini sotib olish, mehmonxonaga joylashish va boshqalar. Bu yondashuv "harakatga yo'naltirilgan pedagogika" tamoyiliga asoslanadi va o'quvchini passiv qabul qiluvchi emas, balki faol ishtirokchi sifatida shakllantiradi.

Fransuz tilini o'rganishda sun'iy intellekt vositalarining tasnifi. Aqlli repetitorlik tizimlari o'quvchining bilim darajasini doimiy baholab, unga mos topshiriqlar va tushuntirishlar taqdim etadi. Fransuz tili uchun bu tizimlar grammatik qoidalarni o'rgatish, talaffuzni tuzatish va lug'at boyligini oshirishda qo'llaniladi. Konversatsion agentlar - ChatGPT, Gemini kabi generativ modellar - fransuz tilida suhbatlashish, yozish ko'nikmalarini rivojlantirish va grammatik xatolarni tuzatishda qo'llaniladi. Ushbu vositalar o'quvchilarga real vaqtda fikr-mulohaza beradi va ularning til ko'nikmalarini doimiy ravishda mashq qilish imkonini yaratadi.

Fransuz tilining talaffuz xususiyatlari - nazal unlilar, bog'lanishlar, ritm - uni o'rganuvchilar uchun qiyinlashtiradi. Sun'iy intellekt asosidagi talaffuzni baholash tizimlari o'quvchining talaffuzini tahlil qiladi, xatolarni aniqlaydi va tuzatish bo'yicha aniq tavsiyalar beradi. Onlayn ta'lim texnologiyalari bo'yicha tadqiqotda ta'kidlanishicha, sun'iy intellekt nutqni tanib olish texnologiyasi orqali o'quvchilarning talaffuzini tahlil qiladi va to'g'ri talaffuz qilishga yordam beradi. O'quvchilar o'z talaffuzlarini mashq qilishda va ularning xatolarini tuzatishda yordam oladilar. Bu jarayon fransuz tili fonetikasini mukammalroq o'rganishga zamin yaratadi.

O'zbekistonlik tadqiqotchi Hojiyeva Gulchehra [Wordwall.net](https://www.wordwall.net) onlayn platformasining fransuz tilida san'at leksikasini o'rganishdagi rolini tadqiq qilgan. Uning tadqiqoti shuni ko'rsatadiki, gamifikatsiya usulida fransuz tilini o'rganish talabalarining motivatsiyasini sezilarli darajada oshiradi va leksik boylikni rivojlantirishda samarali natijalar beradi. Bu natijalar raqamli platformalarning fransuz tili ta'limidagi amaliy ahamiyatini tasdiqlaydi.

Amaliy tadqiqotlar natijalari. Chatbotlar yordamida lug'at o'rganish bo'yicha tadqiqotlar ijobiy natijalarni ko'rsatmoqda. Jurayeva va Esonaliyeva o'z tadqiqotlarida sun'iy intellekt vositalarining leksik kompetensiyani rivojlantirishdagi o'rnini yoritib, raqamli platformalar yangi so'zlarni kontekst asosida o'rganish imkonini berishini ta'kidlaydilar. So'zlarning talaffuzi, sinonimlari va qo'llanish holatlari bir vaqtning o'zida o'zlashtiriladi.

Grammatik kompetensiya bo'yicha ham ijobiy natijalar qayd etilmoqda. Sun'iy intellekt vositalari talabalar yozgan matnlardagi grammatik va uslubiy xatolarni aniqlaydi hamda ularni tuzatish bo'yicha tavsiyalar beradi. Bu xususiyat fransuz tilining murakkab grammatik tuzilmalarini o'zlashtirishda o'quvchilarga katta yordam beradi. Shuningdek, sun'iy intellekt asosidagi platformalar o'quvchilarning mustaqil ishlash ko'nikmalarini rivojlantirish, individual ta'lim yo'nalishlarini yaratish va o'quv jarayonini samarali tashkil etishga xizmat qiladi.

Nutqiy ishonch va xavfsiz muhit bo'yicha tadqiqotlar shuni ko'rsatadiki, sun'iy intellekt bilan jihozlangan virtual muhitlar o'quvchilarda kamroq stress va ko'proq ishonch hissini uyg'otadi. O'quvchilar ushbu tajribani immersiv, interaktiv va realistik deb baholaganlar. Bu natijalar ijtimoiy konstruktivizmning proksimal rivojlanish zonasi tushunchasiga to'g'ridan-to'g'ri mos keladi: sun'iy intellekt o'quvchiga o'z imkoniyatlaridan biroz yuqoriroq darajada mashq qilish imkonini beradi, bunda xato qilish xavfi minimaldir.

Yozish ko'nikmalarini rivojlantirish bo'yicha tadqiqotlarda talabalar sun'iy intellekt yordamida yozma ishlarni bajarishda vaqt tejamkorligi, g'oyalarni yaxshiroq tashkil qilish va matnlar tuzilmasini samarali shakllantirishni qayd etganlar. Biroq talabalar sun'iy intellektning ba'zi ma'lumotlar ishonchsizligi va qaramlik xavfi kabi cheklovlarini ham tan olganlar.

Muammolar va cheklovlar. Algoritmik xolislik va madaniy stereotiplar masalasi muhim muammolardan biridir. Sun'iy intellekt tizimlari asosan g'arb manbalariga asoslangan ma'lumotlar bilan o'qitilganligi sababli, ular madaniy stereotiplarni takrorlash va kuchaytirish tendensiyasiga ega. Fransuz tili o'rganish jarayonida bu lingvistik bir xillikka olib kelishi mumkin - algoritm standart fransuz tilini boshqa variantlarga nisbatan ustun qo'yadi. Bu ayniqsa frankofon madaniyatining xilma-xilligini hisobga olgan holda muhim muammodir.

O'qituvchi rolining o'zgarishi ham jiddiy e'tibor talab qiladi. Tadqiqotlar shuni ko'rsatadiki, sun'iy intellekt o'qituvchini almashtirmasligi, balki uning imkoniyatlarini kengaytirishi kerak.

O'qituvchi endi bilim uzatuvchi emas, balki o'quv jarayonining dizayneri, fasilitatori va etik vositachi sifatida namoyon bo'ladi. O'zbekistonlik tadqiqotchilar Achilova Dilnoza va Bakkush Rashid o'z maqolalarida sun'iy intellekt texnologiyalarining oliy ta'lim tizimidagi o'rni va ahamiyatini tahlil qilib, ta'lim jarayonini modernizatsiya qilish, ta'lim sifatini oshirish, individual o'qitishni ta'minlash hamda ta'lim boshqaruvini samarali tashkil etishda sun'iy intellekt imkoniyatlarini yoritadilar.

Raqamli tengsizlik masalasi ham dolzarbdir. Sun'iy intellekt vositalaridan foydalanish uchun zarur bo'lgan texnik infratuzilma - internet, qurilmalar, dasturiy ta'minot - barcha o'quvchilarda teng mavjud emas. Bu ayniqsa qishloq hududlarida va iqtisodiy jihatdan kam ta'minlangan oilalarda ta'lim tengsizligini kuchaytirishi mumkin. O'zbekiston oliy o'quv yurtlarida fransuz tilini o'qitishning innovatsion usullari bo'yicha tadqiqotda ta'kidlanishicha, raqamlashtirish jarayoni bilan bog'liq ayrim muammolar mavjud: texnik infratuzilmaning yetarli darajada rivojlanmaganligi, internet tezligining pastligi hamda ayrim o'qituvchilarning raqamli kompetensiyalarining yetarli emasligi ta'lim samaradorligiga salbiy ta'sir ko'rsatishi mumkin.

Ma'lumotlar xavfsizligi va maxfiylik masalasi ham muhimdir. Sun'iy intellekt tizimlari o'quvchilarning shaxsiy ma'lumotlarini, o'quv natijalarini va xatti-harakatlarini to'playdi. Bu ma'lumotlarning maxfiyligi va xavfsizligini ta'minlash uchun qat'iy etik normalar zarur. O'quvchilarning onlayn faoliyati, yozishmalari va natijalari himoyalangan bo'lishi kerak.

O'zbekiston kontekstida qo'llash istiqbollari. O'zbekistonda fransuz tili ta'limida raqamli texnologiyalar va sun'iy intellektdan foydalanish imkoniyatlari kengaymoqda. "Raqamli O'zbekiston - 2030" strategiyasi doirasida ta'limni raqamlashtirish, zamonaviy texnologiyalarni joriy etish ustuvor yo'nalishlardan biri etib belgilangan. 2026-yil 19-yanvarda O'zbekiston davlat jahon tillari universiteti huzuridagi Pedagog kadrlarni qayta tayyorlash va malakasini oshirish tarmoq markazida "Fransuz tili o'qitishning zamonaviy metodikasi va pedagogik texnologiyalari" nomli qisqa muddatli kurs muvaffaqiyatli yakunlandi. Mazkur kurs zamonaviy lingvodidaktik yondashuvlar, innovatsion pedagogik texnologiyalar hamda fransuz tilini o'qitishda samaradorlikni oshirishga qaratilgan ilg'or metodikalarni amaliyotga joriy etish masalalariga bag'ishlandi. Kurs jarayonida tinglovchilar interfaol ta'lim metodlari, raqamli texnologiyalar asosida darslarni loyihalash va kompetensiyaviy yondashuv asosida baholash mexanizmlari bo'yicha nazariy va amaliy bilimlarini mustahkamladilar.

O'zbekistonlik tadqiqotchi Muzaffarova Nodira fransuz tilini o'qitishda QR-kod texnologiyalarining samaradorligini tadqiq qilgan. Uning tadqiqotida QR-kodlar orqali audio va video materiallar, interaktiv mashqlar, elektron lug'atlar va autentik kontentga tezkor kirish ta'minlanishi, bu esa talabalarga tilni tabiiy muhitga yaqin holda o'zlashtirish imkonini berishi qayd etilgan.

Fransiyaning O'zbekistondagi elchisi janob Ualid Fuk fransuz tili fani pedagoglari bilan uchrashuvda O'zbekistonda fransuz tilini o'qitish samaradorligini oshirish, yangi metodlarni qo'llash, tilni o'qitishdagi muammo va ularning yechimlari to'g'risida so'z bordi. A.Avloniy nomidagi institut hamda Fransiyaning O'zbekistondagi elchixonasi hamkorligida fransiyalik ta'lim eksperti Noémie Dedieu ishtirokida umumta'lim maktablarida fransuz tilini o'qitish metodlari o'rganildi. Noémie Dedieu maktabda fransuz tili o'qituvchilari va o'quvchilar bilan zamonaviy pedagogik metodlar, innovatsion texnologiyalardan samarali foydalanish hamda xorijiy tillarni o'rganishning dolzarbligi kabi masalalar bo'yicha suhbatlashdi. Shuningdek, o'qituvchilarga darsliklardan foydalanishda uchraydigan muammolarni bartaraf etish, ularni o'quvchilarning ehtiyojlariga moslashtirish, elektron darsliklar va interaktiv topshiriqlardan samarali foydalanish bo'yicha aniq amaliy tavsiyalar berildi.

O'zbekistonlik tadqiqotchi Lingoxon mobil ilovasini ishlab chiqqan bo'lib, u fransuz tilini o'rganish uchun sun'iy intellekt suhbat mashqlari, grammatika tushuntirish, yozuv tekshiruv va shaxsiy dars kabi imkoniyatlarni taqdim etadi. Ilova A1 darajadan boshlab bosqichma-bosqich darslar, interaktiv hikoyalar orqali til o'rganish va ilmiy usulga asoslangan takrorlash tizimini o'z ichiga oladi. Bu mahalliy ishlanmalar O'zbekistonda fransuz tili ta'limida raqamli texnologiyalardan foydalanishning amaliy natijalaridan biridir.

XULOSA.

Fransuz tilini o'rganishda raqamli texnologiyalar va sun'iy intellektning imkoniyatlari keng va ko'p qirrali. Tadqiqotlar shuni ko'rsatadiki, sun'iy intellekt asosidagi chatbotlar lug'at boyligini oshirishda, generativ modellar grammatik ko'nikmalarni rivojlantirishda, virtual haqiqat muhitlari nutqiy ishonchni shakllantirishda, multimodal yondashuvlar esa ijodiy va interaktiv o'rganish tajribasini yaratishda samarali hisoblanadi. O'zbekistonlik tadqiqotchilar Jurayeva Shalolaxon, Esonaliyeva Sug'diyona, Hojiyeva Gulchehra, Achilova Dilnoza, Muzaffarova Nodira va boshqalarning tadqiqotlari fransuz tili ta'limida sun'iy intellekt va raqamli texnologiyalardan foydalanishning nazariy va amaliy jihatlarini yoritib bergan.

Shu bilan birga, sun'iy intellektning ta'limga integratsiyasi algoritmik xolislik, ma'lumotlar xavfsizligi, raqamli tengsizlik va o'qituvchi rolining o'zgarishi kabi jiddiy muammolarni keltirib chiqaradi. Ushbu muammolarni hal qilish uchun texnologik innovatsiyalar pedagogik tamoyillar, etik normalar va insonparvarlik qadriyatlari bilan uyg'unlashtirilishi zarur. Fransuz tili ta'limida sun'iy intellektidan samarali foydalanish - bu texnologiyani maqsad emas, balki vosita sifatida qabul qilish, o'qituvchini almashtirmaslik, balki uning imkoniyatlarini kengaytirish, o'quvchini passiv qabul qiluvchi emas, balki faol va mas'uliyatli subyekt sifatida shakllantirish demakdir.

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THREE-TIERED QUALITY ASSURANCE IN MODERN FOREIGN LANGUAGE EDUCATION: AI TOOLS, LEARNER PSYCHOLOGY, AND ASSESSMENT OF THE LEARNING ENVIRONMENT (CASE OF ENGLISH AND FRENCH)

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Annotatsiya. Chet tili ta'limi ko'pincha faqat metodika masalasi sifatida qaraladi, biroq eng yaxshi metodik yangilik ham ishonchsiz texnologiya, o'quvchining ichki qarshiligi yoki noqulay institutsional muhit bilan to'qnashganda ko'pincha o'z kuchini yo'qotadi. Mazkur maqolada bir-

biriga bevosita bog'liq bo'lmagan to'rt sohadan olingan so'nggi tadqiqotlar sun'iy intellekt yordamida bemorlarni o'qitish, ikkinchi tilni o'zlashtirish psixologiyasi, maktab psixometriyasi va ingliz tili o'qitish metodikasi birlashtirilib, ingliz va fransuz tillarini chet tili sifatida o'qitish sifati uch o'zaro bog'liq bosqichga bog'liq ekanligi ko'rsatiladi: o'quv materiallarida qo'llaniladigan sun'iy intellekt vositalarining ishonchliligi, o'quvchining notanish til variantlariga nisbatan psixologik qarshiligi va ta'lim jarayoni kechayotgan institutsional muhit. Sun'iy intellektning ikki tilli tibbiy muloqotdagi natijalari, o'quvchilarning yangi til variantlariga nisbatan "moslashuvchan immuniteti" tushunchasi, tasdiqlangan fransuz maktab klimati so'rovnomasi va ingliz tili o'qitishning motivatsion metodlari bo'yicha ilgari e'lon qilingan natijalar birlashtirilib, texnologiya, o'quvchi psixologiyasi va institutsional baholashni bog'lovchi uch bosqichli model taklif etiladi. Ko'rsatilishicha, uch bosqichga bir vaqtning o'zida e'tibor berilmasa, pedagogik yangiliklarning o'zi barqaror natija bermaydi; maqola so'ngida O'zbekiston kabi ko'p tilli sharoitlarda o'qituvchilarni tayyorlash va o'quv dasturini ishlab chiqish uchun amaliy xulosalar taklif etiladi.

Kalit so'zlar: Ingliz tili 1, fransuz tili 2, chet tili ta'limi 3, til variantlari 4, o'quvchi psixologiyasi 5, ta'lim muhiti 6, sun'iy intellekt 7.

Аннотация. Обучение иностранным языкам нередко рассматривается исключительно как вопрос методики, однако даже самая удачная методическая новация редко выдерживает столкновение с ненадёжной технологией, психологическим сопротивлением учащихся или неблагоприятным институциональным климатом. В статье объединены четыре недавних исследования из формально не связанных областей: обучение пациентов с помощью искусственного интеллекта, усвоение второго языка, школьная психометрия и методика преподавания английского языка. Чтобы показать, что качество обучения английскому и французскому языкам как иностранным зависит от трёх взаимосвязанных уровней: надёжности ИИ-инструментов, используемых при подготовке учебных материалов, психологического сопротивления учащихся незнакомым вариантам языка и институционального климата, в котором происходит обучение. Данные о работе Искусственный интеллект в двуязычном медицинском консультировании, концепция «адаптивного иммунитета» учащихся к новым языковым вариантам, валидированный французский опросник школьного климата и устоявшиеся результаты по мотивирующим методам преподавания английского языка обобщены в трёхуровневую модель, связывающую технологию, психологию учащихся и институциональную оценку. Показано, что без одновременного внимания ко всем трём уровням педагогические новации сами по себе не обеспечивают устойчивого улучшения, и намечены практические выводы для подготовки преподавателей и разработки учебных программ в многоязычных условиях, включая Узбекистан.

Ключевые слова: Английский язык 1, французский язык 2, преподавание иностранных языков 3, языковые варианты 4, психология обучающихся 5, образовательная среда 6, искусственный интеллект 7.

Abstract. Foreign language education is often treated as a matter of methodology alone, yet classroom innovation rarely survives contact with unreliable technology, resistant learners, or a poor institutional climate. This paper brings together four recent studies from otherwise unconnected fields: AI-assisted patient education, second language acquisition, school psychometrics, and English language teaching to argue that the quality of English and French foreign language instruction depends on three interacting layers: the reliability of AI tools used in course materials, learners' psychological resistance to unfamiliar language varieties, and the institutional climate in which teaching takes place. Evidence on AI's performance in bilingual health communication, the concept of learners' "adaptive immunity" toward new varieties, a validated French school-climate questionnaire, and established findings on motivating English-teaching methods are synthesized into a three-tier framework linking technology, learner psychology, and institutional assessment. The paper suggests that without attention to all three layers at once, pedagogical innovation alone cannot secure lasting improvement, and it outlines practical implications for teacher training and curriculum design in multilingual settings such as Uzbekistan.

Keywords: *English 1, French 2, foreign language education 3, language variants 4, learner psychology 5, educational environment 6, artificial intelligence 7.*

INTRODUCTION

Foreign language teaching has changed quickly over the past decade, pushed along by digital tools and shifting learner expectations. Djumabaeva (2023) points out that memorizing vocabulary and grammar rules by rote no longer keeps students motivated, and that fresh, technology-rich materials tend to hold their attention far better than a traditional lecture format. That observation is not new by itself, but it is usually treated as a call for better methodology livelier tasks, more media, a friendlier classroom atmosphere and little else. And what gets less attention is that methodological innovation sits inside two other layers that can quietly undo it. The first is technological: language classrooms increasingly rely on AI-generated content, and if that content is unreliable, no amount of creative lesson planning fully compensates for it. The second is psychological: learners do not simply absorb whatever variety of the target language they are given a number of them actively resist forms that feel unfamiliar or threaten their sense of linguistic identity. A third layer, rarely discussed in language-teaching literature specifically, is institutional: the broader climate of a school or university determines how much of any innovation actually reaches the classroom in the first place.

This paper draws on four recent studies from otherwise separate fields AI-assisted patient education, second language acquisition, educational psychometrics, and English language teaching to argue that these three layers should be considered together rather than one at a time. The next section explains how the sources were selected and compared; the following section works through what each contributes and how they connect; the paper closes with a three-tier framework and its practical implications for bilingual education in settings such as Uzbekistan.

MATERIALS AND METHODS

The analysis rests on four peer-reviewed studies published in 2025–2026, chosen because each addresses a distinct dimension of language-related learning while sharing an English–French bilingual focus: a clinical-communication study evaluating ChatGPT 3.5's accuracy in English and French patient education (Magri et al., 2026); a second-language-acquisition study introducing the concept of learners' "adaptive immunity" to unfamiliar language varieties (Shan & Xu, 2026); a psychometric validation of a French school-climate questionnaire (Biyouda et al., 2026); and an applied-methodology paper on motivating English-teaching techniques (Djumabaeva, 2023). Three further sources a review of ChatGPT in foreign language pedagogy (Fang & Han, 2025), a monograph on accent and identity among French and German learners of English (Rottschäfer, 2018), and a study of Japanese EFL learners' attitudes toward accented listening materials (Suzuki, 2025) were added to place the four core sources within the wider literature.

Rather than a systematic review, the paper relies on a thematic, comparative reading: each source was examined for what it implies about technological reliability, learner psychology, or institutional climate, and the resulting themes were checked against one another for overlap and tension. This qualitative synthesis forms the basis of the three-tier framework presented in the following section.

RESULTS AND DISCUSSION

Magri et al. (2026) tested ChatGPT 3.5 on fourteen BPPV-related questions drawn from American Academy of Otolaryngology guidelines, submitting each item twice, in English and in French, in separate sessions. The model produced guideline-consistent information in both languages, but its answers sometimes left out safety-relevant details and were pitched at a reading level many patients would find difficult enough that the authors recommend clinical supervision rather than unsupervised use.

A similar caution applies, almost without modification, to language classrooms. Fang and Han (2025), reviewing 71 studies on ChatGPT in foreign language teaching and learning, describe the field as still in its early stages: the tool's conversational, responsive quality seems to help learners engage with writing tasks, yet the same review flags a recurring risk of biased or inaccurate output.

Read together, the two studies make a simple point a bilingual AI system that sounds fluent and well-informed is not automatically one that is safe to use without a human checking its output, whether the subject is vertigo symptoms or verb conjugations.

Shan and Xu (2026) describe what they term adaptive immunity: foreign-language learners limiting how much they engage with unfamiliar local varieties of English or French in order to protect the linguistic capital and sense of identity they have already built. It is presented as a deliberate, cost-conscious stance rather than plain unfamiliarity.

Rottschäfer's (2018) earlier study of German and French university students using English as a lingua franca found something similar from a different angle: through phonetic analysis and interview data, she showed that some students consciously kept their first-language-influenced accent rather than adopting more “native-like” pronunciation, treating the accent as a marker of identity rather than a flaw to correct. Suzuki (2025) adds a classroom-facing piece: Japanese EFL learners' attitudes toward hearing unfamiliar English accents in textbooks and listening tests were shaped less by comprehension difficulty than by concerns about fairness and anxiety over being tested on material they had never been taught.

Taken together, these three sources suggest that resistance to a new variety is not primarily a knowledge gap. It looks closer to a protective response, and treating it as simple lack of exposure simply playing learners more accents risk the same failure Fang and Han describe for AI tools: a resource that is technically sound but poorly matched to the learner in front of it.

Biyouda, Laaziri, and Touhami (2026) validated a French-language adaptation of the school-level Environment Questionnaire, arriving at a shorter, fifteen-item, five-dimension instrument (QEES) for measuring how teachers perceive their school's climate in francophone settings. The instrument itself is unremarkable as psychometrics go, but its existence points to something the technological and psychological findings above take for granted that classroom-level change happens inside an institution whose culture can either support it or quietly absorb it.

Djumabaeva (2023) makes essentially the same point from the practitioner's side, describing web-based tools, blogs, and task-based methods that depend on teachers having the time, training, and institutional backing to use them well. A validated climate questionnaire such as QEES gives a school a way to check whether that backing genuinely exists, rather than assuming it does.

None of these three layers works well on its own. An AI tool without human oversight can introduce errors into teaching materials regardless of how motivated the students are; a curriculum that ignores learners' identity-related resistance to new varieties can undermine even accurate, well-supervised content; and a school with a poor working climate can leave both good technology and good pedagogy under-used. Reading the four core sources against this three-tier structure technological reliability, learner psychology, institutional climate gives language teachers and curriculum designers a way to ask not only “is this method modern?” but “is it being delivered through a chain that can actually support it?” For a bilingual English–French programme, this might mean pairing AI-assisted material with a teacher review step, introducing unfamiliar accents or registers gradually and without implying that a learner's own variety is deficient, and using a validated instrument QEES or a locally adapted equivalent to monitor whether the surrounding institution is helping or hindering.

CONCLUSION

The four studies reviewed here come from different fields and were not written with one another in mind, yet they converge on a single point: improving foreign language education is not only a matter of better lesson design. It also depends on how carefully AI-generated materials are checked, how respectfully new language varieties are introduced to learners who may resist them for identity reasons, and how well the institution surrounding the classroom is functioning. A three-tier framework technological, psychological, institutional offers one way of keeping all three in view at once, and testing this framework empirically, particularly in multilingual settings such as Uzbekistan, would be a natural next step.

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THE IMPACT OF ARTIFICIAL INTELLIGENCE ON ENGLISH LANGUAGE LEARNING: OPPORTUNITIES, CHALLENGES, AND FUTURE PERSPECTIVES

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Abstract. This article examines the impact of artificial intelligence (AI) on the process of learning English as a foreign language, with a particular focus on the opportunities it creates, the challenges it raises, and its likely future development. The relevance of the study is determined by the rapid and widespread integration of AI-based tools — intelligent tutoring systems, conversational chatbots, automated writing assistants, and adaptive learning platforms — into everyday language-learning practice, which requires a systematic understanding of both their pedagogical potential and their limitations. The purpose of the research is to analyze, on the basis of the existing scientific literature and practical experience, the main directions in which AI is transforming English language teaching and learning, and to identify the conditions under which its use can be made genuinely effective. The article relies on a descriptive-analytical method, involving the review and synthesis of scientific publications, and a comparative analysis of the functional capabilities of several widely used AI-based language-learning tools. As a result, the study identifies key opportunities offered by AI, including personalized learning pathways, instant corrective feedback, and increased opportunities for speaking practice; outlines the principal challenges, such as concerns about the reliability of AI-generated content, risks to academic integrity, unequal access to technology, and the potential weakening of learner autonomy and human interaction; and proposes future perspectives centered on a balanced, teacher-guided integration of AI into the language classroom. The findings may be useful for language teachers, methodologists, and curriculum developers seeking to incorporate AI tools into English language teaching in a pedagogically sound manner.

Keywords: artificial intelligence, English language learning, opportunities, challenges, personalized learning, AI literacy, future perspectives.

Аннотация. В статье рассматривается влияние искусственного интеллекта (ИИ) на процесс изучения английского языка как иностранного, с особым вниманием к возможностям,

которые он создаёт, вызовам, которые он порождает, и перспективам его дальнейшего развития. Актуальность исследования обусловлена быстрым и повсеместным внедрением инструментов на основе ИИ — интеллектуальных обучающих систем, разговорных чат-ботов, автоматизированных помощников по письму и адаптивных обучающих платформ — в повседневную практику изучения языка, что требует системного осмысления как их педагогического потенциала, так и ограничений. Цель исследования — на основе анализа научной литературы и практического опыта выявить основные направления, в которых ИИ трансформирует преподавание и изучение английского языка, и определить условия его действительно эффективного использования. Работа опирается на описательно-аналитический метод, включающий анализ и обобщение научных публикаций, а также сравнительный анализ функциональных возможностей ряда широко используемых инструментов изучения языка на основе ИИ. В результате выявлены ключевые возможности, предоставляемые ИИ, включая персонализированные образовательные траектории, мгновенную корректирующую обратную связь и расширение возможностей для речевой практики; охарактеризованы основные вызовы, такие как обеспокоенность достоверностью контента, генерируемого ИИ, риски для академической честности, неравный доступ к технологиям и возможное ослабление самостоятельности обучающихся и живого человеческого взаимодействия; предложены перспективы дальнейшего развития, основанные на сбалансированной, направляемой преподавателем интеграции ИИ в языковой класс. Полученные результаты могут быть полезны преподавателям иностранного языка, методистам и разработчикам учебных программ, стремящимся педагогически обоснованно внедрять инструменты ИИ в преподавание английского языка.

Ключевые слова: искусственный интеллект, изучение английского языка, возможности, вызовы, персонализированное обучение, ИИ-грамотность, перспективы развития.

Annotatsiya. Ushbu maqolada sun'iy intellekt (SI)ning ingliz tilini xorijiy til sifatida o'rganish jarayoniga ta'siri, xususan u yaratayotgan imkoniyatlar, keltirib chiqarayotgan muammolar va uning kelajakdagi rivojlanish istiqbollari tahlil qilinadi. Tadqiqotning dolzarbligi SI asosidagi vositalar — aqlli o'qitish tizimlari, suhbat chatbotlari, avtomatlashtirilgan yozuv yordamchilari va moslashuvchan o'quv platformalari — kundalik til o'rganish amaliyotiga tez va keng ko'lamda joriy etilayotgani, bu esa ularning pedagogik salohiyati va cheklovlarini tizimli tushunishni talab qilishi bilan belgilanadi. Tadqiqotning maqsadi mavjud ilmiy adabiyotlar va amaliy tajriba asosida SI ingliz tilini o'qitish va o'rganishni qaysi asosiy yo'nalishlarda o'zgartirayotganini tahlil qilish va undan haqiqatan samarali foydalanish shartlarini aniqlashdan iborat. Maqola ilmiy nashrlarni ko'rib chiqish va umumlashtirishni o'z ichiga olgan tavsifiy-tahliliy metodga, shuningdek keng qo'llaniladigan bir qator SI asosidagi til o'rganish vositalarining funksional imkoniyatlarini qiyosiy tahlil qilishga asoslanadi. Natijada SI taqdim etadigan asosiy imkoniyatlar — individuallashtirilgan o'quv yo'llari, tezkor tuzatuvchi qayta aloqa va nutq amaliyoti uchun kengaygan imkoniyatlar — aniqlandi; SI tomonidan yaratilgan kontentning ishonchliligi, akademik halollikka tahdidlar, texnologiyaga notekis kirish imkoniyati hamda o'quvchilarning mustaqilligi va jonli muloqotining zaiflashishi kabi asosiy muammolar tavsiflandi; SI ni til darsiga o'qituvchi rahbarligida muvozanatli tarzda integratsiya qilishga asoslangan kelajak istiqbollari taklif etildi. Olingan natijalar chet tili o'qituvchilari, metodistlar va SI vositalarini ingliz tilini o'qitishga pedagogik jihatdan asoslangan tarzda joriy etishga intilayotgan o'quv dasturlari ishlab chiquvchilari uchun foydali bo'lishi mumkin.

Kalit so'zlar: sun'iy intellekt, ingliz tilini o'rganish, imkoniyatlar, muammolar, individuallashtirilgan ta'lim, SI savodxonligi, kelajak istiqbollari.

INTRODUCTION

Over the past several years, artificial intelligence has moved from the periphery of educational technology to the very center of discussions about the future of language teaching. Tools such as intelligent tutoring systems, AI-powered conversation partners, automated essay-scoring and

feedback systems, speech-recognition applications, and generative language models have become increasingly accessible not only to institutions but to individual learners of English worldwide. This shift has been particularly pronounced in English language teaching (ELT), given the global demand for English proficiency and the scale of the market for digital language-learning solutions.

The growing presence of AI in the language classroom raises a set of interrelated questions that are not yet fully resolved in pedagogical practice. On the one hand, AI-based tools promise a level of personalization, immediacy of feedback, and availability of speaking practice that traditional classroom instruction, constrained by time and class size, has historically struggled to provide. On the other hand, their uncritical or excessive use raises legitimate concerns regarding the accuracy and pedagogical soundness of AI-generated content, the risk of undermining academic integrity, the unequal distribution of access to technology among learners of different socio-economic backgrounds, and the possible erosion of learner autonomy and authentic human interaction, which remain central to genuine language acquisition.

The purpose of this article is to analyze systematically the opportunities that artificial intelligence creates for English language learning, the principal challenges associated with its use, and the perspectives for its further, pedagogically sound development, with the aim of offering language teachers and curriculum developers a balanced, evidence-informed basis for decision-making regarding the integration of AI into their teaching practice.

MATERIALS AND METHODS

The methodological basis of the present study is formed by a descriptive-analytical approach, which allows for a systematic review, comparison, and synthesis of existing theoretical and practical sources devoted to the use of artificial intelligence in foreign language education. The research draws on scientific-pedagogical literature on computer-assisted language learning (CALL) and, more recently, AI-assisted language learning (AIAL), as well as on publicly available documentation and user experience associated with widely used AI-based language-learning tools, including intelligent chatbots, automated writing-feedback systems, adaptive vocabulary and grammar platforms, and speech-recognition applications for pronunciation practice.

The following methods were applied in the course of the research: theoretical analysis and generalization of scientific sources concerning the pedagogical use of AI in language education; comparative analysis of the functional characteristics, strengths, and limitations of several categories of AI-based tools currently used in English language learning; and systematization of the identified opportunities and challenges into a coherent conceptual framework suitable for practical application by language teachers.

The empirical testing of the effectiveness of specific AI-integration strategies in a classroom setting constitutes a subject for further research and lies beyond the scope of the present theoretical-analytical study.

RESULTS AND DISCUSSION

The analysis undertaken in this study allows for the identification of several key opportunities that artificial intelligence offers to learners and teachers of English. First, AI-based platforms make possible a degree of personalization that is difficult to achieve in a traditional classroom: adaptive systems can adjust the difficulty of exercises, the pace of instruction, and the choice of vocabulary or grammar topics according to the individual learner's performance and needs. Second, AI-powered writing assistants and grammar-checking tools provide learners with immediate, detailed corrective feedback on their written production, allowing them to notice and correct errors far more frequently than would be possible through periodic teacher feedback alone. Third, conversational AI agents and speech-recognition applications substantially expand learners' opportunities for speaking practice, providing a low-anxiety environment in which learners — particularly those who are shy or have limited access to native or proficient speakers — can practice pronunciation, fluency, and conversational skills at any time and at their own pace.

At the same time, the study identifies a number of significant challenges that must be taken into account. A primary concern relates to the accuracy and pedagogical appropriateness of AI-

generated content: generative language models can produce grammatically fluent but factually or pedagogically inaccurate explanations, and learners without sufficient critical awareness may not be able to distinguish reliable guidance from erroneous output. A second challenge concerns academic integrity, as the ease with which AI tools can generate essays, translations, or homework answers creates a risk of learners submitting AI-produced work as their own, which undermines the assessment of genuine language competence. A third challenge is the unequal access to reliable internet connectivity, devices, and paid AI services among learners from different socio-economic and geographic backgrounds, which risks widening rather than narrowing existing educational inequalities. Finally, an over-reliance on AI tools may, if not carefully managed by the teacher, reduce opportunities for authentic human interaction and collaborative negotiation of meaning, both of which remain central mechanisms of second language acquisition according to established theories of communicative competence.

With respect to future perspectives, the analysis suggests that the most promising direction is not the replacement of the teacher by AI, but the development of a balanced, teacher-guided model of integration in which AI tools serve as a complement to, rather than a substitute for, human instruction. In such a model, the teacher's role evolves from being the primary source of corrective feedback toward that of a facilitator who curates appropriate AI tools, designs tasks that combine AI-assisted practice with authentic communicative interaction, and explicitly teaches learners the critical and ethical skills necessary to use AI responsibly — a competence increasingly referred to in the literature as "AI literacy." Equally important is the systematic training of language teachers themselves in the pedagogically sound use of AI, since the effectiveness of these tools in the classroom depends heavily on the teacher's ability to select, adapt, and contextualize them appropriately.

CONCLUSION

The analysis presented in this article demonstrates that artificial intelligence has a substantial and multifaceted impact on English language learning, offering genuine opportunities for personalization, immediate feedback, and expanded speaking practice, while simultaneously raising legitimate concerns regarding content reliability, academic integrity, equity of access, and the preservation of authentic human interaction in the language-acquisition process. These findings suggest that the future of English language teaching does not lie in an uncritical embrace of AI technology, nor in its rejection, but in a carefully designed, teacher-guided integration that combines the strengths of AI-based tools with the irreplaceable pedagogical and communicative role of the human teacher. Further empirical research is needed to test specific models of AI integration in real classroom settings and to develop practical guidelines and AI-literacy training programs for both language teachers and learners.

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THE ROLE OF ARTIFICIAL INTELLIGENCE IN THE EVOLUTION OF MODERN ENGLISH

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Abstract. *This article investigates the role of artificial intelligence (AI) in the ongoing evolution of the English language, focusing on how AI-driven technologies are reshaping vocabulary, style, and everyday linguistic practice at a scale and speed previously unseen. The relevance of the study stems from the fact that AI is no longer merely a tool used within English, but has become an active agent of linguistic change, introducing new lexical items, altering patterns of written expression through predictive and generative writing systems, and influencing the global spread and standardization of English through machine translation. The purpose of the research is to identify and systematize the principal mechanisms through which artificial intelligence is contributing to the evolution of Modern English and to assess the linguistic and sociolinguistic implications of this process. The article is based on a descriptive-analytical method involving the review of contemporary linguistic and sociolinguistic literature on language change and technology-mediated communication, complemented by an analysis of illustrative lexical and stylistic phenomena associated with the widespread use of AI tools. As a result, the study identifies three principal mechanisms of AI-driven linguistic change: lexical innovation, arising from AI-related terminology entering general usage; stylistic convergence, resulting from the widespread use of predictive-text and generative-writing assistants that tend to favor certain grammatical and stylistic patterns; and accelerated global standardization, driven by AI-powered machine translation and content generation. The article also discusses the challenges this process raises, including the risk of stylistic homogenization, the blurring of authorship, and the need for updated approaches within English linguistics and applied linguistics to describe and study this new stage of language evolution.*

Keywords: artificial intelligence, Modern English, language change, lexical innovation, stylistic convergence, global standardization, sociolinguistics.

Аннотация. *В статье исследуется роль искусственного интеллекта (ИИ) в продолжающейся эволюции английского языка, с акцентом на то, как технологии на основе ИИ преобразуют лексику, стиль и повседневную языковую практику с невиданными ранее масштабом и скоростью. Актуальность исследования обусловлена тем, что ИИ перестал быть лишь инструментом, используемым в рамках английского языка, и стал активным агентом языковых изменений, вводящим новые лексические единицы, изменяющим модели письменного выражения посредством систем предиктивного и генеративного письма и влияющим на глобальное распространение и стандартизацию английского языка через машинный перевод. Цель исследования — выявить и систематизировать основные механизмы, посредством которых искусственный интеллект способствует эволюции современного английского языка, и оценить лингвистические и социолингвистические последствия этого процесса. Статья основана на описательно-аналитическом методе, включающем анализ современной лингвистической и социолингвистической литературы о языковых изменениях и коммуникации, опосредованной технологиями, дополненным анализом*

иллюстративных лексических и стилистических явлений, связанных с широким использованием инструментов ИИ. В результате выявлены три основных механизма языковых изменений, обусловленных ИИ: лексическая инновация, возникающая в результате вхождения терминологии, связанной с ИИ, в общее употребление; стилистическая конвергенция, вызванная широким использованием предиктивного текста и генеративных помощников по письму, которые склонны отдавать предпочтение определённым грамматическим и стилистическим моделям; и ускоренная глобальная стандартизация, обусловленная машинным переводом и генерацией контента на основе ИИ. В статье также обсуждаются вызовы, порождаемые этим процессом, включая риск стилистической гомогенизации, размывание авторства и необходимость обновления подходов в англистике и прикладной лингвистике для описания и изучения нового этапа языковой эволюции.

Ключевые слова: искусственный интеллект, современный английский язык, языковые изменения, лексическая инновация, стилистическая конвергенция, глобальная стандартизация, социолингвистика.

Annotatsiya. Ushbu maqolada sun'iy intellekt (SI)ning ingliz tilining davom etayotgan evolyutsiyasidagi rolini, xususan SI asosidagi texnologiyalar so'z boyligini, uslubni va kundalik til amaliyotini ilgari ko'rilmagan miqyos va tezlikda qanday o'zgartirayotganini o'rganadi. Tadqiqotning dolzarbligi shundan iboratki, SI endi ingliz tili doirasida foydalaniladigan oddiy vosita bo'lmay, balki yangi leksik birliklarni kiritayotgan, bashoratli va generativ yozuv tizimlari orqali yozma ifoda modellarini o'zgartirayotgan hamda mashina tarjimasi orqali ingliz tilining global tarqalishi va standartlashuviga ta'sir ko'rsatayotgan faol til o'zgarishi omiliga aylandi. Tadqiqotning maqsadi sun'iy intellekt zamonaviy ingliz tilining evolyutsiyasiga hissa qo'shayotgan asosiy mexanizmlarni aniqlash va tizimlashtirish hamda ushbu jarayonning lingvistik va sotsiolingvistik oqibatlarini baholashdan iborat. Maqola til o'zgarishi va texnologiya orqali vositachilik qilingan muloqot bo'yicha zamonaviy lingvistik va sotsiolingvistik adabiyotlarni ko'rib chiqishni o'z ichiga olgan tavsifiy-tahliliy metodga, shuningdek SI vositalaridan keng foydalanish bilan bog'liq illyustrativ leksik va uslubiy hodisalarni tahlil qilishga asoslanadi. Natijada SI keltirib chiqarayotgan til o'zgarishining uchta asosiy mexanizmi aniqlandi: SI bilan bog'liq terminologiyani umumiy foydalanishga kirib kelishi natijasida yuzaga keladigan leksik innovatsiya; bashoratli matn va generativ yozuv yordamchilaridan keng foydalanish natijasida ma'lum grammatik va uslubiy modellarga moyillik tug'diruvchi uslubiy konvergensiya; va SI asosidagi mashina tarjimasi hamda kontent yaratish tomonidan boshqariladigan tezlashtirilgan global standartlashuv. Maqolada, shuningdek, ushbu jarayon keltirib chiqaradigan muammolar, jumladan uslubiy bir xillashuv xavfi, mualliflikning noaniqlashuvi hamda ingliz tili lingvistikasi va amaliy lingvistikada til evolyutsiyasining ushbu yangi bosqichini tavsiflash va o'rganish uchun yondashuvlarni yangilash zarurati muhokama qilinadi.

Kalit so'zlar: sun'iy intellekt, zamonaviy ingliz tili, til o'zgarishi, leksik innovatsiya, uslubiy konvergensiya, global standartlashuv, sotsiolingvistika.

INTRODUCTION

The English language has always evolved under the influence of the technologies used to produce, transmit, and consume it — from the standardizing effect of the printing press to the informalizing influence of text messaging and social media. The emergence of artificial intelligence as a pervasive presence in written and spoken communication represents a new and qualitatively distinct stage in this ongoing process. Unlike earlier communication technologies, which primarily changed the channels through which English was used, AI-based systems actively generate, predict, correct, and translate English text at a scale that allows them to shape the language's lexicon, grammar, and stylistic norms directly and in real time.

Predictive-text systems embedded in smartphones, generative language models capable of producing fluent English prose on demand, AI-powered grammar and style checkers used by millions of writers daily, and machine translation systems that mediate an increasing share of cross-linguistic communication have together created conditions in which the English used by a very large proportion

of the world's writers and speakers is, to some degree, co-authored by artificial intelligence. This raises important questions for English linguistics: what new words and expressions is this process introducing into the language; how is it affecting stylistic diversity and register; and what does it mean for the traditional understanding of authorship and linguistic creativity.

The purpose of this article is to identify and systematize the principal mechanisms through which artificial intelligence is contributing to the evolution of Modern English, and to consider the linguistic and sociolinguistic implications of this ongoing transformation for English language teaching, translation studies, and applied linguistics more broadly.

MATERIALS AND METHODS

The methodological basis of the study is a descriptive-analytical approach characteristic of contemporary sociolinguistic and lexicological research on language change. The article draws on scientific literature devoted to the theory of language change, the sociolinguistics of computer-mediated communication, and the emerging body of work on the linguistic effects of natural language processing technologies, and combines this theoretical basis with the analysis of illustrative lexical and stylistic material drawn from contemporary English usage associated with AI technologies.

The following methods were used: theoretical analysis and generalization of linguistic and sociolinguistic sources concerning mechanisms of language change; descriptive lexicological analysis of a sample of AI-related lexical items that have entered general English usage over the past several years (such as terms describing new communicative practices and technological phenomena); and comparative stylistic observation of written text produced with and without the assistance of predictive-text and generative-writing tools, aimed at identifying recurrent stylistic tendencies.

The present study is theoretical and descriptive in character; a large-scale corpus-based quantitative analysis of these tendencies constitutes a natural direction for further research and lies beyond the scope of the current article.

RESULTS AND DISCUSSION

The first mechanism of AI-driven change identified in the study is lexical innovation. The rapid public adoption of AI technologies has introduced into general English usage a considerable number of new terms and new meanings for existing words — including terms denoting AI-related concepts, actions, and phenomena that have moved from specialized technical discourse into everyday communication, journalism, and even casual conversation. This process illustrates a classical mechanism of lexical borrowing and semantic extension, but operating at a pace accelerated by the global, instantaneous nature of digital communication and by the sheer scale of public engagement with AI tools.

The second mechanism is stylistic convergence. Predictive-text systems and AI-powered writing assistants, by suggesting the statistically most probable continuation of a sentence or offering standardized corrections, tend to favor certain grammatical constructions, vocabulary choices, and stylistic conventions over others. When used by a very large number of writers, such tools may exert a subtle but cumulative homogenizing effect on written English, gradually narrowing the range of stylistic variation that has traditionally characterized personal, regional, and register-based differences in written expression. This tendency is particularly noticeable in professional and academic writing, where AI-assisted editing is now widespread.

The third mechanism is accelerated global standardization, driven primarily by the widespread use of AI-powered machine translation and multilingual content generation. As an increasing share of English text encountered by non-native readers and produced by non-native writers is generated or mediated by AI systems trained predominantly on standardized varieties of English, these systems may reinforce the dominance of certain standardized forms of the language — often reflecting the norms of American or British English present in their training data — at the expense of the diverse regional and postcolonial varieties (World Englishes) that have historically enriched the global use of the language.

These three mechanisms give rise to a set of challenges that merit close attention from linguists, language teachers, and language-policy specialists. The risk of stylistic homogenization

raises concerns about the long-term diversity of written English style and the potential marginalization of non-standard or regional varieties. The increasing role of AI in text production also raises questions about the boundaries of authorship and originality that traditional linguistic and pedagogical frameworks are not yet fully equipped to address. Taken together, these developments suggest a need for English linguistics and applied linguistics to develop updated conceptual tools capable of describing a stage of language evolution in which a non-human agent participates directly in the ongoing shaping of the language.

CONCLUSION

The analysis undertaken in this article demonstrates that artificial intelligence has become an active participant in the evolution of Modern English, contributing to this process through three principal, interrelated mechanisms: lexical innovation, stylistic convergence, and accelerated global standardization. While these mechanisms create genuine opportunities — the rapid enrichment of the lexicon and increased efficiency and accuracy in written communication — they also raise legitimate concerns regarding stylistic diversity, the position of non-standard varieties of English, and the changing nature of authorship. These findings point to the need for further, empirically grounded research, including corpus-based studies of AI-influenced English usage, in order to more precisely measure the scale and direction of these changes and to inform the future development of English linguistics, translation studies, and language-teaching methodology in the age of artificial intelligence.

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THE USE OF MODERN PEDAGOGICAL TECHNOLOGIES IN ENGLISH LESSONS

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Abstract. *This article examines the role and practical application of modern pedagogical technologies in English language lessons. The study focuses on interactive learning, digital technologies, multimedia resources, project-based learning, collaborative learning, gamification, and the communicative approach. The integration of these technologies into English language teaching can create a more learner-centered educational environment and provide students with opportunities to participate actively in the learning process. Particular attention is paid to the development of students' communicative competence, critical thinking, creativity, collaboration, and*

independent learning skills. The article also discusses the importance of selecting appropriate technological tools according to learning objectives, students' age, language proficiency, and available educational resources. The findings suggest that modern pedagogical technologies can make English lessons more interactive and practice-oriented when they are systematically integrated with appropriate teaching methods. At the same time, technology should be considered a pedagogical tool rather than an independent goal of instruction. Effective use of technology requires careful lesson planning, teacher digital competence, and continuous assessment of students' learning outcomes.

Keywords: modern pedagogical technologies, English language teaching, interactive learning, digital technologies, multimedia, communicative competence, gamification, project-based learning.

Аннотация. В данной статье рассматривается роль и практическое применение современных педагогических технологий на уроках английского языка. Особое внимание уделяется интерактивному обучению, цифровым технологиям, мультимедийным ресурсам, проектному и совместному обучению, геймификации и коммуникативному подходу. Анализируется влияние данных технологий на развитие коммуникативной компетенции, критического мышления, творческих способностей и самостоятельности учащихся. Подчеркивается необходимость выбора технологических средств в соответствии с целями обучения, возрастом и уровнем языковой подготовки учащихся.

Ключевые слова: современные педагогические технологии, обучение английскому языку, интерактивное обучение, цифровые технологии, мультимедиа, коммуникативная компетенция, геймификация, проектное обучение.

Annotatsiya. Ushbu maqolada ingliz tili darslarida zamonaviy pedagogik texnologiyalardan foydalanishning ahamiyati va amaliy imkoniyatlari tahlil qilinadi. Interaktiv ta'lim, raqamli texnologiyalar, multimedia vositalari, loyiha va hamkorlikda o'qitish, gamifikatsiya hamda kommunikativ yondashuvning ta'lim jarayonidagi o'rni yoritiladi. Mazkur texnologiyalarning o'quvchilarning kommunikativ kompetensiyasi, tanqidiy fikrlashi, ijodkorligi va mustaqil ta'lim ko'nikmalarini rivojlantirishdagi imkoniyatlari ko'rib chiqiladi. Shuningdek, texnologik vositalarni ta'lim maqsadi, o'quvchilarning yoshi va til bilish darajasiga muvofiq tanlash zarurligi ta'kidlanadi.

Kalit so'zlar: zamonaviy pedagogik texnologiyalar, ingliz tilini o'qitish, interaktiv ta'lim, raqamli texnologiyalar, multimedia, kommunikativ kompetensiya, gamifikatsiya, loyiha asosida o'qitish.

INTRODUCTION

In the contemporary educational environment, the teaching and learning of foreign languages are undergoing significant changes due to the rapid development of digital technologies and new pedagogical approaches. English has become one of the most widely used languages in international communication, science, education, business, and technology. Therefore, effective English language teaching requires not only the transmission of grammatical and lexical knowledge but also the development of learners' ability to use English effectively in authentic communicative situations.

Traditional teacher-centered approaches often place the teacher at the center of the learning process, while students mainly receive and reproduce information. Modern education, however, increasingly emphasizes learner-centered instruction, active participation, collaboration, critical thinking, creativity, and independent learning. In this context, modern pedagogical technologies provide teachers with additional opportunities to organize meaningful and interactive English lessons.

Modern pedagogical technologies include a wide range of approaches and tools such as interactive learning, multimedia resources, digital platforms, project-based learning, collaborative learning, gamification, flipped learning, and online assessment. Their appropriate application can help teachers create a learning environment in which students have more opportunities to communicate, solve problems, exchange ideas, and apply their language knowledge in practice.

However, the use of technology should not become an end in itself. A technologically advanced lesson is not necessarily an effective lesson. The effectiveness of any pedagogical technology depends on its relevance to the learning objectives, students' needs, teaching context, and

expected learning outcomes. Therefore, teachers need to make pedagogically justified decisions when selecting and integrating technological tools into English lessons.

The purpose of this article is to examine the major types of modern pedagogical technologies used in English language teaching and to analyze their potential contribution to students' language development and classroom engagement.

MATERIALS AND METHODS

The study is based on the analysis of theoretical and methodological literature related to foreign language teaching, educational technologies, communicative language teaching, and digital education. The research employs theoretical analysis, comparison, observation, generalization, and descriptive methods.

Several modern pedagogical technologies that can be effectively integrated into English lessons were examined. These include:

- interactive learning technologies;
- multimedia and digital resources;
- project-based learning;
- collaborative learning;
- gamification;
- communicative language teaching;
- digital assessment and feedback.

The analysis considers the potential of these technologies for developing the four major language skills: listening, speaking, reading, and writing. Attention is also given to vocabulary development, grammatical accuracy, learner autonomy, critical thinking, and collaborative skills.

The selection of an appropriate technology should depend on several factors, including the learning objectives, students' proficiency level, age, classroom conditions, available technological resources, and the teacher's professional competence.

RESULTS AND DISCUSSION

Interactive Learning Technologies

Interactive learning is one of the important components of modern English language teaching. Unlike passive learning, interactive instruction encourages students to participate actively in classroom activities. Pair work, group work, discussions, debates, role-plays, brainstorming, problem-solving tasks, and information-gap activities can create opportunities for meaningful communication. For example, role-play activities can simulate real-life situations such as a job interview, checking into a hotel, ordering food in a restaurant, asking for directions, or communicating at an airport. Such activities allow students to use vocabulary and grammatical structures in context rather than learning them only as isolated language items.

Interactive activities can also increase student-to-student communication. Instead of communicating exclusively with the teacher, learners exchange information with their classmates and negotiate meaning. This creates a more communicative classroom environment and provides learners with additional opportunities to use English.

Multimedia and Digital Technologies

Multimedia technologies have become increasingly important in foreign language education. Audio recordings, videos, presentations, animations, images, and interactive exercises can support different learning styles and make language input more varied.

Video materials, for example, can be used to develop listening comprehension and introduce learners to authentic pronunciation, intonation, vocabulary, and cultural contexts. Teachers can design pre-viewing, while-viewing, and post-viewing activities to ensure that video use has a clear pedagogical purpose.

Digital resources can also support vocabulary learning. Electronic dictionaries, online exercises, digital flashcards, and interactive quizzes allow students to practice vocabulary repeatedly and receive immediate feedback.

Nevertheless, teachers should avoid using multimedia merely for entertainment. Every digital resource should have a clear relationship with the lesson objective. A video, presentation, or online exercise is pedagogically valuable when it contributes to the development of a specific skill or learning outcome.

Project-Based Learning

Project-based learning provides students with opportunities to use English for meaningful purposes. Instead of completing isolated language exercises, students work on a particular topic or problem and produce a final product such as a presentation, poster, report, video, or digital project.

For example, students can prepare projects on topics such as *My Future Profession*, *Environmental Problems*, *English-Speaking Countries*, *Modern Technologies*, or *Cultural Traditions*. During the project, students search for information, read English-language sources, select relevant material, prepare written content, collaborate with classmates, and present their results.

Project-based learning therefore combines language learning with research, communication, creativity, collaboration, and presentation skills. It can also contribute to learner autonomy because students are required to take greater responsibility for their own learning process.

Collaborative Learning

Collaborative learning is another important technology for modern English lessons. In collaborative activities, students work together to achieve a common learning objective. Group discussions, peer teaching, cooperative writing, problem-solving tasks, and group presentations can be used to promote collaboration.

Collaborative learning is particularly useful for speaking activities. Students may discuss a question, reach a group decision, prepare a dialogue, or solve a problem together. Such activities provide learners with opportunities to express opinions, ask questions, agree or disagree, and respond to other participants.

At the same time, effective collaborative learning requires clear instructions and appropriate task organization. The teacher should ensure that all members of a group have an opportunity to participate.

Gamification in English Language Teaching

Gamification involves the use of selected game elements in a non-game educational context. In English lessons, teachers can use quizzes, competitions, points, levels, challenges, word games, puzzles, and achievement systems.

Vocabulary games, for instance, can help learners review new words in an engaging way. Grammar competitions can encourage students to identify and correct errors, while speaking challenges can motivate learners to use newly learned expressions.

Gamification can contribute to classroom engagement, but it should be carefully planned. The competitive element should not replace the educational purpose of the activity. The primary goal should remain language development.

The Communicative Approach and Technology

The integration of modern technology with the communicative approach can create additional opportunities for authentic language use. The communicative approach emphasizes the ability to use language appropriately in real or realistic situations.

Digital technologies can extend communication beyond the physical classroom. Students can prepare video presentations, participate in online discussions, collaborate on digital documents, or complete communicative tasks using appropriate educational platforms.

Technology can therefore support all four language skills. Listening activities can use authentic audio and video materials; speaking can involve presentations and recorded dialogues; reading can involve digital texts and online resources; and writing can include collaborative documents, blogs, reports, and project work.

Challenges of Using Modern Technologies

Despite their potential benefits, modern pedagogical technologies also present several challenges. Limited access to devices or reliable internet connections may restrict their

implementation. Teachers may also have different levels of digital competence, while students may become distracted by non-educational content when using digital devices.

Another important issue is excessive dependence on technology. If technology is used without a clear pedagogical purpose, it may increase the complexity of a lesson without improving learning outcomes.

Therefore, teachers should follow a principle of **pedagogical appropriateness**. The choice of technology should begin with the learning objective rather than with the technological tool itself.

A useful model for integrating technology into an English lesson can be represented as follows:

Learning objective → Teaching method → Technological tool → Student activity → Assessment → Reflection

This model demonstrates that technology should function as a means of achieving educational objectives. The teacher remains responsible for selecting the appropriate method, organizing learning activities, monitoring progress, and evaluating outcomes.

CONCLUSION

Modern pedagogical technologies provide English language teachers with a wide range of opportunities to create interactive, communicative, and learner-centered lessons. Interactive activities can increase students' participation; multimedia resources can provide rich language input; project-based learning can develop independent research and presentation skills; collaborative learning can promote communication and teamwork; and gamification can make practice activities more engaging.

However, the effectiveness of modern pedagogical technologies depends not simply on their availability but on the quality of their pedagogical integration. Technology should be selected according to the learning objectives, students' needs, language proficiency, classroom context, and available resources.

The integration of modern technologies with communicative and learner-centered approaches can contribute to the development of students' practical language skills and broader competencies. Consequently, English teachers need not only technological competence but also the ability to make pedagogically justified decisions about when, why, and how technology should be used.

In conclusion, modern pedagogical technologies should be regarded as complementary instruments that enhance, rather than replace, effective teaching methodology. Their thoughtful and purposeful integration can contribute to a more active, flexible, and practice-oriented English learning environment.

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INGLIZ VA O'ZBEK TILLARIDAGI FE'L FRAZEMALARIDA MILLIY-MADANIY XUSUSIYATLARNING IFODALANISHI: QIYOSIY-PRAGMATIK TAHLIL

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Annotatsiya. Mazkur maqolada ingliz va o'zbek tillaridagi fe'l frazemalarida aks etuvchi milliy-madaniy xususiyatlar qiyosiy-pragmatik nuqtayi nazardan tadqiq etiladi. Tadqiqotning asosiy maqsadi fe'l frazemalarining milliy dunyoqarash, qadriyatlar, urf-odatlar, an'analar va madaniy konseptlarni ifodalashdagi o'rnini aniqlash hamda ularning nutq jarayonidagi pragmatik va stilistik funksiyalarini qiyosiy tahlil qilishdan iborat. Tadqiqotda frazeologik birliklarning lingvokulturologik tabiati, idiomatiklik, metaforik mazmun va konnotativ xususiyatlariga oid nazariy qarashlardan foydalanildi. Ingliz va o'zbek tillaridagi fe'l frazemalari semantik, lingvokulturologik, pragmatik va stilistik jihatlardan tahlil qilinib, ularning o'xshash va farqli tomonlari aniqlanadi. Tahlil natijalari fe'l frazemalari nafaqat muayyan harakat yoki holatni ifodalovchi til birliklari, balki xalqning tarixiy tajribasi, milliy mentaliteti va madaniy qadriyatlarini aks ettiruvchi muhim lingvomadaniy vosita ekanligini ko'rsatadi. Shuningdek, frazemalarning kommunikativ vaziyatga qarab ekspressivlik, emotsionallik, baholash va obrazlilik kabi pragmatik-stilistik vazifalarni bajarishi yoritiladi.

Kalit so'zlar: fe'l frazemalari, frazeologik birliklar, milliy-madaniy xususiyat, lingvokulturologiya, qiyosiy tahlil, pragmatik funksiya, stilistik xususiyat, milliy mentalitet, madaniy konsept.

Abstract. This article examines the national and cultural features reflected in verbal phraseological units in English and Uzbek from a comparative-pragmatic perspective. The main purpose of the study is to identify the role of verbal phraseological units in expressing national worldview, values, customs, traditions, and cultural concepts, as well as to comparatively analyze their pragmatic and stylistic functions in discourse. The study draws upon theoretical approaches to the linguocultural nature of phraseological units, idiomatcity, metaphorical meaning, and connotative features. Verbal phraseological units in English and Uzbek are analyzed from semantic, linguocultural, pragmatic, and stylistic perspectives, with particular attention to their similarities and differences. The findings demonstrate that verbal phraseological units function not only as linguistic expressions denoting particular actions or situations, but also as important linguocultural means reflecting the historical experience, national mentality, and cultural values of a speech community. The study also highlights the pragmatic and stylistic functions of phraseological units, including expressiveness, emotionality, evaluation, and imagery, depending on the communicative context.

Keywords: verbal phraseological units, phraseological units, national and cultural features, linguoculturology, comparative analysis, pragmatic function, stylistic features, national mentality, cultural concept.

Аннотация. В статье исследуются национально-культурные особенности, отражённые во фразеологических единицах с глагольным компонентом английского и узбекского языков, с позиций сравнительно-прагматического подхода. Основная цель исследования заключается в выявлении роли глагольных фразеологических единиц в выражении национального мировоззрения, ценностей, обычаев, традиций и культурных концептов, а также в сравнительном анализе их прагматических и стилистических функций в речи. В исследовании используются теоретические положения о лингвокультурологической природе фразеологических единиц, идиоматичности, метафорическом значении и коннотативных особенностях. Глагольные фразеологические единицы английского и узбекского языков рассматриваются с семантической, лингвокультурологической, прагматической и стилистической точек зрения, выявляются их сходства и различия. Результаты исследования показывают, что глагольные фразеологические единицы являются не только языковыми средствами обозначения определённого действия или состояния, но и

важными лингвокультурными средствами отражения исторического опыта, национального менталитета и культурных ценностей народа. Кроме того, раскрываются прагматико-стилистические функции фразеологизмов, такие как экспрессивность, эмоциональность, оценочность и образность, реализуемые в зависимости от коммуникативного контекста.

Ключевые слова: глагольные фразеологические единицы, фразеологические единицы, национально-культурные особенности, лингвокультурология, сравнительный анализ, прагматическая функция, стилистические особенности, национальный менталитет, культурный концепт.

Bugungi kunda til va madaniyat o'rtasidagi o'zaro munosabatni tadqiq etish zamonaviy tilshunoslikning muhim yo'nalishlaridan biri hisoblanadi. Til nafaqat kommunikativ vosita, balki muayyan xalqning tarixiy tajribasi, milliy dunyoqarashi, qadriyatlari, urf-odatlari va madaniy tafakkurini aks ettiruvchi murakkab tizim sifatida namoyon bo'ladi. Ayniqsa, frazeologik birliklar tarkibida xalqning milliy-madaniy tajribasi va obrazli tafakkuri yaqqol namoyon bo'ladi. Shu jihatdan frazemalarni o'rganish til birliklarining lug'aviy ma'nosini aniqlash bilangina cheklanmay, ularning shakllanishida ishtirok etgan madaniy omillarni ham tadqiq etishni taqozo etadi. Frazeologik birliklar, xususan, fe'l frazemalari o'zining semantik yaxlitligi, obrazlilik, ekspressivligi va konnotativ xususiyatlari bilan tilning boshqa birliklaridan ajralib turadi. C. Fernando idiomatik birliklarning tilda barqaror va o'ziga xos ma'no hosil qilish xususiyatlariga e'tibor qaratib, frazeologik birliklarni idiomatiklik nuqtayi nazaridan o'rganish muhimligini ta'kidlaydi. Z. Kövecses esa frazeologik birliklar va metaforik tafakkur o'rtasidagi aloqani ko'rsatib, metaforalarning muayyan madaniyat doirasida shakllanishi va anglanishiga e'tibor beradi.

Fe'l frazemalari mazmunida harakat, holat, munosabat va inson faoliyatining turli ko'rinishlari ifodalanishi sababli ular milliy-madaniy mazmunni tadqiq etish uchun muhim til materiali hisoblanadi. Ingliz va o'zbek tillaridagi fe'l frazemalarini qiyoslash jarayonida ayrim birliklarning umumiy konseptual asosga ega ekanligi, biroq ularni ifodalashda turli obraz va madaniy ramzlardan foydalanilishi kuzatiladi. Masalan, zamonaviy qiyosiy tadqiqotlarda ingliz tilidagi *lend a hand, lose one's head, turn a blind eye* kabi fe'l frazemalari o'zbek tilidagi *qo'l uzatmoq, boshini yo'qotmoq, ko'z yummoq* kabi birliklar bilan qiyoslangan va konseptual o'xshashlik har doim ham to'liq frazeologik ekvivalentlikni anglatmasligi ko'rsatilgan.

O'zbek va ingliz tillaridagi frazeologik birliklarning lingvokulturologik xususiyatlarini o'rganish jarayonida ularning milliy mentalitet, madaniy konseptlar, tarixiy tajriba va qadriyatlarni aks ettirishi alohida ahamiyat kasb etadi. So'nggi tadqiqotlarda ingliz va o'zbek idiomalarining semantik, konnotativ, milliy-madaniy hamda pragmatik xususiyatlari qiyosiy nuqtayi nazardan o'rganilib, frazeologik birliklarning til va madaniyat o'rtasidagi bog'liqlikni namoyon etuvchi vosita ekanligi qayd etilgan. Mazkur masalaning yana bir muhim jihati frazemalarning **pragmatik va stilistik funksiyasi** bilan bog'liq. Frazeologik birliklar nutqda oddiy nominativ vosita sifatida emas, balki so'zlovchining munosabati, bahosi, hissiy holati va kommunikativ maqsadini ifodalash vositasi sifatida ham qo'llanadi. Ayniqsa, ommaviy axborot vositalari, badiiy adabiyot va kundalik muloqotda frazemalarning ekspressivlik, emotsionallik, baholash, obrazlilik va ta'sirchanlikni kuchaytirishdagi roli katta. Ingliz va o'zbek mediataxtlaridagi frazeologik birliklarning pragmatistik xususiyatlariga bag'ishlangan tadqiqotlarda ham ularning kommunikativ maqsadni shakllantirish, emotsional ta'sirni kuchaytirish va madaniy identifikatsiyani ifodalashdagi funksiyalari ko'rsatilgan.

Shu nuqtayi nazardan, ingliz va o'zbek tillaridagi fe'l frazemalarini faqat strukturaviy yoki semantik jihatdan qiyoslash bilan cheklanmasdan, ularning **milliy-madaniy mazmuni va pragmatik-stilistik vazifalarini birgalikda o'rganish** muhim ilmiy ahamiyatga ega. Chunki bir xil yoki yaqin kommunikativ mazmun turli tillarda turlicha obraz, konsept va madaniy assotsiatsiya orqali ifodalanishi mumkin. Bunday farqlarni aniqlash tillararo va madaniyatlararo kommunikatsiyada frazemalarning to'g'ri talqin qilinishiga ham xizmat qiladi.

Ushbu tadqiqotning **maqsadi** ingliz va o'zbek tillaridagi fe'l frazemalarida aks etuvchi milliy-madaniy xususiyatlarni aniqlash hamda ularning pragmatik va stilistik funksiyalarini qiyosiy tahlil qilishdan iborat. Mazkur maqsadga erishish uchun fe'l frazemalarining semantik mazmuni, milliy-madaniy komponenti, obrazlilik darajasi, konnotativ xususiyatlari va nutq jarayonidagi pragmatik

vazifalariga e'tibor qaratiladi. Shunday qilib, ingliz va o'zbek tillaridagi fe'l frazemalarini qiyosiy-pragmatik jihatdan o'rganish til, tafakkur va madaniyat o'rtasidagi munosabatlarni chuqurroq anglash, shuningdek, frazeologik birliklarning milliy-madaniy mazmunini ochib berish uchun muhim nazariy va amaliy asos yaratadi.

Frazeologik birliklar tilning milliy o'ziga xosligini aks ettiruvchi muhim vositalardan biridir. Ularning semantik tuzilishida xalqning tarixiy tajribasi, turmush tarzi, urf-odatlar, qadriyatlari va dunyoni idrok etish usullari mujassamlashadi. Shu sababli frazeologizmlarni faqat lug'aviy ma'no doirasida o'rganish ularning to'liq mazmunini ochib berishga imkon bermaydi. Ayniqsa, fe'l frazemalari insonning harakati, holati, munosabati va xatti-harakatini ifodalagani sababli milliy-madaniy mazmunning shakllanishida alohida o'rin tutadi. Ingliz va o'zbek tillaridagi fe'l frazemalari qiyoslanganda, ayrim hollarda bir xil yoki yaqin kommunikativ mazmun turli obrazlar orqali ifodalanishi kuzatiladi. Buning asosiy sabablaridan biri har bir xalqning tarixiy-madaniy tajribasi va konseptual dunyoqarashining o'ziga xosligidir. Sherbekova frazeologik birliklar madaniy e'tiqodlar va milliy tushunchalarni verbalizatsiya qiluvchi muhim vositalardan biri ekanini ta'kidlaydi.

Masalan, ingliz tilidagi **“lend a hand”** frazemasida “yordam bermaq” ma'nosini anglatadi. Uning tarkibidagi *hand* (“qo'l”) komponenti yordam tushunchasining jismoniy harakat bilan bog'langan obrazini yaratadi. O'zbek tilida ham **“qo'l uzatmoq”, “qo'l bermaq”, “yordam qo'lini cho'zmoq”** kabi birliklarda qo'l yordam va ko'mak ramzi sifatida namoyon bo'ladi. Bu holat ikki tilda inson tanasi bilan bog'liq konseptual metaforalarning muayyan umumiy jihatlarga ega ekanligini ko'rsatadi. Inson tana a'zolari komponenti ishtirokidagi frazeologik birliklarni ingliz va o'zbek tillarida qiyoslagan tadqiqotlarda ham umumiy kognitiv metaforalar bilan bir qatorda sezilarli madaniy tafovutlar mavjudligi qayd etilgan. Biroq frazeologik birliklardagi umumiy obrazlarning mavjudligi ularning madaniy mazmuni mutlaqo bir xil ekanligini anglatmaydi. Bir xil komponent turli tillarda turlicha konnotativ ma'no yoki pragmatik vazifa kasb etishi mumkin. Shu jihatdan fe'l frazemalarini qiyosiy o'rganishda ularning lug'aviy ekvivalentligini emas, balki **konseptual, madaniy va kommunikativ mosligini** ham hisobga olish lozim.

Ingliz va o'zbek tillaridagi fe'l frazemalarini qiyoslash ularning semantik jihatdan uch guruhga ajratilishi mumkinligini ko'rsatadi: to'liq yoki yaqin ekvivalent birliklar, qisman ekvivalent birliklar va milliy-madaniy xususiyati kuchli bo'lgan ekvivalentsiz yoki muqobil ifodalar.

Masalan, **turn a blind eye** va **ko'z yummoq** birliklari “biror holatni bilib turib e'tiborsiz qoldirmoq” mazmunida yaqin. Biroq ingliz tilidagi birlikning pragmatik qo'llanishida tanqidiy baho yoki salbiy munosabat kuchli namoyon bo'lishi mumkin. O'zbek tilidagi **ko'z yummoq** ham salbiy baholashni ifodalashi mumkin, biroq uning ma'nosi kontekstga qarab “kechirmoq”, “e'tibor bermaslik” yoki “bila turib indamaslik” kabi qo'shimcha ma'no nozikliklarini ham olishi mumkin. Shu sababli frazemalarning qiyosiy tahlilida faqat “inglizcha birlik = o'zbekcha birlik” shaklidagi lug'aviy moslashtirish yetarli emas. Ularning **konnotatsiyasi, baholovchi komponenti, kommunikativ vaziyati va stilistik bo'yoqdorligi** ham tahlil qilinishi kerak.

Frazeologik birliklar xalqning borliqni konseptuallashtirish usulini namoyon etadi. Milliy mentalitet tushunchasi bu yerda xalqning tarixiy xotirasi, qadriyatlari, ijtimoiy munosabatlari va madaniy tajribasi bilan bog'liq qarashlarni anglatadi. O'zbek tilidagi frazeologik birliklarda **mehmondo'stlik, kattalarga hurmat, qarindoshlik, hamjihatlik, uyat, or-nomus, sabr va jamoaviylik** kabi tushunchalar turli obrazlar orqali ifodalanishi mumkin. Ingliz tilidagi frazemalarda esa muayyan ijtimoiy tajriba, individual faoliyat, kundalik turmush va tarixiy-madaniy tasavvurlar bilan bog'liq obrazlar uchraydi. Bunday farqlarni mutlaq yoki barcha frazemalarga xos umumiy qoida sifatida emas, balki muayyan frazemalar korpusi asosida kuzatiladigan lingvomadaniy tendensiya sifatida baholash lozim. Masalan, **“keep an eye on”** frazemasida insonning boshqa shaxs yoki obyektga nazorat qilib turishini bildiradi. O'zbek tilida unga mazmunan yaqin **“ko'z-quloq bo'lmoq”** birligi mavjud. Bu yerda ko'rish va eshitish bilan bog'liq tana a'zolari nazorat va e'tibor konseptini ifodalashga xizmat qiladi. Natijada frazemaning nominativ ma'nosidan tashqari, “g'amxo'rlik bilan kuzatish” kabi pragmatik ma'no ham kontekstda yuzaga kelishi mumkin. Marufovning ingliz va o'zbek tillaridagi inson komponentli frazeologizmlarga bag'ishlangan tadqiqotida ham tana a'zolari,

inson xususiyatlari va rollari bilan bog'liq birliklar orqali madaniy qadriyatlar va dunyoqarash aks etishi, umumiy kognitiv metaforalar bilan birga madaniy farqlar ham mavjudligi ko'rsatiladi.

Fe'l frazemalarining muhim xususiyatlaridan biri ularning nutqdagi pragmatik funksiyasidir. Frazemaning ma'nosi faqat lug'atda qayd etilgan semantik mazmun bilan chegaralanmaydi; u muayyan kommunikativ vaziyatda so'zlovchining munosabati, bahosi, hissiy holati va kommunikativ maqsadini ham ifodalashi mumkin. Masalan, **“spill the beans”** frazemasini “sirni oshkor qilmoq” ma'nosini anglatadi. Uning oddiy “reveal a secret” shakliga nisbatan qo'llanishi nutqqa ko'proq obrazlilik va norasmiylik olib kiradi. Demak, frazemaning pragmatik qiymati faqat “sirni oshkor qilish” mazmunida emas, balki ushbu harakatni **obrazli, ekspressiv va nisbatan norasmiy** tarzda ifodalashida ham namoyon bo'ladi. O'zbek tilida shu mazmunga yaqin **“sirni ochmoq”, “sirni oshkor qilmoq”, “ichidagi gapni aytib qo'yimoq”** kabi birliklardan foydalanish mumkin. Biroq ularning stilistik va pragmatik bo'yqlari bir xil emas. Masalan, “ichidagi gapni aytib qo'yimoq” og'zaki nutqqa yaqin bo'lib, vaziyatga qarab yumshoq kinoya yoki norozilik ma'nosini ham berishi mumkin. 2025-yilda ingliz va o'zbek mediataxtlaridagi frazeologik birliklarning pragmatistlik xususiyatlariga bag'ishlangan tadqiqotda frazemalarning kommunikativ maqsadni shakllantirish, emotsional ta'sirni kuchaytirish, ishontirish va madaniy identifikatsiyani ifodalashdagi roli ko'rsatilgan.

Fe'l frazemalari nutqning stilistik imkoniyatlarini kengaytiruvchi vositalardan biridir. Ular oddiy fe'l bilan ifodalanishi mumkin bo'lgan mazmunni obrazli, emotsional va ta'sirchan shaklda yetkazish imkonini beradi. Shu sababli frazemalar badiiy adabiyot, publitsistik matn, ommaviy axborot vositalari va kundalik muloqotda faol qo'llanadi.

Masalan:

“He turned a blind eye to the problem.”

Ushbu gapni “He ignored the problem” shaklida ham ifodalash mumkin. Biroq **turned a blind eye** frazemasini harakatning oddiy nominatsiyasidan tashqari, shaxsning muammoni bila turib e'tiborsiz qoldirganligi haqidagi baholovchi ma'noni kuchaytiradi. Demak, frazemaning tanlanishi so'zlovchining munosabatini ham ifodalash imkonini beradi.

O'zbek tilidagi:

“U muammoga ko'z yumdi.”

gapida ham “ko'z yumdi” birikmasi oddiy “e'tibor bermadi” ifodasiga nisbatan obrazli va baholovchi xarakterga ega. Shu tariqa har ikki tilda frazemalarning qo'llanishi kommunikativ mazmunni kuchaytirib, nutqqa ekspressivlik beradi. Nuriddinova va Mannonova tadqiqotida ham ingliz va o'zbek mediataxtlaridagi frazeologik birliklar stilistik ta'sirni kuchaytirishi, emotsiyani yetkazishi va kommunikativ maqsadni amalga oshirishga xizmat qilishi qayd etilgan.

Ingliz va o'zbek tillaridagi fe'l frazemalarining qiyosiy tahlili shuni ko'rsatadiki, frazemalarning o'xshashligi uch xil darajada namoyon bo'lishi mumkin: **semantik o'xshashlik, obrazli o'xshashlik va pragmatik o'xshashlik**. Ikki frazema bir xil mazmunni ifodalashi mumkin, ammo ularning obrazlari turlicha bo'lishi ehtimoldan xoli emas. Aksincha, obrazlari bir xil bo'lgan frazemalarning pragmatik qo'llanish doirasi hamisha bir xil bo'lavermaydi.

Shu jihatdan fe'l frazemalarini quyidagi mezonlar asosida tahlil qilish maqsadga muvofiq:

1. **Semantik mezon** — frazemaning asosiy ma'nosi;
2. **Komponent mezon** — frazema tarkibidagi asosiy obraz yoki komponent;
3. **Lingvokulturologik mezon** — birlikda aks etgan milliy-madaniy mazmun;
4. **Konnotativ mezon** — ijobiy, salbiy yoki neytral baho;
5. **Pragmatik mezon** — kommunikativ vazifasi;
6. **Stilistik mezon** — rasmiy, norasmiy, badiiy, publitsistik yoki og'zaki nutqqa xosligi;
7. **Ekspressiv mezon** — emotsional va ta'sirchanlik darajasi.

Mazkur mezonlar asosida olib borilgan tahlil frazeologik birliklarning faqat “tarjima ekvivalenti”ni aniqlashdan ko'ra kengroq natija beradi. Chunki frazemaning boshqa tildagi muqobili semantik jihatdan mos kelgan taqdirda ham, uning milliy-madaniy assotsiatsiyasi va pragmatik ta'siri aynan bir xil bo'lmasligi mumkin. Shunday qilib, ingliz va o'zbek tillaridagi fe'l frazemalari til va madaniyatning uzviy aloqasini namoyon etuvchi muhim birliklar sifatida qaralishi mumkin. Ularning

tarkibidagi obrazlar xalqning borliqni idrok etish usuli, tarixiy tajribasi va qadriyatlari bilan bog'liq bo'lsa, nutqdagi qo'llanishi so'zlovchining kommunikativ maqsadi, bahosi va hissiy munosabatini ifodalashga xizmat qiladi. Zamonaviy lingvokulturologik tadqiqotlarda ham ingliz va o'zbek frazeologik birliklari madaniy konseptlar, milliy mentalitet va kommunikativ-pragmatik funksiyalarni ifodalovchi birliklar sifatida tahlil qilinmoqda.

XULOSA

Olib borilgan qiyosiy-pragmatik tahlil natijalari ingliz va o'zbek tillaridagi fe'l frazemalari nafaqat muayyan harakat, holat yoki munosabatni ifodalovchi barqaror til birliklari, balki xalqning milliy-madaniy tajribasi, dunyoqarashi, qadriyatlari va mentalitetini aks ettiruvchi muhim lingvomadaniy vosita ekanligini ko'rsatdi. Frazemalarning obrazli-semantik tuzilishida muayyan xalqning tarixiy tajribasi, kundalik turmush tarzi va borliqni konseptuallashtirish usuli o'z ifodasini topadi.

Ingliz va o'zbek tillaridagi fe'l frazemalarini qiyoslash natijasida ularning ayrimlari semantik va obrazli jihatdan yaqin bo'lsa, boshqa birliklarda milliy-madaniy o'ziga xoslik yanada yaqqol namoyon bo'lishi aniqlandi. Xususan, inson tana a'zolari bilan bog'liq **hand, eye, head, heart** kabi komponentlarning o'zbek tilidagi **qo'l, ko'z, bosh, yurak** kabi birliklar bilan muqobilligi ayrim universal konseptual-metforik modellarning mavjudligini ko'rsatadi. Biroq ushbu umumiylik frazemalarning konnotativ va pragmatik mazmuni har ikki tilda mutlaqo bir xil ekanligini anglatmaydi. Tadqiqot davomida frazemalarning milliy-madaniy xususiyatlarini aniqlashda faqat lug'aviy ekvivalentlikni belgilash yetarli emasligi aniqlandi. Frazemaning **obrazlilik darajasi, konnotatsiyasi, baholovchi mazmuni, kommunikativ vazifasi, stilistik bo'yoqdorligi va qo'llanish konteksti** ham hisobga olinishi lozim. Shu jihatdan qiyosiy-pragmatik yondashuv ingliz va o'zbek tillaridagi frazemalarning umumiy va o'ziga xos tomonlarini chuqurroq ochib berish imkonini beradi.

Shuningdek, fe'l frazemalarining pragmatik xususiyatlari ularning nutq jarayonidagi kommunikativ imkoniyatlari bilan chambarchas bog'liqligi kuzatildi. Frazemalar so'zlovchining munosabati, hissiy holati, bahosi va kommunikativ maqsadini ifodalash bilan birga, nutqning ekspressivligi, emotsionalligi, obrazlilik va ta'sirchanligini oshiradi. Shu sababli bir xil yoki yaqin mazmunni anglatuvchi oddiy fe'l va frazeologik birlik o'rtasida pragmatik hamda stilistik farq yuzaga kelishi mumkin. Umuman olganda, ingliz va o'zbek tillaridagi fe'l frazemalarini milliy-madaniy va pragmatik jihatdan o'rganish **til-tafakkur-madaniyat** munosabatlarini yoritishda muhim ahamiyatga ega. Bunday tadqiqotlar ikki til vakillari o'rtasidagi madaniyatlararo kommunikatsiyada frazemalarni to'g'ri anglash va tarjima qilish, shuningdek, chet tilini o'qitishda milliy-madaniy komponentni hisobga olish uchun ham nazariy va amaliy asos bo'lib xizmat qiladi. Natijada, fe'l frazemalarining milliy-madaniy xususiyatlarini qiyosiy-pragmatik tahlil qilish ingliz va o'zbek tillarining nafaqat strukturaviy va semantik o'xshashliklarini, balki har bir til egasining o'ziga xos madaniy tajribasi va kommunikativ tafakkurini ham ochib berishga imkon yaratadi. Mazkur yondashuv frazeologik birliklarni lingvokulturologik, pragmatik va stilistik jihatlarning uzviy birligi asosida tadqiq etish zarurligini ko'rsatadi.

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THE PROBLEM OF INSUFFICIENT HIGH-QUALITY UZBEK-LANGUAGE DIGITAL CONTENT

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Annotatsiya. *Ushbu maqolada o'zbek tilining zamonaviy ijtimoiy munosabatlarda qo'llanilishi bilan bog'liq aniq muammo — raqamli muhitda sifatli va tizimli o'zbek tilidagi kontentning yetarli emasligi masalasi tahlil qilinadi. Raqamlashuv jarayonida axborot olish, ta'lim, ilmiy muloqot, davlat xizmatlari va kundalik ijtimoiy kommunikatsiyaning katta qismi internet platformalariga ko'chmoqda. Shu sababli davlat tilining raqamli muhitdagi funksional imkoniyatlari uning zamonaviy ijtimoiy mavqeyini belgilaydigan muhim omilga aylanmoqda. Maqolada O'zbekistonda o'zbek tilining davlat tili sifatidagi huquqiy maqomi, raqamli kontentni rivojlantirishga qaratilgan chora-tadbirlar hamda YUNESKO materiallarida qayd etilgan raqamli kontentga oid muammolar o'zaro bog'liq holda ko'rib chiqiladi. Asosiy e'tibor kontentning miqdoriga emas, balki uning sifati, terminologik izchilligi, adabiy til me'yorlariga muvofiqligi, qidiruvchanligi va raqamli texnologiyalar bilan moslashuv darajasiga qaratiladi. Tadqiqot natijasida o'zbek tilidagi raqamli kontentni rivojlantirish uchun elektron korpuslar, terminologik bazalar, raqamli lug'atlar, sifatli ta'lim resurslari va sun'iy intellekt texnologiyalariga mos lingvistik ma'lumotlar bazasini kengaytirish zarurligi asoslanadi.*

Kalit so'zlar: *o'zbek tili, raqamli kontent, davlat tili, ijtimoiy kommunikatsiya, internet tili, terminologiya, raqamli ta'lim, til siyosati, til madaniyati, sun'iy intellekt.*

Abstract. This article examines a specific problem related to the use of the Uzbek language in contemporary social relations: the insufficient availability of high-quality and systematic Uzbek-language digital content. As digitalization progresses, a significant part of information exchange, education, academic communication, public services, and everyday social interaction is moving to online platforms. Therefore, the functional capacity of the state language in the digital environment has become an important factor shaping its contemporary social position. The article considers the legal status of Uzbek as the state language in Uzbekistan, measures aimed at developing digital content, and problems concerning digital content identified in UNESCO materials. Particular attention is paid not simply to the quantity of online content, but to its quality, terminological consistency, compliance with literary language norms, searchability, and compatibility with digital technologies. The study argues that the development of Uzbek-language digital content requires expanding electronic corpora, terminology databases, digital dictionaries, high-quality educational resources, and linguistic datasets suitable for artificial intelligence technologies.

Keywords: Uzbek language, digital content, state language, social communication, Internet language, terminology, digital education, language policy, language culture, artificial intelligence.

Аннотация. В статье рассматривается конкретная проблема, связанная с функционированием узбекского языка в современных общественных отношениях, — недостаточная обеспеченность цифровой среды качественным и системным контентом на узбекском языке. В условиях цифровизации значительная часть информационного обмена, образования, научной коммуникации, государственных услуг и повседневного социального взаимодействия переносится на интернет-платформы. В связи с этим функциональные возможности государственного языка в цифровой среде становятся важным фактором, определяющим его современное общественное положение. В статье во взаимосвязи рассматриваются правовой статус узбекского языка как государственного языка в

Узбекистане, меры по развитию цифрового контента, а также проблемы цифрового контента, отмеченные в материалах ЮНЕСКО. Основное внимание уделяется не только количеству контента, но и его качеству, терминологической последовательности, соответствию нормам литературного языка, поисковой доступности и совместимости с цифровыми технологиями. Обосновывается необходимость расширения электронных корпусов, терминологических баз, цифровых словарей, качественных образовательных ресурсов и лингвистических наборов данных, адаптированных к технологиям искусственного интеллекта.

Ключевые слова: узбекский язык, цифровой контент, государственный язык, социальная коммуникация, язык Интернета, терминология, цифровое образование, языковая политика, культура речи, искусственный интеллект

INTRODUCTION.

The rapid expansion of digital communication has changed the way languages function in society. Information, education, public administration, commerce, scientific exchange, and interpersonal communication increasingly depend on websites, mobile applications, social networks, electronic documents, search engines, and artificial intelligence systems. In such an environment, the social position of a language is influenced not only by its legal status or the number of its speakers, but also by the extent to which it is represented in digital spaces.

Uzbek has the status of the state language of the Republic of Uzbekistan. However, formal legal status does not automatically guarantee a fully developed digital linguistic environment. A language may be widely spoken offline while still facing difficulties in areas such as high-quality web content, searchable text collections, standardized terminology, digital dictionaries, educational platforms, speech technologies, and artificial-intelligence datasets.

This article focuses on one concrete issue: the insufficient availability and systematic development of high-quality Uzbek-language digital content. The purpose is not to claim that Uzbek is absent from the Internet. Rather, the study examines the qualitative and infrastructural gap between the growing social need for Uzbek digital communication and the availability of reliable, standardized, searchable, and technologically usable language resources.

The problem: Digital presence does not always mean digital sufficiency. The Uzbek language has a visible presence on the Internet. Users communicate through social networks, publish educational materials, operate websites, and produce video and audio content in Uzbek. Nevertheless, the existence of content should not be confused with the existence of a comprehensive digital language infrastructure.

High-quality digital content has several characteristics. It should be linguistically accurate, terminologically consistent, structurally organized, searchable, reusable, and adaptable to different digital formats. A large number of isolated texts does not necessarily create such an infrastructure.

For social relations, this distinction is important. Citizens increasingly encounter official information, educational materials, professional terminology, and public discussion through digital interfaces. If Uzbek-language resources are incomplete or inconsistent, users may have to switch languages, rely on unofficial translations, or encounter varying terminology for the same concept.

The problem can therefore be formulated as follows: Uzbek has achieved substantial digital visibility, but its digital environment still requires systematic development in quality, standardization, searchability, and technological integration.

Terminology as a core component of the problem. One of the most visible aspects of digital language development is terminology. New concepts appear rapidly in information technology, economics, medicine, law, education, and other fields. If equivalent Uzbek terms are not developed, standardized, and disseminated effectively, users may alternate between untranslated foreign terms, different Uzbek equivalents, and inconsistent abbreviations.

Terminological inconsistency can create practical difficulties. Search systems may fail to connect documents that use different terms for the same concept. Students may encounter different

terminology across textbooks and websites. Professionals may use parallel forms in documents, software, and communication.

For this reason, terminology work should not be treated as an isolated lexicographic activity. Terminological databases should be connected with digital dictionaries, educational resources, official documents, corpora, and language technologies.

Digital education and the Uzbek language. Education is one of the areas in which digital language resources have direct social consequences. Online courses, electronic textbooks, learning-management systems, educational videos, and digital libraries are becoming increasingly important. The availability of high-quality Uzbek materials can support students and teachers who prefer or require Uzbek-language resources.

The issue is not merely translation. Effective digital education requires original Uzbek explanations, examples, exercises, terminology, assessment materials, and multimedia resources. Direct translation without adaptation may produce texts that are grammatically correct but pedagogically ineffective or terminologically inconsistent.

A systematic national approach could prioritize the development of open educational resources in Uzbek, especially in subjects with rapidly changing terminology. Such resources could also provide reusable language data for future educational technologies.

DISCUSSION.

The development of Uzbek digital content should be understood as part of broader social modernization. The question is not whether Uzbek should replace every other language in digital communication. Multilingualism is a normal feature of contemporary societies, and users may benefit from access to several languages. The specific issue is whether Uzbek can function effectively across the digital domains in which citizens increasingly live, study, work, and communicate.

A balanced approach therefore combines language development with openness to multilingual communication. Uzbek-language resources can coexist with English- and Russian-language materials while providing citizens with reliable access to information in the state language.

The central challenge is coordination. Producing more texts is useful, but systematic quality control and infrastructure development are necessary to turn separate materials into a sustainable digital language ecosystem.

CONCLUSION.

The article has examined one concrete problem in the social functioning of the Uzbek language: the insufficient availability and systematic development of high-quality Uzbek-language digital content. The analysis shows that digital presence alone is not sufficient. Socially effective language use in the digital environment also requires reliable terminology, searchable corpora, digital dictionaries, educational resources, standardized texts, and compatibility with language technologies.

The development of such infrastructure can strengthen the practical use of Uzbek in education, public administration, science, professional communication, and everyday interaction. It can also create a stronger foundation for future artificial-intelligence and language-technology applications.

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CHALLENGES IN TRANSLATING METAPHORS FROM ENGLISH INTO UZBEK PRESERVING MEANING AND STYLISTIC EFFECT

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Abstract. Metaphor is one of the most expressive stylistic devices used in literary and everyday language. It reflects not only linguistic creativity but also cultural and cognitive patterns of thought. Translating metaphors from one language into another presents significant challenges, especially when the translator attempts to preserve both semantic meaning and stylistic effect. This article examines the main difficulties encountered in translating metaphors from English into Uzbek. The study focuses on the linguistic, cultural, and stylistic aspects of metaphor translation and analyzes strategies used to render metaphorical expressions in the target language. The research demonstrates that successful translation of metaphors requires not only lexical equivalence but also cultural awareness and stylistic sensitivity. The findings suggest that translators often employ various techniques such as metaphor preservation, metaphor substitution, paraphrase, or cultural adaptation in order to maintain the communicative and aesthetic function of metaphorical expressions.

Keywords: metaphor, metaphor translation, stylistics, cognitive linguistics, English language, Uzbek language, translation strategies.

Аннотация. Метафора является одним из самых выразительных стилистических средств, используемых в художественной и повседневной речи. Она отражает не только языковое творчество, но и культурные и когнитивные модели мышления. Перевод метафор с одного языка на другой представляет собой значительную трудность, особенно когда переводчик стремится сохранить как смысловое значение, так и стилистический эффект. В статье рассматриваются основные трудности, возникающие при переводе метафор с английского языка на узбекский. Исследование сосредоточено на лингвистических, культурных и стилистических аспектах перевода метафор и анализирует стратегии, используемые для передачи метафорических выражений на целевом языке. Результаты показывают, что успешный перевод метафор требует не только лексической эквивалентности, но и культурной осведомлённости и стилистической чуткости. Переводчики часто применяют такие приёмы, как сохранение метафоры, замена метафоры, перефразирование или культурная адаптация, чтобы сохранить коммуникативную и эстетическую функцию метафорических выражений.

Ключевые слова: метафора, перевод метафор, стилистика, когнитивная лингвистика, английский язык, узбекский язык, стратегии перевода.

Annotatsiya. Metafora badiiy va kundalik nutqda qoʻllaniladigan eng ifodali stilistik vositalardan biridir. U nafaqat lisoniy ijodkorlikni, balki madaniy va kognitiv fikrlash uslublarini ham aks ettiradi. Metaforalarni bir tildan boshqa tilga tarjima qilish, ayniqsa tarjimon ham semantik maʼnoni, ham stilistik samarani saqlab qolishga harakat qilganda, muhim qiyinchiliklarni keltirib chiqaradi. Ushbu maqolada ingliz tilidan oʻzbek tiliga metaforalarni tarjima qilishda yuzaga keladigan asosiy qiyinchiliklar koʻrib chiqiladi. Tadqiqot metafora tarjimasining lingvistik, madaniy va stilistik jihatlariga qaratilgan boʻlib, metaforik iboralarni maqsadli tilda ifodalash uchun qoʻllaniladigan strategiyalarni tahlil qiladi. Natijalar shuni koʻrsatadiki, metaforalarni

muvaqqiyatli tarjima qilish nafaqat leksik ekvivalentlikni, balki madaniy xabardorlik va stilistik sezgirlikni ham talab qiladi. Tarjimonlar ko‘pincha metaforani saqlash, metaforani almashtirish, izohlash yoki madaniy moslashtirish kabi turli usullardan foydalanadilar, bu esa metaforik iboralarning kommunikativ va estetik funksiyasini saqlab qolishga xizmat qiladi.

Kalit so‘zlar: *metafora, metafora tarjimasi, stilistika, kognitiv lingvistika, ingliz tili, o‘zbek tili, tarjima strategiyalari.*

INTRODUCTION

Translation plays a crucial role in facilitating intercultural communication and the exchange of literary and intellectual traditions. One of the most complex aspects of translation involves the rendering of figurative language, particularly metaphors. Metaphors represent a fundamental feature of human cognition and linguistic creativity, enabling speakers to understand abstract concepts through comparisons with more concrete experiences. In literary texts, metaphors perform important stylistic and aesthetic functions, contributing to imagery, emotional expression, and the artistic individuality of an author's style. However, translating metaphors from one language into another is often problematic because metaphorical expressions are deeply rooted in cultural and linguistic contexts.

The translation of metaphors from English into Uzbek presents particular challenges due to differences in linguistic structure, cultural symbolism, and stylistic conventions. Expressions that are natural and meaningful in English may not have direct equivalents in Uzbek, requiring translators to adopt creative strategies in order to preserve the intended meaning and artistic effect. According to George Lakoff and Mark Johnson, metaphors are not merely rhetorical devices but also conceptual structures that shape human thinking and perception [1]. This perspective highlights the importance of understanding the conceptual basis of metaphor when translating between languages. The aim of this article is to analyze the challenges involved in translating metaphors from English into Uzbek and to examine the strategies used to preserve both semantic meaning and stylistic effect.

In translation studies, scholars have long examined the difficulties associated with rendering metaphorical expressions across languages. According to Peter Newmark, metaphors may be translated using several strategies, including preserving the original metaphor, replacing it with a culturally equivalent metaphor, or paraphrasing the meaning in the target language [2]. Eugene Nida emphasized the concept of dynamic equivalence, arguing that translation should aim to reproduce the same communicative effect in the target language rather than merely reproducing the original linguistic form [3]. In the context of Uzbek translation studies, scholars have also stressed the importance of cultural adaptation when translating figurative language, since metaphors often reflect culturally specific images and associations that translators must carefully consider.

MATERIALS AND METHODS

The present study employs several methodological approaches commonly used in translation studies and linguistic analysis. The comparative method is used to analyze metaphorical expressions in English and their corresponding translations in Uzbek. The semantic analysis method allows the identification of conceptual meanings embedded in metaphors. The descriptive method is applied to classify the strategies used in translating metaphors. Examples from English literary texts and their Uzbek translations serve as the primary material for analysis.

RESULTS AND DISCUSSION

Metaphor is a stylistic device in which one concept is understood in terms of another. It involves the transfer of meaning from a familiar domain to a more abstract or complex one. For example: Time is a thief. This metaphor suggests that time gradually takes away opportunities or experiences. A possible Uzbek translation is *Vaqt o‘g‘ri kabi o‘tib ketadi*. Although the wording changes, the underlying metaphorical meaning is preserved.

One of the main challenges in translating metaphors arises from differences in cultural imagery. Certain metaphorical expressions in English rely on cultural symbols that may not have the same associations in Uzbek. For example, He has a heart of stone can be translated literally as *Uning*

yuragi tosh, since this metaphor exists in both languages. However, some metaphors require adaptation: The idea sparked a fire of curiosity may be rendered in Uzbek as Bu fikr unda kuchli qiziqish uygʻotdi, where the metaphor is partially replaced by a descriptive expression to maintain clarity.

The analysis identifies three main strategies that translators use when dealing with metaphorical expressions. Preservation of the original metaphor is possible when the metaphor exists in both languages and can be translated directly, as in The world is a stage — Dunyo sahnadir. Substitution with a culturally equivalent metaphor is used when the original image is replaced with a culturally familiar one, as in He climbed the ladder of success — U muvaffaqiyat choʻqqisiga koʻtarildi. Paraphrasing the metaphor is applied when the image is difficult to translate and its meaning is instead expressed through explanation, as in Her words cut like a knife — Uning soʻzlari juda qattiq taʼsir qildi.

One of the main goals of metaphor translation is to preserve not only the meaning but also the stylistic effect of the original text. Literary metaphors often contribute to imagery, emotional tone, and narrative atmosphere, so translators must consider the aesthetic impact of metaphorical language. A literal translation may convey the meaning but fail to reproduce the stylistic beauty of the original text; therefore, translators often employ creative solutions to maintain both semantic accuracy and artistic expression.

The analysis reveals several important aspects of metaphor translation between English and Uzbek. First, metaphors often reflect cultural and cognitive differences between languages, which may complicate direct translation. Second, translators employ various strategies such as metaphor preservation, substitution, and paraphrase to convey metaphorical meanings. Third, successful metaphor translation requires balancing semantic accuracy with stylistic expressiveness. Finally, cultural knowledge and linguistic creativity play crucial roles in achieving effective metaphor translation.

CONCLUSION

The translation of metaphors from English into Uzbek represents a complex linguistic and cultural process that requires careful consideration of both semantic and stylistic aspects of language. Metaphorical expressions are not merely decorative elements of speech; they are deeply embedded in the cognitive structures, cultural traditions, and conceptual frameworks of a particular linguistic community. For this reason, translating metaphors involves much more than the simple substitution of words from one language into another — it requires a thorough understanding of how metaphorical meanings are constructed and interpreted within different cultural and linguistic contexts.

The study demonstrates that translators must take into account not only lexical equivalence but also the conceptual, cultural, and stylistic dimensions of metaphorical language, applying a variety of strategies — preservation, substitution, or paraphrase — to achieve an appropriate balance between semantic accuracy and artistic expression. The effectiveness of metaphor translation largely depends on the translator's linguistic competence, cultural awareness, and creative interpretation, since a successful translation should reproduce not only the informational content of the metaphor but also its emotional resonance, stylistic nuance, and aesthetic value.

The comparative analysis further reveals that, despite differences in linguistic structure and cultural symbolism, English and Uzbek share many universal metaphorical patterns arising from common human experience and cognition. Recognizing these shared conceptual foundations can facilitate the translation process. Future research may further explore the translation of conceptual metaphors in different genres of discourse and investigate how metaphor translation influences the reception of literary and cultural texts in multilingual contexts.

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THE FORMATION OF COMMUNICATIVE COMPETENCE AT DIFFERENT LEVELS OF EDUCATION

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Abstract. This article examines the formation of communicative competence at different levels of education, from preschool and primary education to higher education and lifelong learning. The aim of the study is to identify the specific goals, content, teaching methods and assessment approaches that ensure the consistent development of this competence across educational stages. The study is based on a comparative analysis of scholarly literature on communicative competence and on the descriptors of the Common European Framework of Reference for Languages. The results show that communicative competence develops as a continuous, cumulative process: at early stages it is formed through play and guided interaction, at school through structured tasks and projects, and in higher education through academic and professional communication. The article proposes a generalized model of stage-by-stage development and argues that continuity between educational levels, learner-centered methods and formative assessment are the key conditions for its success. The findings may be useful for teachers, curriculum designers and researchers in the field of pedagogy.

Keywords: communicative competence, levels of education, continuity, teaching methods, assessment.

Аннотация. В статье рассматривается формирование коммуникативной компетенции на разных уровнях образования: от дошкольного и начального образования до высшего образования и обучения в течение всей жизни. Цель исследования — определить особенности целей, содержания, методов обучения и подходов к оцениванию, обеспечивающих последовательное развитие этой компетенции на разных образовательных ступенях. Исследование основано на сравнительном анализе научной литературы по коммуникативной компетенции и дескрипторов Общеввропейских компетенций владения иностранным языком. Результаты показывают, что коммуникативная компетенция развивается как непрерывный и кумулятивный процесс: на ранних этапах — через игру и организованное взаимодействие, в школе — через структурированные задания и проекты, в вузе — через академическое и профессиональное общение. В статье предложена обобщённая модель поэтапного развития компетенции и обосновано, что ключевыми условиями её успешного формирования являются преемственность между уровнями образования, личностно ориентированные методы и формирующее оценивание. Результаты могут быть полезны преподавателям, разработчикам учебных программ и исследователям в области педагогики.

Ключевые слова: коммуникативная компетенция, уровни образования, преемственность, методы обучения, оценивание.

Annotatsiya. Maqolada kommunikativ kompetensiyaning maktabgacha va boshlang'ich ta'limdan tortib oliy ta'lim hamda umrbod ta'limgacha bo'lgan turli ta'lim darajalarida shakllanishi tahlil qilinadi. Tadqiqotning maqsadi ushbu kompetensiyaning ta'lim bosqichlarida izchil rivojlanishini ta'minlaydigan maqsadlar, mazmun, o'qitish usullari va baholash yondashuvlarining o'ziga xos jihatlarini aniqlashdan iborat. Tadqiqot kommunikativ kompetensiyaga oid ilmiy adabiyotlarni hamda tillarni bilishning umumiyevropa kompetensiyalari (CEFR) deskriptorlarini qiyosiy tahlil qilishga asoslangan. Natijalar kommunikativ kompetensiya uzluksiz va kumulyativ jarayon sifatida rivojlanishini ko'rsatadi: dastlabki bosqichlarda u o'yin va yo'naltirilgan muloqot orqali, maktabda tizimli topshiriqlar va loyihalar orqali, oliy ta'limda esa akademik va kasbiy muloqot orqali shakllanadi. Maqolada kompetensiyaning bosqichma-bosqich rivojlantirishning umumlashtirilgan modeli taklif etilgan hamda ta'lim darajalari o'rtasidagi izchillik, shaxsga yo'naltirilgan usullar va shakllantiruvchi baholash uning muvaffaqiyatli shakllanishining asosiy

shartlari ekanligi asoslab berilgan. Olingan xulosalar pedagogika sohasidagi o'qituvchilar, o'quv dasturlarini ishlab chiquvchilar va tadqiqotchilar uchun foydali bo'lishi mumkin.

Kalit so'zlar: kommunikativ kompetensiya, ta'lim darajalari, izchillik, o'qitish usullari, baholash.

INTRODUCTION

In the context of globalization, digitalization and growing academic and professional mobility, the ability to communicate effectively in both the native and foreign languages has become one of the central outcomes of education. Communicative competence is therefore regarded not as a narrow language skill but as an integrated personal quality that combines the knowledge, abilities and attitudes required for successful interaction in different social situations. The concept was introduced by Hymes, who argued that speakers need to know not only the grammatical rules of a language but also when, where and with whom it is appropriate to use them [1]. Canale and Swain later described communicative competence as a combination of grammatical, sociolinguistic, discourse and strategic competences [2], and Bachman developed a more detailed model of communicative language ability [3]. Byram added an intercultural dimension, emphasizing the learner's ability to interact with people from other cultural backgrounds [4].

In the scholarship of the post-Soviet region, communicative competence is usually treated as one of the key competences that education should develop [5, 6]. Although the importance of this competence is widely recognized, it is often developed separately at each educational stage. As a result, learners may take part in active speaking activities in primary school but face mostly grammar-oriented tasks in secondary school, and then meet the demands of academic communication at university without adequate preparation. The aim of this article is to compare the goals, methods and assessment practices used to develop communicative competence at different levels of education and to outline a model that ensures continuity between them.

MATERIALS AND METHODS

The study has a theoretical and analytical character. The following methods were used: analysis and synthesis of scholarly literature, comparative pedagogical analysis, and content analysis of the descriptors of the Common European Framework of Reference for Languages (CEFR) and its Companion Volume [7]. Five levels of education were compared: preschool, primary, general secondary, vocational and higher, and postgraduate and lifelong education. The levels were compared according to three criteria: the main developmental focus, typical teaching methods and assessment approaches.

The theoretical basis of the study consists of Vygotsky's sociocultural theory, according to which language and thinking develop through social interaction and guided support within the zone of proximal development [8], and the communicative approach to language teaching, which regards real communication as both the means and the goal of learning [9]. It should be noted that the study does not rely on experimental data; the proposed model is a synthesis of existing research and requires empirical verification.

RESULTS AND DISCUSSION

The analysis shows that communicative competence develops gradually and that each level of education makes a specific contribution to this process (Table 1).

At the preschool level, communication is formed mainly through play, storytelling, songs and everyday dialogue with adults and peers. A child's speech develops when the teacher acts as a partner who offers the language support that the child cannot yet provide independently [8]. The main aims are to enrich vocabulary and to develop listening and the ability to take turns in conversation. In primary education, these foundations are extended to reading and writing. Short dialogues, role plays, pair work and simple projects help learners to use language for real purposes, while fluency and willingness to speak are given priority over accuracy. In foreign language learning, the expected outcomes generally correspond to the Pre-A1–A2 range of the CEFR [7].

In general secondary education, the range of communicative situations becomes wider. Learners are expected to develop all four skills in a balanced way, to use language appropriately in formal and informal contexts and to apply communication strategies such as paraphrasing and asking for clarification. Task-based learning, project work, discussions and debates are especially effective at this stage, and the outcomes usually correspond to levels A2–B2. Criterion-based assessment, self-assessment and peer assessment help students to become aware of their own progress.

At the vocational and higher levels, communicative competence is directly linked to the future profession. Students need to give presentations, write academic and professional texts, work in teams, negotiate and communicate in digital environments. Content and language integrated learning (CLIL), language for specific purposes, case studies and simulations are widely used, and the target levels are usually B2–C1. Performance-based assessment, portfolios and simulations of professional situations are considered more informative than traditional tests.

In postgraduate and lifelong education, communication takes the form of research and professional activity: publishing articles, participating in conferences, mediating between specialists and cultures, and learning independently. The emphasis moves to autonomy, intercultural sensitivity and self-assessment, with levels C1–C2 as a reference.

Table 1. Development of communicative competence at different levels of education

Level of education	Main focus	Typical methods	Assessment
Preschool	Listening, vocabulary, turn-taking	Play, storytelling, songs, dialogues with adults	Teacher observation
Primary	Basic oral, reading and writing skills; willingness to speak	Role plays, pair work, simple projects	Observation, portfolios
General secondary	Four sociolinguistic skills, awareness, strategies	Task-based learning, projects, discussions, debates	Criterion-based, self- and peer assessment
Vocational and higher	Academic and professional communication	CLIL, language for specific purposes, case studies, simulations	Performance-based tasks, portfolios
Postgraduate and lifelong	Research communication, mediation, autonomy	Independent study, conferences, publication activities	Self-assessment, peer review

A comparison of the levels reveals three principles that link the stages. First, continuity: communicative functions such as describing, requesting, explaining and arguing should be revisited at every level with increasing complexity, in the manner of a spiral curriculum. Second, learner-centered and interactive methods should remain dominant throughout, since competence can be formed only through actual communication and not through the memorization of rules. Third, formative assessment with regular feedback is necessary to make learners' progress visible and to adjust teaching. In addition, the teacher's own communicative and digital competence is an essential condition at all levels, because the teacher provides the model of communication.

These findings are based on an analytical review; therefore, their effectiveness should be tested in further empirical research, for example through longitudinal observation of learners moving from one level of education to another.

CONCLUSION

The formation of communicative competence is a continuous and cumulative process that extends across all levels of education. At the early stages it is based on play and guided interaction; at school, on structured tasks and projects; in higher education, on academic and professional communication; and in postgraduate and lifelong learning, on autonomous and intercultural activity.

The main conditions of success are continuity between levels, the use of learner-centered communicative methods and formative assessment. The proposed comparison can be used by teachers and curriculum designers to coordinate goals and methods between educational stages. Further research should focus on the empirical verification of the model and on the role of digital technologies in developing communicative competence.

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RAQAMLI TA'LIM TEXNOLOGIYALARIDAN FOYDALANGAN HOLDA INGLIZ TILI DARSLARIDA O'QUVCHILARNING OG'ZAKI NUTQ KO'NIKMALARINI RIVOJLANTIRISH

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Annotatsiya. Ushbu maqolada raqamli ta'lim texnologiyalaridan foydalangan holda ingliz tili darslarida o'quvchilarning og'zaki nutq ko'nikmalarini rivojlantirish masalalari tahlil qilingan. Tadqiqotda ovozli chatbotlar, nutqni tanish (speech recognition) ilovalari, video-suhbat platformalari va raqamli hikoya qilish (digital storytelling) vositalaridan foydalangan holda tashkil etilgan mashg'ulotlar tizimining o'quvchilar nutqiy ravanligi, talaffuzi, lug'at boyligi va muloqotga moslashuvchanligiga ta'siri o'rganildi. Pedagogik eksperiment natijalari raqamli vositalardan tizimli foydalanish o'quvchilarning og'zaki nutq ko'rsatkichlarini an'anaviy usulga nisbatan sezilarli darajada oshirishini ko'rsatdi. Maqola so'ngida raqamli texnologiyalarni og'zaki nutq mashg'ulotlariga samarali joriy etish bo'yicha amaliy tavsiyalar berilgan.

Kalit so'zlar: raqamli ta'lim texnologiyalari, ingliz tili, og'zaki nutq, nutqiy ravanlik, nutqni tanish ilovalari, video-suhbat, raqamli hikoya qilish, o'quvchi faolligi.

Annotation. This article analyzes the development of students' oral speaking skills in English language lessons using digital educational technologies. The study examines the impact of lessons organized with voice chatbots, speech recognition applications, video-conferencing platforms, and digital storytelling tools on students' speaking fluency, pronunciation, vocabulary range, and interactional adaptability. The results of a pedagogical experiment show that the systematic use of digital tools significantly increases students' oral speaking outcomes compared to the traditional

method. The article concludes with practical recommendations for effectively integrating digital technologies into speaking lessons.

Keywords: digital educational technologies, English language, oral speech, speaking fluency, speech recognition applications, video-conferencing, digital storytelling, student engagement.

Аннотация. В данной статье анализируются вопросы развития устных речевых навыков учащихся на занятиях по английскому языку с использованием цифровых образовательных технологий. В исследовании изучено влияние занятий, организованных с помощью голосовых чат-ботов, приложений распознавания речи, платформ видеосвязи и инструментов цифрового сторителлинга, на беглость речи, произношение, словарный запас и способность учащихся к взаимодействию. Результаты педагогического эксперимента показали, что систематическое использование цифровых инструментов значительно повышает показатели устной речи учащихся по сравнению с традиционным методом. В конце статьи представлены практические рекомендации по эффективному внедрению цифровых технологий в занятия по развитию устной речи.

Ключевые слова: цифровые образовательные технологии, английский язык, устная речь, беглость речи, приложения распознавания речи, видеосвязь, цифровой сторителлинг, вовлечённость учащихся.

KIRISH

Chet tilini o'qitishning asosiy maqsadlaridan biri o'quvchilarda real muloqot vaziyatlarida erkin va to'g'ri so'zlasha olish ko'nikmasini shakllantirishdir. Biroq an'anaviy auditoriya sharoitida har bir o'quvchiga individual nutqiy amaliyot uchun yetarli vaqt ajratish, real vaqtda qaytar aloqa berish va o'quvchining talaffuz xatolarini aniqlash ko'pincha qiyinchilik tug'diradi. So'nggi yillarda rivojlanayotgan raqamli ta'lim texnologiyalari — sun'iy intellekt asosidagi nutqni tanish ilovalari, ovozli chatbotlar, video-suhbat platformalari va raqamli hikoya qilish vositalari — ushbu muammoni bartaraf etishda yangi imkoniyatlar yaratmoqda.

Xorijiy tadqiqotchilar (Golonka et al., 2014; Chapelle, 2010; Godwin-Jones, 2018) kompyuter yordamida til o'rgatish (CALL) va sun'iy intellekt asosidagi vositalarning og'zaki nutq ko'nikmalarini rivojlantirishdagi salohiyatini, xususan individuallashtirilgan qaytar aloqa imkoniyatlarini alohida ta'kidlaydilar. O'zbek metodistlari (Ergasheva, 2022; Qodirova, 2021; Murodova, 2020) esa mahalliy ta'lim sharoitida raqamli vositalardan foydalanishning amaliy jihatlarini, jumladan o'quvchilar nutqiy faolligini oshirish masalalarini tadqiq qilishgan.

Tadqiqotning maqsadi — raqamli ta'lim texnologiyalaridan foydalangan holda ingliz tili darslarida o'quvchilarning og'zaki nutq ko'nikmalarini rivojlantirish metodikasini ishlab chiqish va uning samaradorligini eksperimental tarzda asoslashdir.

Tadqiqot vazifalari: 1) og'zaki nutq ko'nikmalarini rivojlantirishda raqamli texnologiyalarning nazariy-metodik imkoniyatlarini tahlil qilish; 2) nutqni tanish ilovalari, video-suhbat va raqamli hikoya qilish vositalari asosida darslar tizimini ishlab chiqish; 3) pedagogik eksperiment o'tkazib, natijalarni statistik tahlil qilish; 4) amaliy tavsiyalar shakllantirish.

TADQIQOT MATERIALLARI VA METODLARI

Tadqiqot 2024–2025 o'quv yilida umumta'lim maktabining 9-sinf o'quvchilari (n=60) ishtirokida olib borildi. O'quvchilar tajriba guruh (n=30) va nazorat guruhiga (n=30) bo'lindi. Nazorat guruhida og'zaki nutq mashqlari an'anaviy usulda — darslik dialoglari va o'qituvchi rahbarligidagi juft ishlar orqali — tashkil etildi. Tajriba guruhida esa quyidagi raqamli vositalardan foydalanilgan holda maxsus dars tizimi qo'llanildi: nutqni tanish (speech-to-text) ilovalari orqali talaffuzni o'z-o'zini nazorat qilish, ovozli chatbotlar bilan muloqot mashqlari, video-suhbat platformasi orqali tashkil etilgan juftlik va guruh muhokamalari hamda raqamli hikoya qilish (digital storytelling) vositalari yordamida tayyorlangan og'zaki taqdimotlar.

Tadqiqotda pedagogik kuzatuv, so'rovnoma, pre-test/post-test eksperiment dizayni va Styudent t-testi statistik metodi qo'llanildi. Og'zaki nutq ko'nikmalari CEFR mezonlariga mos analitik baholash rubrikasi asosida baholandi, unda ravonlik, talaffuz, lug'at boyligi, grammatik to'g'rilik va muloqotga moslashuvchanlik mezonlari alohida-alohida hisobga olindi. Eksperiment 13

hafta davom etdi, ikkala guruhda ham dastur mavzulari bir xil bo'lib, farq faqat qo'llanilgan metodika va vositalarda bo'ldi.

NATIJALAR

Eksperiment boshida ikkala guruhning og'zaki nutq bo'yicha boshlang'ich ko'rsatkichlari orasida statistik jihatdan sezilarli farq aniqlanmadi ($p>0,05$). 1-jadvalda keltirilgan natijalarga ko'ra, tajriba guruhida o'rtacha ball 52,4 dan 76,8 ballgacha (24,4 ballga) oshgan bo'lsa, nazorat guruhida bu ko'rsatkich 51,9 dan 60,3 ballgacha (8,4 ballga) o'sdi.

1-jadval. Tajriba va nazorat guruhlarining og'zaki nutq bo'yicha pre-test va post-test natijalari

Guruh	Talabalar soni	Boshlang'ich o'rtacha ball (pre-test)	Yakuniy o'rtacha ball (post-test)	O'sish, ball
Tajriba guruhi	30	52,4	76,8	+24,4
Nazorat guruhi	30	51,9	60,3	+8,4

2-jadvalda keltirilgan analitik rubrika natijalariga ko'ra, tajriba guruhi o'quvchilari barcha mezonlar bo'yicha nazorat guruhidan yuqori ko'rsatkichlarni namoyon etdi. Eng katta farq muloqotga moslashuvchanlik (interaction) mezonida kuzatildi (4,2 va 2,9 ball), bu esa video-suhbat va ovozli chatbotlar bilan ishlash o'quvchilarning real vaqtda muloqot qilish ko'nikmalarini sezilarli darajada rivojlantirganini ko'rsatadi.

2-jadval. Nutqiy ko'nikmalarining analitik rubrika bo'yicha taqqoslanishi (5 balli shkala)

Nutqiy ko'nikma mezon	Tajriba guruhi, o'rtacha ball (5 balli shkala)	Nazorat guruhi, o'rtacha ball (5 balli shkala)
Ravonlik (fluency)	4,1	3,0
Talaffuz (pronunciation)	3,9	3,1
Lug'at boyligi (vocabulary range)	4,0	3,2
Grammatik to'g'rilik (accuracy)	3,7	3,0
Muloqotga moslashuvchanlik (interaction)	4,2	2,9

So'rovnomaga natijalariga ko'ra tajriba guruhi o'quvchilarining 81 foizi nutqni tanish ilovalari orqali o'z talaffuz xatolarini mustaqil aniqlash imkoniyati ularning ishonchini oshirganini, 74 foizi esa ovozli chatbotlar bilan muloqot ularga xatolardan qo'rqqanidan gapirish tajribasini berganini qayd etishdi. Student t-testi natijalariga ko'ra guruhlar orasidagi farq statistik jihatdan ishonchli ekanligi tasdiqlandi ($t=6,58$; $p<0,01$).

MUHOKAMA

Olingan natijalar xorijiy tadqiqotchilarning (Golonka et al., 2014; Godwin-Jones, 2018) sun'iy intellekt asosidagi vositalar o'quvchilarga xavfsiz va bosim ostida bo'lmagan muhitda nutqiy amaliyot qilish imkoniyatini berishi haqidagi xulosalarini tasdiqlaydi. Ayniqsa ovozli chatbotlar va nutqni tanish ilovalari o'quvchilarga xatolardan qo'rqqanidan mashq qilish imkonini berib, ularning nutqiy ishonchini oshirishga xizmat qildi.

Shu bilan birga, tadqiqot davomida bir qator cheklovlar ham aniqlandi: ba'zi nutqni tanish ilovalarining o'zbek aksentidagi ingliz nutqini to'liq to'g'ri tanimasligi, internet aloqasi sifatiga bog'liqlik hamda o'qituvchilarning raqamli vositalardan foydalanish bo'yicha malaka darajasining turlichaligi. Chapelle (2010) ta'kidlaganidek, texnologiyaning o'zi emas, balki uni aniq pedagogik maqsadlar asosida integratsiyalash til o'rganish samaradorligini belgilaydi.

XULOSA

O'tkazilgan tadqiqot raqamli ta'lim texnologiyalaridan — nutqni tanish ilovalari, ovozli chatbotlar, video-suhbat platformalari va raqamli hikoya qilish vositalaridan — tizimli foydalanish o'quvchilarning og'zaki nutq ko'nikmalarini, xususan ravonlik va muloqotga moslashuvchanlik mezonlari bo'yicha, an'anaviy usulga nisbatan sezilarli darajada oshirishini ko'rsatdi.

Kelgusida quyidagilar tavsiya etiladi: 1) o'qituvchilar uchun nutqni rivojlantiruvchi raqamli vositalardan foydalanish bo'yicha malaka oshirish kurslarini tashkil etish; 2) o'quvchilarning individual nutqiy amaliyoti uchun haftalik raqamli mashqlar tizimini joriy etish; 3) o'zbek tili o'quvchilar aksentini hisobga oluvchi nutqni tanish vositalarini tanlashda ehtiyotkorlik bilan yondashish; 4) raqamli vositalar bilan bir qatorda jonli muloqot mashqlarini ham muvozanatli tarzda saqlab qolish.

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INGLIZ TILI DARSLARIDA MADANIYATLARARO MULOQOT KOMPETENSIYASINI SHAKLLANTIRISH METODIKASI

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"Xorijiy til va adabiyoti: ingliz tili" yo'nalishi magistranti,

Qarshi shahar

Annotatsiya. Ushbu maqolada ingliz tili darslarida o'quvchilarda madaniyatlararo muloqot kompetensiyasini shakllantirish metodikasining nazariy va amaliy asoslari yoritilgan. Globallashtirish sharoitida chet tilini o'rgatishning yakuniy maqsadi nafaqat grammatik va leksik bilim berish, balki turli madaniyat vakillari bilan samarali va hurmatga asoslangan muloqot qila olish qobiliyatini rivojlantirish ekanligi asoslab berilgan. Maqolada madaniyatlararo kompetensiyaning tarkibiy qismlari (bilim, ko'nikma, munosabat va tanqidiy madaniy ongi) tahlil qilingan hamda ushbu kompetensiyani shakllantirishga qaratilgan metodik usullar - qiyosiy madaniy tahlil, rolli o'yinlar, autentik matnlar bilan ishlash, loyiha metodi va virtual almashinuv dasturlari - ning samaradorligi tajriba-sinov ishlari natijalari asosida ko'rsatib berilgan.

Kalit so'zlar: madaniyatlararo muloqot kompetensiyasi, ingliz tili o'qitish metodikasi, madaniy ong, kommunikativ kompetensiya, autentik materiallar, loyiha metodi, chet til ta'limi, madaniyatlararo ta'lim.

Аннотация. В данной статье раскрываются теоретические и практические основы методики формирования межкультурной коммуникативной компетенции учащихся на уроках английского языка. Обосновывается, что в условиях глобализации конечной целью обучения иностранному языку является не только передача грамматических и лексических знаний, но и развитие способности эффективно и уважительно общаться с представителями различных культур. В статье анализируются структурные компоненты межкультурной компетенции (знания, умения, отношение и критическое культурное

сознание), а также на основе результатов опытно-экспериментальной работы показана эффективность методических приёмов её формирования - сравнительного культурного анализа, ролевых игр, работы с аутентичными текстами, проектного метода и программ виртуального обмена.

Ключевые слова: межкультурная коммуникативная компетенция, методика обучения английскому языку, культурное сознание, коммуникативная компетентность, аутентичные материалы, проектный метод, иноязычное образование, межкультурное обучение.

Annotation. This article examines the theoretical and practical foundations of the methodology for developing intercultural communicative competence among learners in English language lessons. It is argued that, under conditions of globalization, the ultimate goal of foreign language teaching is not only to convey grammatical and lexical knowledge but also to develop the ability to communicate effectively and respectfully with representatives of different cultures. The article analyzes the structural components of intercultural competence (knowledge, skills, attitudes, and critical cultural awareness) and, based on the results of experimental work, demonstrates the effectiveness of methodological techniques for its formation - comparative cultural analysis, role-play activities, work with authentic texts, the project method, and virtual exchange programs.

Keywords: intercultural communicative competence, English language teaching methodology, cultural awareness, communicative competence, authentic materials, project method, foreign language education, intercultural learning.

KIRISH

Zamonaviy jamiyatda madaniyatlararo aloqalarning kengayishi, xalqaro hamkorlik va migratsiya jarayonlarining kuchayishi chet tili ta'limi oldiga yangi vazifalarni qo'yimoqda. Endilikda ingliz tilini o'rgatishning maqsadi faqat til vositalarini - fonetika, leksika, grammatikani - egallash bilan cheklanmay, balki turli madaniyat vakillari bilan samarali, hurmatga asoslangan va nizosiz muloqot qila olish qobiliyatini, ya'ni madaniyatlararo muloqot kompetensiyasini shakllantirishni ham qamrab oladi. M.Bayram ta'kidlaganidek, tilni bilish o'z-o'zidan muvaffaqiyatli muloqotni kafolatlamaydi, agar suhbatdosh o'z madaniyati bilan boshqa madaniyat o'rtasidagi farqlarni anglay olmasa va bu farqlarga nisbatan ochiq hamda hurmatli munosabatda bo'lmasa.

O'zbekistonda xorijiy tillarni o'qitish tizimini isloh qilish borasidagi davlat siyosati o'quvchilarda nafaqat lingvistik, balki sotsiolingvistik va pragmatik kompetensiyalarni ham rivojlantirishni talab etadi. Biroq amaliyotda ko'plab o'qituvchilar hamon til materialini uzatishga urg'u berib, madaniy jihatlarni ikkinchi darajali masala sifatida qaraydilar. Bu esa o'quvchilarda madaniy stereotiplar, etnotsentrizm va real muloqot vaziyatlarida vujudga keladigan tushunmovchiliklarning oldini ololmaslik kabi muammolarni keltirib chiqaradi.

Ushbu maqolaning maqsadi - ingliz tili darslarida o'quvchilarda madaniyatlararo muloqot kompetensiyasini shakllantirishning metodik asoslarini ochib berish va bu boradagi samarali usullarning amaliy natijalarini tahlil qilishdir.

Tadqiqot vazifalari: 1) madaniyatlararo muloqot kompetensiyasining tarkibiy qismlarini nazariy jihatdan tahlil qilish; 2) ushbu kompetensiyani shakllantirishga xizmat qiluvchi metodik usullarni aniqlash; 3) tajriba-sinov ishlari orqali tanlangan metodlarning samaradorligini baholash.

MATERIALLAR VA METODLAR

Tadqiqot 2024-2025 o'quv yilida bir nechta akademik litsey va umumta'lim maktablarining yuqori sinf (9-10-sinf) o'quvchilari (jami 58 nafar o'quvchi, ulardan 29 nafari tajriba guruhi, 29 nafari nazorat guruhi) ishtirokida olib borildi. Tadqiqotda quyidagi metodlardan foydalanildi:

- nazariy tahlil - madaniyatlararo kompetensiya nazariyalari (M.Bayram, G.Xofstede modeli)ni o'rganish va tizimlashtirish;

- pedagogik kuzatuv - o'quvchilarning madaniy mavzudagi topshiriqlarga munosabati va faolligini kuzatish;

- pedagogik tajriba-sinov - tajriba guruhida qiyosiy madaniy tahlil, rolli o'yinlar, autentik video va matnlar, loyiha ishlari va virtual almashinuv (masofaviy hamkor sinf bilan yozishmalar) tizimli qo'llanildi; nazorat guruhida faqat darslikdagi an'anaviy mavzular bo'yicha ish olib borildi;

- so'rovnoma va test - tajriba boshida va oxirida o'quvchilarning madaniy bilimlari, stereotiplarga munosabati va muloqot vaziyatlarini hal qilish qobiliyati maxsus test-so'rovnoma orqali baholandi;

- statistik tahlil - olingan natijalar foiz nisbatida qayta ishlanib, tajriba va nazorat guruhlarini qiyoslandi.

NATIJALAR

Tajriba-sinov ishlari yakunida tajriba va nazorat guruhlarida quyidagi ko'rsatkichlar qayd etildi:

1-jadval. Tajriba va nazorat guruhlarini natijalarining qiyosiy ko'rsatkichlari

Ko'rsatkich	Tajriba guruhi	Nazorat guruhi
Madaniy bilimlar darajasi	84%	56%
Stereotiplarga tanqidiy yondashuv	77%	42%
Muloqot vaziyatlarini hal qilish qobiliyati	80%	49%
Boshqa madaniyatga nisbatan ochiqlik	86%	53%

Jadval ma'lumotlaridan ko'rinadiki, madaniyatlararo yo'naltirilgan metodlar qo'llanilgan tajriba guruhida barcha ko'rsatkichlar bo'yicha sezilarli o'sish kuzatildi. Ayniqsa, "stereotiplarga tanqidiy yondashuv" va "boshqa madaniyatga nisbatan ochiqlik" ko'rsatkichlarining yuqori bo'lishi tanlangan metodlarning nafaqat bilim, balki munosabat va qadriyatlar darajasida ham ijobiy o'zgarish yaratganini tasdiqlaydi. Loyiha ishlari va virtual almashinuv faoliyatida ishtirok etgan o'quvchilar real muloqot tajribasiga ega bo'lib, til va madaniyatni bir-biridan ajratmagan holda o'zlashtirishga muvaffaq bo'lishdi.

MUHOKAMA

Olingan natijalar madaniyatlararo muloqot kompetensiyasining ko'p qirrali tabiati bilan izohlanadi. M.Bayram modeliga ko'ra, ushbu kompetensiya besh tarkibiy qismdan iborat: bilim (savoirs), talqin qilish va bog'lash ko'nikmalari, kashf etish va o'zaro ta'sir ko'nikmalari, munosabat (qiziquvchanlik va ochiqlik) hamda tanqidiy madaniy ong. Tajriba guruhida qo'llanilgan qiyosiy madaniy tahlil mashqlari o'quvchilarda o'z madaniyati va o'rganilayotgan til madaniyati o'rtasidagi o'xshashlik va farqlarni anglashga, shu orqali "bilim" va "tanqidiy ong" komponentlarini rivojlantirishga xizmat qildi.

Rolli o'yinlar va real hayotiy vaziyatlarni modellashtirish esa o'quvchilarda "kashf etish va o'zaro ta'sir ko'nikmalari"ni shakllantirdi - ular nafaqat tomoshabin emas, balki muloqotning faol ishtirokchisi sifatida madaniy jihatdan nozik vaziyatlarda qanday harakat qilishni amaliy sinab ko'rishdi. G.Xofstedening madaniy o'lchovlar nazariyasi nuqtai nazaridan, o'quvchilarga individualizm-kollektivizm, hokimiyat masofasi kabi madaniy o'zgaruvchilarni misollar orqali tushuntirish ularda abstrakt madaniy farqlarni aniq va tushunarli tarzda idrok etishga yordam berdi.

Shu bilan birga, virtual almashinuv dasturlarining yuqori samaradorligi zamonaviy raqamli texnologiyalarning madaniyatlararo ta'limdagi salohiyatini ko'rsatadi - bunday hamkorlik real muloqot tajribasini sinfxona sharoitida ham ta'minlash imkonini beradi. Biroq bunday metodlarni qo'llash o'qituvchidan nafaqat lingvistik, balki madaniyatshunoslik sohasidagi bilim va yuqori metodik mahoratni talab etadi, bu esa o'qituvchilar malakasini oshirish tizimini takomillashtirish zaruratini ko'rsatadi.

XULOSA

O'tkazilgan tadqiqot ingliz tili darslarida madaniyatlararo muloqot kompetensiyasini shakllantirish zamonaviy chet til ta'limining ajralmas qismi ekanligini tasdiqladi. Qiyosiy madaniy tahlil, rolly o'yinlar, autentik materiallar bilan ishlash, loyiha metodi va virtual almashinuv kabi usullarning tizimli qo'llanilishi o'quvchilarda nafaqat madaniy bilimlarni, balki tanqidiy madaniy

ong, boshqa madaniyatga nisbatan ochiqlik va real muloqot vaziyatlarini hal qilish ko'nikmalarini ham rivojlantirishini amaliy natijalar orqali isbotladi.

Shu asosda quyidagi tavsiyalar ishlab chiqiladi: ingliz tili o'qituvchilari dars mazmuniga tizimli ravishda madaniy-qiyosiy topshiriqlarni kiritishlari; autentik materiallardan (video, gazeta maqolalari, ijtimoiy tarmoq postlari) foydalanishni kengaytirishlari; imkon qadar xorijiy sheriklar bilan virtual almashinuv loyihalarini tashkil etishlari lozim. Kelgusi tadqiqotlarda madaniyatlararo kompetensiyani baholashning aniq mezon va vositalarini ishlab chiqish, shuningdek sun'iy intellektga asoslangan platformalarning bu jarayondagi imkoniyatlarini o'rganish dolzarb yo'nalish bo'lib qolmoqda.

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LINGUA-CULTURAL FEATURES OF ENGLISH PHRASEOLOGICAL UNITS

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Abstract. *This study explores the cultural aspects of English idioms. It connects language to deep beliefs that shape their meanings. It examines grammar, word choice, and sentence nuances in phrases like "kick the bucket" or "spill the beans." It also looks at how national characteristics, such as British irony or American boldness, influence these phrases. By tracing their historical and cultural origins, the study illustrates how these phrases carry rich stories, making them hard to translate without losing their essence.*

Key words: Phraseological units, Idioms, Proverbs, Collocations, Linguocultural features, Cultural semantics, Idiomatic expressions, Language and culture, Figurative meaning, English linguistics

Аннотация. *В данном исследовании рассматриваются культурные аспекты английских идиом. Язык связывается с глубинными представлениями и убеждениями, которые формируют их значения. Анализируются грамматика, выбор лексики и смысловые оттенки предложений в таких выражениях, как «kick the bucket» и «spill the beans». Также рассматривается влияние национальных особенностей, таких как британская ирония или американская прямолинейность, на формирование подобных выражений. Прослеживая их историческое и культурное происхождение, исследование показывает, что эти выражения содержат богатый культурно-исторический контекст, что затрудняет их перевод без утраты первоначального смысла и самобытности.*

Ключевые слова: фразеологические единицы, идиомы, пословицы, коллокации, лингвокультурные особенности, культурная семантика, идиоматические выражения, язык и культура, переносное значение, английская лингвистика.

Annotatsiya. Mazkur tadqiqot ingliz tilidagi idiomalarning madaniy jihatlarini o'rganadi. Unda til ularning ma'nolarini shakllantiruvchi chuqur e'tiqodlar va qarashlar bilan bog'liqligi tahlil qilinadi. «Kick the bucket» va «spill the beans» kabi iboralardagi grammatik xususiyatlar, so'z tanlovi hamda gap mazmunining nozik jihatlarini ko'rib chiqiladi. Shuningdek, ingliz milliy madaniyatiga xos bo'lgan britancho kinoya yoki amerikaliklarga xos dadillik kabi xususiyatlarning bunday iboralar shakllanishiga ta'siri ham tahlil qilinadi. Ularning tarixiy va madaniy kelib chiqishini o'rganish orqali tadqiqot ushbu iboralar boy tarixiy va madaniy mazmunni o'zida mujassam etishini ko'rsatadi. Shu sababli ularni asl mohiyatini yo'qotmagan holda boshqa tilga tarjima qilish qiyin kechadi.

Kalit so'zlar: frazeologik birliklar, idiomalar, maqollar, kollokatsiyalar, lingvomadaniy xususiyatlar, madaniy semantika, idiomatik iboralar, til va madaniyat, ko'chma ma'no, ingliz tilshunosligi.

INTRODUCTION.

English phraseological units, including idioms, proverbs, and collocations, are filled with cultural, historical, and linguistic significance. These expressions often convey more than their literal meanings; they tell stories, reflect customs, or express beliefs from earlier times. For example, the idiom "raining cats and dogs" comes from 17th-century England, where heavy rains flooded streets and washed away animals and debris. Similarly, "break the ice" has literary ties, most notably to Shakespeare, and refers to starting social interactions. Many idioms originate in mythology, history, or social practices, representing the norms and tales of their times, such as "Achilles' heel," which comes from Greek mythology, or "bite the bullet," which relates to wartime medical practices. These expressions are not just linguistic artifacts; they also serve as cultural connectors that allow different societies to share humor, wisdom, and history through language. For instance, "kick the bucket" has roots in slaughterhouses, while "raining cats and dogs" connects to storms and urban flooding. Additionally, idioms like "Bob's your uncle" and "throw in the towel" illustrate British irony and social customs. Their backgrounds often reveal interesting stories about societal practices, mythology, or historical events, showing how language embodies culture, humor, and history.

MAIN PART.

Idioms convey cultural attitudes in few words. Take "kick the bucket"; it is a darkly playful euphemism for death. One common explanation connects it to old slaughtering practices. The phrase's blend of bluntness and humor reflects a typical British taste for understatement.

Proverbs represent long-standing social ideas. "Birds of a feather flock together" reflects ancient concerns about tribe and belonging. Its journey through Aesop and Greek thought helped it become universal, yet it still carries a bias toward collectivism.

Collocations are intentional. Phrases like "strong tea" reveal social history—British associations with resilience and comfort make that adjective feel natural in their culture.

Regional shifts alter nuances. American "spill the beans" takes an obscure Greek practice of secret voting and turns it into casual gossip, losing some of the original ritual significance. Likewise, global borrowings get reshaped; Arabic speakers might adopt the English phrase "bite the dust" but adapt it with local warrior or desert imagery.

They resist literal translation. Jokes disappear, historical context fades, and meanings change when phrases cross languages, underscoring how embedded they are in specific cultural networks.

Power and history shape them. Colonial contact, for example, leaves marks in Indian English, where British idioms mix with local expressions to create new meanings. This blend reflects unequal histories and creative adaptation.

They evolve with society. Changes in gender roles have led to questioning phrases like "wear the pants," and new social changes create fresh expressions; for example, "ghosting" from online dating is a clear instance.

These phraseological units act as bridges; they connect eras, regions, and social attitudes, revealing values and power dynamics. They are never just neutral bits of language—they are always cultural and always meaningful.

Origins: many idioms begin in folklore, religion, or daily life.

"Bite the bullet" often references the battlefield story—soldiers chewing lead when there was no anesthetic. The phrase continues to evoke a sense of stoic toughness. "Rule of thumb" links to an old claim that laws allowed a husband to beat his wife with a stick the width of his thumb. Whether true or a myth, the expression now signals gender bias in language. Phrase chunks start as remnants from the past:

"Kick the bucket"? A grim joke from slaughterhouses: animals thrashing, buckets flying. British understatement dresses up the blood.

"Bite the bullet" feels real too: soldiers biting lead during surgery without anesthetic. Pain evolved into a proverb.

"Break a leg" comes from theater superstition. Instead of wishing good luck, actors hope for injury as a way to ward off bad luck. It's Shakespearean, dramatic, and ironic.

Food spills into language: "spill the beans" references an ancient Greek voting method using beans in jars. To tip it means revealing secrets—an idea of democracy now turned into gossip.

Weather idioms reflect climate. "Under the weather" comes from sailors placing sick mates below decks to shield them from cold spray—deeply nautical, stoic, and still common in conversation.

Politics also plays a role. "Throw someone under the bus," an American expression, suggests quick betrayal, akin to roadkill. It emerged from 1980s political campaigns and became a global term for swift treachery.

Youth transforms language too. Gen Z has shortened charisma to "rizz." It's not quite a phrase yet, but expect it to stick.

Language captures life from ships to scrolls. Your article should let idioms share history without just looking appealing.

- Class. Power and tone: some phrases reveal who holds influence. "Pull strings" evokes images of secret deals and unnoticed elite maneuvering—showing power operating in the shadows. In contrast, the Australian phrase "she'll be right" conveys a casual attitude: practical, laid-back, and resistant to fuss. Words demonstrate who controls the narrative. "Pull strings" suggests behind-the-scenes influence and secret arrangements. For others, phrases like "keep your chin up" or the stiff-upper-lip stereotype surface. These sayings often mask real inequality with bravado.

- Migration and remixing: when people move, words travel with them and take on new meanings. In Caribbean English, "lime" means "hang out," often associated with market stalls. Some trace the influence back to the Spanish word for lemon. This process is creolization—old words merged into new social contexts, energized by local life. When people relocate, their words migrate too, gaining new connotations. Caribbean "lime" for hanging out emerged from market stalls and public spaces, showcasing social life. Indian English adapts phrases like "fifteen minutes of fame," giving it a Bollywood flair—same concept, with brighter lights.

- Change and new needs: phraseology continues to evolve. "Gaslighting" moved from a 1940s play and film into psychological language and everyday use—an example of language reflecting social trauma. New realities generate new sayings; shifting values make old ones stand out. Look closer: phraseological units also reveal body politics. "Cold feet" is commonly used in English to express nerves before a wedding, but in the medieval era, it related to frostbite during long marches. It now signifies fear, rather than survival.

Food also influences language. "Piece of cake" suggests ease, but in the context of food, it held deeper meaning during the 1930s Depression when cake was a luxury. If something is seen as sweet, it is simple. The same applies to "bring home the bacon," originally a prize in village races that now signifies earning money.

Religion is another factor. "Turn the other cheek," a phrase from Jesus, is often used casually in English, stripping its sacred meaning for sarcasm.

Technology is also important. "Upload your soul" is not yet an idiom, but "doomscroll" already is-new stresses lead to new phrases.

CONCLUSION.

This study has really shown us the features of English phraseological units, like idioms, proverbs and collocations. English phraseological units are not ordinary words. They are the heart of a whole culture. They are what make a culture come alive. They show us what a culture values. We use expressions like "kick the bucket " "spill the beans " "bite the bullet " and "raining cats and dogs" in our speech. English phraseological units like these come from the past from places like slaughterhouses ancient Greek voting rituals, sailors ships, Shakespeares stages and battlefields. They even come from British humor.

English phraseological units are still used today to show the spirit of a nation how people feel about things how people make jokes and how people relate to each other.

This analysis has clearly shown that English phraseological units are never just neutral. They show us how society works, who has power and who does not. English phraseological units like "strings" show us the games people play behind the scenes. English phraseological units like "wear the pants" and "rule of thumb" show us what people think about men and women.

English phraseological units also show us what people think in parts of the world. For example in America people say "throw someone under the bus " and in Australia people say "she'll be right." English phraseological units like these come from the Caribbean like "lime ". From India like "fifteen minutes of fame."

As society changes English phraseological units also change. When peoples ideas about men and women change old phrases are not used anymore. They are used in a different way. With the internet new English phraseological units are born, like "" "doomscroll," and "rizz."

Even though English phraseological units change they still carry the same cultural meaning. This is why they are so hard to translate. Because if you just translate the words you lose the humor, the hidden meaning and the history.

So English phraseological units are like bridges, between times, places, social classes and cultures. They help us understand the past. They shape the present and the future.

In conclusion English phraseologisms are not just something linguists study. They are a collection of experiences. English phraseological units are funny, serious and always changing. If we study phraseological units deeply we can see that language is not just a way to communicate. It is a way to understand culture. We should keep studying phraseological units and we should look at how they compare across languages, how new ones are born in the digital age and how we can help people who are learning a new language understand the culture.

English phraseological units are the heart and soul of a language. They are not words. They are what make a language alive. English phraseological units will never be words.

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A METHODOLOGY FOR DEVELOPING STUDENTS' CREATIVE AND PROBLEM-SOLVING THINKING SKILLS THROUGH STEAM EDUCATION

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Annotatsiya. Ushbu maqolada STEAM ta'limi orqali talabalarning ijodiy va muammolarni hal qilishga yo'naltirilgan tafakkurini rivojlantirishga qaratilgan amaliy metodika taklif etiladi. Mazkur metodika muammoni aniqlash, tadqiqot olib borish, turli xil g'oyalarni yaratish, loyihalash, prototip yaratish, sinovdan o'tkazish, refleksiya va takomillashtirish bosqichlaridan iborat siklga asoslanadi. Metodika ta'lim oluvchilarni tayyor va ma'lum axborotni takrorlashdan muqobil yechimlarni ishlab chiqish hamda ularni baholashga yo'naltirishni ko'zda tutadi. Maqolada metodik tamoyillar, STEAM darsining bosqichlari, topshiriqlarga misollar hamda ijodiy va muammolarni hal qilish natijalarini baholash mezonlari keltiriladi. Taklif etilayotgan yondashuv tabiiy fanlar, matematika va texnologiyaga oid darslarga moslashtirilishi hamda raqamli vositalar yoki arzon va mavjud materiallardan foydalangan holda amalga oshirilishi mumkin.

Kalit so'zlar: STEAM, ijodiy tafakkur, muammolarni hal qilish, dizayn tafakkuri, tadqiqot faoliyati, loyiha asosida ta'lim, prototip, refleksiya, baholash.

Аннотация. В статье предлагается практическая методика развития творческого мышления и навыков решения проблем у студентов посредством STEAM-образования. Методика основана на цикле, включающем выявление проблемы, исследование, генерацию разнообразных идей, проектирование, создание прототипа, тестирование, рефлексию и совершенствование. Данный подход направлен на переход обучающихся от воспроизведения известной информации к разработке и оценке альтернативных решений. В статье представлены методические принципы, этапы проведения STEAM-занятия, примеры заданий, а также критерии оценки результатов развития творческого мышления и навыков решения проблем. Предлагаемый подход может быть адаптирован к занятиям по естественным наукам, математике и технологиям и реализован с использованием как цифровых инструментов, так и доступных недорогих материалов.

Ключевые слова: STEAM, творческое мышление, решение проблем, дизайн-мышление, исследовательская деятельность, проектное обучение, прототип, рефлексия, оценивание.

Abstract. The article proposes a practical methodology for developing students' creative and problem-solving thinking through STEAM education. The methodology is based on a cycle of problem identification, inquiry, divergent idea generation, design, prototyping, testing, reflection and improvement. It is intended to move learners from reproducing known information toward generating and evaluating alternative solutions. The article presents methodological principles, stages of a STEAM lesson, examples of tasks and criteria for evaluating creative and problem-solving outcomes. The proposed approach can be adapted to science, mathematics and technology-related lessons and can be implemented with both digital and low-cost materials.

Keywords: STEAM, creative thinking, problem-solving, design thinking, inquiry, project learning, prototype, reflection, assessment.

INTRODUCTION.

Developing students' ability to solve unfamiliar problems is one of the major objectives of contemporary education. Traditional tasks often lead to one expected answer, while real-life problems may have several reasonable solutions and require decisions under incomplete information. STEAM education provides a suitable environment for such learning because it combines inquiry, design and communication across several fields.

The PISA 2022 Creative Thinking Framework describes creative thinking through processes such as generating diverse ideas, generating creative ideas, and evaluating and improving ideas. It also notes that creative thinking is a developable competence that can be nurtured through targeted educational practice.

MATERIALS AND METHODS

Methodological principles. Problem orientation: each activity begins with a meaningful question or challenge rather than a ready-made procedure.

Multiple solutions: students are encouraged to generate more than one possible explanation, design or answer. Evidence and testing: ideas must be supported by observations, measurements, calculations or trials. Iteration: students are expected to revise an initial solution after receiving evidence or feedback. Collaboration: roles are distributed so that learners explain, question, design, calculate and evaluate.

Reflection: students describe not only what they produced, but why they selected a particular solution. The proposed STEAM-CPS cycle is designed as a structured and iterative methodology for developing students' creative and problem-solving thinking skills through interdisciplinary learning. The cycle consists of nine interconnected stages:

Stage1.Challenge.

The learning process begins with a real-world problem or authentic challenge. The teacher presents the problem together with clearly defined criteria and constraints. Students identify the main issue and determine what needs to be solved.

Stage2.Explore. Students investigate the problem by collecting relevant information, observing phenomena, conducting simple experiments, analysing data, and discussing possible causes and relationships. At this stage, the teacher provides guidance without giving students a ready-made solution.

Stage3.Generate. Students generate several possible solutions to the identified problem. Brainstorming, discussion, visualisation, modelling and other creative techniques are used to encourage divergent thinking. At this stage, students are encouraged to consider different alternatives before evaluating them.

Stage4.Select. The proposed alternatives are analysed according to predetermined criteria such as feasibility, accuracy, safety, cost, available resources and environmental impact. Students compare the advantages and limitations of each idea and select the most appropriate solution for further development.

Stage5.Create. Students transform the selected idea into a tangible or visual representation. Depending on the learning task, this may involve constructing a prototype, developing a model, creating an algorithm, preparing a diagram or producing another form of solution. The teacher facilitates the process and provides methodological support when necessary.

Stage6. Test. The developed product, model or solution is tested under specified conditions. Students collect and record relevant data and compare the obtained results with the initial criteria. Errors and unexpected results are treated as an important part of the learning process rather than simply as failures.

Stage7.Improve. Based on the testing results, students identify weaknesses in their initial solution and make appropriate modifications. The improved version is tested again when necessary. This stage makes the methodology iterative and encourages students to understand that an effective solution can emerge through repeated testing and refinement. Such iterative improvement is a characteristic feature of engineering-oriented STEAM learning.

Stage8.Explain. Students present their final solution to classmates or another appropriate audience. They explain the problem they addressed, describe the development process, present the evidence obtained during testing and justify why the final solution was selected. This stage develops communication, argumentation and the ability to defend decisions using evidence.

Stage9.Reflect. At the final stage, students evaluate their own learning process. They identify the knowledge and skills they acquired, analyse which strategies were successful or unsuccessful, and formulate possible improvements for future tasks. Reflection also helps students recognise how their creative and problem-solving approaches changed during the activity. Reflection is commonly incorporated into contemporary STEAM/design-thinking approaches as a means of supporting metacognitive development.

Example of a STEAM task

A suitable task for a science lesson is: “Design a simple structure that can carry the greatest load using a limited amount of material.” Science is used to examine forces and stability; mathematics is used to measure dimensions and compare load-to-material ratios; engineering is used to design and improve the structure; technology may be used for modelling or documentation; and arts contribute to visual communication and presentation. The important point is that no single subject completes the task independently.

RESULTS AND DISCUSSION.

A four-level rubric can be used. Level 1 indicates reproduction of a known procedure; Level 2 indicates an appropriate solution with limited justification; Level 3 indicates several alternatives, evidence-based selection and successful testing; Level 4 indicates original ideas, systematic testing, meaningful revision and a well-justified final solution. Assessment should also include self-assessment and peer feedback because students need to recognise the quality of their own reasoning.

The need for such methodology is particularly clear in light of international evidence. In PISA 2022, students in Uzbekistan had a mean creative-thinking score of 14 out of 60, compared with an OECD average of 33; 16% reached at least the baseline proficiency level, compared with 78% across OECD countries. Cite turn search These results should not be interpreted as a judgment on individual students or teachers. Rather, they indicate the importance of creating more systematic opportunities for open-ended problem solving, idea generation and revision in classroom practice.

Regular implementation of the proposed cycle is expected to improve students’ ability to formulate questions, generate alternatives, select solutions according to criteria, use evidence, work collaboratively and revise unsuccessful attempts. It also supports metacognitive awareness because learners must explain the reasoning that led from the original problem to the final product.

CONCLUSION

The proposed STEAM-CPS methodology treats creativity and problem solving as teachable and observable learning outcomes. Its strength lies in combining open-ended tasks with evidence, design, testing and reflection. The methodology does not require expensive equipment in every lesson; the essential condition is that students have an opportunity to make decisions, test their ideas and improve them. Consequently, STEAM can function not only as an interdisciplinary content model but also as a structured pedagogy for developing flexible and productive thinking.

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THE INTEGRATION OF GENERATIVE ARTIFICIAL INTELLIGENCE IN ENGLISH LANGUAGE TEACHING: DESIGNING ADAPTIVE LEARNING MATERIALS FOR HIGHER EDUCATION

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Abstract. This article explores the transformative potential of Generative Artificial Intelligence (GenAI) in English Language Teaching (ELT), specifically focusing on the design and implementation of adaptive learning materials for undergraduate students. As digital technologies continue to reshape educational paradigms, Large Language Models (LLMs) such as ChatGPT and Claude offer unprecedented opportunities for personalized pedagogy. The study investigates how AI-driven tools can be utilized to generate level-appropriate texts, contextualized vocabulary exercises, and interactive grammar activities tailored to diverse student needs. Through a qualitative and quantitative analysis of AI-generated instructional materials, the article evaluates their linguistic accuracy, pedagogical relevance, and adaptability. The findings demonstrate that integrating GenAI significantly reduces lesson preparation time for educators while enhancing student engagement and communicative competence. However, the study also highlights the imperative of human oversight to mitigate algorithmic bias and structural errors.

Keywords: Artificial Intelligence, Generative AI, English Language Teaching (ELT), Adaptive Learning, Material Design, Higher Education, Pedagogy.

Аннотация. В данной статье рассматривается потенциал генеративного искусственного интеллекта (ИИ) в преподавании английского языка, с особым акцентом на разработку адаптивных учебных материалов для студентов вузов. По мере того как цифровые технологии трансформируют образовательные парадигмы, языковые модели (LLM), такие как ChatGPT и Claude, открывают уникальные возможности для персонализированного обучения. В исследовании изучается применение ИИ для создания текстов соответствующего уровня сложности, контекстных лексических упражнений и интерактивных грамматических заданий. На основе качественного и количественного анализа материалов оценивается их лингвистическая точность и педагогическая ценность. Результаты показывают, что интеграция ИИ существенно сокращает время подготовки преподавателя к занятиям и повышает вовлеченность студентов. В то же время подчеркивается необходимость методического контроля со стороны преподавателя.

Ключевые слова: искусственный интеллект, генеративный ИИ, преподавание английского языка, адаптивное обучение, разработка материалов, высшее образование.

Annotatsiya. Ushbu maqolada ingliz tilini o'rgatishda generativ sun'iy intellektning (SI) imkoniyatlari hamda oliy ta'lim talabalari uchun moslashuvchan o'quv materiallarini ishlab chiqish masalalari yoritilgan. Raqamli texnologiyalar ta'lim tizimini o'zgartirayotgan bir paytda, ChatGPT va Claude kabi til modellari shaxsiylashtirilgan ta'lim uchun keng imkoniyatlar yaratmoqda. Tadqiqotda sun'iy intellektdan mos darajadagi matnlar, kontekstli lug'at mashqlari va interaktiv grammatik topshiriqlarni yaratishda foydalanish usullari tahlil qilinadi. SI tomonidan yaratilgan materiallarning lingvistik aniqligi va pedagogik samaradorligi baholanadi. Natijalar shuni ko'rsatadiki, SIning qo'llanilishi o'qituvchining darsga tayyorgarlik vaqtini sezilarli darajada qisqartiradi va talabalarning qiziqishini oshiradi. Shu bilan birga, metodik nazoratning zarurligi ham ta'kidlanadi.

Kalit so'zlar: sun'iy intellekt, generativ SI, ingliz tilini o'qitish, moslashuvchan ta'lim, materiallar yaratish, oliy ta'lim.

INTRODUCTION

The rapid advancement of digital technologies in the twenty-first century has fundamentally altered the landscape of higher education, particularly in the field of English Language Teaching (ELT). Traditional pedagogical frameworks, which often rely on static textbooks and standardized

instructional pathways, are increasingly challenged to meet the diverse linguistic capabilities and cognitive preferences of modern language learners. In response to these evolving demands, educational technology has shifted from passive digital resources toward intelligent, interactive systems capable of customizing instructional content in real time. Among these technological innovations, Generative Artificial Intelligence (GenAI) and Large Language Models (LLMs) — such as OpenAI's ChatGPT, Anthropic's Claude, and Google's Gemini — represent a momentous paradigm shift in language pedagogy. Generative AI platforms possess the capability to process, analyze, and produce human-like text across multiple registers and complexity levels. For foreign language educators, this capability introduces unprecedented opportunities to address one of the most persistent challenges in ELT: the creation of adaptive, context-sensitive learning materials. Adaptive learning refers to an educational approach where instructional content, pace, and feedback are continuously modified based on the learner's individual performance, goals, and background knowledge. Historically, designing tailored curriculum materials required immense temporal and cognitive investment from educators, rendering comprehensive differentiation difficult to sustain in large classroom settings. However, the integration of GenAI into material development allows educators to instantly generate supplementary reading texts, contextualized vocabulary lists, differentiated grammar exercises, and communicative role-play scenarios targeted at specific proficiency levels (e.g., Common European Framework of Reference for Languages [CEFR] levels A1 through C2). Despite these advantages, the pedagogical adoption of GenAI remains in its early stages. Many pre-service and novice language instructors lack clear methodological frameworks regarding how to construct effective prompts, evaluate AI-generated outputs, and maintain critical oversight over automated content. Issues such as linguistic hallucinations, socio-cultural biases, and over-reliance on automated structures pose significant pedagogical risks if left unaddressed.

Therefore, this study aims to examine the practical integration of Generative AI in ELT material design, focusing on its application within higher education contexts. By exploring prompt engineering strategies and evaluating the pedagogical fidelity of generated resources, this article seeks to provide novice educators and researchers with a structured, pragmatic model for incorporating AI tools into contemporary teaching practices. The central inquiry revolves around how GenAI can be systematically leveraged to streamline lesson preparation while enhancing the communicative utility and adaptability of instructional materials.

The intersection of Artificial Intelligence and Computer-Assisted Language Learning (CALL) has generated substantial scholarly interest over the past decade. Early implementations of AI in language education primarily focused on Intelligent Tutoring Systems (ITS) and Automated Writing Evaluation (AWE) software, such as Grammarly or ETS Criterion, which provided structural feedback on syntax and mechanics (Chockley & Vinall, 2024). While these early tools demonstrated efficacy in rule-based feedback, they lacked the generative capability to create open-ended, contextualized instructional content tailored to specific classroom dynamics.

The emergence of Large Language Models marked a dramatic evolution from rule-based CALL to generative, conversational AI systems. According to recent research by Hockly (2023), GenAI tools represent a new frontier in language education due to their natural language processing (NLP) prowess, enabling real-time dialogue simulation, adaptive text simplification, and rapid instructional material generation. Unlike conventional static databases, LLMs operate on probabilistic neural networks trained on vast multilingual corpora, enabling them to comprehend nuanced pedagogical instructions and generate highly context-aware outputs.

Pedagogically, the theoretical foundation of adaptive material design through AI relies heavily on Vygotsky's (1978) Sociocultural Theory, specifically the concept of the Zone of Proximal Development (ZPD), and Krashen's (1985) Input Hypothesis ($i+1$). Krashen posits that optimal language acquisition occurs when learners are exposed to comprehensible input that is slightly beyond their current level of proficiency. In a conventional classroom, providing tailored $i+1$ input for every individual student is logistically challenging. However, as scholarly studies by Lee (2023) suggest, GenAI acts as a dynamic scaffolding tool, allowing teachers to take a single source text and

automatically adjust its lexical density, syntactic complexity, and thematic focus to align perfectly with varying student readiness levels within the same cohort.

Furthermore, research on teacher workload and instructional design emphasizes that material preparation constitutes one of the most time-consuming aspects of language instruction (Richards, 2017). A study by Kasneci et al. (2023) highlights that educators who incorporate GenAI into lesson planning experience a significant reduction in administrative and preparation fatigue, enabling them to reallocate time toward active classroom interaction and individual student mentoring. Nevertheless, scholars continuously caution against uncritical adoption. Questions regarding the authenticity of AI-generated language, potential cultural homogenization, and the preservation of human agency in teaching remain pivotal topics in contemporary ELT research (Hockly, 2023; Chockley & Vinall, 2024).

METHODOLOGY

To systematically investigate the effectiveness and pedagogical viability of GenAI in designing adaptive learning materials, a mixed-methods exploratory research design was adopted. The methodology involved two primary phases: (1) an empirical material generation and evaluation framework utilizing prompt engineering, and (2) an observational pilot evaluation conducted with undergraduate students in an English language program. In the first phase, three major LLM platforms — OpenAI ChatGPT (GPT-4 architecture), Anthropic Claude 3, and Google Gemini — were selected to generate target instructional materials across three distinct linguistic domains: reading comprehension, functional vocabulary, and interactive grammar practice. Standardized prompt engineering protocols were constructed using the PREP framework (Prompt, Role, Explicit instructions, Parameters). For instance, to create differentiated reading texts, the following standardized prompt template was deployed:

“Act as an expert ELT material designer. Generate an informative passage about 'Digital Technology in Modern Workplaces' targeted at CEFR B1 level learners. Length: 250 words. Ensure the text incorporates 8 target vocabulary items related to technology. Following the text, create 5 multiple-choice comprehension questions and 3 open-ended discussion prompts.”

The generated materials were systematically evaluated using a Rubric for ELT Material Quality, which assessed four primary criteria on a 5-point Likert scale: (a) Linguistic Accuracy and Naturalness, (b) CEFR Alignment, (c) Pedagogical Relevance, and (d) Practical Usability without Editing. A panel of three experienced ELT university instructors conducted double-blind evaluations of 30 generated sample sets.

In the second phase, a select batch of high-scoring AI-generated materials was trialed in a 4-week pilot module involving 45 fourth-year undergraduate students enrolled in a university-level Advanced English course. Student feedback regarding material engagement, clarity, and usefulness was collected through an anonymous 12-item online survey featuring both quantitative rating scales and qualitative open-ended comments.

RESULTS AND DISCUSSION

The analysis of the evaluated AI-generated materials revealed significant insights into the capabilities and limitations of generative models in instructional design. Across all evaluation criteria, the generated materials achieved high average scores, confirming that modern LLMs can serve as effective assistant tools for ELT practitioners. Table 1 summarizes the mean scores provided by the expert evaluators across the three evaluated AI platforms for different material types.

Table 1. Expert Evaluation Scores for AI-Generated ELT Materials (Scale 1–5)

Material Category	Linguistic Accuracy	CEFR Alignment	Pedagogical Value	Overall Mean
Reading Passages & Texts	4.8	4.6	4.7	4.70
Vocabulary Exercises	4.7	4.5	4.6	4.60
Grammar Practice Sets	4.9	4.7	4.5	4.70
Speaking & Role-Play Prompts	4.5	4.2	4.4	4.37

As illustrated in Table 1, the AI models scored highest in grammar practice sets and reading passages, particularly in terms of linguistic accuracy (4.9 and 4.8 out of 5.0, respectively). The models demonstrated a sophisticated ability to generate syntactically flawless text and adhere strictly to specified length constraints. CEFR alignment was consistently strong at the B1 and B2 levels, though evaluators noted that for advanced C1/C2 levels, the models occasionally relied on overly formulaic structures rather than subtle, nuanced academic prose. The primary qualitative finding centers on the dramatic reduction in preparation time. On average, instructors reported that creating a complete, differentiated 90-minute lesson packet manually required approximately 2.5 to 3 hours. Using GenAI platforms alongside human editing reduced this duration to under 45 minutes, representing an efficiency gain of over 70%. Teachers were able to spend significantly less time searching for appropriate reading texts and more time crafting interactive classroom activities. Data gathered from the student pilot survey (N=45) further underscored the pedagogical utility of adaptive materials. A substantial majority of students (84.4%) agreed or strongly agreed that the AI-assisted adaptive reading texts matched their personal vocabulary level better than standard coursebook texts. Additionally, 77.8% reported that the contextualized vocabulary exercises helped them retain new terminology more effectively. However, the research identified three key limitations in AI-generated materials that necessitate human teacher intervention:

Contextual Over-Simplification: When prompted to simplify complex texts for lower CEFR levels, AI models sometimes removed critical narrative nuances, resulting in somewhat bland or mechanical prose.

Formulaic Task Structures: Multiple-choice distractors generated by AI occasionally exhibited predictable patterns that allowed astute students to guess correct answers without full comprehension.

Lack of Local Cultural Context: Unless explicitly instructed via prompt engineering, AI outputs consistently reflected generic Anglo-American cultural references, missing opportunities for culturally responsive teaching within regional educational settings.

These findings indicate that while GenAI is an exceptionally powerful tool for material generation, it functions best as a “co-pilot” rather than an autonomous educator. Effective integration requires teachers to possess critical AI literacy — the ability to evaluate, refine, and contextualize automated outputs.

PRACTICAL RECOMMENDATIONS FOR NOVICE TEACHERS

For fourth-year university students, pre-service teachers, and novice educators entering the ELT field, adopting Generative AI can serve as a vital professional asset. To maximize benefits while maintaining pedagogical integrity, the following practical guidelines are recommended:

Master Structured Prompt Engineering: Move beyond vague single-line instructions. Always specify the target learner profile, CEFR level, pedagogical objective, format, and stylistic constraints in your prompts.

Apply the “Human-in-the-Loop” Principle: Never distribute raw, unedited AI output directly to students. Always review generated materials for natural phrasing, cultural appropriateness, and logical consistency.

Utilize Multi-Level Text Adaptation: Take a single authentic news article or topic and use AI to generate three versions (A2, B1, B2). This enables true differentiated instruction in mixed-ability classrooms without exponential workload.

Focus on Interactive Task Creation: Leverage AI to create dynamic classroom materials, such as discussion cards, debate prompts, information-gap activities, and personalized diagnostic quizzes.

CONCLUSION

The integration of Generative Artificial Intelligence in English Language Teaching represents a pivotal evolution in instructional design. As demonstrated in this study, GenAI tools offer remarkable capabilities for creating adaptive, level-aligned, and engaging learning materials, significantly alleviating the administrative burden on educators and enabling highly personalized learning experiences. While AI models exhibit technical proficiency in grammar generation and text

adaptation, human pedagogical expertise remains indispensable to ensure cultural relevance, task authenticity, and nuanced learning trajectories. As language education continues to evolve in the digital age, equipping pre-service and novice teachers with critical AI literacy will be essential in fostering innovative, effective, and human-centered language classrooms.

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INNOVATIVE METHODS IN TEACHING ENGLISH TO YOUNG LEARNERS AND ADULTS

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Abstract: This article analyzes the use of innovative techniques in teaching English to young students and adults. In the modern educational process, the importance of interactive methods, game technologies, multimedia tools and communicative approaches is highlighted. The study also examines the psychological characteristics and needs of different age groups in language learning. The role of innovative techniques in improving student motivation, developing communicative skills and enhancing educational effectiveness is also analyzed. The article provides recommendations for the use of effective methods in teaching English for young learners and adults. The results of the study show that innovative approaches increase students' interest in language learning as well as ensure the effectiveness of the course process.

Keywords: innovative methods, teaching English, young learners, adult education, communicative approach, interactive methods, multimedia technologies.

Annotatsiya: Mazkur maqolada yosh o'quvchilar va kattalarga ingliz tilini o'qitishda innovatsion metodlardan foydalanish masalasi tahlil qilinadi. Zamonaviy ta'lim jarayonida interfaol metodlar, o'yin texnologiyalari, multimedia vositalari va kommunikativ yondashuvning ahamiyati yoritiladi. Shuningdek, turli yosh guruhlarining til o'rganish jarayonidagi psixologik xususiyatlari va ehtiyojlari ko'rib chiqiladi. Innovatsion metodlarning o'quvchilarning motivatsiyasini oshirish, kommunikativ ko'nikmalarini rivojlantirish hamda ta'lim samaradorligini kuchaytirishdagi roli tahlil qilinadi. Maqolada yosh o'rganuvchilar va kattalarga ingliz tilini o'qitishda samarali metodlardan foydalanish bo'yicha tavsiyalar beriladi. Tadqiqot natijalari innovatsion yondashuvlar o'quvchilarning til o'rganishga bo'lgan qiziqishini oshirish bilan birga, ta'lim jarayonining samaradorligini ham ta'minlashini ko'rsatadi.

Kalit so'zlar: innovatsion metodlar, ingliz tilini o'qitish, yosh o'rganuvchilar, kattalar ta'limi, kommunikativ yondashuv, interfaol metodlar, multimedia texnologiyalari.

Аннотация: В данной статье анализируется использование инновационных методов в обучении английскому языку детей и взрослых. В современном образовательном процессе особое внимание уделяется значению интерактивных методов, игровых технологий, мультимедийных средств и коммуникативного подхода. Также рассматриваются

психологические особенности и потребности различных возрастных групп в процессе изучения языка. Анализируется роль инновационных методов в повышении мотивации учащихся, развитии коммуникативных навыков и повышении эффективности образовательного процесса. В статье представлены рекомендации по использованию эффективных методов обучения английскому языку детей и взрослых. Результаты исследования показывают, что инновационные подходы повышают интерес учащихся к изучению языка, а также обеспечивают эффективность образовательного процесса.

Ключевые слова: инновационные методы, обучение английскому языку, дети младшего возраста, образование взрослых, коммуникативный подход, интерактивные методы, мультимедийные технологии.

INTRODUCTION

Today, English serves not only as an international medium of communication, but also as a major language in the fields of global science, business, culture and technology (Crystal, 2003). The globalization process and the development of international relations are increasing the demand for the study of foreign languages, in particular English. This process also has a significant impact on the educational needs of young people and adults (Byram, 1997).

There are specific difficulties in teaching English to different age groups. Younger students are psychologically better adapted to learning through play and visual materials, needing a short focus and interesting training (Kramsch, 1993). At the same time, adults approach language learning based on their goals, experience and motivation. Adults respond positively to more structured and goal-oriented techniques, but they can also benefit from interactive and communicative approaches (Polc, 2013). The use of innovative techniques in the modern educational system makes it possible to make the educational process effective, increase the motivation of students and develop communicative skills. Techniques such as interactive teaching, game technologies, multimedia tools, role-play training, and project-based training can be adapted to the individual needs of young and adult learners (Deardorff, 2006). With the help of these techniques, not only language skills increase, but also the ability of students to think independently and solve problems develops.

The main objective of this study is to determine the effectiveness of innovative techniques in teaching English for young learners and adults, and to explore the possibilities of putting them into practice. Within the framework of this goal, the study performs several tasks. First, the analysis of the theoretical basis for teaching English to different age groups, that is, to determine the psychological characteristics and needs of young students and adults in language learning. Secondly, the study of the effectiveness of innovative methods in the educational process, including interactive methods, game technologies, multimedia tools and the role of project-based teaching in the development of students' motivation and communicative skills. The third task is to develop recommendations for the adaptation of methods to different age groups, through which it is possible to organize the educational process in accordance with individual needs and increase its effectiveness. With this, the research aims to determine the practical importance of innovative approaches in the teaching process of young and adult people.

Theoretical foundations of teaching English to different age groups

Foreign Language Teaching theory emphasizes the importance of taking into account age characteristics in the language learning process (Lightbown & Spada, 2013). Younger students respond positively to more visual and interactive techniques as they feel the need for a focus short and engaging training (Gass & Selinker, 2008). Therefore, in teaching for young children, lessons based on Game Technology, story, song and painting are effective (Ellis, 2008). Young learners acquire language through intuition and context, so realistic situations and dramatization-based activities for them increase motivation (Krashen, 1982).

Adults, on the other hand, prefer a goal-oriented and structured approach to language learning. Their language learning process depends on previous experiences, motivation, and needs, and they focus more on understanding grammar and using language in communicative situations (Brown, 2007). At the same time, interactive and project-based teaching techniques are also useful for adults

as they are willing to accept training appropriate to their work and personal needs (Merriam & Bierema, 2014).

It should be noted that differences in the teaching process for young students and adults are manifested not only in methodological approaches, but also in motivation, learning speed and psychological characteristics (Byram, 1997). Therefore, in order to effectively organize the educational process, it is important to choose innovative methods suitable for different age groups. It serves not only to improve language skills, but also to develop students' independent thinking, creative approach and communicative skills (Polc, 2013).

Using innovative techniques in teaching English

The use of innovative techniques in the modern educational process serves to effectively develop students' motivation and language skills (Brown, 2007). Interactive methods make classes lively and interesting, attract the attention of students and encourage them to actively participate. Game technologies for young learners (game-based learning) allow language learning to be organized in the form of a game, which increases their interest and shapes the skills of applying language in a natural context (Ellis, 2008; Krashen, 1982).

Multimedia and digital technologies are also important in language learning. For example, audio and video materials, interactive presentations, virtual labs, and mobile apps allow students to use the language in different contexts, as well as encourage an independent learning process (Lightbown & Spada, 2013). Role-play and communicative training, on the other hand, help students form language use skills in real-life situations to promote communicative competence (Byram, 1997; Polc, 2013). Also, project-based learning (project-based learning) allows students to use language in practical terms and develops independent thinking, creative approach and problem-solving skills (Merriam & Bierema, 2014). Innovative techniques can be adapted to the individual needs of young learners and adults to help personalize and improve the effectiveness of the educational process (Brown, 2007).

As a result, the combination of interactive methods, game technologies, multimedia tools, role-play training and project-based teaching stands out as the main elements of innovative approaches to teaching English, and their application in practice significantly increases the quality of the educational process.

The effectiveness of innovative methods in the educational process

Innovative methods play an important role in teaching English not only to make classes interesting, but also to improve the effectiveness of the educational process (Brown, 2007). Interactive techniques provide active student engagement, encouraging them to think independently and use the language in a practical context (Lightbown & Spada, 2013). Game technologies, on the other hand, serve to increase the motivation of younger students as they perceive language learning in a natural, playful form, and acquire new knowledge more quickly (Ellis, 2008).

Multimedia and digital technologies allow students to receive information through different sensory channels, which attracts their attention and strengthens their language skills (Krashen, 1982). Through Role-play and communicative training, students develop language application skills in real-life situations that increase their communicative competence (Byram, 1997; Polc, 2013). Also, project-based learning (project-based learning) allows students to practice language, developing a problem-solving and creative approach (Merriam & Bierema, 2014). Studies show that with the help of innovative methods, students' interest in language learning increases, independent work and communication skills improve, and the effectiveness of the learning process increases significantly.

Therefore, the application of innovative methods in the educational process should be carried out taking into account the individual needs of each age group. This approach serves not only to strengthen knowledge, but also to develop the communicative, creative and social skills of students.

CONCLUSION

The results of this study show that the use of innovative techniques in teaching English significantly increases the effectiveness of the educational process. In particular, interactive techniques, Gaming Technologies, multimedia tools, role-play training, and project-based teaching

promote students' interest in the classroom and ensure their active participation. Through these techniques, students not only acquire language knowledge, but also develop language application skills in real-world communicative situations. Also, during the study, it was found that young students and adults have different psychological and methodological characteristics in the language learning process. For younger students, techniques based on game and visual materials are effective, while for adults, communicative and goal-oriented activities are important.

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INGLIZ TILINI O'RGANISHDA O'Z-O'ZINI SAMARADORLIK HISSINI RIVOJLANTIRISH

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Annotatsiya. Ushbu maqolada ingliz tilini o'rganishda o'z-o'zini samaradorlik hissini rivojlantirishning nazariy asoslari va amaliy mexanizmlari ilmiy-nazariy jihatdan tahlil qilinadi. Tadqiqot shuni ko'rsatadiki, Albert Bandura tomonidan ishlab chiqilgan o'z-o'zini samaradorlik nazariyasi til o'rganish jarayonida hal qiluvchi rol o'ynaydi: o'quvchining o'z qobiliyatlariga bo'lgan ishonchi uning motivatsiyasi, faolligi va qiyinchiliklarni yengish qobiliyatiga bevosita ta'sir ko'rsatadi. Maqolada o'z-o'zini samaradorlikni shakllantiruvchi to'rtta asosiy manba – shaxsiy muvaffaqiyat tajribasi, kuzatuv orqali o'rganish, og'zaki ishonitirish va psixologik holat – ingliz tili o'rganish kontekstida tahlil qilinadi. Shuningdek, raqamli texnologiyalar va sun'iy intellekt vositalarining o'z-o'zini samaradorlikni rivojlantirishdagi o'rni, O'zbekiston kontekstidagi tadqiqotlar va amaliy tavsiyalar keltiriladi.

Kalit so'zlar: o'z-o'zini samaradorlik, ingliz tili o'rganish, Bandura nazariyasi, motivatsiya, til o'rganish ishonchi, raqamli texnologiyalar.

Аннотация. В данной статье проводится научно-теоретический анализ теоретических основ и практических механизмов развития чувства самоэффективности при

изучении английского языка. Исследование показывает, что теория самоэффективности, разработанная Альбертом Бандурой, играет решающую роль в процессе овладения языком: уверенность учащегося в собственных способностях непосредственно влияет на его мотивацию, активность и способность преодолевать трудности. В статье анализируются четыре основных источника формирования самоэффективности – опыт личных достижений, vicarious опыт (наблюдение), вербальное убеждение и психологическое состояние – в контексте изучения английского языка. Также рассматривается роль цифровых технологий и инструментов искусственного интеллекта в развитии самоэффективности, приводятся исследования узбекских учёных и практические рекомендации для преподавателей.

Ключевые слова: самоэффективность, изучение английского языка, теория Бандуры, мотивация, уверенность в изучении языка, цифровые технологии.

Abstract. This article provides a scientific and theoretical analysis of the foundations and practical mechanisms for developing self-efficacy beliefs in English language learning. Research demonstrates that Albert Bandura's self-efficacy theory plays a crucial role in language acquisition: learners' beliefs in their own capabilities directly influence their motivation, engagement, and ability to overcome challenges. The article analyzes the four primary sources of self-efficacy – mastery experiences, vicarious experiences, verbal persuasion, and physiological states – within the context of English language learning. It also examines the role of digital technologies and artificial intelligence tools in fostering self-efficacy, along with research from the Uzbek context and practical recommendations.

Keywords: self-efficacy, English language learning, Bandura's theory, motivation, language learning confidence, digital technologies.

KIRISH

Ingliz tilini o'rganish ko'p qatlamli va uzoq muddatli jarayon bo'lib, u nafaqat lingvistik bilim va ko'nikmalarni, balki o'quvchining psixologik tayyorgarligini, ichki motivatsiyasini va eng muhimi – o'z qobiliyatlariga bo'lgan ishonchini talab qiladi. Tadqiqotlar shuni ko'rsatadiki, bir xil bilim darajasiga ega bo'lgan ikki o'quvchi til o'rganishda turli natijalarga erishishi mumkin, bu farq ko'pincha ularning o'z-o'zini samaradorlik hissi bilan bog'liq. O'z-o'zini samaradorlik yuqori bo'lgan o'quvchilar qiyinchiliklarga duch kelganda taslim bo'lmaydilar, yangi strategiyalarni sinab ko'radilar va uzoq muddatli maqsadlarga erishish uchun qat'iyat ko'rsatadilar.

So'nggi yillarda o'z-o'zini samaradorlik tushunchasi ikkinchi til o'rganish sohasida jadal tadqiq qilinmoqda. Xalqaro miqyosda o'tkazilgan tizimli sharhlar shuni ko'rsatadiki, 2006-2023-yillar oralig'ida ushbu mavzuga bag'ishlangan 166 dan ortiq ilmiy maqola nashr etilgan. Bu ko'rsatkich mavzuning dolzarbligini va ilmiy hamjamiyatning unga bo'lgan qiziqishini tasdiqlaydi. O'zbekistonda ham ingliz tili ta'limida motivatsiya va o'z-o'zini samaradorlik masalalari tadqiq qilinmoqda, ammo bu sohada hali ko'plab o'rganilmagan jihatlar mavjud.

Ushbu maqolaning maqsadi – ingliz tilini o'rganishda o'z-o'zini samaradorlik hissini rivojlantirishning nazariy asoslarini yoritish, amaliy mexanizmlarini tahlil qilish va O'zbekiston kontekstida qo'llash bo'yicha tavsiyalar ishlab chiqishdir.

O'z-o'zini samaradorlik nazariyasi: nazariy asoslar. O'z-o'zini samaradorlik tushunchasi amerikalik psixolog Albert Bandura tomonidan ishlab chiqilgan ijtimoiy-kognitiv nazariyaning markaziy elementidir. Bandura o'z-o'zini samaradorlikni "shaxsning muayyan vazifalarni bajarish uchun o'z qobiliyatlariga bo'lgan shaxsiy ishonchi" sifatida ta'riflaydi. Bu tushuncha o'z-o'zini hurmat qilish yoki o'z-o'zini qadrlashdan farqli ravishda, muayyan soha yoki vazifaga nisbatan aniq va operatsional xususiyatga ega.

Bandura nazariyasiga ko'ra, o'z-o'zini samaradorlik to'rt asosiy manba orqali shakllanadi. Birinchi va eng kuchli manba – shaxsiy muvaffaqiyat tajribasi. O'quvchi muayyan vazifani muvaffaqiyatli bajarganda, uning o'z qobiliyatlariga bo'lgan ishonchi ortadi. Ingliz tili kontekstida bu, masalan, muvaffaqiyatli suhbat o'tkazish, qiyin matnni tushunish yoki imtihondan yaxshi o'tish kabi tajribalarni o'z ichiga oladi. Tadqiqotlar shuni ko'rsatadiki, o'quvchilar oldingi

muvaffaqiyatlarini eslab qolganlarida, yangi qiyinchiliklarga nisbatan ishonchliroq munosabatda bo'ladilar.

Ikkinchi manba – kuzatuv orqali o'rganish. O'quvchi o'ziga o'xshash boshqa shaxsning muvaffaqiyatini kuzatganda, "agar u qila olsa, men ham qila olaman" degan ishonch shakllanadi. Bu ayniqsa tengdoshlar yoki bir xil darajadagi o'quvchilarning muvaffaqiyatlarini kuzatishda samarali bo'ladi. Ingliz tili darslarida guruhli loyihalar, juftlikda ishlash va tengdoshlarning taqdimotlari bu manbani faollashtiradi.

Uchinchi manba – og'zaki ishonitirish. O'qituvchi, ota-ona yoki tengdoshning "sen buni qila olasan", "sening talaffuzing yaxshilanmoqda" kabi rag'batlantiruvchi so'zlari o'quvchining o'ziga bo'lgan ishonchini mustahkamlaydi. Biroq Bandura ta'kidlaganidek, og'zaki ishonitirishning ta'siri muvaffaqiyat tajribasiga qaraganda kamroq kuchli va qisqa muddatli bo'lishi mumkin.

To'rtinchi manba – psixologik va hissiy holat (somatic and emotional states). O'quvchining til o'rganish jarayonidagi hissiy holati – xavotir, stress, hayajon yoki ishonch – uning o'z-o'zini samaradorlik hissigacha bevosita ta'sir qiladi. Yuqori darajadagi til xavotiri (language anxiety) o'z-o'zini samaradorlikni pasaytiradi, ijobiy hissiy tajribalar esa uni kuchaytiradi.

Ingliz tili o'rganishda o'z-o'zini samaradorlikning o'rni. Ingliz tili o'rganish o'ziga xos xususiyatlarga ega bo'lib, bu xususiyatlar o'z-o'zini samaradorlikning ahamiyatini yanada oshiradi. Birinchidan, til o'rganish uzoq muddatli jarayon bo'lib, tez natija ko'rish qiyin. Bu o'quvchining sabr-toqatini va o'z sa'y-harakatlarining samarasiga bo'lgan ishonchini talab qiladi. Ikkinchidan, til o'rganish xatolarga to'la jarayon bo'lib, xatolardan qo'rqqanlik va ularni o'rganish imkoniyati sifatida qabul qilish o'z-o'zini samaradorlikning muhim ko'rsatkichidir. Uchinchidan, ingliz tili ko'pincha sinfdan tashqarida, real muloqot sharoitida qo'llaniladi, bu esa o'quvchining o'z qobiliyatlariga bo'lgan ishonchini bevosita sinovdan o'tkazadi.

Tadqiqotlar shuni ko'rsatadiki, o'z-o'zini samaradorlik ingliz tilini o'rganishda bir necha muhim jihatlarga ta'sir ko'rsatadi.

Motivatsiya va qat'iyat bo'yicha: yuqori o'z-o'zini samaradorlikka ega o'quvchilar til o'rganishni davom ettirishga ko'proq tayyor bo'ladilar, qiyinchiliklarga duch kelganda taslim bo'lmaydilar.

Strategiya tanlash bo'yicha: bunday o'quvchilar turli o'rganish strategiyalarini sinab ko'rishga, samarali usullarni izlashga moyil bo'ladilar.

Muloqotga tayyorlik bo'yicha: tadqiqotlar shuni ko'rsatadiki, o'z-o'zini samaradorlik ingliz tilida muloqot qilishga tayyorlikning muhim mediatoridir. Qozog'istonda o'tkazilgan tadqiqotda norasmiy raqamli o'rganish (informal digital learning) va muloqotga tayyorlik o'rtasidagi bog'liqlikda o'z-o'zini samaradorlik to'liq mediator rolini o'ynagan.

O'z-o'zini samaradorlik va til o'rganish natijalari o'rtasidagi bog'liqlik bir necha tadqiqotlarda tasdiqlangan. Koreyada o'tkazilgan tadqiqotda o'sish tafakkuri (growth mindset) va o'z-o'zini samaradorlik o'quvchilarning o'z til bilimini qanday baholashiga (perceived proficiency) ta'sir ko'rsatishi aniqlangan. Tadqiqot natijalariga ko'ra, o'z-o'zini samaradorlik o'sish tafakkuri va qabul qilingan til bilimi o'rtasidagi munosabatda to'liq mediator vazifasini bajargan. Bu shuni anglatadiki, o'quvchining tafakkur tarzi bevosita uning til bilimini baholashiga ta'sir qilmaydi, balki bu ta'sir o'z-o'zini samaradorlik orqali amalga oshadi.

Tadqiqotlar shuni ham ko'rsatadiki, o'z-o'zini samaradorlik va til o'zlashtirish natijalari o'rtasida o'zaro bog'liqlik mavjud. Bir tomondan, yuqori o'z-o'zini samaradorlik yaxshi natijalarga olib keladi; ikkinchi tomondan, muvaffaqiyatli tajribalar o'z-o'zini samaradorlikni yanada mustahkamlaydi. Bu o'zaro bog'liqlik Bandura tomonidan taklif etilgan "o'zaro determinizm" (reciprocal determinism) modeliga mos keladi.

O'z-o'zini samaradorlikni rivojlantirishning amaliy mexanizmlari

Shaxsiy muvaffaqiyat tajribasini yaratish. O'z-o'zini samaradorlikni rivojlantirishning eng samarali yo'li – o'quvchiga muvaffaqiyat tajribasini taqdim etishdir. Bu tajriba kichik, erishish mumkin bo'lgan maqsadlardan boshlanishi kerak. Masalan, ingliz tilini endi o'rganayotgan o'quvchi uchun "bugun 5 ta yangi so'zni yodlash va ularni gapda qo'llash" kabi aniq, o'lchovli maqsad qo'yish

samarali bo'ladi. Maqsadga erishilganda, o'quvchi o'z qobiliyatiga ishonch hosil qiladi va keyingi, biroz murakkabroq maqsadga o'tishga tayyor bo'ladi.

Tadqiqotlar shuni ko'rsatadiki, kichik yutuqlarni qayd etish va ularni ko'rish o'quvchiga ruhiy quvvat beradi. Masalan, avval ikki daqiqalik audio qiyin tuyulgan bo'lsa, bir oy o'tib o'quvchi besh daqiqalik podkastdan asosiy fikrlarni tushuna boshlaydi. Dastlab uch-to'rt gap yozish qiyin bo'lgan bo'lsa, keyinchalik kichik esse tuzish osonlashadi. Bunday o'zgarishlarni qayd etish o'quvchining o'z-o'zini samaradorlik hissini mustahkamlaydi.

Kuzatuv orqali o'rganish imkoniyatlarini yaratish. O'quvchilarga o'ziga o'xshash tengdoshlarining muvaffaqiyatlarini kuzatish imkoniyatini berish muhim. Bu guruhli loyihalar, juftlikda ishlash, tengdoshlarning taqdimotlari orqali amalga oshirilishi mumkin. O'qituvchi turli darajadagi o'quvchilarning muvaffaqiyatlarini namoyish etishi, "men ham qila olaman" degan ishonchni shakllantiradi.

Raqamli texnologiyalar bu borada yangi imkoniyatlar yaratmoqda. Onlayn platformalarda turli darajadagi o'quvchilarning muvaffaqiyat hikoyalari, video taqdimotlari va loyihalari bilan tanishish mumkin. Sun'iy intellekt vositalari orqali o'quvchilar o'z darajasidagi boshqa o'quvchilarning rivojlanish trayektoriyasini kuzatishlari mumkin.

Og'zaki ishontirishning samarali strategiyalari. O'qituvchining rag'batlantiruvchi so'zlari o'z-o'zini samaradorlikni shakllantirishda muhim rol o'ynaydi, ammo ular samimiy, aniq va asoslangan bo'lishi kerak. Umumiy maqto'vlar ("sen yaxshi o'quvchisan") o'rniga aniq yutuqlarni ta'kidlash ("talaffuzing sezilarli yaxshilandi, ayniqsa 'th' tovushini to'g'ri aytayapsan") samaraliroq bo'ladi.

O'qituvchi o'quvchining kuchli tomonlarini aniqlab, ularga tayanishni tavsiya qilishi mumkin. Masalan, o'quvchi grammatikani yaxshi bilsa, lekin gapirishga ishonchsizlik qilsa, o'qituvchi "grammatikani mukammal bilasan, endi shu bilimni gapirishda qo'llashni mashq qilamiz" deyishi mumkin. Bu o'quvchining mavjud kuchli tomoniga tayangan holda, zaif tomonini rivojlantirishga undaydi.

Psixologik holatni boshqarish. Til o'rganish jarayonida xavotir, stress va qo'rquv o'z-o'zini samaradorlikni pasaytiradigan asosiy omillardir. O'quvchilarga xatolardan qo'rqqanlik, xatolarni o'rganish imkoniyati sifatida qabul qilish o'rgatilishi kerak. O'qituvchi sinfda xavfsiz, qo'llab-quvvatlovchi muhit yaratishi, xatolarga nisbatan bag'rikeng munosabatda bo'lishi lozim.

Tadqiqotlar shuni ko'rsatadiki, ijobiy hissiy tajribalar o'z-o'zini samaradorlikni kuchaytiradi. O'yinlar, qiziqarli topshiriqlar, ijodiy faoliyatlar orqali o'quvchilarning til o'rganishga bo'lgan munosabati ijobiy tomonga o'zgaradi. O'qituvchining o'zi ham ijobiy, optimistik munosabatda bo'lishi, o'quvchilarga "bu qiyin, lekin biz birgalikda uddalaymiz" degan xabarni yetkazishi muhim.

Raqamli texnologiyalar va sun'iy intellektning roli. Raqamli texnologiyalar va sun'iy intellekt vositalari ingliz tilini o'rganishda o'z-o'zini samaradorlikni rivojlantirishning yangi imkoniyatlarini yaratmoqda. O'zbekistonlik tadqiqotchi Ulmasbayeva Malika o'z tadqiqotida sun'iy intellekt vositalari – chat botlar, til ilovalari, avtomatik tahlil platformalari – yordamida o'quv jarayonini individuallashtirish, motivatsiyani oshirish va metakognitiv strategiyalarni rivojlantirish metodikasini taklif etadi. Uning ta'kidlashicha, bu vositalar talabaning til o'rganish jarayonini shaxsiylashtiradi va o'z-o'zini samaradorlikni oshiradi.

Sun'iy intellekt asosidagi adaptiv o'rganish platformalari o'quvchining bilim darajasiga mos topshiriqlar taqdim etadi, bu esa muvaffaqiyat tajribasini ta'minlaydi. O'quvchi har doim o'z darajasiga mos, erishish mumkin bo'lgan topshiriqlar bilan ishlaganda, uning o'z-o'zini samaradorlik hissini mustahkamlanadi. Chatbotlar orqali o'quvchilar xavfsiz, stresssiz muhitda til amaliyotini o'tkazishlari mumkin, bu esa til xavotirini kamaytiradi.

O'zbekiston davlat jahon tillari universitetida o'tkazilgan tadqiqotda raqamli vositalarning o'quv jarayoniga integratsiyalashuvi muvaffaqiyatni yanada ijobiy va aniq qabul qilishga yordam berishi, talabalar motivatsiyasini va ingliz tilini o'rganishdagi ishonchini oshirishi aniqlangan. Tadqiqot natijalari shuni ko'rsatadiki, raqamli texnologiyalar orqali o'quvchilar o'z yutuqlarini vizual ko'rishlari, rivojlanish dinamikasini kuzatishlari va bu orqali o'z-o'zini samaradorlik hissini mustahkamlashlari mumkin.

O'zbekiston kontekstida tadqiqotlar va amaliy tajriba. O'zbekistonda ingliz tili ta'limida o'z-o'zini samaradorlik va motivatsiya masalalari tadqiq qilinmoqda. Toshkent davlat pedagogika universitetida o'tkazilgan tadqiqotda ingliz tilini maxsus maqsadlar uchun (ESP) o'qitishning talabalarining motivatsiyasi va psixologik ehtiyojlariga ta'siri o'rganilgan. Tadqiqotda 91 nafar talaba ishtirok etgan va motivatsiya o'z-o'zini belgilash nazariyasi (Self-Determination Theory) asosida baholangan.

O'zbekiston kontekstida ingliz tili ta'limida ichki va tashqi motivatsiyaning o'zaro munosabati bo'yicha tadqiqotlar shuni ko'rsatadiki, o'zbek talabalari ko'pincha tashqi maqsadlar (akademik yoki kasbiy rag'batlar) bilan boshlaydilar, ammo bu motivatsiyalar vaqt o'tishi bilan avtonom va barqaror shaklga o'tishi mumkin. Bu jarayonda o'z-o'zini samaradorlik muhim rol o'ynaydi: o'quvchi o'z qobiliyatlariga ishonch hosil qilganda, tashqi motivatsiya ichki motivatsiyaga aylanishi osonlashadi.

O'qituvchilarning malakasini oshirish borasida ham muhim ishlar amalga oshirilmoqda. O'zbekiston davlat jahon tillari universiteti Ingliz tilini o'qitish metodikasi kafedrasidan umumta'lim maktablari o'qituvchilari uchun master-klasslar tashkil etilmoqda. 2026-yil mart oyida o'tkazilgan master-klassda o'quvchilarda ichki motivatsiyani shakllantirish usullari, zamonaviy interaktiv metodlar va individual yondashuv masalalari muhokama qilindi. Ishtirokchilar o'quvchilarning motivatsiyasi o'qituvchining pedagogik yondashuviga bevosita bog'liq ekanligini va rag'batlantiruvchi, ijobiy ta'lim muhitini yaratish muhim ahamiyat kasb etishini ta'kidladilar.

Amaliy tavsiyalar. O'qituvchilar uchun birinchi tavsiya – o'quvchilarga kichik, erishish mumkin bo'lgan maqsadlar qo'yish va ularga erishilganda bu yutuqlarni aniq tan olishdir. "Bugun 5 ta yangi so'z o'rganamiz" kabi aniq maqsadlar o'quvchiga aniq yo'nalish beradi va muvaffaqiyat tajribasini ta'minlaydi.

Ikkinchi tavsiya – o'quvchilarning kuchli tomonlarini aniqlash va ularga tayanish. Har bir o'quvchining kuchli tomoni bor: kimdir grammatikani yaxshi biladi, kimdir talaffuzni, kimdir lug'at boyligini. O'qituvchi bu kuchli tomonlarni ta'kidlab, o'quvchining o'ziga bo'lgan ishonchini mustahkamlashi kerak.

Uchinchi tavsiya – xatolarga nisbatan bag'rikeng va konstruktiv munosabatda bo'lish. Xatolar til o'rganishning tabiiy qismi ekanligini tushuntirish, ularni jazolash o'rniga tuzatish va o'rganish imkoniyati sifatida qarash muhim.

To'rtinchi tavsiya – raqamli texnologiyalardan samarali foydalanish. Adaptiv o'rganish platformalari, sun'iy intellekt chatbotlar va mobil ilovalar o'quvchilarga o'z darajasiga mos topshiriqlar taqdim etadi va muvaffaqiyat tajribasini ta'minlaydi.

Beshinchi tavsiya – o'quvchilarning rivojlanish dinamikasini kuzatish va qayd etish. Baholash faqat yakuniy natijaga emas, balki rivojlanish dinamikasiga ham qaratilishi lozim. Kichik yutuqlarni ko'rish va qayd etish o'quvchiga ruhiy quvvat beradi va qiziqishni saqlab qoladi.

XULOSA

Ingliz tilini o'rganishda o'z-o'zini samaradorlik hissini rivojlantirish – bu til o'zlashtirish jarayonining muhim va ajralmas qismidir. Albert Bandura tomonidan ishlab chiqilgan nazariya shuni ko'rsatadiki, o'quvchining o'z qobiliyatlariga bo'lgan ishonchi uning motivatsiyasi, faolligi, strategiya tanlashi va natijalariga bevosita ta'sir ko'rsatadi. O'z-o'zini samaradorlik to'rt asosiy manba – shaxsiy muvaffaqiyat tajribasi, kuzatuv orqali o'rganish, og'zaki ishonitirish va psixologik holat – orqali shakllanadi.

O'zbekiston kontekstida ham bu masala dolzarb ahamiyatga ega. Tadqiqotlar shuni ko'rsatadiki, o'zbek talabalari ko'pincha tashqi motivatsiyadan boshlaydilar, ammo o'z-o'zini samaradorlik rivojlanishi bilan bu motivatsiya ichki va barqaror shaklga o'tishi mumkin. Raqamli texnologiyalar va sun'iy intellekt vositalari bu jarayonda yangi imkoniyatlar yaratmoqda: adaptiv platformalar, chatbotlar va mobil ilovalar o'quvchilarga o'z darajasiga mos topshiriqlar taqdim etib, muvaffaqiyat tajribasini ta'minlaydi.

Kelajakda o'z-o'zini samaradorlikni rivojlantirish bo'yicha tadqiqotlarni yanada chuqurlashtirish, ayniqsa O'zbekiston kontekstida bo'ylama tadqiqotlar o'tkazish, raqamli

texnologiyalarning uzoq muddatli ta'sirini o'rganish va turli yosh guruhlarida o'z-o'zini samaradorlikning o'ziga xos xususiyatlarini aniqlash muhim ahamiyatga ega.

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YAPON TILINI O'RGANISHDA YOZMA XATOLAR TAHLILI

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Filologiya va tillarni o'qitish (yapon tili) yo'nalishi talabasi

Annotatsiya. Ushbu maqolada yapon tilini boshlang'ich bosqichda o'rganayotgan o'zbek tilida so'zlashuvchi talabalarning yozma nutqida uchraydigan xatolar tahlil qilinadi. Tadqiqotning nazariy asosini S. P. Corder va R. Ellis tomonidan rivojlantirilgan xatolar tahlili yondashuvi tashkil etadi. Unda yapon tilini o'zlashtirish jarayonida grammatik birliklar, yordamchi so'zlar, leksik tanlov, gap tuzilishi hamda ona tilining ta'siri bilan bog'liq muammolarga alohida e'tibor qaratiladi. Zamonaviy tadqiqotlarda o'rganuvchi korpuslaridan foydalanish, yozma xatolarni yagona mezonlar asosida tasniflash, ularning turlari va chastotasini aniqlash muhim metodologik yo'nalish sifatida qaraladi. Mazkur maqolada o'zbek tilida so'zlashuvchi talabalar yozma nutqidagi xatolarni tizimli o'rganishning nazariy va amaliy ahamiyati yoritiladi. Shuningdek, boshlang'ich darajadagi o'rganuvchilarning xatolarini vaqt davomida kuzatish, ularning kamayishi yoki o'zgarish dinamikasini aniqlash yapon tilini samarali o'qitish metodikasini takomillashtirish uchun muhim omil sifatida baholanadi. Tadqiqot natijalari o'qituvchilarga talabalarning yozma kompetensiyasini rivojlantirishga qaratilgan mashqlarni maqsadli tanlash, xatolar sabablarini aniqlash va individual ta'lim strategiyalarini ishlab chiqishda amaliy yordam beradi. Bu esa ta'lim jarayonida xatolarning oldini olish samaradorligini oshiradi.

Kalit so'zlar: yapon tili, o'zbek talabalar, yozma nutq, xatolar tahlili, ikkinchi til, boshlang'ich daraja, o'rganuvchi korpusi.

Аннотация. В данной статье анализируются ошибки, встречающиеся в письменной речи узбекоязычных студентов, изучающих японский язык на начальном этапе. Теоретическую основу исследования составляет подход к анализу ошибок, разработанный и развитый С. П. Кордером и Р. Эллисом. Особое внимание уделяется проблемам, связанным с употреблением грамматических единиц, служебных слов, лексическим выбором, структурой предложений, а также влиянием родного языка в процессе освоения японского языка. В современных исследованиях использование корпусов речи изучающих язык, классификация письменных ошибок на основе единых критериев, а также определение их типов и

частотности рассматриваются как важные методологические направления. В статье освещается теоретическая и практическая значимость систематического изучения ошибок в письменной речи узбекоязычных студентов. Кроме того, отслеживание ошибок учащихся начального уровня в динамике и определение характера их сокращения или изменения во времени рассматриваются как важный фактор совершенствования методики эффективного преподавания японского языка. Результаты исследования могут оказать практическую помощь преподавателям в целенаправленном выборе упражнений, направленных на развитие письменной компетенции студентов, выявлении причин ошибок и разработке индивидуальных образовательных стратегий. Это, в свою очередь, способствует повышению эффективности профилактики ошибок в образовательном процессе.

Ключевые слова: японский язык, узбекские студенты, письменная речь, анализ ошибок, второй язык, начальный уровень, корпус речи изучающих язык.

Abstract. This article analyzes errors occurring in the written language of Uzbek-speaking students learning Japanese at the beginner level. The theoretical foundation of the study is the Error Analysis approach developed and advanced by S. P. Corder and R. Ellis. Particular attention is paid to problems related to the use of grammatical units, function words, lexical choice, sentence structure, and the influence of the first language in the process of acquiring Japanese. In contemporary research, the use of learner corpora, the classification of written errors based on unified criteria, and the identification of their types and frequency are regarded as important methodological directions. This article highlights the theoretical and practical significance of systematically studying errors in the written language of Uzbek-speaking students. Furthermore, tracking the errors of beginner-level learners over time and identifying patterns of their reduction or change are considered important factors in improving effective Japanese language teaching methodology. The findings of the study can provide practical assistance to teachers in selecting targeted exercises aimed at developing students' writing competence, identifying the causes of errors, and developing individualized learning strategies. This, in turn, contributes to increasing the effectiveness of error prevention in the educational process.

Keywords: Japanese language, Uzbek students, written language, error analysis, second language, beginner level, learner corpus.

KIRISH

Chet tilini o'rganishda yozma nutq talabani grammatik bilimlari, lug'at boyligi va fikrni izchil ifodalash qobiliyatini namoyon etuvchi muhim faoliyat hisoblanadi. Yapon tilining grammatik tuzilishi va yordamchi so'zlar tizimi o'zbek tilidan sezilarli darajada farq qilgani sababli uni o'rganayotgan talabalar yozma nutqda turli xatolarga yo'l qo'yishlari mumkin. Ikkinchi tilni o'zlashtirish jarayonida yuzaga keladigan xatolarni o'rganish tilshunoslikda muhim yo'nalishlardan biridir. S. P. Corder xatolarni o'rganuvchining tilni o'zlashtirish jarayoni haqida ma'lumot beruvchi muhim lingvistik material sifatida baholagan. R. Ellis esa xatolarni aniqlash, tasniflash va izohlash zarurligini ta'kidlaydi.

Yapon tilini o'rganuvchilarning yozma nutqiga bag'ishlangan tadqiqotlarda yordamchi so'zlar, grammatik shakllar, leksik tanlov va gap tuzilishi bilan bog'liq xatolar ko'p uchrashi aniqlangan. Korpusga asoslangan tadqiqotlar esa bunday xatolarni nafaqat tavsiflash, balki ularning chastotasini aniqlash va turli darajadagi o'rganuvchilar natijalarini taqqoslash imkonini beradi.

O'zbek tilida so'zlashuvchi yapon tili o'rganuvchilari bo'yicha ham tadqiqotlar mavjud. Kondo o'zbek o'rganuvchilarining yapon tilidagi yozma faoliyatini madaniyatlararo ritorika nuqtayi nazaridan o'rgangan. Xikmatullayeva esa o'zbek o'rganuvchilarining yapon tilidagi insho yozish jarayoni va xatolarini tahlil qilgan. Shu sababli mazkur tadqiqotning asosiy yo'nalishi mavjud ishlarni takrorlash emas, balki boshlang'ich darajadagi o'zbek talabalarining yozma xatolarini tizimli ravishda o'rganishdan iborat.

ASOSIY QISM

Xatolar tahlili yondashuviga ko'ra, o'rganuvchi xatolari tasodifiy hodisa emas, balki tilni o'zlashtirish jarayonining muhim ko'rsatkichi hisoblanadi. Xatolarni aniqlash va tasniflash orqali o'rganuvchining qaysi til birliklarini o'zlashtirishda qiyinchilikka duch kelayotganini aniqlash mumkin. Yapon tilini o'rganuvchilar yozma ishlarining tahlili bir nechta asosiy xato guruhlarini ko'rsatadi. Ularga grammatik shakllardan noto'g'ri foydalanish, yordamchi so'zlarni almashtirish yoki tushirib qoldirish, leksik birlikni noto'g'ri tanlash, so'z tartibining buzilishi va gap tuzilishi bilan bog'liq xatolar kiradi. Ayrim tadqiqotlarda ushbu xatolarning keyingi til bosqichlarida ham saqlanib qolishi kuzatilgan.

Korpus metodologiyasi bunday xatolarni o'rganishda samarali vositalardan biridir. Oyama, Komachi va Matsumoto yapon tili o'rganuvchilarining yozma ishlaridagi xatolarni maxsus annotatsiya orqali belgilash va avtomatik tasniflash imkoniyatlarini tadqiq qilgan. Prihantoro va hammualliflarining tadqiqotida esa sintaktik xatolar korpus asosida o'rganilib, ayrim xato turlarining chastotasi aniqlangan. Demak, zamonaviy tadqiqotlarda xatolarning faqat mavjudligi emas, balki ularning miqdori va rivojlanish dinamikasi ham muhim hisoblanadi.

O'zbek talabalarining yapon tilidagi yozma nutqini tadqiq etishda ona tilining ta'sirini ham hisobga olish zarur. Biroq har bir xatoni bevosita o'zbek tilining interferensiyasi bilan izohlash to'g'ri emas. Xatolarning yuzaga kelishiga o'qitish usuli, topshiriq turi, o'rganuvchining tajribasi va yapon tilining ichki tizimiga oid ortiqcha umumlashtirish kabi omillar ham ta'sir qilishi mumkin. Shu nuqtayi nazardan, boshlang'ich darajadagi o'zbek talabalarining yozma ishlarini muntazam yig'ish va yagona mezon asosida tahlil qilish muhimdir. Xatolarni grammatik, sintaktik, leksik, yordamchi so'zlar va yozuv-imlo kabi guruhlarga ajratish mumkin. Har bir guruhdagi xatolar chastotasini aniqlash orqali talabalar uchun eng murakkab bo'lgan til birliklarini belgilash imkoniyati paydo bo'ladi.

Bundan tashqari, xatolarni vaqt davomida kuzatish ham muhim ilmiy natijalar berishi mumkin. Boshlang'ich bosqichda aniqlangan xatolarning qaysilari keyinchalik yo'qolishi, qaysilari esa saqlanib qolishini aniqlash o'rganuvchining til rivojlanishini chuqurroq tushunishga yordam beradi. Yig'ilgan yozma materiallar kelgusida o'zbek tilida so'zlashuvchi yapon tili o'rganuvchilarining kichik hajmdagi korpusini yaratish uchun asos bo'lishi mumkin.

MUHOKAMA

Mavjud tadqiqotlar yapon tilini o'rganayotgan talabalar yozma nutqidagi xatolar ko'p omilli hodisa ekanligini ko'rsatadi. Grammatik va sintaktik farqlar muhim rol o'ynashi mumkin, biroq xatolarni faqat ona tili bilan bog'lash yetarli emas. Shu sababli sifat va miqdoriy tahlilni birgalikda qo'llash maqsadga muvofiq.

O'zbek o'rganuvchilari bo'yicha mavjud tadqiqotlar ushbu yo'nalish allaqachon ilmiy jihatdan o'rganilayotganini ko'rsatadi. Biroq boshlang'ich darajadagi talabalar yozma ishlarini yagona mezon asosida tasniflash, xatolar chastotasini aniqlash va ularning vaqt davomida o'zgarishini kuzatish kelgusidagi tadqiqotlar uchun muhim imkoniyat yaratadi. Bunday tadqiqot natijalari amaliy jihatdan ham ahamiyatli bo'lib, boshlang'ich darajadagi talabalar uchun maxsus yozma mashqlar va diagnostik topshiriqlar ishlab chiqishga yordam beradi.

XULOSA

Tahlil qilingan ilmiy manbalar yapon tili o'rganuvchilarining yozma nutqidagi xatolar masalasi xatolar tahlili, ikkinchi tilni o'zlashtirish va o'rganuvchi korpusi doirasida keng o'rganilayotganini ko'rsatdi. Asosiy xatolar grammatik shakllar, yordamchi so'zlar, leksik tanlov va gap tuzilishi bilan bog'liq. O'zbek tilida so'zlashuvchi yapon tili o'rganuvchilari bo'yicha mavjud tadqiqotlarni hisobga olgan holda, kelgusidagi ilmiy ishlarining yangiligi boshlang'ich darajadagi talabalarni alohida guruh sifatida tadqiq etish, xatolarni yagona tasnif asosida kodlash, ularning chastotasini aniqlash va vaqt davomida dinamikasini kuzatishda namoyon bo'lishi mumkin.

Shunday qilib, boshlang'ich darajadagi o'zbek talabalarining yapon tilidagi yozma nutq xatolarini tizimli o'rganish yapon tilini o'qitish metodikasini takomillashtirish, talabalar uchun

samarali yozma mashqlar yaratish hamda kelgusida o'rganuvchi korpusini shakllantirish uchun muhim ilmiy va amaliy asos bo'la oladi.

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INGLIZ TILINI O'QITISHDA EKOLOGIK TARBIYA ELEMENTLARIDAN FOYDALANISH

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Annotatsiya. Ushbu maqolada ingliz tilini o'qitish jarayonida ekologik tarbiya elementlaridan foydalanishning nazariy asoslari, metodik imkoniyatlari va amaliy tajribalari ilmiy-nazariy jihatdan tahlil qilinadi. Tadqiqot shuni ko'rsatadiki, til ta'limini ekologik mazmun bilan integratsiyalash o'quvchilarning nafaqat lingvistik kompetensiyalarini, balki ekologik ongini, atrof-muhitga mas'uliyatli munosabatini va tanqidiy fikrlashini rivojlantirishda samarali vosita hisoblanadi. Maqolada "yashil pedagogika", ekolingvistika va CLIL (Content and Language Integrated Learning) yondashuvlarining nazariy asoslari yoritiladi, xalqaro va O'zbekiston tajribalari tahlil qilinadi, shuningdek, amaliy tavsiyalar ishlab chiqiladi. O'zbekistonda "Eco-Schools" va "Yashil Makon" kabi tashabbuslar doirasida ingliz tili darslarida ekologik tarbiya elementlaridan foydalanish istiqbollari alohida ko'rib chiqiladi.

Kalit soʻzlar: ekologik tarbiya, ingliz tili oʻqitish, yashil pedagogika, ekolingvistika, CLIL, ekologik ong, barqaror rivojlanish.

Аннотация. В данной статье проводится научно-теоретический анализ теоретических основ, методических возможностей и практического опыта использования элементов экологического воспитания в процессе обучения английскому языку. Исследование показывает, что интеграция языкового образования с экологическим содержанием является эффективным средством развития у учащихся не только лингвистических компетенций, но и экологического сознания, ответственного отношения к окружающей среде и критического мышления. В статье освещаются теоретические основы подходов «зелёной педагогики», эколингвистики и CLIL (Content and Language Integrated Learning), анализируется международный и узбекистанский опыт, а также разрабатываются практические рекомендации. Отдельно рассматриваются перспективы использования элементов экологического воспитания на уроках английского языка в рамках таких инициатив, как «Eco-Schools» и «Яшил Макон» в Узбекистане.

Ключевые слова: экологическое воспитание, обучение английскому языку, зелёная педагогика, эколингвистика, CLIL, экологическое сознание, устойчивое развитие.

Abstract. This article provides a scientific and theoretical analysis of the foundations, methodological opportunities, and practical experiences of using environmental education elements in English language teaching. Research demonstrates that integrating language instruction with ecological content is an effective means of developing not only learners' linguistic competencies but also their ecological awareness, environmentally responsible attitudes, and critical thinking. The article examines the theoretical foundations of "green pedagogy," ecolinguistics, and the CLIL approach, analyzes international and Uzbek experiences, and develops practical recommendations. The prospects of using environmental education elements in English lessons within the framework of initiatives such as "Eco-Schools" and "Yashil Makon" in Uzbekistan are specifically considered.

Keywords: environmental education, English language teaching, green pedagogy, ecolinguistics, CLIL, ecological awareness, sustainable development.

KIRISH.

XXI asrda global iqlim oʻzgarishi, tabiiy resurslarning kamayishi va atrof-muhitning ifloslanishi kabi muammolar insoniyat oldida turgan eng jiddiy tahdidlardan biriga aylandi. Bunday sharoitda yosh avlodda ekologik ongni shakllantirish, ularni tabiatga masʼuliyatli munosabatda boʻlishga oʻrgatish taʼlim tizimining ustuvor vazifalaridan biri boʻlib qolmoqda. Birlashgan Millatlar Tashkilotining Barqaror Rivojlanish Maqsadlari (SDG), xususan, 4-maqсад (Sifatli taʼlim) va 13-maqсад (Iqlim boʻyicha harakatlar) taʼlim jarayonida ekologik mazmunni integratsiyalash zaruratini belgilaydi.

Ingliz tili global lingua franca sifatida iqlim muhokamalari, ilmiy tadqiqotlar va xalqaro ekologik siyosatda asosiy aloqa vositasi hisoblanadi. Bu esa ingliz tili darslarini nafaqat til oʻrgatish, balki ekologik tarbiya berish uchun ham qulay maydonga aylantiradi. Soʻnggi yillarda "yashil pedagogika" (green pedagogy) va "yashil ingliz tili oʻqitish" (Green ELT) kabi yondashuvlar til taʼlimini ekologik qadriyatlar bilan uygʻunlashtirishning samarali usullari sifatida eʼtirof etilmoqda.

Oʻzbekistonda ham ekologik taʼlim masalasiga alohida eʼtibor qaratilmoqda. 2019-yilda Vazirlar Mahkamasining 434-son qarori bilan "Oʻzbekiston Respublikasida ekologik taʼlimni rivojlantirish konsepsiyasi" tasdiqlandi. Ushbu konsepsiyaning 6-bobida ekologiya va atrof-muhitni muhofaza qilishga oid mavzularni noekologik fanlarga integratsiyalash hamda ularni ilmiy yutuqlar va yangi texnologiyalar asosida muntazam yangilab borish nazarda tutilgan. Bu esa ingliz tili darslarida ekologik tarbiya elementlaridan foydalanish uchun huquqiy asos yaratadi.

Ushbu maqolaning maqsadi – ingliz tilini oʻqitishda ekologik tarbiya elementlaridan foydalanishning nazariy asoslarini yoritish, xalqaro va mahalliy tajribalarni tahlil qilish hamda amaliy tavsiyalar ishlab chiqishdir.

Yashil pedagogika va ekolingvistikaning nazariy asoslari. Ingliz tilini oʻqitishda ekologik tarbiya elementlaridan foydalanishning nazariy asosi ikki muhim yoʻnalishga tayanadi: "yashil

pedagogika” va ekolingvistika. “Yashil pedagogika” – bu barqarorlik va ekologik ongga qaratilgan ta’lim yondashuvi bo‘lib, u til o‘rgatish bilan ekologik qadriyatlarni birlashtiradi. Tadqiqotchilarning fikricha, bu yondashuv til o‘quvchilarining nafaqat lingvistik salohiyatini, balki atrof-muhit inqirozlarini hal qilish uchun zarur bo‘lgan bilim, munosabat, dunyoqarash va harakatlarni shakllantirishga qaratilgan.

Ekolingvistika esa til, madaniyat va atrof-muhit o‘rtasidagi o‘zaro bog‘liqlikni o‘rganuvchi fan sifatida til ta’limida yangi istiqbollarni ochadi. Uning asosiy g‘oyasi shundan iboratki, til o‘qituvchilari o‘quvchilarda nafaqat lingvistik kompetensiyalarni, balki ekologik ongni, ijtimoiy mas’uliyatni va barqaror tafakkurni ham shakllantirishlari mumkin. Bu ekologik matnlar, muhokamalar va topshiriqlar orqali amalga oshiriladi. Ekolingvistik yondashuv o‘quvchilarga tilning atrof-muhitga bo‘lgan munosabatni qanday ifodalashini, qanday so‘zlar va iboralar orqali ekologik ongni shakllantirish yoki susaytirish mumkinligini tahlil qilish imkonini beradi.

Nazariy jihatdan bu yondashuvlar transformativ ta’lim va ekologik savodxonlik tamoyillari bilan chambarchas bog‘liq. Transformativ ta’lim nazariyasiga ko‘ra, o‘quvchilar faqat bilim olmaydilar, balki o‘z dunyoqarashlarini qayta ko‘rib chiqadilar va xatti-harakatlarini o‘zgartiradilar. Ekologik savodxonlik esa atrof-muhit haqidagi bilimlarni kundalik hayotda qo‘llash qobiliyatini anglatadi. CLIL (Content and Language Integrated Learning) yondashuvi ham bu jarayonda muhim rol o‘ynaydi, chunki u til o‘rganishni mazmunli kontekstda, ya’ni ekologik mavzular orqali amalga oshirish imkonini beradi.

Ingliz tili darslarida ekologik tarbiya elementlaridan foydalanishning bir necha samarali usullari mavjud. Ulardan birinchisi – badiiy adabiyot va hikoyalar orqali ekologik mavzularni integratsiyalash. Indoneziyada o‘tkazilgan tadqiqotda mahalliy ekologik mazmundagi rasmiy kitoblardan foydalanish orqali iqlim o‘zgarishi haqidagi murakkab tushunchalar o‘quvchilarga tushunarli va qiziqarli tarzda yetkazilgani aniqlangan. Hikoya qilish usuli o‘quvchilarning faol ishtirokini ta’minlab, ularning ekologik mavzularga qiziqishini oshirgan va sinfdan tashqarida ham ekologik xulq-atvorni rag‘batlantirgan.

Ikkinchi usul – kino va videomateriallardan foydalanish. Ispaniyada o‘tkazilgan tadqiqotda “Avatar” filmi asosida ekologik ta’lim birligi ishlab chiqilgan va uning o‘quvchilarning ekologik ongi hamda tili kompetensiyalariga ijobiy ta’siri aniqlangan. Tadqiqotlar shuni ko‘rsatadiki, badiiy filmlar ekologik mavzularni kontekstlashtirilgan tarzda taqdim etib, o‘quvchilarning hissiy bog‘lanishini kuchaytiradi va harakatga intilishni uyg‘otadi.

Uchinchi usul – grammatika, lug‘at va yozuv mashqlarini ekologik mazmun bilan boyitish. Nigeriyalik o‘qituvchi Joy Amarachi Ifeanyi tomonidan taklif etilgan yondashuvga ko‘ra, grammatika darslarida ekologik mazmunli gaplardan foydalanish mumkin. Masalan, Present Continuous zamoni “Amina is planting a tree” kabi gap orqali o‘rgatilsa, o‘quvchi bir vaqtning o‘zida ham til grammatikasini, ham ekologik mas’uliyatni o‘zlashtiradi. Lug‘at mashqlarida “A – air, C – conserve, G – green, N – nature, P – pollution” kabi ekologik atamalar o‘rgatiladi. Yozuv mashqlarida esa “Atrof-muhitni asrash uchun o‘zingizni superqahramon sifatida tasavvur qiling” kabi ijodiy topshiriqlar beriladi.

To‘rtinchi usul – loyihaviy va tadqiqot faoliyati. O‘zbekistonda Namangan shahridagi Prezident maktabida o‘qituvchi Abrorjon Sadridinov tomonidan boshlangan “Sustainable Future Society” loyihasi bunga yorqin misoldir. Ushbu loyiha doirasida o‘quvchilar maktabda ekologik komitetlar tuzadilar, barqarorlik auditi o‘tkazadilar, harakat rejalari ishlab chiqadilar va ularni o‘quv dasturiga integratsiyalashadi. Loyiha 25 ta maktabni qamrab olib, 25 000 dan ortiq kishiga yetib bordi. O‘quvchilar 128 ta ekologik loyihani amalga oshirdilar, jumladan qayta ishlash tizimlari va energiya tejash amaliyotlari. Bu loyiha ingliz tili darslarida ham qo‘llanilishi mumkin: o‘quvchilar o‘z loyihalari haqida ingliz tilida taqdimot qiladilar, ma’lumotlarni tahlil qiladilar va xalqaro ekologik tashabbuslar bilan tanishadilar.

Xalqaro va O‘zbekiston tajribalari. Xalqaro miqyosda ingliz tili darslarida ekologik tarbiya elementlaridan foydalanish bo‘yicha bir qancha muvaffaqiyatli tajribalar mavjud. Indoneziyada o‘tkazilgan tadqiqotda boshlang‘ich sinf o‘quvchilariga iqlim o‘zgarishi haqidagi tushunchalar rasmiy kitoblar orqali yetkazilgan. Natijalar shuni ko‘rsatdiki, o‘quvchilar nafaqat ingliz tilini o‘rganishgan,

balki atrof-muhit muammolari haqida chuqurroq tushunchaga ega bo'lishgan va ekologik xulq-atvorni shakllantirishgan. Hindistonda o'tkazilgan tadqiqotda ijtimoiy-emotsional ta'lim (SEL) doirasida iqlim harakatlari ESP (English for Specific Purposes) kursiga integratsiyalashgan. 60 nafar muhandislik talabasi ishtirok etgan tadqiqot natijalari shuni ko'rsatdiki, ekologik istiqbollarni til darslariga kiritish o'quvchilarning iqlim o'zgarishiga nisbatan sezgirligini oshiradi, barqaror amaliyotlarga e'tiborini kuchaytiradi va til hamda kommunikativ ko'nikmalarini yaxshilaydi. Shuningdek, bu yondashuv tanqidiy izlanish va XXI asr ko'nikmalarini rivojlantiradi.

Indoneziyada o'tkazilgan yana bir tadqiqotda ekokritik yondashuvlarning (ekotizim markazli va ekotizim-ma'naviyat markazli) o'quvchilarning tabiat bilan bog'liqligiga ta'siri o'rganilgan. Miqdoriy va sifatli ma'lumotlar tahlili shuni ko'rsatdiki, ekokritik ingliz tili ta'limi o'quvchilarning tabiat bilan aloqasini kuchaytirishda samarali bo'lib, o'qituvchilarga ekologik mavzularni o'qitishda qimmatli tavsiyalar beradi.

Eronlik tadqiqotchilar tomonidan o'tkazilgan tadqiqotda ingliz tili o'qituvchilarining ekologik kommunikatsiya pedagogikasini yangi darsliklarga integratsiyalashga bo'lgan munosabati o'rganilgan. 15 nafar o'rta maktab o'qituvchisi bilan o'tkazilgan intervyular natijalari shuni ko'rsatdiki, o'qituvchilar ekologik mavzularni til ta'limiga kiritish o'quvchilarda ekologik ong, mas'uliyat, hamkorlik ko'nikmalari va transformativ ta'lim imkoniyatlarini shakllantirishini qayd etganlar. Tadqiqot shuni ham aniqladiki, o'qituvchilar rasmiy ekologik ta'limga ega bo'lmasalar ham, bu mavzularni o'qitish orqali ekotsentrik identifikatsiyani rivojlantiradilar.

O'zbekiston kontekstida ekologik ta'lim bo'yicha bir qancha muhim tashabbuslar amalga oshirilmoqda. 2021-yildan buyon "Eco-Schools Uzbekistan" loyihasi amalga oshirilmoqda. Xalqaro Ekologik Ta'lim Fondi (FEE) tomonidan ishlab chiqilgan "7 qadam" metodologiyasiga asoslangan ushbu loyiha 2024-yil oxiriga kelib 257 ta maktabni, 20 000 dan ortiq o'quvchini va mingdan ortiq o'qituvchini qamrab oldi. Tadqiqotlar shuni ko'rsatdiki, loyiha o'quvchilarning ekologik empatiyasini, yetakchilik va jamoada ishlash ko'nikmalarini oshirgan, shuningdek, ota-onalar va mahalliy jamoalarni keng jalb qilgan. Bu tajriba ingliz tili darslarida ham qo'llanilishi mumkin: ekologik loyihalar doirasida o'quvchilar ingliz tilida taqdimotlar tayyorlashlari, xalqaro ekologik tashabbuslar haqida ma'lumot to'plashlari va o'z fikrlarini yozma ravishda ifodalashlari mumkin.

O'zbekistonlik tadqiqotchi N.F. Mamatkulova "Eco-conscious Thinking in ELT" maqolasida ekolingvistika va "yashil pedagogika" tushunchalarini chet tili o'qitish jarayoniga integratsiyalash zarurligini ta'kidlaydi. Uning fikricha, til o'qituvchilari ekologik matnlar, muhokamalar va topshiriqlar orqali o'quvchilarda nafaqat lingvistik kompetensiyalarni, balki ekologik ongni, ijtimoiy mas'uliyatni va barqaror tafakkurni ham shakllantirishlari mumkin.

O'zbekistonlik tadqiqotchi S.A. Akbarova esa bo'lajak o'qituvchilarda ekologik kompetensiyani rivojlantirishning pedagogik tizimini tadqiq qilib, ekologik kompetensiyaning uzluksiz rivojlanishini va uning asosi universitetda qo'yilishini ta'kidlaydi. Bu esa ingliz tili o'qituvchilarini tayyorlashda ekologik tarbiya elementlariga alohida e'tibor qaratish zarurligini ko'rsatadi.

Ingliz tili darslarida ekologik tarbiya elementlaridan foydalanishda bir qancha muammolar mavjud. Birinchidan, o'qituvchilarning pedagogik tayyorgarligi yetarli emas. Ispaniyada o'tkazilgan tadqiqotda qayd etilishicha, ekologik ta'lim ko'pincha ingliz tili darslarida yo'q, chunki o'qituvchilar bu sohada pedagogik tajribaga ega emaslar. Eronda o'tkazilgan tadqiqotda ham o'qituvchilarning rasmiy ekologik kommunikatsiya ta'limiga ega emasligi aniqlangan.

Ikkinchidan, o'quv dasturlarining cheklanganligi va vaqt yetishmasligi muammosi mavjud. Barqarorlik mavzularini o'quv dasturiga integratsiyalash qiyin, chunki dastur, kurs ishlari va imtihonlar allaqachon to'la. Tadqiqotchilar bu muammoni yechish uchun kichik o'zgarishlar orqali ekologik mavzularni kiritishni tavsiya qiladilar. Masalan, "transport" bo'limida turli transport turlari haqidagi matn mavjud bo'lsa, o'quvchilarga har bir transport turining atrof-muhitga ta'siri haqida o'ylash taklif qilinadi.

Uchinchidan, ekologik mavzularning murakkabligi va o'quvchilarning yoshi, kognitiv darajasiga mosligi masalasi mavjud. Ba'zi ilmiy mavzular yosh va kognitiv jihatdan mos bo'lishi kerak. Yosh til o'quvchilari global isish va mintaqadagi suv toshqinlari o'rtasidagi bog'liqlikni

tushunishda yordamga muhtoj. Shuningdek, o'smirlar orasida "eko-tashvish" (eco-anxiety) muhim muammo bo'lib, ijtimoiy tarmoqlar iqlim inqirozi haqida ko'plab salbiy ma'lumotlarni tarqatadi. Shu sababli, muammolarga emas, balki yechimlarga e'tibor qaratish tavsiya etiladi.

To'rtinchidan, resurslar va materiallar yetishmasligi muammosi mavjud. Ko'plab maktablarda ekologik mazmundagi ingliz tilidagi autentik materiallar, video va audio resurslar yetarli emas. Bu, ayniqsa, qishloq maktablarida yaqqol seziladi.

Ushbu muammolarni yechish uchun quyidagi choralar tavsiya etiladi. Birinchidan, o'qituvchilarni tayyorlash va malakasini oshirish dasturlariga ekologik ta'lim modullarini kiritish zarur. Ikkinchidan, o'quv dasturlarini ekologik mazmun bilan boyitish, buning uchun mavjud mavzularga kichik ekologik qo'shimchalar kiritish yo'lidan borish kerak. Uchinchidan, o'quvchilarning yoshi va darajasiga mos ekologik materiallar ishlab chiqish, shu jumladan o'zbek tilidagi va ingliz tilidagi resurslarni yaratish lozim. To'rtinchidan, raqamli texnologiyalar va onlayn resurslardan keng foydalanish, masalan, British Council'ning iqlim harakati videolaridan foydalanish tavsiya etiladi.

Ingliz tili o'qituvchilari uchun quyidagi amaliy tavsiyalar ishlab chiqildi.

Birinchi tavsiya – dars mavzularini ekologik mazmun bilan boyitish. Har bir mavzuni ekologik kontekstga bog'lash mumkin. Masalan, "Oziq-ovqat" mavzusida organik mahsulotlar va barqaror qishloq xo'jaligi haqida gapirish, "Sayohat" mavzusida ekoturizm va uglerod izi haqida muhokama qilish mumkin.

Ikkinchi tavsiya – turli materiallardan foydalanish. Rasmiy kitoblar, badiiy filmlar, hujjatli videolar, podcastlar va infografikalar ekologik mavzularni qiziqarli va tushunarli qilishda yordam beradi. Ayniqsa, mahalliy ekologik muammolarni aks ettiruvchi materiallar o'quvchilarga yaqinroq bo'ladi.

Uchinchi tavsiya – loyihaviy faoliyatni tashkil etish. O'quvchilar guruhlarda ekologik loyihalar ustida ishlashlari mumkin: maktabda qayta ishlash tizimini yo'lga qo'yish, daraxt ekish aksiyasini o'tkazish, mahalliy ekologik muammolar bo'yicha tadqiqot olib borish va natijalarni ingliz tilida taqdim etish.

To'rtinchi tavsiya – tanqidiy fikrlashni rivojlantirish. Ekologik mavzular bo'yicha munozaralar, debatlar va tahliliy yozma ishlar o'quvchilarning tanqidiy fikrlashini rivojlantiradi. Masalan, "Plastik qadoqlashni taqiqlash kerakmi?" kabi mavzularda debat o'tkazish mumkin.

Beshinchi tavsiya – o'quvchilarni harakatga undash. Tadqiqotlar shuni ko'rsatadiki, o'quvchilar o'z harakatlarining natijalarini ko'rganda, passiv o'quvchidan faol loyiha rahbariga aylanadilar. Shuning uchun ingliz tili darslarida o'quvchilarni real ekologik harakatlarga jalb qilish, masalan, maktabda qayta ishlash dasturini boshlash, daraxt ekish yoki jamoat tozalash tadbirlarida qatnashish tavsiya etiladi.

XULOSA.

Ingliz tilini o'qitishda ekologik tarbiya elementlaridan foydalanish – bu zamonaviy ta'limning dolzarb va istiqbolli yo'nalishidir. Ushbu yondashuv til o'qitishni real dunyo muammolari bilan bog'laydi, o'quvchilarning motivatsiyasini oshiradi, tanqidiy fikrlashini rivojlantiradi va ularni ekologik jihatdan mas'uliyatli fuqarolar sifatida shakllantiradi.

Nazariy jihatdan "yashil pedagogika", ekolingvistika va CLIL yondashuvlari bu jarayonning mustahkam asosini tashkil etadi. Xalqaro tajribalar shuni ko'rsatadiki, ekologik mavzularni til darslariga integratsiyalash o'quvchilarning ham lingvistik, ham ekologik kompetensiyalarini rivojlantirishda samarali natijalar beradi.

O'zbekiston kontekstida "Eco-Schools" va "Yashil Makon" kabi tashabbuslar ekologik ta'lim bo'yicha muhim qadam bo'lib, ular ingliz tili darslari bilan integratsiyalashishi mumkin. Bu integratsiya o'quvchilarga nafaqat ingliz tilini o'rganish, balki global ekologik muammolarni tushunish va ularga munosabat bildirish imkonini beradi.

Kelajakda bu sohada tadqiqotlarni yanada chuqurlashtirish, ayniqsa O'zbekiston kontekstida ingliz tili darslarida ekologik tarbiya elementlaridan foydalanishning samaradorligini eksperimental

tekshirish, o'qituvchilarni tayyorlash metodikalarini ishlab chiqish va milliy o'quv dasturlariga ekologik modullarni kiritish muhim ahamiyatga ega.

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LINGUISTIC CREATIVITY IN TRANSLATION

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Annotatsiya. Ushbu maqolada tarjimadagi ijodkorlikning nazariy asoslari, lisoniy mexanizmlari va amaliy namoyon bo'lishi ko'rib chiqiladi. Shuningdek, ijodkorlik va ekvivalentlik o'rtasidagi munosabatlar tahlil qilinadi, madaniy kompetensiyaning ijodiy qarorlar qabul qilishga ta'siri muhokama qilinadi hamda ijodiy tarjima muvaffaqiyatli madaniyatlararo muloqotga qanday hissa qo'shishi ko'rsatib beriladi.

Kalit so'zlar: lisoniy ijodkorlik, tarjima strategiyalari, metafora, so'z o'yini, madaniy moslashuv.

Аннотация. В данной статье рассматриваются теоретические основы, лингвистические механизмы и практические проявления креативности в переводе. Кроме того, анализируются взаимосвязи между креативностью и эквивалентностью, обсуждается влияние культурной компетентности на принятие творческих решений и демонстрируется, как креативный перевод способствует успешной межкультурной коммуникации.

Ключевые слова: лингвистическая креативность, переводческие стратегии, метафора, игра слов, культурная адаптация.

Abstract. The present article examines the theoretical foundations, linguistic mechanisms, and practical manifestations of creativity in translation. Furthermore, it analyzes the relationship between creativity and equivalence, discusses the influence of cultural competence on creative decision making, and demonstrates how creative translation contributes to successful intercultural communication.

Keywords: linguistic creativity, translation strategies, metaphor, wordplay, cultural adaptation.

Translation has traditionally been associated with linguistic equivalence and semantic fidelity. However, contemporary linguistic research increasingly emphasizes that successful translation

extends beyond lexical substitution and grammatical correspondence. Rather, translation represents a complex cognitive activity in which translators continuously interpret meanings, evaluate contextual factors, and generate linguistically appropriate solutions for target readers. Consequently, linguistic creativity has emerged as one of the defining characteristics of professional translation, especially in literary, audiovisual, advertising, and media discourse [3, 91].

The growing importance of linguistic creativity reflects the evolving understanding of language itself. Language is not merely a system of grammatical structures but also a dynamic instrument through which individuals construct identities, express emotions, and transmit cultural knowledge. Therefore, translators inevitably become creative mediators who negotiate between linguistic systems rather than passive transmitters of isolated lexical items. In this respect, creativity does not imply unrestricted freedom; instead, it refers to the ability to produce innovative yet contextually appropriate solutions that preserve communicative effectiveness.

From a theoretical perspective, linguistic creativity can be defined as the capacity to generate original linguistic forms while respecting the structural and communicative norms of a language. Within translation studies, creativity involves selecting, modifying, restructuring, or recreating textual elements whenever direct equivalence fails to achieve the intended effect. Thus, translators constantly balance fidelity and innovation, preserving the author's communicative purpose while ensuring naturalness and readability in the target language [5, 278-290].

Furthermore, linguistic creativity is deeply connected with cognitive processes. During translation, professionals activate background knowledge, cultural schemas, semantic associations, and pragmatic reasoning simultaneously. Rather than following predetermined linguistic formulas, translators solve communicative problems by integrating linguistic competence with creative thinking. Consequently, every translation decision reflects both analytical reasoning and imaginative reconstruction.

The relationship between creativity and equivalence has generated considerable academic discussion. Classical translation theories emphasized formal correspondence between source and target texts. Nevertheless, modern scholars argue that functional equivalence frequently requires creative departures from literal wording. Accordingly, translators often replace lexical structures, modify syntactic patterns, or reformulate stylistic devices in order to reproduce similar communicative effects. Therefore, equivalence should not be interpreted as identical wording but as comparable communicative value within different linguistic and cultural contexts [2].

Moreover, linguistic creativity becomes particularly significant when translators encounter figurative language. Metaphors, similes, symbolism, and idiomatic expressions often derive their meanings from cultural experiences rather than dictionary definitions. Consequently, literal translation frequently produces semantic distortion or stylistic awkwardness. Instead, translators employ creative adaptation by identifying equivalent conceptual metaphors within the target culture or by reconstructing figurative meanings through alternative linguistic resources. Such creative decisions preserve both emotional resonance and interpretive depth.

Similarly, humor represents one of the greatest challenges requiring linguistic creativity. Humor depends upon phonological similarities, lexical ambiguity, cultural references, and pragmatic expectations that rarely coincide across languages. Therefore, translators frequently recreate humorous effects rather than reproduce identical linguistic structures. In many cases, successful humorous translation prioritizes audience response instead of lexical correspondence. As a result, creativity becomes indispensable for maintaining entertainment value while respecting cultural sensitivities.

Wordplay provides another important illustration of creative translation. Puns rely upon multiple meanings, homophones, morphological similarities, or phonetic resemblance that seldom exist between languages. Consequently, literal translation usually destroys the intended effect. Professional translators therefore reconstruct comparable wordplay by exploiting alternative linguistic resources available in the target language. Although the resulting expressions may differ structurally from the originals, they often preserve comparable communicative impact and artistic quality [4].

Furthermore, literary translation demonstrates the highest level of linguistic creativity because literary texts integrate aesthetic expression with semantic complexity. Authors intentionally manipulate rhythm, imagery, symbolism, and stylistic variation to produce emotional and intellectual responses. Consequently, translators must reconstruct artistic experiences rather than simply transfer informational content. Every lexical choice influences characterization, narrative voice, emotional atmosphere, and stylistic coherence. Therefore, literary translators function simultaneously as interpreters, writers, and intercultural mediators.

Poetry illustrates these creative demands even more clearly. Poetic language frequently combines rhyme, meter, alliteration, metaphorical density, and cultural symbolism within limited textual space. Since preserving every formal characteristic is usually impossible, translators continuously prioritize certain textual features while creatively compensating for inevitable losses elsewhere. Accordingly, successful poetic translation reflects strategic creativity rather than mechanical equivalence.

In addition, linguistic creativity plays an equally essential role in audiovisual translation. Subtitling and dubbing require translators to operate under strict spatial, temporal, and technical constraints. Besides conveying semantic meaning, subtitles must remain concise, readable, and synchronized with visual information. Similarly, dubbing demands synchronization between translated dialogue and actors' lip movements while preserving emotional authenticity. Consequently, audiovisual translators regularly reformulate expressions creatively in order to satisfy multiple communicative requirements simultaneously [1, 3-17].

Advertising translation further demonstrates the commercial significance of linguistic creativity. Marketing discourse seeks not only to inform consumers but also to persuade, entertain, and establish emotional connections with audiences. Advertising slogans frequently depend upon rhyme, rhythm, cultural symbolism, and memorable wordplay. Literal translation often weakens persuasive effectiveness because emotional associations differ across cultures. Therefore, translators frequently employ transcreation, a process involving substantial creative adaptation while preserving brand identity and marketing objectives.

Furthermore, digital communication has expanded opportunities for linguistic creativity in translation. Social media platforms, online gaming, digital marketing, and interactive multimedia generate rapidly evolving linguistic innovations, including internet slang, memes, emojis, abbreviations, and hybrid language forms. Since these expressions emerge within highly specific online communities, translators must creatively interpret not only lexical meanings but also cultural practices and digital communication norms. Consequently, technological development continuously increases the importance of creative translation competence.

The role of culture cannot be separated from linguistic creativity. Every language reflects historical experiences, social traditions, belief systems, and cultural values unique to its speakers. Consequently, translation frequently involves transferring cultural knowledge alongside linguistic information. Cultural references, historical events, religious concepts, social customs, and traditional symbolism often require explanatory adaptation or functional substitution. Therefore, creative translation serves as a bridge that facilitates intercultural understanding without erasing cultural diversity.

Additionally, cognitive linguistics provides valuable insight into creative translation processes. Conceptual metaphor theory demonstrates that human cognition organizes abstract concepts through culturally grounded metaphorical systems. Since metaphorical patterns vary across languages, translators must identify conceptual correspondences rather than lexical similarities. This cognitive perspective explains why effective translation frequently requires conceptual restructuring instead of direct lexical replacement.

Creativity in translation is also influenced by translator competence. Linguistic knowledge alone cannot guarantee successful creative performance. Professional translators require extensive cultural awareness, genre familiarity, pragmatic sensitivity, critical thinking, and subject-specific expertise. Moreover, extensive reading and continuous exposure to authentic discourse enrich lexical

flexibility and stylistic awareness. Consequently, creativity develops through both natural talent and systematic professional training.

In conclusion, linguistic creativity constitutes one of the fundamental dimensions of successful translation in the contemporary multilingual world. Translation is not merely the reproduction of linguistic structures but the reconstruction of meanings, emotions, stylistic intentions, and cultural experiences across languages. Consequently, creative translators perform an essential intercultural function by producing texts that remain faithful to communicative purposes while responding naturally to target audiences.

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LINGVISTIK GEGEMONIYA - TILNING TABIIY TANLANISHI: INGLIZ TILINING GLOBALLASHUVI HIND-YEVROPA TILLARI EVOLYUTSIYASI KONTEKSTIDA

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Annotatsiya. Mazkur maqolada ingliz tilining bugungi kundagi dunyo miqyosidagi yetakchi mavqeyi tilshunoslik, tarixiy va ijtimoiy-siyosiy nuqtai nazarlar kesishmasida ko'rib chiqiladi. Tadqiqotning bosh maqsadi shundan iboratki, ingliz tilining sayyoramiz bo'ylab keng yoyilish jarayoni "tabiiy tanlanish" tamoyili nuqtai nazaridan qanchalik izohlanishi mumkinligini aniqlash, shu bilan birga ushbu talqinning nechog'lik cheklangan ekanini ko'rsatishdir. Ishda hind-yevropa til oilasining ko'p asrlik taraqqiyot yo'li, Yevropa davlatlarining mustamlakachilik siyosati, o'tgan asr va hozirgi davrdagi iqtisodiy-texnologik jarayonlar hamda zamonaviy internet makoni ingliz tili yetakchiligini vujudga keltirgan omillar sifatida tahlil qilinadi. Alohida e'tibor tilning evolyutsion "tanlanishi" g'oyasi (linguistic Darwinism) bilan lingvistik imperializm kontseptsiyasi orasidagi murakkab munosabatga qaratiladi. Tadqiqot natijasida shunday xulosaga kelindiki, ingliz tilining bugungi ustunligi na faqat tabiiy, na faqat majburiy xarakterdagi hodisa bo'lib, balki tarixiy tasodiflar, siyosiy-iqtisodiy kuch va institutsional qarorlarning o'zaro ta'siri mahsulidir.

Kalit so'zlar: lingvistik gegemoniya, tilning tabiiy tanlanishi, hind-yevropa tillari, ingliz tilining globallashuvi, lingvistik imperializm, World Englishes, til evolyutsiyasi, til o'limi, lingvistik ekologiya.

Аннотация. В данной статье лидирующая позиция английского языка в современном мире рассматривается на стыке лингвистических, исторических и социально-политических подходов. Основная цель исследования заключается в том, чтобы выяснить, в какой мере распространение английского языка по всему земному шару может быть объяснено принципом "естественного отбора", а также показать ограниченность подобной трактовки. В работе анализируются многовековой путь развития индоевропейской языковой семьи, колониальная политика европейских держав, экономико-технологические процессы прошлого и настоящего столетия, а также современное цифровое пространство как факторы, обусловившие лидерство английского языка. Особое внимание уделяется сложной взаимосвязи между идеей эволюционного "отбора" языков (linguistic Darwinism) и концепцией лингвистического империализма. По итогам исследования сделан вывод, что нынешнее

доминирование английского языка не является ни исключительно естественным, ни исключительно принудительным явлением, а представляет собой результат взаимодействия исторических случайностей, политико-экономической силы и институциональных решений.

Ключевые слова: лингвистическая гегемония, естественный отбор языка, индоевропейские языки, глобализация английского языка, лингвистический империализм, World English, языковая эволюция, вымирание языков, лингвистическая экология.

Abstract. This article examines the leading global position of the English language at the intersection of linguistic, historical, and socio-political perspectives. The main purpose of the study is to determine to what extent the worldwide spread of English can be explained through the principle of "natural selection", while simultaneously demonstrating the limits of such an interpretation. The paper analyzes the centuries-long development of the Indo-European language family, the colonial policies of European powers, the economic and technological processes of the past and present centuries, and the modern digital environment as factors that shaped the dominance of English. Particular attention is given to the intricate relationship between the idea of evolutionary language "selection" (linguistic Darwinism) and the concept of linguistic imperialism. The study concludes that the current dominance of English is neither a purely natural nor a purely coercive phenomenon, but rather the outcome of an interplay between historical contingency, political-economic power, and institutional decisions.

Keywords: linguistic hegemony, natural selection of language, Indo-European languages, globalization of English, linguistic imperialism, World Englishes, language evolution, language death, linguistic ecology.

KIRISH

Bugungi kunda til masalasi sof muloqot vositasi doirasidan chetga chiqib, iqtisodiy resurs, siyosiy ta'sir quroli hamda madaniy kapital shakliga aylanib bormoqda. Insoniyat tarixida hech bir til ingliz tili kabi keng ko'lamda tarqalmagan: uni taxminan bir yarim milliarddan ziyod inson - ona tili, ikkinchi til yoxud xorijiy til sifatida - qo'llaydi; oltmishdan ortiq davlatda u rasmiy yoki yarim rasmiy maqomga ega; xalqaro diplomatiya, fanning turli sohalari, aviatsiya, dengiz aloqasi, dasturlash tizimlari va global internet tarmog'ida yetakchi o'rinni egallab kelmoqda.

Ushbu hodisaga munosabat bildirishda tilshunoslar ikki qarama-qarshi qarash atrofida birlashadi. Bir guruh mutaxassislar ingliz tilining tarqalishini o'ziga xos evolyutsion voqelik, ya'ni tillar o'rtasidagi "tabiiy tanlanish" natijasi deb hisoblaydi - bunda eng "moslashuvchan" hamda amaliy jihatdan "foydali" til g'alaba qozonadi degan mantiq ilgari suriladi. Boshqa guruh vakillari esa aynan shu jarayonni tarixiy bosqinchilik, mustamlakachilik siyosati va institutsional bosim natijasi - ya'ni lingvistik imperializm ko'rinishi sifatida talqin etishadi. Mazkur maqolaning vazifasi ikkala qarashni tanqidiy nuqtai nazardan qiyoslash, ularning ilmiy negizini hind-yevropa til oilasining uzoq davom etgan evolyutsion o'tmishi asosida sinovdan o'tkazish hamda ingliz tilining bugungi maqomini bir tomonlama emas, balki ko'p qirrali tarzda tushuntirishdan iborat.

ADABIYOTLAR TAHLILI

Tilni "tabiiy tanlanish" prizmasidan o'rganish g'oyasi tilshunoslikda uzoq tarixga ega. Amerikalik olim Salikoko Mufvene o'zining til ekologiyasiga bag'ishlangan nazariyasida tillarni biologik turlarga qiyoslaydi va ularning yashovchanligi yoki yo'qolishini atrofda ijtimoiy, iqtisodiy hamda demografik sharoit - ya'ni "til ekotizimi" bilan bog'liq holda talqin qiladi. Olimning fikricha, biron-bir til o'z-o'zidan "kuchli" yoxud "ojiz" bo'lmaydi; uning taqdiri faqat u xizmat qiladigan ijtimoiy muhitning qudratiga qarab belgilanadi.

Bunga qarama-qarshi o'laroq, daniyalik tilshunos Robert Fillipson o'zining "Linguistic Imperialism" (1992-yil) risolasida ingliz tilining dunyo bo'ylab yoyilishini tasodifiy yoki tabiiy jarayon emas, balki ingliz va amerika muassasalari tomonidan ongli tarzda amalga oshirilgan strategik siyosat mahsuli deb baholaydi. Uningcha, har qanday til siyosati aslida kuch nisbatlarining aks-sadosidir, "tilning tabiiy ustunligi" tushunchasi esa amalda hukmron doiralar yaratgan mafkuraviy g'oyadan boshqa narsa emas.

Britaniyalik tadqiqotchi Devid Kristal o'zining "English a Global Language" (1997, 2003) kitobida bir oz boshqacharoq, muvozanatli yo'nalishni tanlaydi. Uning ta'kidlashicha, ingliz tili global maqomga erishishida tarixiy tasodif - Britaniya imperiyasining kengayishi - hamda undan keyingi davrda AQShning iqtisodiy-texnologik yetakchiligi asosiy rol o'ynagan. Kristal shuni alohida qayd etadiki, hech qaysi til faqat o'zining ichki tuzilishi (grammatikaning soddaligi yoki lug'at boyligi kabi xususiyatlar) hisobiga global maqomga chiqmaydi - bu ko'proq uni gapiruvchi xalqning siyosiy-iqtisodiy qudratiga bog'liq masaladir.

Hindistonlik olim Braj Kachru XX asrning saksoninchi yillarida ilgari surgan "Uch konsentrik doira" modeli ingliz tilining tarqalish geografiyasini tushunishda muhim nazariy vosita bo'lib xizmat qiladi. Ushbu modelga ko'ra, ingliz tili dunyosi uchga ajratiladi: Ichki doira - til ona tili hisoblangan mamlakatlar (Buyuk Britaniya, AQSh, Avstraliya kabi); Tashqi doira - mustamlaka merosi sifatida ingliz tili institutsional maqom kasb etgan davlatlar (Hindiston, Nigeriya, Pokiston); Kengayuvchi doira - til xorijiy til tarzida o'qitiladigan mamlakatlar (jumladan, O'zbekiston, Xitoy, Rossiya). Ushbu tasnif ingliz tilining barcha mintaqalarda bir xil emas, balki turlicha ijtimoiy vazifa bajarishini ochib beradi.

Til o'limi hodisasi va lingvistik xilma-xillikning kamayib borishi masalasida Daniel Nettle va Suzan Romeyn "Vanishing Voices" (2000) asarida dunyo tillarining yarmidan ko'prog'i joriy asr yakuniga qadar yo'qolib ketish xavfi ostida turganini ta'kidlashadi. Finlyandiyalik olim Tove Skutnabb-Kangas esa bu hodisani "lingvitsid" atamasi bilan nomlab, hukmron tillarning kichik tillarni siqib chiqarish jarayonini til huquqlari nuqtai nazaridan qattiq tanqid ostiga oladi.

Avstraliyalik olim Alastair Pennikuk tanqidiy amaliy tilshunoslik yo'nalishida ingliz tilini betaraf muloqot vositasi sifatida emas, balki hokimiyat, mafkura hamda madaniy siyosat bilan chambarchas bog'liq murakkab ijtimoiy hodisa sifatida tekshirish zarurligini asoslab beradi.

Hind-yevropa tillari oilasining evolyutsion yo'li. Ingliz tilining hozirgi holatini chuqurroq tushunish uchun avvalo uning kelib chiqish tarixi - hind-yevropa til oilasi evolyutsiyasiga nazar tashlash lozim. Hozirgi kunda mazkur til oilasi sayyoramizdagi eng yirik til birlashmasi hisoblanadi: turli hisob-kitoblarga qaraganda, yer aholisining qariyb qirq besh-qirq olti foizi aynan shu oilaga mansub tillarda so'zlashadi.

Hind-yevropa tillari o'rtasidagi qarindoshlik haqidagi dastlabki ilmiy taxmin 1786-yilga borib taqaladi - ingliz sharqshunosi Uilyam Jons sanskrit, yunon va lotin tillari o'rtasida tizimli o'xshashliklarni payqab, bu tillarning barchasi umumiy ajdod - proto-hind-yevropa tilidan kelib chiqqan bo'lishi mumkinligini bashorat qilgan edi. Keyinroq nemis olimlari Frants Bopp va Yakob Grimm ushbu farazni qiyosiy-tarixiy usul yordamida yanada chuqurlashtirishdi. "Grimm qonuni" nomi bilan tanilgan tovush o'zgarishi qoidasi proto-hind-yevropa undoshlarining german tillarida qanday izchil tarzda o'zgarganligini isbotlab berdi.

XIX asrda nemis tilshunosi Avgust Shlayxer tillar taraqqiyotini jonli organizmlar evolyutsiyasiga tenglashtirib, mashhur "Stammbaumtheorie", ya'ni daraxt nazariyasini taklif etgan edi. Qizig'i shundaki, Shlayxer bevosita Charlz Darvinning "Turlarning kelib chiqishi" nomli asaridan ilhomlanib, tillarni ham xuddi biologik turlar kabi tug'iladigan, o'sadigan va nihoyat o'ladigan tirik organizmlar sifatida tasvirlagan. Bugungi kunda keng tarqalgan "tilning tabiiy tanlanishi" metaforasining ildizlari aynan shu tarixiy g'oyaga borib taqaladi - biroq zamonaviy tilshunoslar ushbu qiyoslashni faqat majoziy ma'noda, ya'ni tilning ijtimoiy sharoitga moslashish qobiliyati ma'nosida qo'llashni ma'qul ko'radilar, chunki tillar, biologik organizmlardan farqli o'laroq, genetik emas, balki ijtimoiy-madaniy yo'l bilan avloddan-avlodga o'tadi va o'zgaradi.

Hind-yevropaliklarning dastlabki vatani (Urheimat) haqidagi bahs bugungacha tilshunoslar va arxeologlar o'rtasida davom etib kelmoqda. Litva-amerikalik arxeolog Mariya Gimbutas ilgari surgan "Kurgan gipotezasi"ga binoan, proto-hind-yevropaliklar miloddan avvalgi to'rt-uch ming yilliklarda Pont-Kaspiy dashtlarida, ya'ni hozirgi Ukraina va Janubiy Rossiya hududlarida yashab, keyinchalik ot va g'ildirakli aravalar yordamida Yevropa hamda Osiyoning katta qismiga yoyilgan. Britaniyalik arxeolog Kolin Renfryu esa muqobil qarash - "Anatoliya gipotezasi"ni taklif etib, hind-yevropa tillarining tarqalishi miloddan avvalgi yetti ming olti yuz yillikda Anatoliyadan dehqonchilik madaniyati bilan birgalikda boshlangan degan farazni ilgari suradi. So'nggi yillarda o'tkazilgan

qadimiy DNK tahlillari (paleogenetika) ko'proq Kurgan gipotezasini tasdiqlovchi natijalar bermoqda, biroq masala hamon to'liq hal etilgan emas.

Ushbu tarixiy manzara shuni ko'rsatadiki, hind-yevropa tillarining tarqalishi, xuddi bugungi ingliz tili misolida ko'rilganidek, sof "tabiiy" voqea bo'lmagan - u migratsiya to'liqlari, texnologik ustunlik (aravalar, chorvachilik, keyinchalik temir qurollar), demografik bosim va madaniy singib ketish kabi aniq tarixiy-moddiy omillar bilan uzviy bog'liq bo'lgan. Bu qiyoslash zamonaviy ingliz tili gegemoniyasini o'rganishda muhim metodologik ahamiyat kasb etadi: til hukmronligi har doim kuch, texnologiya va ijtimoiy tashkilotning natijasi bo'lib chiqadi.

Ingliz tilining jahon miqyosiga chiqish bosqichlari. Ingliz tilining bugungi global maqomga erishuvi bir necha aniq tarixiy davrni bosib o'tgan. Birinchi davr - Britaniya imperiyasining kengayish jarayoni (XVII-XIX asrlar). O'n to'qqizinchi asr so'nggida Britaniya imperiyasi quruqlikning taxminan to'rtinchi qismi hamda dunyo aholisining ham qariyb shunchalik ulushini o'z nazoratida tutgan. Mustamlaka boshqaruvi, ta'lim va sud tizimi ingliz tilida yuritilgani sababli, u Hindiston, Afrika hamda Osiyoning ko'plab hududlarida institutsional til maqomida o'rnatilib qoldi.

Ikkinchi davr - AQShning o'tgan asrdagi iqtisodiy va harbiy yetakchiligi bilan bog'liq. Ikkinchi jahon urushidan keyingi yillarda Amerika Qo'shma Shtatlari dunyoning bosh iqtisodiy hamda texnologik kuchiga aylandi. Bretton-Vud's moliyaviy tizimi, Birlashgan Millatlar Tashkilotining tashkil topishi, Xalqaro Valyuta Fondi va Jahon banki kabi yirik xalqaro institutlarning faoliyati asosan ingliz tilida olib borilgan. Sovuq urush davomida ham ingliz tili G'arb tomonining yetakchi aloqa vositasiga aylandi.

Uchinchi davr - texnologik hamda raqamli inqilob (o'tgan asr oxiri - joriy asr boshi). Kompyuter dasturlash tillari asosan ingliz tilidagi kalit iboralarga tayanganligi, internetning ilk infratuzilmasi va dasturiy vositalari aynan shu tilda ishlab chiqilgani bois, ingliz tili fan hamda texnika sohasining umumiy muloqot tiliga (lingua franca) aylandi. Hozirgi vaqtda dunyodagi ilmiy jurnallarning katta qismi - turli manbalarga ko'ra to'qson foizga yaqini - ingliz tilida chop etiladi, bu esa boshqa tillarda ilmiy faoliyat yuritish imkoniyatlarini sezilarli darajada torayadi.

To'rtinchi davr - globallashtirish va ommaviy madaniyat ta'siri. Xolivud kinosanoati, ingliz-amerika pop-musiqasi, xalqaro brendlar va reklama sohasi ingliz tilini nafaqat amaliy zaruratga, balki alohida madaniy nufuz (prestige) manbaiga ham aylantirdi. Sotsiolingvistikada bu hodisa "yumshoq kuch" (soft power) tushunchasi orqali izohlanadi - ya'ni til nafaqat majburlash orqali, balki jozibadorlik va ixtiyoriy intilish orqali ham keng tarqalishi mumkin.

"Tabiiy tanlanish" g'oyasi: imkoniyatlar va cheklovlar. Tilning tabiiy tanlanishi metaforasi tarafdorlari ingliz tilining yetakchiligini uning "amaliy moslashuvchanligi" bilan izohlamochi bo'lishadi: ular ingliz tilining boshqa german tillariga nisbatan soddalashgan morfologik tuzilishga ega ekanligini (masalan, otlar hamda sifatlarda grammatik jins yo'qolganligini, fe'l tuslanishining minimallashtirilganligini) hamda lotin, fransuz va boshqa tillardan keng ko'lamda leksik o'zlashtirish natijasida boy lug'at zaxirasiga ega bo'lganini, shu tufayli "o'rganish jihatidan qulay" til sanalishini dalil sifatida keltirishadi.

Ammo bunday qarash zamonaviy tilshunoslikda jiddiy e'tirozga uchraydi. Birinchidan, dunyoda ingliz tilidan ham grammatik jihatdan ancha "sodda" tillar mavjud (masalan, indoneziya tili yoki turli kreol tillari), biroq ular hech qachon global maqomga erisha olmagan. Bu esa tilning grammatik xususiyatlari uning tarqalish ko'lamiga bilan bevosita bog'liq emasligini yaqqol ko'rsatadi. Ikkinchidan, tarix davomida arab tili (islom xalifaligi davrida), lotin tili (Rim imperiyasi hamda O'rta asrlar Yevropasida), fransuz tili (XVII-XIX asr diplomatiyasida) ham o'z zamonasining "gegemon" tili bo'lgan, ammo ularning bu maqomi tilning ichki xususiyatlaridan emas, aksincha, siyosiy-iqtisodiy qudratdan kelib chiqqan edi.

Ushbu jihatdan qaraganda, Salikoko Mufvenening "til ekologiyasi" yondashuvi ancha ishonarli ko'rinadi: til o'z-o'zicha "tanlanmaydi", balki uni gapiruvchilarning ijtimoiy-iqtisodiy sharoitga moslashish strategiyasi natijasida "tanlab olinadi". Boshqacha aytganda, agar "tabiiy tanlanish" haqiqatan yuz berayotgan bo'lsa ham, uning predmeti til emas, balki muayyan tilni bilishdan kelib chiqadigan ijtimoiy foyda - iqtisodiy imkoniyatlar, ish o'rinlari, ta'lim va migratsiya

istiqbollaridir. Ushbu farqni ajrata bilish muhim, chunki u tilning "tabiiy ustunligi" haqidagi mafkuraviy tasavvurni fosh qiladi hamda uning o'rniga ijtimoiy-institutsional tahlilni qo'yadi.

Lingvistik gegemoniyaning oqibati: til xilma-xilligining kamayib borishi. Yagona tilning global miqyosda ustuvorlik qozonishi muqarrar ravishda boshqa tillar hisobiga sodir bo'layotgani zamonaviy tilshunoslar orasida jiddiy tashvish uyg'otmoqda. YUNESKO ma'lumotlariga qaraganda, hozirda dunyoda yetti mingga yaqin til mavjud bo'lib, ularning taxminan yarmi joriy asr yakuniga qadar butunlay yo'qolib ketish xavfi ostida turibdi. Har ikki-uch haftada sayyoramizning biron burchagida oxirgi ona tilida so'zlashuvchi vafot etishi bilan bitta til abadiy yo'qolib ketmoqda.

Bu jarayonning asosiy sabablaridan biri sifatida kichik tillarning nufuzli tillar, xususan ingliz tili, foydasiga bosqichma-bosqich siqib chiqarilishi ko'rsatiladi. Ota-onalar o'z farzandlarining kelajakdagi iqtisodiy va ijtimoiy istiqbolini ta'minlash niyatida ularni nufuzli tilda tarbiyalashni afzal bilishadi, natijada bir necha avlod ichida mahalliy tillar kundalik muloqotdan chetlashib qoladi - bu hodisa tilshunoslikda "til almashinuvi" (language shift) nomi bilan tanilgan.

Tove Skutnabb-Kangas mazkur jarayonni faqat lingvistik emas, balki inson huquqlari nuqtai nazaridan ham baholashni taklif etadi, chunki til yo'qolishi bilan birga u tashuvchisi bo'lgan noyob bilim tizimlari - mahalliy o'simliklar, dorivor g'iyohlar, ekologik muvozanat haqidagi ma'lumotlar - ham yo'qolib ketadi. Shu sababdan ko'plab olimlar biologik xilma-xillikni asrash bilan lingvistik xilma-xillikni saqlab qolish o'rtasida parallellik o'tkazishadi va buni "biolingvistik xilma-xillik" atamasi orqali ifodalashadi.

XULOSA

O'tkazilgan tahlil shuni ko'rsatadiki, ingliz tilining bugungi dunyodagi yetakchi mavqeyini yagona nazariy qolip orqali izohlab bo'lmaydi. "Tilning tabiiy tanlanishi" metaforasi ma'lum darajada asosga ega - u tilning ijtimoiy sharoitga moslashuvchanligi hamda foydali tillarning ustuvor tarqalishini aks ettiradi. Biroq ushbu metafora tilni mustaqil, faol subyekt sifatida ko'rsatib yuborish xavfini tug'diradi va shu orqali til ortida turgan haqiqiy siyosiy-iqtisodiy kuch munosabatlarini pardalab qo'yishi mumkin.

Hind-yevropa til oilasining besh ming yildan ortiq davom etgan evolyutsion tarixi shundan dalolat beradiki, tillarning yoyilishi yoki yo'qolishi doim aniq tarixiy-moddiy sabablar - migratsiya, texnologik ustunlik, iqtisodiy qudrat va institutsional kuch bilan bog'liq bo'lgan. Ingliz tilining bugungi ahvoli ham bundan mustasno emas: u Britaniya imperiyasi qoldirgan tarixiy meros, AQShning o'tgan asrdagi iqtisodiy-texnologik yetakchiligi hamda zamonaviy raqamli globalashuv jarayonlarining uyg'unlashuvi natijasidir.

Shu bilan birga, Robert Fillipsonning lingvistik imperializm nazariyasi ham, Salikoko Mufvenening til ekologiyasi kontseptsiyasi ham bir-birini inkor etmaydi, balki bir xil hodisaning turli qirralarini yoritadi: birinchisi til siyosatining institutsional-mafkuraviy mexanizmlarini, ikkinchisi esa tilning ijtimoiy-iqtisodiy sharoitga funksional moslashuvini ochib beradi. Kelajakda ingliz tilining maqomi sun'iy intellektga asoslangan tarjima texnologiyalari, Xitoy hamda Hindiston kabi mamlakatlarning iqtisodiy o'sishi va ko'p qutbli jahon tartibotining shakllanishi ta'sirida qanday o'zgarishi mumkinligi alohida tadqiqot mavzusi bo'lib qolmoqda. Xulosa o'rinda ta'kidlash joizki, til gegemoniyasi masalasi faqat tilshunoslikka oid emas, balki chuqur ijtimoiy-siyosiy mazmunga ega hodisa sifatida o'rganilishi lozim.

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THE ROLE OF MOTIVATION IN LEARNING ENGLISH AS A FOREIGN LANGUAGE

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Abstract. Motivation is one of the most significant psychological and pedagogical factors influencing the effectiveness of learning English as a foreign language (EFL). It determines learners' willingness to participate actively in the learning process, maintain sustained effort, overcome linguistic difficulties, and achieve long-term language learning goals. This article examines the role of motivation in EFL learning and analyzes the relationship between motivational factors and learners' engagement, persistence, autonomy, and academic achievement. Particular attention is paid to intrinsic and extrinsic motivation and their influence on students' attitudes toward English language learning. The study also considers the importance of teachers, classroom environment, instructional strategies, goal setting, feedback, and authentic communicative activities in developing and maintaining learner motivation. The analysis indicates that students with higher levels of motivation tend to demonstrate greater participation in classroom activities, stronger persistence in completing language-learning tasks, and a more positive attitude toward developing communicative competence. Furthermore, the article emphasizes that effective motivational strategies should take into account learners' individual needs, interests, proficiency levels, and educational objectives. It is concluded that motivation should be regarded not merely as an individual psychological characteristic but as a dynamic component of the language-learning process that can be strengthened through appropriate pedagogical conditions and learner-centered teaching practices. The findings highlight the necessity of integrating motivational strategies into EFL instruction to enhance students' active engagement, independent learning, and overall language proficiency.

Keywords: motivation, English as a foreign language, EFL learning, intrinsic motivation, extrinsic motivation, language learning, learner engagement, communicative competence, autonomous learning, teaching strategies.

Annotatsiya. Motivatsiya ingliz tilini xorijiy til sifatida (EFL) o'rganish samaradorligiga ta'sir ko'rsatuvchi eng muhim psixologik va pedagogik omillardan biridir. U o'quvchilarning ta'lim jarayonida faol ishtirok etishga tayyorligini, muntazam sa'y-harakatlarini davom ettirishini, lingvistik qiyinchiliklarni yengib o'tishini hamda til o'rganish bo'yicha uzoq muddatli maqsadlarga erishishini belgilaydi. Mazkur maqolada EFLni o'rganishda motivatsiyaning o'rnini ko'rib chiqiladi hamda motivatsion omillar bilan o'quvchilarning ta'lim jarayoniga jalb etilishi, qat'iyliligi, mustaqilligi va akademik yutuqlari o'rtasidagi bog'liqlik tahlil qilinadi. Ichki va tashqi motivatsiyaga hamda ularning talabalarning ingliz tilini o'rganishga bo'lgan munosabatiga ta'siriga alohida e'tibor qaratiladi. Shuningdek, o'qituvchi, sinf muhiti, ta'lim strategiyalari, maqsadlarni belgilash, teskari aloqa va autentik kommunikativ faoliyatlarning o'quvchilarning motivatsiyasini shakllantirish va saqlab qolishdagi ahamiyati ko'rib chiqiladi. Tahlil natijalari motivatsiya darajasi

yuqori bo'lgan talabalar odatda auditoriya mashg'ulotlarida faolroq ishtirok etishi, til o'rganishga oid topshiriqlarni bajarishda yuqori qat'iyat ko'rsatishi va kommunikativ kompetensiyani rivojlantirishga nisbatan ijobiyroq munosabatda bo'lishini ko'rsatadi. Bundan tashqari, maqolada samarali motivatsion strategiyalar o'quvchilarning individual ehtiyojlari, qiziqishlari, tilni egallash darajasi va ta'limiy maqsadlarini hisobga olishi lozimligi ta'kidlanadi. Xulosa qilib aytganda, motivatsiyani nafaqat individual psixologik xususiyat, balki tegishli pedagogik sharoitlar va o'quvchiga yo'naltirilgan ta'lim amaliyotlari orqali kuchaytirilishi mumkin bo'lgan til o'rganish jarayonining dinamik tarkibiy qismi sifatida qarash lozim. Tadqiqot natijalari talabalarning faol ishtirokini kuchaytirish, mustaqil ta'lim olish ko'nikmalarini rivojlantirish va umumiy til kompetensiyasini oshirish uchun motivatsion strategiyalarni EFL ta'lim jarayoniga integratsiya qilish zarurligini ko'rsatadi.

Kalit so'zlar: motivatsiya; ingliz tilini xorijiy til sifatida o'rganish; EFL ta'limi; ichki motivatsiya; tashqi motivatsiya; til o'rganish; o'quvchilarning ta'lim jarayoniga jalb etilishi; kommunikativ kompetensiya; avtonom ta'lim; o'qitish strategiyalari.

Аннотация. Мотивация является одним из наиболее значимых психологических и педагогических факторов, влияющих на эффективность изучения английского языка как иностранного (EFL). Она определяет готовность обучающихся активно участвовать в учебном процессе, поддерживать устойчивые усилия, преодолевать языковые трудности и достигать долгосрочных целей в изучении языка. В статье рассматривается роль мотивации в изучении английского языка как иностранного и анализируется взаимосвязь между мотивационными факторами и вовлечённостью обучающихся, настойчивостью, автономностью и академическими достижениями. Особое внимание уделяется внутренней и внешней мотивации и их влиянию на отношение студентов к изучению английского языка. В исследовании также рассматривается значение преподавателя, учебной среды, методов обучения, постановки целей, обратной связи и аутентичных коммуникативных заданий в формировании и поддержании учебной мотивации. Анализ показывает, что студенты с более высоким уровнем мотивации, как правило, демонстрируют более активное участие в аудиторных занятиях, большую настойчивость при выполнении языковых заданий и более позитивное отношение к развитию коммуникативной компетенции. Кроме того, в статье подчёркивается, что эффективные мотивационные стратегии должны учитывать индивидуальные потребности, интересы, уровень владения языком и образовательные цели обучающихся. Делается вывод о том, что мотивацию следует рассматривать не только как индивидуальную психологическую характеристику, но и как динамический компонент процесса изучения языка, который может укрепляться благодаря соответствующим педагогическим условиям и личностно ориентированным методам обучения. Полученные результаты подчёркивают необходимость интеграции мотивационных стратегий в процесс обучения английскому языку как иностранному для повышения активной вовлечённости студентов, развития самостоятельного обучения и общего уровня языковой компетенции.

Ключевые слова: мотивация; английский язык как иностранный; изучение английского языка как иностранного (EFL); внутренняя мотивация; внешняя мотивация; изучение языка; вовлечённость обучающихся; коммуникативная компетенция; автономное обучение; стратегии преподавания.

INTRODUCTION

English has become one of the most widely used languages for international communication, education, science, technology, business, and intercultural interaction. Consequently, learning English as a foreign language (EFL) has become an important component of modern education systems in many countries. However, successful foreign language acquisition depends not only on the quality of teaching materials, instructional methods, or learners' cognitive abilities but also on a range of psychological and affective factors. Among these factors, motivation occupies a particularly significant position because it influences learners' willingness to initiate learning, sustain effort,

participate actively in educational activities, and continue developing their language competence over time.

In the context of foreign language education, motivation can generally be understood as a dynamic process that directs, stimulates, and maintains learners' behavior toward the achievement of particular language-learning goals. A motivated learner is more likely to devote sufficient time and effort to language practice, participate in communicative activities, seek additional learning opportunities, and develop strategies for overcoming linguistic difficulties. In contrast, insufficient motivation may lead to passive participation, reduced persistence, language anxiety, limited independent learning, and lower academic performance. Therefore, understanding the motivational mechanisms underlying EFL learning is essential for improving both teaching practices and learning outcomes.

Motivation in foreign language learning is a multidimensional phenomenon. One of its important dimensions is the distinction between intrinsic and extrinsic motivation. Intrinsic motivation is associated with learning English because the learner experiences interest, enjoyment, curiosity, or personal satisfaction during the learning process. Extrinsic motivation, on the other hand, is related to external goals and outcomes, such as obtaining high grades, passing examinations, receiving certificates, entering higher education, improving employment opportunities, or meeting social and institutional expectations. Although these forms of motivation differ in their sources, both may contribute to language learning when they are appropriately supported within the educational environment.

Contemporary approaches to language-learning motivation also emphasize that motivation is not a fixed characteristic of the learner. It can change depending on personal goals, previous learning experiences, classroom atmosphere, teacher–student relationships, perceived competence, task difficulty, feedback, and opportunities to use the target language meaningfully. This dynamic understanding of motivation highlights the important role of teachers in creating pedagogical conditions that encourage students to become active participants in the learning process.

The EFL teacher therefore performs not only an instructional but also a motivational function. The use of learner-centered methods, authentic communication, collaborative tasks, problem-solving activities, digital resources, constructive feedback, and achievable learning objectives can contribute to students' interest and engagement. Providing learners with opportunities to make choices, demonstrate progress, communicate in meaningful situations, and connect English with their personal and professional goals may further strengthen their willingness to learn.

Another important aspect of motivation is its relationship with learner autonomy. Motivated students are generally more inclined to take responsibility for their learning, establish individual goals, monitor their progress, use additional resources, and practice English beyond the classroom. In this regard, motivation can serve as an important foundation for lifelong language learning because foreign language proficiency requires continuous practice and sustained engagement rather than short-term memorization alone.

In the modern educational context, the problem of maintaining students' motivation has become particularly relevant due to changing learning environments, increasing use of digital technologies, diverse learner needs, and growing expectations concerning communicative competence. Teachers are therefore required to identify not only what students learn but also why they are willing to learn and which pedagogical conditions can support sustained engagement. The integration of motivational strategies into EFL instruction can contribute to creating a learning environment in which students perceive English not merely as an academic subject but as a meaningful instrument for communication, education, professional development, and intercultural interaction.

Accordingly, the purpose of this article is to examine the role of motivation in learning English as a foreign language and to analyze the pedagogical factors that contribute to the development and maintenance of learner motivation. Particular attention is given to intrinsic and extrinsic motivation, learner engagement, autonomy, classroom environment, teacher support, goal setting, and communicative teaching practices. The study also seeks to identify practical strategies that EFL

teachers can employ to strengthen students' motivation and improve the effectiveness of the foreign language learning process.

LITERATURE REVIEW AND METHODS

Motivation has long been recognized as one of the central affective variables in second and foreign language acquisition. Research in educational psychology and applied linguistics demonstrates that successful language learning cannot be explained solely by learners' intellectual abilities, linguistic aptitude, or exposure to instructional materials. The degree to which learners are willing to invest effort, maintain interest, participate in communication, and continue learning despite difficulties is closely associated with their motivational orientation. Therefore, motivation has become an important interdisciplinary research area connecting psychology, pedagogy, applied linguistics, and foreign language teaching methodology.

One of the influential approaches to language-learning motivation was developed by Robert Gardner, whose socio-educational model emphasized the relationship between learners' attitudes, motivation, and second-language achievement. Gardner distinguished between different orientations toward language learning, particularly integrative and instrumental orientations. An integrative orientation refers to learners' interest in communicating with members of another linguistic and cultural community and developing a positive relationship with the target language and its culture. An instrumental orientation, in contrast, is associated with practical benefits, including academic achievement, employment, professional advancement, examinations, and access to international educational opportunities. In contemporary EFL environments, these orientations may coexist and interact rather than operate as completely separate motivational categories.

Another important theoretical framework is Self-Determination Theory developed by Edward Deci and Richard Ryan. This theory distinguishes between intrinsic and extrinsic forms of motivation and emphasizes the importance of autonomy, competence, and relatedness in supporting high-quality motivation. Intrinsically motivated students learn because they find the activity interesting, enjoyable, or personally meaningful, whereas extrinsically motivated learners may engage in learning because of external requirements, rewards, grades, qualifications, or future professional goals. From a pedagogical perspective, the theory suggests that learning environments that provide meaningful choices, appropriate challenges, constructive feedback, and supportive interpersonal relationships can promote more autonomous forms of motivation.

In foreign language education, Zoltán Dörnyei significantly expanded the understanding of motivation by emphasizing its dynamic and context-dependent nature. His research demonstrated that language-learning motivation changes throughout the learning process and can be influenced by learners' goals, self-perceptions, classroom experiences, teachers, peer relationships, and perceptions of future language use. The L2 Motivational Self System further explains motivation through the learner's image of the person he or she would ideally like to become as a second-language user, expectations associated with language learning, and actual learning experiences. From this perspective, learners who can clearly imagine themselves using English successfully in their future academic, professional, or social lives may have stronger reasons to sustain their learning efforts.

Recent approaches have increasingly viewed motivation as a dynamic process rather than a stable personal characteristic. Learners may experience different levels of motivation at different stages of a course, during different classroom activities, or even within a single lesson. Positive experiences of achievement can strengthen perceived competence and willingness to participate, whereas repeated failure, excessive difficulty, fear of making mistakes, or negative evaluation may weaken motivation. Consequently, the teacher's ability to create psychologically supportive and academically meaningful learning conditions becomes an important component of motivational pedagogy.

The relationship between motivation and learner autonomy is another significant issue in EFL research. Autonomous learners are able to establish learning goals, select appropriate strategies, monitor their progress, evaluate outcomes, and take responsibility for continued development. Motivation supports these processes by encouraging learners to engage with English beyond formal

classroom requirements. Students may independently read English-language materials, watch educational videos, communicate through digital platforms, listen to podcasts, use language-learning applications, or participate in authentic communicative situations. Such activities increase exposure to the target language and may contribute to the development of communicative competence.

Teacher behavior also plays a substantial role in shaping students' motivational experiences. Clear explanations, supportive feedback, recognition of progress, respectful communication, varied instructional methods, and appropriate levels of challenge can contribute to a positive learning environment. In contrast, excessive emphasis on errors, monotonous instruction, unrealistic expectations, and limited opportunities for interaction may reduce learners' willingness to participate. Therefore, motivational strategies should be integrated into everyday teaching rather than treated as occasional supplementary activities.

RESEARCH METHODS

The present study employs a qualitative and theoretical research design to examine the role of motivation in learning English as a foreign language. The methodological framework is based on the analysis, comparison, synthesis, and interpretation of scholarly literature related to language-learning motivation, educational psychology, second-language acquisition, and EFL methodology.

The literature analysis method was used to examine major theoretical perspectives concerning motivation in foreign language learning. Particular attention was given to socio-educational approaches to language motivation, Self-Determination Theory, the L2 Motivational Self System, learner autonomy, and contemporary motivational teaching practices.

The comparative method was employed to identify similarities and differences among intrinsic, extrinsic, integrative, and instrumental motivational orientations. This comparison made it possible to determine how different sources of motivation may influence learners' engagement, persistence, classroom participation, and attitudes toward English.

The analytical and synthetic methods were applied to integrate theoretical findings from psychology, pedagogy, and applied linguistics. Through this approach, motivation was examined not as an isolated psychological variable but as a multidimensional phenomenon influenced by individual, educational, social, and contextual factors.

In addition, a pedagogical interpretation method was employed to determine how theoretical principles of motivation can be translated into practical EFL teaching strategies. Factors such as teacher support, classroom environment, goal setting, feedback, learner autonomy, communicative activities, digital resources, and meaningful language use were analyzed from the perspective of their potential contribution to sustained learner motivation.

Based on the reviewed theoretical perspectives, the study considers motivation through four interconnected dimensions: learner-related factors, including interests, needs, goals, self-confidence, and previous learning experiences; teacher-related factors, including instructional style, feedback, encouragement, and interpersonal support; learning-environment factors, including classroom atmosphere, peer interaction, learning materials, and technological resources; and goal-related factors, including academic, communicative, professional, and personal purposes for learning English.

This methodological framework enables a systematic examination of the relationship between motivation and EFL learning and provides a theoretical foundation for identifying pedagogical strategies that can strengthen learner engagement, autonomy, persistence, and communicative development.

RESULTS AND DISCUSSION

The analysis of theoretical perspectives and research findings indicates that motivation plays a multidimensional role in learning English as a foreign language. It influences not only learners' initial decision to study English but also the amount of effort they invest, their persistence when facing difficulties, their willingness to communicate, and their ability to engage in independent learning. Motivation can therefore be considered one of the mechanisms connecting learners' personal goals with their actual participation in language-learning activities.

The findings suggest that highly motivated learners are more likely to participate actively in classroom communication, complete learning tasks consistently, search for additional opportunities to practice English, and maintain their learning efforts over longer periods. However, motivation should not be regarded as a fixed learner characteristic. It develops and changes under the influence of classroom experiences, perceived success or failure, teacher behavior, peer interaction, learning materials, personal goals, and opportunities to use English meaningfully.

A major finding of the theoretical analysis concerns the interaction between intrinsic and extrinsic motivation. Intrinsic motivation may contribute to sustained engagement because learners participate in language learning out of curiosity, enjoyment, or personal interest. Extrinsic motivation can also be effective, particularly when students have clearly defined academic or professional objectives. For example, learners may study English to obtain an international certificate, enter a university, participate in academic mobility programs, improve employment opportunities, or meet curriculum requirements. In practice, learners frequently demonstrate several motivational orientations simultaneously.

Table 1. Types of Motivation and Their Influence on EFL Learning

Type of motivation	Main characteristics	Typical learner behavior	Potential influence on EFL learning
Intrinsic motivation	Interest, enjoyment, curiosity, personal satisfaction	Voluntary participation, independent practice, active exploration of language resources	Supports sustained engagement, autonomy, creativity, and long-term learning
Extrinsic motivation	Grades, certificates, examinations, rewards, external requirements	Goal-oriented study and completion of assigned tasks	Can increase effort and short-term achievement, particularly when external goals are meaningful
Integrative orientation	Interest in communication, culture, and interaction with speakers or users of English	Participation in intercultural communication and authentic language activities	May strengthen communicative engagement and positive attitudes toward English
Instrumental orientation	Academic, professional, and practical benefits	Focus on examinations, career development, study opportunities, and professional communication	Provides clear practical purposes and can sustain goal-directed learning
Achievement motivation	Desire to demonstrate competence and make measurable progress	Persistence, self-monitoring, willingness to complete challenging tasks	Can support confidence, goal attainment, and continuous improvement
Autonomous motivation	Personal choice, internalized goals, sense of responsibility	Self-directed learning, goal setting, independent use of learning resources	Promotes learner autonomy and continued language development beyond the classroom

As presented in Table 1, different types of motivation may contribute to EFL learning in different ways. Intrinsic and autonomous motivation are particularly relevant to sustained engagement because they encourage students to take greater responsibility for their learning. Extrinsic and instrumental motives may provide clearly defined short- and medium-term objectives. The effectiveness of these motivational orientations depends on how learners interpret their goals and whether classroom experiences support a sense of progress and competence.

The analysis also demonstrates a close relationship between motivation and learner engagement. Engagement can be observed through behavioral, cognitive, and emotional dimensions.

Behavioral engagement includes attendance, participation, task completion, and involvement in classroom interaction. Cognitive engagement refers to the use of learning strategies, problem solving, reflection, and active processing of language input. Emotional engagement includes learners' interest, enjoyment, confidence, and attitudes toward the learning process. Motivation contributes to all three dimensions and can therefore affect the overall quality of students' learning experiences.

Another significant factor is the relationship between motivation and communicative competence. Language learning requires repeated exposure, practice, interaction, and willingness to take communicative risks. Students who fear making mistakes may avoid speaking even when they possess sufficient vocabulary and grammatical knowledge. A supportive classroom environment can reduce this barrier by treating errors as a natural part of language development. Pair work, group discussion, role-playing, problem-solving tasks, presentations, and project-based activities can provide meaningful opportunities to use English while increasing students' confidence and participation.

The findings further indicate that teacher behavior is one of the most important classroom-related influences on learner motivation. Teachers can strengthen motivation by establishing achievable goals, providing clear instructions, recognizing students' progress, giving constructive feedback, varying classroom activities, and creating opportunities for meaningful communication. Teacher support is especially important when learners encounter difficulties because repeated experiences of failure can negatively affect perceived competence.

Feedback should therefore perform a developmental rather than merely evaluative function. Instead of focusing exclusively on mistakes, effective feedback should help learners understand what they have already achieved, what needs improvement, and which strategies can be used to make further progress. Such an approach may strengthen students' sense of competence and encourage them to continue participating in learning activities.

Goal setting is another important motivational strategy. Broad objectives such as "learning English well" may be too general to guide everyday learning behavior. More specific objectives, such as learning a particular set of academic vocabulary, completing a short presentation, understanding a podcast, writing an essay, or participating in a five-minute conversation, provide learners with measurable indicators of progress. Dividing long-term objectives into achievable stages can help maintain motivation by allowing students to experience regular success.

The role of digital technologies should also be considered in contemporary EFL education. Digital platforms, language-learning applications, multimedia materials, podcasts, online dictionaries, interactive exercises, video resources, and virtual communication environments provide learners with additional opportunities for exposure to authentic English. Nevertheless, technology itself does not automatically generate motivation. Its pedagogical value depends on whether digital resources correspond to learners' needs, proficiency levels, interests, and learning objectives. Teachers should therefore use technology purposefully rather than simply increasing the amount of digital content.

The relationship between motivation and learner autonomy is particularly important. Students who develop autonomous learning habits are more likely to continue improving their English outside formal lessons. They may select learning materials independently, monitor their own progress, identify weaknesses, choose suitable learning strategies, and seek opportunities for authentic communication. Motivation supports this process, while successful autonomous learning can in turn reinforce motivation by increasing learners' perception of competence and progress. Thus, the relationship between motivation and autonomy can be understood as reciprocal.

Based on the theoretical analysis, a motivationally supportive EFL learning process can be represented through the following sequence:



This sequence demonstrates that motivation is both a prerequisite for and a potential outcome of successful learning experiences. Students need a certain degree of motivation to engage actively in learning; at the same time, meaningful participation and visible progress can generate additional motivation. Consequently, motivational development should be integrated systematically into the organization of EFL instruction.

The results of the analysis confirm that motivation should not be treated as an additional element of EFL instruction. Rather, it constitutes an integral component of effective foreign language education. When motivational principles are incorporated into teaching practices, learners are more likely to demonstrate sustained engagement, greater responsibility for their learning, increased willingness to communicate, and continued development of English language competence.

CONCLUSION

Motivation is one of the key factors determining success in learning English as a foreign language. It influences learners' engagement, persistence, willingness to communicate, and ability to take responsibility for their own learning. Both intrinsic and extrinsic motivation can contribute to effective language acquisition when supported by appropriate pedagogical conditions.

The study shows that teachers play an important role in developing and maintaining learner motivation. A supportive classroom environment, meaningful communicative activities, achievable goals, constructive feedback, authentic materials, and appropriate use of digital technologies can increase students' interest and participation in English learning.

Furthermore, motivation is closely related to learner autonomy. Motivated students are more likely to set learning goals, monitor their progress, practice English independently, and seek opportunities to use the language beyond the classroom. Therefore, motivational strategies should be systematically integrated into EFL instruction. Such an approach can enhance learner engagement, strengthen communicative competence, and contribute to more effective and sustainable English language learning.

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LANGUAGE LEARNING CHALLENGES AND PRACTICAL APPROACHES TO ADDRESSING THEM

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Abstract. This article analyzes the main difficulties encountered by people of different age groups in the process of language learning, including insufficient vocabulary, fear of speaking, difficulties in applying grammatical knowledge in practical communication, listening comprehension problems, and pronunciation difficulties. Particular attention is paid to how these challenges manifest themselves in everyday communication and educational settings, while practical approaches to overcoming them are also proposed. These approaches include regular speaking practice, tasks based on real-life situations, systematic repetition, practice with conversation partners, the use of audio and digital resources, and active communication without fear of making mistakes. The central argument of the article is that effective language learning is not achieved solely through knowledge of grammatical rules; rather, it develops through the regular and meaningful application of acquired knowledge in real-life contexts.

Keywords: language learning, challenges in language learning, communicative competence, speaking skills, vocabulary, practical learning, language learning strategies.

Аннотация. В статье анализируются основные трудности, с которыми сталкиваются люди разных возрастных групп в процессе изучения языка, включая недостаточный словарный запас, страх говорить, трудности применения грамматических знаний в практическом общении, проблемы понимания речи на слух и произносительные трудности. Особое внимание уделяется тому, как данные проблемы проявляются в повседневном общении и образовательной среде, а также предлагаются практические подходы к их преодолению. К таким подходам относятся регулярная разговорная практика, выполнение заданий, основанных на реальных жизненных ситуациях, систематическое повторение, практика с партнёрами по общению, использование аудио- и цифровых ресурсов, а также активное общение без страха допустить ошибку. Основной вывод статьи заключается в том, что эффективное изучение языка достигается не только посредством усвоения грамматических правил, но и развивается благодаря регулярному и осмысленному применению полученных знаний в реальных жизненных ситуациях.

Ключевые слова: изучение языка, трудности изучения языка, коммуникативная компетенция, навыки говорения, словарный запас, практическое обучение, стратегии изучения языка.

Annotatsiya. Mazkur maqolada turli yosh guruhlariga mansub kishilarning til o'rganish jarayonida duch keladigan asosiy qiyinchiliklari, jumladan, lug'at boyligining yetarli emasligi, gapirishdan qo'rqish, grammatik bilimlarni amaliy muloqotda qo'llashdagi qiyinchiliklar, tinglab tushunish muammolari hamda talaffuz bilan bog'liq qiyinchiliklar tahlil qilinadi. Ushbu muammolarning kundalik muloqot va ta'lim jarayonida qanday namoyon bo'lishiga alohida e'tibor qaratilib, ularni bartaraf etishning amaliy yondashuvlari ham taklif etiladi. Bunday yondashuvlarga muntazam ravishda gapirish mashqlarini bajarish, real hayotiy vaziyatlarga asoslangan topshiriqlardan foydalanish, tizimli takrorlash, suhbatdoshlar bilan amaliy muloqot qilish, audio va raqamli resurslardan foydalanish hamda xato qilishdan qo'rqmasdan faol muloqotga kirishish kiradi. Maqolaning asosiy xulosasi shundan iboratki, tilni samarali o'rganish faqat grammatik qoidalarni o'zlashtirish bilangina cheklanmaydi, balki o'zlashtirilgan bilimlarni real hayotiy vaziyatlarda muntazam va mazmunli ravishda qo'llash orqali rivojlanadi.

***Kalit so‘zlar:** til o‘rganish, til o‘rganishdagi qiyinchiliklar, kommunikativ kompetensiya, gapirish ko‘nikmalari, lug‘at boyligi, amaliy ta’lim, til o‘rganish strategiyalari.*

INTRODUCTION

In the context of increasing globalization and the rapid exchange of information, foreign language learning has become an important component of individuals' educational and professional development. In particular, communicative competence in a foreign language is becoming increasingly important for students to access international sources of information, communicate with foreign colleagues, make effective use of modern educational resources, and remain competitive in their future professional careers. Therefore, although the need for language learning continues to grow, the process of acquiring a language in practical terms is not always straightforward. In practice, many learners and university students may possess a certain level of knowledge of language rules but still experience difficulties in expressing their ideas fluently in everyday communication. Some learners are unable to maintain a conversation because of limited vocabulary, while others avoid participating in conversations because they are afraid of making mistakes. Furthermore, a noticeable gap can often be observed between acquiring grammatical rules theoretically and applying them accurately and spontaneously in real-life communication. Difficulties related to listening comprehension, pronunciation, memorizing new vocabulary, and using newly acquired words actively in speech are also among the major challenges encountered in the language learning process.

These challenges demonstrate that mastering textbook-based rules alone is not sufficient for effective language learning. Language is primarily a means of communication, and its practical value is determined by a learner's ability to use it effectively in real-life situations. From this perspective, it is essential to incorporate situations that are relevant to learners' daily lives, needs, and professional activities into language teaching, provide regular opportunities for verbal practice, and establish a meaningful connection between acquired knowledge and its practical application.

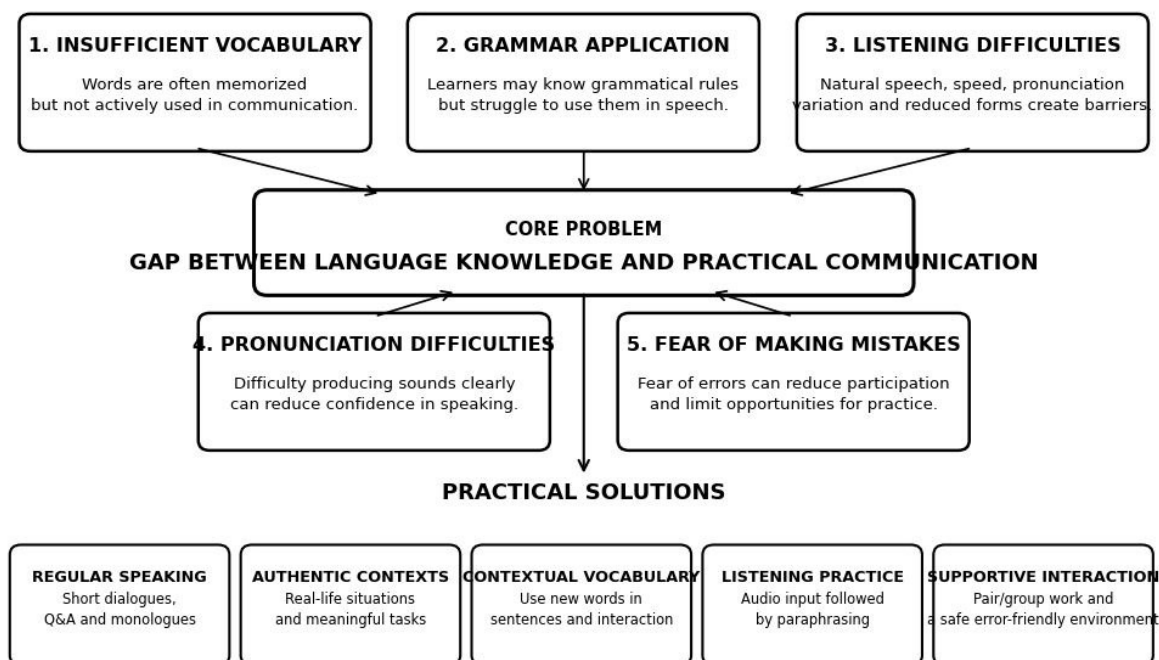
Taking learners' individual abilities into account is also essential when addressing difficulties in language learning. The same method may not produce identical results for all learners. Therefore, approaches such as systematically expanding vocabulary, employing effective repetition techniques, organizing pair and group discussions, preparing short monologues, and working with audio materials can contribute to improving learning outcomes. Most importantly, learners should perceive a language not merely as a subject to be studied for examination purposes, but as a means of expressing their ideas, understanding others, and communicating effectively in everyday and professional contexts.

Accordingly, the primary aim of this article is to identify common difficulties encountered in the language learning process, analyze how these difficulties manifest themselves in practical educational settings, and examine practical solutions that can contribute to the development of learners' speaking and communicative skills. This approach makes it possible to view language learning not merely as the acquisition of theoretical knowledge, but as an active process closely connected with regular practice, authentic communication, and everyday life.

Clear formulation of the problem. One of the major challenges in the language learning process is learners' high expectations of achieving rapid results, insufficient attention to their individual pace of development, and dissatisfaction with their own progress as a result of comparing their level of achievement with that of other language learners. These factors constitute a significant psychological and pedagogical challenge, as they may negatively affect learners' motivation, self-confidence, and consistency throughout the learning process. Another important aspect of the problem is the fear of making mistakes while learning a language. Learners may participate less actively in conversations because they feel embarrassed about making grammatical or pronunciation errors. As a result, their opportunities to gain the practical experience necessary for developing speaking skills become limited. In this context, lack of self-confidence and insufficient communication may reinforce each other, creating a cycle of speaking less → practicing less → becoming more afraid of making mistakes → speaking even less. Consequently, the language learning process may remain largely confined to textbooks, grammatical rules, and written exercises.

LANGUAGE-LEARNING DIFFICULTIES AND PRACTICAL SOLUTIONS

Conceptual framework based on the study's analysis and results



Source: Synthesized from the article's stated problem, methodology, analysis and conclusion.

A further challenge concerns the acquisition of new vocabulary. Learners may memorize a considerable number of words during the day; however, if they do not use these words in authentic communication, they are unlikely to become part of their active vocabulary. Similarly, difficulties in listening comprehension cannot be explained solely by limited vocabulary. Learners who have had insufficient exposure to naturally paced speech, variations in pronunciation, reduced forms, and intonation may struggle to immediately recognize even words that they already know when they encounter them in spoken language. Therefore, the essence of the problem lies not simply in providing learners with more grammatical rules or a larger number of vocabulary items, but in the insufficient development of mechanisms that transform existing knowledge into active, stable, and communicatively applicable skills. For this reason, in language education, the question “How much information has been learned?” should be considered alongside the equally important question “To what extent is the acquired knowledge being applied in real-life situations?” To address this problem, it is necessary to connect language learning with authentic real-life situations, organize short and regular speaking sessions, introduce new vocabulary in meaningful contexts, develop listening comprehension and pronunciation simultaneously, and create a supportive communicative environment in which learners are encouraged to learn through making and correcting mistakes. Such an approach can help transform language from a body of theoretical knowledge into a practical tool for everyday and professional communication.

RESEARCH METHODOLOGY

The study was designed to identify the difficulties encountered by language learners in authentic educational settings and to determine practical approaches for addressing these challenges. The research employed observation, interviews, practical tasks, and comparative analysis. Particular attention was given to learners’ performance in speaking, listening comprehension, vocabulary use, and the practical application of grammatical knowledge. During the practical stage, learners were engaged in dialogues, question-and-answer activities, short monologues, and listening-based paraphrasing tasks on topics related to everyday life. Rather than focusing solely on memorizing new vocabulary, particular emphasis was placed on using newly acquired words in sentences and authentic communication. In addition, to reduce learners’ fear of speaking, opportunities for spontaneous

interaction in pairs and small groups were provided. The results were analyzed by comparing learners' performance before and after the practical activities. The main criteria included learners' ability to speak independently, use newly acquired vocabulary, express ideas coherently, and participate actively in communication. Thus, the study focused on identifying language-learning difficulties through authentic learning activities rather than examining them solely from a theoretical perspective, while also developing practical approaches to addressing these difficulties.

ANALYSIS AND RESULTS

The findings of the study indicate that the major difficulties encountered in language learning are closely interconnected. In particular, the insufficient active use of vocabulary, difficulties in applying grammatical knowledge in spoken communication, problems with listening comprehension, and fear of making mistakes can significantly hinder learners' ability to communicate fluently. Therefore, addressing these challenges cannot be limited to providing additional grammatical rules or introducing new vocabulary items. The analysis of the practical activities demonstrated that using new vocabulary in sentences and authentic situations is more effective than learning words in isolation. Similarly, reinforcing grammar through dialogues and question-and-answer activities, rather than limiting instruction to memorizing grammatical rules, proved to be a more practical approach. Rephrasing or paraphrasing information after listening activities also contributed to the development of learners' listening and speaking abilities. Furthermore, pair and small-group discussions provided learners with opportunities to communicate more freely, overcome their fear of making mistakes, and express their ideas independently. The overall findings suggest that the central problem in language learning is not necessarily a lack of knowledge, but rather a gap between existing knowledge and its application in practical communication. To address this gap, language instruction should be based on authentic real-life situations, regular speaking and listening practice, vocabulary acquisition in meaningful contexts followed by its use in real-life communication, and an understanding of mistakes as a natural part of the learning process. Thus, the effective acquisition of a language depends not only on learning it, but also on using it consistently in meaningful communication.

CONCLUSION

The findings of the study indicate that the primary challenge in foreign language learning is not limited to insufficient grammatical knowledge or vocabulary, but is also associated with difficulties in applying existing knowledge in authentic communicative situations. High expectations of achieving rapid results, comparing oneself with other learners, fear of making mistakes, and lack of self-confidence were also identified as important factors that may affect the effectiveness and consistency of the language learning process. The study demonstrated that practical activities such as dialogues, short monologues, question-and-answer tasks, listening-based paraphrasing, and communication in pairs and small groups can contribute to transforming learners' language knowledge into active speaking skills. Therefore, language education should establish a meaningful connection between theoretical knowledge and real-life situations, encourage the use of new vocabulary in context, and provide regular speaking and listening practice. Ultimately, effective language acquisition depends not only on learning linguistic knowledge, but also on applying that knowledge consistently through meaningful communication.

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INGLIZ TILI DARSLARIDA 4C MODELINI INTEGRATSIYA QILISH METODOLOGIYASI

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Annotatsiya: Ushbu maqolada ingliz tili darslariga 4C modelini integratsiya qilishning zamonaviy metodologiyasi hamda amaliy eksperimental tadqiqot natijalari tahlil qilinadi. Tadqiqotda milliy va xorijiy olimlarning ilmiy yondashuvlariga tayanilgan holda, O‘zbekiston ta’lim tizimida CLIL va PBL yondashuvlari orqali XXI asr ko‘nikmalarini rivojlantirish samaradorligi empirik kesim va statistik ko‘rsatkichlar asosida ilmiy-amaliy jihatdan asoslab berilgan.

Kalit so‘z va iboralar: 4C modeli, integratsiya metodologiyasi, ingliz tili, tanqidiy fikrlash, CLIL yondashuvi, PBL metodikasi, XXI asr ko‘nikmalari.

Abstract: This article analyzes the modern methodology of integrating the 4C model into English language lessons and presents practical experimental study results. Drawing upon both national and foreign scholars' theoretical frameworks, the effectiveness of developing 21st-century skills through CLIL and PBL approaches in Uzbekistan's education system is scientifically and practically substantiated based on empirical cross-sectional data and statistical indicators.

Keywords: 4C model, integration methodology, English language, critical thinking, CLIL approach, PBL methodology, 21st-century skills.

Аннотация: В данной статье анализируются современная методология интеграции модели 4C в уроки английского языка и результаты практического экспериментального исследования. На основе научных подходов отечественных и зарубежных ученых научно и практически обоснована эффективность развития навыков XXI века с помощью подходов CLIL и PBL в системе образования Узбекистана на основе эмпирических срезовых данных и статистических показателей.

Ключевые слова: Модель 4C, методология интеграции, английский язык, критическое мышление, подход CLIL, методика PBL, навыки XXI века.

Kirish. XXI asr global mehnat bozori va raqamli jamiyat ta'lim tizimi oldiga o'quvchilarning nafaqat fundamental nazariy bilimlarni, balki amaliy va moslashuvchan ko'nikmalarni ham egallash talabini qo'yimoqda. Zamonaviy ta'lim konsepsiyasining markazida durdona kompetensiyalar majmui sanalgan 4C modeli – tanqidiy fikrlash (*Critical thinking*), kommunikatsiya (*Communication*), kreativlik (*Creativity*) va kollaboratsiya (*Collaboration*) turadi [1]. Xususan, xorijiy tillarni, xususan ingliz tilini o'rgatishda ushbu kompetensiyalarni dars jarayoniga muvaffaqiyatli tatbiq etish o'quvchilarning lingvistik hamda nutqiy faolligini oshirib, ularni real hayotiy va kasbiy muloqotga tayyorlashning asosiy omili bo'lib xizmat qiladi. Shuningdek, O'zbekistonlik taniqli metodist olim J. Jalolov ta'kidlaganidek, chet tili o'rgatishning asosiy maqsadi shunchaki til birliklarini yodlatish emas, balki talabalarda nutqiy faoliyat turlari bo'yicha amaliy va kommunikativ kompetensiyani shakllantirishdan iboratdir [2]. Ta'limshunos olimlar U. Hoshimov va I. Yoqubovlar esa chet tili darslarida interaktiv va muammoli ta'lim usullarini qo'llash o'quvchilarning mantiqiy fikrlash doirasini kengaytirishini ko'rsatib o'tganlar [3]. Shu nuqtai nazardan, ingliz tili darslarida integratsiya metodologiyasi doirasida CLIL yondashuvi (*Content and Language Integrated Learning*) hamda PBL metodikasi (*Project-Based Learning*)ni tatbiq etish o'quvchilarning lingvistik hamda XXI asr ko'nikmalarini majmuaviy rivojlantirishga xizmat qiladi [4]. Zamonaviy pedagogikada ta'lim jarayoniga yo'naltirilgan integratsiya metodologiyasi o'quvchida mustaqil fikrlash, axborotni saralash hamda jamoaviy muhitda muammoli vaziyatlarga innovatsion yechim topish imkonini beradi. Til darslarida ushbu ko'nikmalarni shakllantirish uchun CLIL yondashuvi (*Content and Language Integrated Learning*), PBL metodikasi (*Project-Based Learning*) hamda TBL (*Task-Based Learning*) kabi interaktiv va amaliy ta'lim modellari keng qo'llanilmoqda [5]. Shunga qaramay, mazkur usullarning amaliyotdagi real samaradorligi, o'quvchilarning kompozit ko'nikmalarini o'stirishdagi o'rni hamda empirik ko'rsatkichlarini tizimli ravishda qiyosiy va kesim tahlil etish dolzarb ilmiy-metodik vazifa hisoblanadi.

Nazariy va metodologik asoslar

4C konsepsiyasi o'z mohiyatiga ko'ra B. Blum taksonomiyasining yuqori bosqichlari (tahlil, baholash va yaratish) hamda L. Vigotskiyning ijtimoiy-konstruktivizm nazariyasiga tayanadi. Til o'rgatish metodikasida ingliz tili faqatgina grammatik va leksik qoidalarni o'zlashtirish vositasi emas, balki fikrlash, ijod qilish hamda muloqot va hamkorlik vositasi sifatida namoyon bo'ladi.

Integratsiya metodologiyasi doirasida tanlangan yondashuvlar 4C ning har bir tarkibiy qismini rivojlantirishga quyidagicha xizmat qiladi:

1. **CLIL yondashuvi:** Boshqa akademik fanlar (masalan, ekologiya, axborot texnologiyalari, tarix) mazmunini **ingliz tili** vositasida o'rgatish orqali **tanqidiy fikrlash** va tahliliy tushunishni chuqurlashtiradi [3].

2. **PBL metodikasi:** Real hayotiy loyihalarga asoslangan bo'lib, o'quvchilardan muammoga nisbatan **kreativlik** bilan yechim topish va o'zaro **kollaboratsiya** muhitida guruh bo'lib ishlashni talab etadi [4].

3. **TBL metodikasi:** Aniq va natijador topshiriqlarni bajarish orqali o'quvchilarning **kommunikatsiya** madaniyatini oshiradi.

1-jadval. 4C kompetensiyalarini ingliz tili darslarida rivojlantirish metodlari

4C Kompetensiyasi	Qo'llaniladigan metod	Amaliy mashg'ulot ko'rinishi
Tanqidiy fikrlash	CLIL yondashuvi	Ilmiy matnlarni tahlil qilish va mantiqiy xulosalar chiqarish
Kollaboratsiya va Kreativlik	PBL metodikasi	Jamoaviy loyihalar tayyorlash va nostandart yechimlar taklif etish
Kommunikatsiya	TBL (<i>Task-Based Learning</i>)	Rolli o'yinlar va real muloqot vaziyatlarini simulyatsiya qilish

Amaliy tadqiqot va kesim tahlili (empirik tadqiqot). 4C modelini **ingliz tili** darslariga tatbiq etish samaradorligini baholash maqsadida O'zbekiston davlat jahon tillari universiteti qoshidagi akademik litsey va bakalavriyat bosqichi 2-bosqich talabalari o'rtasida amaliy eksperimental tadqiqot o'tkazildi. Tadqiqotda toplam hajmi 120 nafar o'quvchi/talabani tashkil etib, ular ikkita teng guruhga bo'lindi: Nazorat guruhi (NG – 60 nafar, an'anaviy metodika bo'yicha o'qitilgan) hamda Eksperiment guruhi (EG – 60 nafar, **integratsiya metodologiyasi: CLIL yondashuvi va PBL metodikasi** asosida **4C modeli** singdirilgan).

Tadqiqot bosqichlari 1 semestr (16 hafta) davomida olib borildi. Tajriba bosqichi boshida va yakunida har ikki guruh a'zolaridan **XXI asr ko'nikmalari** hamda til bilish kompetensiyasi bo'yicha diagnostik kirish va chiqish kesim nazorati (Pre-test va Post-test) olindi. Baholash 100 ballik shkala bo'yicha rubrikalar asosida **tanqidiy fikrlash, kommunikatsiya, kreativlik va kollaboratsiya** kriteriyalari kesimida amalga oshirildi.

2-jadval. Eksperiment va Nazorat guruhlarining tadqiqot boshidagi va yakunidagi kesim ko'rsatkichlari (O'rtacha ball hisobida, max. 100 ball)

Kompetensiya Yo'nalishlari	NazoratGuruhi (NG, n=60) Kirish kesimi (Pre-test)	NazoratGuruhi (NG, n=60) Chiqishkesimi (Post-test)	Eksperiment Guruhi (EG, n=60) - Kirish kesimi (Pre-test)	Eksperiment Guruhi (EG, n=60) Chiqishkesimi (Post-test)
Tanqidiy fikrlash	58.4	62.1(+3.7)	57.8	78.5(+20.7)
Kommunikatsiya	61.2	65.8(+4.6)	60.5	83.2(+22.7)
Kreativlik	52.0	55.3(+3.3)	51.5	74.6(+23.1)
Kollaboratsiya	64.5	68.0(+3.5)	63.8	86.4(+22.6)
O'rtacha ko'rsatkich	59.0	62.8(+3.8)	58.4	80.7(+22.3)

Natijalar va muhokama. Olingan statistik va empirik natijalar shuni ko'rsatadiki, eksperiment boshida har ikki guruhning o'rtacha ko'rsatkichlari bir-biriga juda yaqin va mos ravishda 59.0 hamda 58.4 ballni tashkil etgan. Biroq 16 haftalik intensiv o'qitishdan so'ng, an'anaviy metodika qo'llanilgan Nazorat guruhida o'sish ko'rsatkichi atigi +3.8 ballni tashkil etgan bo'lsa, **4C modeli va integratsiya metodologiyasi** tatbiq qilingan Eksperiment guruhida o'rtacha ball +22.3 ballga ortib, 80.7 ballga yetdi. Kesim tahlilida eng yuqori dinamik o'sish **kreativlik** (+23.1 ball) va **kommunikatsiya** (+22.7 ball) yo'nalishlarida qayd etildi. Bunga sabab qilib **PBL metodikasi** doirasida taqdim etilgan amaliy loyihalash topshiriqlari va guruhlardagi **kollaboratsiya** jarayonining faollashganligini ko'rsatish mumkin. **CLIL yondashuvi** esa talabalarning akademik va ilmiy yo'nalishdagi **tanqidiy fikrlash** ko'nikmalarini +20.7 ballga oshishiga to'g'ridan-to'g'ri zamin yaratdi [5]. O'zbekistonda chet tillarini o'qitish bo'yicha ilgari surilgan ilmiy tamoyillar (J. Jalolov, U. Hoshimov) tasdiqlaganidek, muammoli va interaktiv topshiriqlar talabalarning nutqiy hamda tanqidiy salohiyatini keskin oshirishini ushbu empirik natijalar to'liq ko'rsatib berdi.

Xulosa va tavsiyalar. O'tkazilgan nazariy va amaliy tadqiqotlar shuni ko'rsatadiki, **4C modelini ingliz tili** darslariga integratsiya qilish zamonaviy ta'lim standartlariga to'liq javob beradi. **CLIL yondashuvi va PBL metodikasining** birgalikda qo'llanilishi o'quvchilarning nafaqat lingvistik bilimlarini, balki amaliy **XXI asr ko'nikmalarini** majmuaviy ravishda rivojlantiradi. Kesim tahlili natijalari ushbu metodologiyaning o'quvchilar o'zlashtirishini o'rtacha 22% dan ziyodroqqa oshirishini isbotladi.

Tadqiqot natijalaridan kelib chiqib, quyidagi amaliy tavsiyalar ilgari suriladi:

1. Oliy va o'rta maxsus ta'lim muassasalarining **ingliz tili** darsliklari va o'quv dasturlariga **PBL metodikasi** va **CLIL yondashuviga** asoslangan topshiriqlar blokini ko'proq kiritish;
2. O'qituvchilar uchun **integratsiya metodologiyasi** va **4C modeli** bo'yicha maxsus malaka oshirish kurslari hamda amaliy treninglar tashkil etish;
3. Dars jarayonida talabalarning **tanqidiy fikrlash** va **kreativlik** ko'nikmalarini xolis baholash uchun maxsus deskriptor va rubrikalarni joriy etish.

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AI-PERSONALIZATSIYANING AKADEMIK NATIJALARGA TA'SIRI: PLS-SEM TAHLILI

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Annotatsiya. Mazkur tadqiqotda AI-personalizatsiyaning O'zbekiston oliy ta'lim talabalari akademik natijalariga ta'siri hamda bu ta'sir bevosita yoki vositachi omillar orqali namoyon bo'lishi o'rganildi. Ma'lumotlar 66 nafar universitet talabasidan strukturalashtirilgan so'rovnoma orqali yig'ilib, SmartPLS 4.1 dasturida qisman eng kichik kvadratlar strukturaviy tenglamalar modeli (PLS-SEM) yordamida tahlil qilindi. Model o'quv natijalaridagi variatsiyaning 66,6% ini va talabalar jalblanganligidagi variatsiyaning 46,4% ini tushuntirdi. AI-personalizatsiyadan o'quv natijalariga bevosita yo'l ahamiyatsiz, jalblanganlik orqali bilvosita yo'l esa ahamiyatli bo'lib, to'liq vositachilik aniqlandi. O'z-o'ziga ishonch mustaqil ahamiyatli omil bo'lib qoldi, etik ong'dorlik esa manfiy bog'liqlik ko'rsatdi. Natijalar AI-personalizatsiya akademik natijalarni faqat jalblanganlikni oshirish orqali yaxshilashini ko'rsatadi; rivojlanayotgan ta'lim tizimlarida AI ni samarali joriy etish infratuzilma, pedagogika va talabaning shaxsiy omillariga kompleks yondashuvni talab qiladi.

Kalit so'zlar: sun'iy intellekt, personallashtirilgan ta'lim, talabalar jalblanganligi, o'z-o'ziga ishonch (self-efficacy), PLS-SEM, O'zbekiston, oliy ta'lim.

Аннотация. В исследовании рассматривается влияние AI-персонализации на академические результаты студентов высшего образования Узбекистана, а также характер этого влияния - прямой или опосредованный. Данные собраны у 66 студентов посредством структурированного опроса и проанализированы методом моделирования структурными уравнениями на основе частных наименьших квадратов (PLS-SEM) в SmartPLS 4.1. Модель объяснила 66,6% дисперсии учебных результатов и 46,4% дисперсии вовлечённости студентов. Прямой путь от AI-персонализации к учебным результатам оказался незначимым, тогда как косвенный путь через вовлечённость - значимым, что указывает на полное опосредование. Самоэффективность осталась независимым значимым фактором, а этическая осознанность показала значимую отрицательную связь. Результаты показывают, что AI-персонализация улучшает академические результаты лишь через повышение вовлечённости, а эффективное внедрение ИИ в развивающихся образовательных

системах требует комплексного подхода к инфраструктуре, педагогике и личностным факторам студента.

Ключевые слова: искусственный интеллект, персонализированное обучение, вовлечённость студентов, самоэффективность, PLS-SEM, Узбекистан, высшее образование.

Abstract. This study examines how AI-personalization affects academic outcomes among higher education students in Uzbekistan, and whether this effect is direct or operates through mediating factors. Data were collected from 66 university students via a structured questionnaire and analyzed using partial least squares structural equation modeling (PLS-SEM) in SmartPLS 4.1. The model explained 66.6% of the variance in learning outcomes and 46.4% in student engagement. The direct path from AI-personalization to learning outcomes was not significant, whereas the indirect path through engagement was, indicating full mediation. Self-efficacy remained an independent significant predictor, while ethical awareness showed a significant negative association. The findings suggest that AI-personalization improves academic outcomes only by first raising engagement, and that effective AI integration in developing education systems requires a combined focus on infrastructure, pedagogy, and students' personal factors.

Keywords: artificial intelligence, personalized learning, student engagement, self-efficacy, PLS-SEM, Uzbekistan, higher education.

KIRISH

Sun'iy intellekt (AI) oliy ta'limni moslashtirib o'qitish, individuallashtirilgan qayta aloqa va o'quv analitikasi orqali jadal o'zgartirmoqda. AI asosidagi personallashtirilgan ta'lim akademik natijalarni oshirish vositasi sifatida keng targ'ib qilinayotgan bo'lsa-da, rivojlanayotgan davlatlardan, xususan O'zbekistondan, empirik dalillar yetarli emas. Mavjud tadqiqotlarning aksariyati texnologik jihatdan rivojlangan mamlakatlarda o'tkazilgan, shuning uchun o'sha mexanizmlar raqamli infratuzilma va AI savodxonligi hali shakllanayotgan hududlarda ham xuddi shunday ishlaydimi - ochiq savol bo'lib qolmoqda.

Mazkur tadqiqot shu bo'shliqni to'ldirishga qaratilgan. Maqsad - O'zbekiston oliy ta'lim talabalari misolida AI-personalizatsiyaning o'quv natijalariga ta'sirini o'lchash va bu ta'sir bevosita yoki vositachi omillar orqali namoyon bo'lishini aniqlash. Aniq vazifalar uchta: (1) AI ning oliy ta'limdagi o'rnini aniqlashtirish; (2) AI-personalizatsiyaning talabalar jalblanganligi va o'zlashtirishga ta'sirini baholash; (3) AI dan foydalanish, o'z-o'ziga ishonch va o'quv natijalari o'rtasidagi bog'liqliklarni tekshirish.

NAZARIY ASOS

Ta'limda AI adaptiv o'qitish, avtomatlashtirilgan qayta aloqa va prognozli analitikani amalga oshirish imkonini beradi. Aqlli tutoring tizimlari o'quv natijalarini an'anaviy uslublarga nisbatan 0,66 standart og'ish darajasida oshirishi mumkin, prognozli modellar esa xavf guruhidagi talabalarni 85% gacha aniqlikda deb belgilaydi [1]. Personallashtirilgan ta'lim mazmun va sur'atni har bir o'quvchining individual ehtiyojlariga moslashtiradi [2].

Talabalar jalblanganligi akademik muvaffaqiyatning bevosita omili hisoblanadi. AI bilan to'ldirilgan o'quv muhitlari real vaqt rejimidagi qayta aloqa va interaktiv mashg'ulotlar orqali motivatsiyani kuchaytiradi [3]. Shu bilan birga AI dan haddan ortiq foydalanish bir qator etik muammolarni keltirib chiqaradi: plagiat xavfi, tanqidiy fikrlashning susayishi, ma'lumotlar maxfiyligi va o'qituvchi-talaba munosabatlaridagi insoniy omilning yo'qolishi [4]. O'zbekistonda 2024-yilgi ma'lumotlarga ko'ra qishloq maktablarining 30% dan ortig'ida barqaror internet yo'q, talabalarining 40% dan ortig'ida raqamli savodxonlik yetarli emas [5] - bu AI ni joriy etish uchun jiddiy infratuzilma cheklovini tashkil etadi.

METODOLOGIYA

Tadqiqotda asosiy tahlil usuli sifatida Qisman Eng Kichik Kvadratlar Strukturaviy Tenglamalar Modeli (PLS-SEM) tanlandi. Tanlov sabablari: o'rta hajmdagi namunalar bilan ishlash

imkoniyati, ko'p o'lchovli normallik shartining talab qilinmasligi va kam nazariy bazaga ega tadqiqiy ishlar uchun mosligi [6]. Hisob-kitoblar SmartPLS 4.1 dasturida bajarildi.

Ma'lumotlar O'zbekiston universiteti talabalari orasida tarqatilgan strukturalashtirilgan so'rovnomalar orqali yig'ildi. Anketani 71 talaba boshlagan, yakuniy tahlilga barcha bandlarga to'liq javob bergan 66 nafar respondent kiritildi. O'lchov uchun besh balli Likert shkalasi (1 - mutlaqo qo'shilmayman, 5 - to'liq qo'shilaman) qo'llanildi va beshta yashirin (latent) o'zgaruvchi baholandi: AI-personalizatsiya (AIP, 5 band), Talabalar jalblanganligi (SE, 4 band), Etika va tanqidiy fikrlash (ET, 4 band), O'z-o'ziga ishonch (SEF, 3 band) va O'quv natijalari (LO, 3 band). Tahlil ikki bosqichda olib borildi: avval o'lchov modeli (yuklamalar, Cronbach alpha, kompozit ishonchlilik, AVE) baholandi, so'ng strukturaviy model 5 000 marta bootstrap rezampling bilan tekshirildi. Vositachilik (mediation) $AIP \rightarrow SE \rightarrow LO$ yo'li orqali sinaldi.

ASOSIY XULOSALAR

Model O'quv natijalaridagi (LO) variatsiyaning 66,6% ini ($R^2 = 0,666$) va Talabalar jalblanganligidagi (SE) variatsiyaning 46,4% ini ($R^2 = 0,464$) tushuntirdi. Eng kuchli bevosita ta'sir $AIP \rightarrow SE$ yo'lida qayd etildi ($\beta = 0,681$; $p < 0,001$): AI-personalizatsiyani yuqori darajada his qilgan talabalar mashg'ulotlarga sezilarli darajada faolroq jalblanganini bildirgan.

AIP dan LO ga bevosita yo'l statistik ahamiyatga ega bo'lmadi ($\beta = -0,146$; $p = 0,291$), bilvosita yo'l esa - $AIP \rightarrow SE \rightarrow LO$ - ahamiyatli bo'lib chiqdi ($\beta = 0,227$; $p = 0,026$). Bunday natija to'liq vositachilik (full mediation) belgisidir: AI-personalizatsiya o'quv natijalariga bevosita emas, balki talabalar jalblanganligi orqali ta'sir ko'rsatadi. O'z-o'ziga ishonch (SEF) AIP va SE ta'sirini hisobga olgan holda ham mustaqil ahamiyatli omil bo'lib qoldi ($\beta = 0,391$; $p = 0,002$). Etik ongдорlik (ET) o'quv natijalariga statistik ahamiyatli, ammo manfiy ta'sir ko'rsatdi ($\beta = -0,515$; $p = 0,004$).

MUHOKAMA

Tadqiqotning markaziy xulosasi - to'liq vositachilik effekti. AI-personalizatsiyaning o'zi natijalarni yaxshilamaydi: u avval talabalar jalblanganligini oshiradi, keyin esa aynan jalblanganlik akademik o'zlashtirishni belgilaydi. Demak, AI vositalarini reyting va o'zlashtirishni avtomatik tarzda oshiruvchi mexanizm sifatida qaraydigan boshqaruv yondashuvi noto'g'ri: motivatsion shart-sharoitlarsiz texnologiyaning samarasi yo'qoladi.

O'z-o'ziga ishonchning mustaqil ta'siri AI bera olmaydigan narsa - talabaning o'z kuchiga ishonchini shakllantirish - pedagogik vazifa ekanini ko'rsatadi. Strukturalashtirilgan formativ qayta aloqa, dastlabki muvaffaqiyat tajribasi va taraqqiyot ustida refleksiyaning AI mazmuni bilan birlashtirgan o'qituvchilar yagona personalizatsiyaga tayanganlardan yuqoriroq natija olishi kutiladi. ET ning manfiy koeffitsienti esa kontekstual omil bilan izohlanishi mumkin: raqamli savodxonlik yetarli rivojlanmagan muhitda AI ga nisbatan tanqidiy munosabat ko'pincha asosli foydalanish o'rniga undan qochishga olib keladi. Xulosa - etik ta'limni qisqartirish emas, balki uni amaliy AI savodxonligi bilan to'ldirish kerak.

Tadqiqotning cheklavlari: namuna kichik ($n = 66$); ET va LO konstruktlarining psixometrik ko'rsatkichlari past (LO uchun $\alpha = 0,175$, $AVE = 0,395$), bu effekt o'lchamlarini mo'tadil baholashni talab qiladi; modelning kross-seksion tabiati sababiyatni isbotlamaydi. Keyingi tadqiqotlarda ko'p muassasali kattaroq namuna, semestr yoki o'quv yili davomidagi longitudinal kuzatuv hamda LO o'lchov vositasini qayta ishlab chiqish tavsiya etiladi.

XULOSA

AI-personalizatsiya O'zbekiston oliy ta'limida akademik natijalarga faqat talabalar jalblanganligi orqali ijobiy ta'sir ko'rsatadi. O'z-o'ziga ishonch - mustaqil va kuchli omil; etik ongдорlikning manfiy aloqasi esa cheklangan amaliy AI savodxonligi sharoitida tanqidiy munosabat foydalanishni qiyinlashtirayotganini taxmin qildiradi. Rivojlanayotgan ta'lim tizimlarida AI ni samarali joriy etish uchun infratuzilma, pedagogika va talabaning shaxsiy omillari (motivatsiya, ishonch, savodxonlik) bo'yicha kompleks yondashuv zarur - texnologiyaning o'zi yetarli emas.

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AXBOROT JAMIYATI VA RAQAMLI ONG: FALSAFIY YONDASHUVLAR

ИНФОРМАЦИОННОЕ ОБЩЕСТВО И ЦИФРОВОЕ СОЗНАНИЕ: ФИЛОСОФСКИЕ ПОДХОДЫ

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Annotatsiya: Maqolada axborot jamiyatining shakllanishi va uning raqamli ong bilan bog'liqligi falsafiy nuqtai nazardan tahlil qilinadi. Tadqiqot muammosi — axborot texnologiyalari va raqamli kommunikatsiyalarning jamiyatning ijtimoiy, siyosiy va madaniy tuzilmasiga ta'sirini ijtimoiy-falsafiy asoslash zaruratidan iborat. Tadqiqot muammosini ochib berishda falsafiy-tahliliy, qiyosiy va tizimli yondashuv metodologiyasidan foydalanildi. O'zbekistonlik olimlarning asarlari tahlili natijasida axborot jamiyatining o'ziga xos xususiyatlari, uning raqamli ong bilan aloqasi hamda raqamli demokratiyaning ijtimoiy-falsafiy asoslari aniqlandi. Muallifning ilmiy-amaliy hissasi axborot jamiyati, raqamli ong va raqamli demokratiya tushunchalarini yagona tizim doirasida, O'zbekiston misolida tahlil qilishdan iborat.

Abstract: The article provides a philosophical analysis of the formation of the information society and its interconnection with digital consciousness. The research problem is the need for a socio-philosophical justification of how information technologies and digital communications influence the social, political, and cultural structure of society. Philosophical-analytical, comparative, and systemic methodology was used to address the problem. Based on an analysis of the works of Uzbek scholars, the distinctive features of the information society, its connection with digital consciousness, and the socio-philosophical foundations of digital democracy were identified. The author's scientific and practical contribution consists in analyzing the concepts of information society, digital consciousness, and digital democracy within a single system, using Uzbekistan as an example.

Аннотация: В статье с философской точки зрения анализируется формирование информационного общества и его взаимосвязь с цифровым сознанием. Проблема исследования заключается в необходимости социально-философского обоснования влияния информационных технологий и цифровых коммуникаций на социальную, политическую и культурную структуру общества. При раскрытии проблемы использована философско-

аналитическая, сравнительная и системная методология. На основе анализа трудов узбекских учёных выявлены особенности информационного общества, его связь с цифровым сознанием, а также социально-философские основы цифровой демократии. Научно-практический вклад автора состоит в анализе понятий информационного общества, цифрового сознания и цифровой демократии в единой системе на примере Узбекистана.

Kalit soʻzlar: raqamli demokratiya, axborot jamiyati, raqamli ong, falsafiy yondashuvlar, Oʻzbekiston, ijtimoiy oʻzgarishlar, texnologik taraqqiyot, axborot erkinligi, fuqarolik jamiyati, axborot madaniyati.

Keywords: digital democracy, information society, digital consciousness, philosophical approaches, Uzbekistan, social transformations, technological progress, information freedom, civil society, information culture.

Ключевые слова: цифровая демократия, информационное общество, цифровое сознание, философский подход, Узбекистан, социальные изменения, технологический прогресс, свобода информации, гражданское общество, информационная культура.

KIRISH

XXI asrda axborot texnologiyalarining tezkor rivojlanishi jamiyatning barcha jabhalarida tub oʻzgarishlarga olib keldi. Axborotning ishlab chiqarilishi, saqlanishi, tarqatilishi va ishlatilishi jarayonlarining raqamli muhitga koʻchishi yangi ijtimoiy tuzilmalar va munosabatlarni shakllantirdi. Bu jarayon axborot jamiyati deb ataladi va u jamiyatning iqtisodiy, siyosiy, madaniy va axloqiy jihatlarini qayta koʻrib chiqishni talab qiladi. Axborot jamiyatining shakllanishi bilan birga, insonlarning fikrlash uslubi, axborotga boʻlgan munosabati va ijtimoiy faolligi ham oʻzgardi — bu jarayon raqamli ong deb ataladi va u falsafiy, ijtimoiy va siyosiy jihatdan katta ahamiyatga ega.

Tadqiqotning maqsadi — axborot jamiyatining shakllanishi, uning raqamli ong bilan bogʻliqligi va raqamli demokratiyaning rivojlanishiga oid falsafiy yondashuvlarni tahlil qilishdan iborat. Ushbu maqsadga erishish uchun quyidagi vazifalar belgilandi: axborot jamiyatining falsafiy asoslari va rivojlanish bosqichlarini yoritish; raqamli ong tushunchasining mazmun-mohiyatini ijtimoiy-falsafiy jihatdan ochib berish; raqamli demokratiyaning shakllanishi va uning Oʻzbekistondagi amaliy koʻrinishlarini tahlil qilish.

Tadqiqotning dolzarbligi shundaki, axborot jamiyati va raqamli ongning oʻzaro bogʻliqligi zamonaviy ijtimoiy falsafaning muhim muammolaridan biri boʻlib, uning Oʻzbekiston sharoitida yaxlit tizim sifatida tahlil qilinishi mamlakatimizda raqamli demokratiya institutlarini rivojlantirish borasidagi ilmiy-nazariy va amaliy ehtiyojlarga javob beradi.

MAVZUGA OID ADABIYOTLAR SHARHI

Axborot jamiyati nazariyasining shakllanishida M. Kastelsning tarmoq jamiyati konsepsiyasi muhim oʻrin tutadi; u axborot texnologiyalarining rivojlanishi jamiyatning ijtimoiy tuzilmasiga bevosita taʼsir koʻrsatishini asoslab bergan [4]. F. Fukuyama oʻz tadqiqotlarida jamiyat taraqqiyoti, demokratik institutlarning barqarorligi va fuqarolik jamiyati masalalarini falsafiy-siyosiy jihatdan tahlil qilgan [5]. Oʻzbekistonlik olimlardan B. Abdullaev axborot jamiyati va raqamli ongning oʻzaro bogʻliqligini falsafiy jihatdan asoslagan [1], S. Jalilov raqamli demokratiyaning konseptual asoslari va rivojlanish tendensiyalarini oʻrgangan [2], D. Kamilov esa axborot madaniyati va fuqarolik jamiyati oʻrtasidagi bogʻliqlikni tahlil qilgan [3]. Muallifning oldingi tadqiqotlarida raqamli demokratiyaning zamonaviy dunyoda tutgan oʻrni [6] va uning jahon davlatlaridagi amaliyoti hamda kelajak istiqbollari [7] oʻrganilgan. Keltirilgan manbalarni umumlashtirish shuni koʻrsatadiki, axborot jamiyati va raqamli ongning falsafiy jihatdan tahlil qilinishi borasida muayyan ilmiy zamin yaratilgan, biroq bu ikki tushunchaning Oʻzbekiston sharoitida raqamli demokratiya bilan bogʻliq holda yaxlit tizim sifatida oʻrganilishi hozircha yetarlicha eʼtibor qozonmagan, bu esa mazkur tadqiqotning ilmiy yangiligini belgilaydi.

TADQIQOT METODOLOGIYASI

Tadqiqot jarayonida falsafiy-tahliliy metod, tizimli yondashuv, qiyosiy tahlil va mantiqiy umumlashtirish usullaridan foydalanildi. Falsafiy-tahliliy metod axborot jamiyati va raqamli ong tushunchalarining mazmun-mohiyatini ochib berishga xizmat qildi. Tizimli yondashuv axborot jamiyati, raqamli ong va raqamli demokratiya tushunchalarini o'zaro bog'liq elementlar sifatida ko'rib chiqishga imkon berdi. Qiyosiy tahlil usuli yordamida xorijiy (M. Kastels, F. Fukuyama) va mahalliy (B. Abdullaev, S. Jalilov, D. Kamilov) olimlarning nazariy qarashlari o'zaro solishtirildi. Tadqiqotning empirik-tavsifiy asosini O'zbekistonda amalga oshirilayotgan "elektron hukumat" va "elektron fuqarolik" tashabbuslariga oid ma'lumotlar tashkil etdi.

TAHLIL VA NATIJALAR

Axborot jamiyatining shakllanishi va uning falsafiy asoslari

Axborot jamiyati — bu axborot va bilimlarni ishlab chiqarish, saqlash, tarqatish va ishlatish asosida tashkil topgan jamiyat shaklidir. Ushbu jamiyatda axborot texnologiyalari va kommunikatsiya vositalari asosiy resurs hisoblanadi [1; 4]. Tahlil natijasida axborot jamiyatining quyidagi asosiy xususiyatlari aniqlandi: axborot ishlab chiqarish va ishlatish iqtisodiy faoliyatning asosiy shakliga aylanadi, axborotning sifati va tezligi jamiyatning rivojlanishiga bevosita ta'sir ko'rsatadi; axborot texnologiyalarining rivojlanishi bilan axborotga oid barcha jarayonlar tezlashadi va soddalashadi; ijtimoiy struktura axborotga bo'lgan munosabat asosida shakllanadi; axborot erkinligi, fikrlar xilma-xilligi va fuqarolarning siyosiy jarayonlarga ishtiroki oshib, bu demokratik jarayonlarning rivojlanishiga olib keladi.

Axborot jamiyatining rivojlanishini tarixiy jihatdan to'rt bosqichga ajratish mumkin: birinchi bosqichda axborot yozma shaklda saqlanib, uning tarqatilishi cheklangan bo'ladi; ikkinchi bosqichda axborot texnologiyalarining rivojlanishi bilan ma'lumotlar elektron shaklda saqlanadi va tarqatilishi kengayadi; uchinchi bosqichda axborotga oid jarayonlar avtomatlashtiriladi; to'rtinchi bosqichda esa axborot jamiyati global miqyosda shakllanib, barcha jarayonlar global tarmoqlar orqali amalga oshiriladi [1]. Axborot jamiyatining rivojlanishi jamiyatning ijtimoiy, siyosiy va madaniy tuzilmasiga bevosita ta'sir ko'rsatadi: ijtimoiy ta'sir insonlarning axborotga bo'lgan munosabati va ijtimoiy faolligining o'zgarishida; siyosiy ta'sir axborot erkinligi va fuqarolarning siyosiy ishtirokining ortishida; madaniy ta'sir esa axborotning sifati, manbalarining ishonchliligi va axloqiy me'yorlarga rioya qilinishida namoyon bo'ladi.

RAQAMLI ONG VA UNING IJTIMOY-FALSAFIY TAHLILI

Raqamli ong — bu axborot texnologiyalari va internetning insonlarning fikrlash, qaror qabul qilish va ijtimoiy munosabatlariga ta'sirini o'rganadigan sohadir; u insonlarning raqamli texnologiyalar yordamida dunyoni qabul qilish, tushunish va unga ta'sir ko'rsatish uslubini anglatadi [1]. Ushbu tushuncha axborotning shakllanishi va tarqalishining yangi usullari bilan bog'liq bo'lib, insonlarning dunyoqarashini, qadriyatlarini va ijtimoiy munosabatlarini qayta shakllantiradi. Tahlil shuni ko'rsatdiki, raqamli muhitda axborotning interaktiv shaklda taqdim etilishi insonlarning axborotga bo'lgan munosabatini o'zgartiradi, shaxsiy ma'lumotlarning oshkorligi esa insonlarning maxfiylikka bo'lgan munosabatini qayta ko'rib chiqishni talab qiladi. Raqamli ongning jamiyat jabhalariga ta'siri quyidagicha namoyon bo'ladi: ijtimoiy tarmoqlar orqali insonlar o'rtasidagi aloqalarning kuchayishi yoki zaiflashishi; siyosiy jarayonlarga ishtirok etish imkoniyatlarining oshishi, biroq bu borada axborotning ishonchliligi masalasining muhim ahamiyat kasb etishi; madaniyatning shakllanishi axborotning sifati va axloqiy me'yorlarga bog'liq bo'lib qolishi [3]. Shuningdek, raqamli ong fuqarolik jamiyatining shakllanishiga ta'sir ko'rsatib, fuqarolarning siyosiy qarorlar qabul qilishdagi ishtirokini kuchaytiradi, biroq shu bilan birga axborot manipulyatsiyasi va yolg'on ma'lumotlarning tarqalishi kabi xavflarni ham keltirib chiqarishi mumkin.

RAQAMLI DEMOKRATIYA: MOHIYATI VA O'ZBEKISTONDAGI AMALIYOTI

Raqamli demokratiya — bu axborot texnologiyalari yordamida fuqarolarning siyosiy jarayonlarga bevosita ishtirokini ta'minlashga qaratilgan siyosiy tizimdir; bu tizimda fuqarolar onlayn platformalar orqali fikr bildirish va qarorlar qabul qilishda ishtirok etish imkoniyatiga ega bo'ladi [2]. F. Fukuyama ta'kidlaganidek, demokratik institutlarning barqarorligi jamiyat taraqqiyotining muhim shartlaridan biri hisoblanadi [5]. Tahlil natijalariga ko'ra, O'zbekistonda raqamli demokratiyaning shakllanishi "elektron hukumat" va "elektron fuqarolik" kabi tashabbuslar orqali amalga oshirilmoqda; bu tashabbuslar fuqarolarning davlat boshqaruviga bo'lgan ishonchini oshirishga qaratilgan [6; 7]. Shu bilan birga, raqamli demokratiyaning samarali ishlashi axborot erkinligi, axborot manbalarining ishonchliligi va fuqarolik jamiyati institutlarining yetarlicha rivojlanganligiga bevosita bog'liq ekanligi aniqlandi.

XULOSA

Olingan natijalar M. Kastelsning tarmoq jamiyati konsepsiyasi [4] va mahalliy olimlarning qarashlari [1; 2; 3] bilan umumiy yo'nalishda mos kelib, axborot jamiyati va raqamli ongning o'zaro bog'liqligini tasdiqlaydi. Shu bilan birga, tahlil raqamli texnologiyalarning ijobiy imkoniyatlari (fuqarolik faolligining oshishi, axborot erkinligi) bilan bir qatorda, axborot manipulyatsiyasi va shaxsiy ma'lumotlar maxfiyligiga oid xavflarning ham mavjudligini ko'rsatdi, bu esa raqamli demokratiya institutlarini rivojlantirishda axborot xavfsizligi masalasiga alohida e'tibor qaratish zaruriyatini bildiradi.

Tadqiqot maqsad va vazifalari to'liq bajarilgan holda quyidagi xulosalarga kelindi: birinchidan, axborot jamiyati axborot va bilimlarni ishlab chiqarish, saqlash, tarqatish va ishlatish asosida shakllangan ijtimoiy tuzilma bo'lib, uning rivojlanishi jamiyatning iqtisodiy, siyosiy, madaniy va axloqiy jihatlarini tubdan o'zgartiradi; ikkinchidan, raqamli ong insonlarning raqamli texnologiyalar yordamida dunyoni qabul qilish va unga ta'sir ko'rsatish uslubini ifodalab, jamiyatning barcha jabhalariga bevosita ta'sir ko'rsatadi; uchinchidan, raqamli demokratiya fuqarolarning siyosiy jarayonlarga ishtirokini kengaytirsada, uning samarali rivojlanishi axborot erkinligi, manbalarining ishonchliligi va fuqarolik jamiyati institutlarining barqarorligiga bog'liqdir.

Yuqoridagilardan kelib chiqib, quyidagi takliflar ishlab chiqildi: O'zbekistonda axborot madaniyatini oshirish bo'yicha maqsadli davlat dasturlarini ishlab chiqish; ta'lim muassasalarida raqamli savodxonlik va tanqidiy fikrlashni rivojlantirish kurslarini joriy etish; "elektron hukumat" platformalarining fuqarolar uchun qulayligi va shaffofligini oshirish; axborot xavfsizligi va shaxsiy ma'lumotlarni himoya qilish sohasidagi qonunchilikni takomillashtirish. Mazkur yo'nalish istiqbolli tadqiqot obyekti sifatida raqamli demokratiya institutlarining O'zbekistondagi rivojlanish dinamikasini empirik tahlil qilishni taqozo etadi.

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OLIV TA'LIMDA ZAMONAVIY TA'LIM TEXNOLOGIYALARIDAN FOYDALANISHNING PEDAGOGIK IMKONIYATLARI

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Annotatsiya. Mazkur maqolada oliy ta'lim tizimida zamonaviy ta'lim texnologiyalaridan foydalanishning pedagogik imkoniyatlari, ularning ta'lim sifatini oshirishdagi o'rni hamda talabalarning mustaqil, ijodiy va tanqidiy fikrlash ko'nikmalarini rivojlantirishdagi ahamiyati tahlil qilinadi. Raqamli texnologiyalar, masofaviy ta'lim, aralash (blended) ta'lim, multimedia vositalari, sun'iy intellekt, virtual ta'lim muhiti va interaktiv metodlardan foydalanishning afzalliklari yoritilgan. Shuningdek, zamonaviy texnologiyalarni ta'lim jarayoniga joriy etishda pedagoglarning raqamli kompetensiyasi, texnik infratuzilma, axborot xavfsizligi va ta'limning insonparvarlik tamoyillariga e'tibor qaratish zarurligi asoslangan.

Kalit so'zlar: oliy ta'lim, zamonaviy ta'lim texnologiyalari, raqamli ta'lim, masofaviy ta'lim, aralash ta'lim, sun'iy intellekt, interaktiv metodlar, raqamli kompetensiya.

Аннотация. В статье рассматриваются педагогические возможности использования современных образовательных технологий в системе высшего образования, их роль в повышении качества обучения и развитии самостоятельного, творческого и критического мышления студентов. Анализируется применение цифровых технологий, дистанционного и смешанного обучения (blended), мультимедийных средств, искусственного интеллекта, виртуальной образовательной среды и интерактивных методов. Особое внимание уделяется цифровой компетентности преподавателей, технической инфраструктуре, информационной безопасности и гуманистическому подходу при внедрении современных технологий в образовательный процесс.

Ключевые слова: высшее образование, современные образовательные технологии, цифровое обучение, дистанционное обучение, смешанное обучение, искусственный интеллект, интерактивные методы, цифровая компетенция.

Abstract. This article examines the pedagogical potential of modern educational technologies in higher education and their role in improving the quality of learning and developing students' independent, creative and critical thinking skills. The study considers digital technologies, distance and blended learning, multimedia tools, artificial intelligence, virtual learning environments and interactive teaching methods. Particular attention is paid to teachers' digital competence, technological infrastructure, information security and a human-centred approach to the integration of technology into education.

Keywords: higher education, modern educational technologies, digital learning, distance learning, blended learning, artificial intelligence, interactive methods, digital competence.

KIRISH

Bugungi kunda jamiyat taraqqiyoti axborot-kommunikatsiya texnologiyalarining jadal rivojlanishi bilan chambarchas bog'liq. Mazkur jarayon ta'lim tizimiga ham sezilarli ta'sir ko'rsatib, oliy ta'lim muassasalarida o'qitishning mazmuni, shakli va metodlarini takomillashtirishni talab etmoqda. Raqamli texnologiyalarning rivojlanishi natijasida elektron ta'lim resurslari, ta'limni boshqarish tizimlari, onlayn kurslar, virtual ta'lim muhitlari va sun'iy intellekt asosidagi vositalardan foydalanish imkoniyatlari kengaymoqda.

Oliy ta'lim tizimida zamonaviy texnologiyalardan foydalanish nafaqat ta'lim mazmunini elektron shaklga o'tkazish, balki o'qituvchi va talabaning ta'lim jarayonidagi rolini qayta ko'rib chiqishni ham taqozo etadi. An'anaviy ta'limda asosiy axborot manbai o'qituvchi hisoblangan bo'lsa, zamonaviy ta'limda talaba axborotni mustaqil izlash, tahlil qilish, baholash va amaliyotda qo'llash imkoniyatiga ega bo'ladi.

Zamonaviy ta'lim texnologiyalari deganda ta'lim jarayonini tashkil etish, o'qitish va baholash samaradorligini oshirishga xizmat qiluvchi metodlar, raqamli vositalar va pedagogik yondashuvlar majmui tushuniladi.

Oliy ta'limda keng qo'llanilayotgan zamonaviy ta'lim texnologiyalariga quyidagilarni kiritish mumkin:

- raqamli ta'lim texnologiyalari;
- masofaviy ta'lim;
- aralash (blended) ta'lim;
- muammoli ta'lim;
- loyiha asosida o'qitish;
- “flipped classroom” — teskari sinf texnologiyasi;
- multimedia texnologiyalari;
- virtual va kengaytirilgan reallik texnologiyalari;
- sun'iy intellektga asoslangan ta'lim vositalari;
- elektron baholash tizimlari;
- ochiq ta'lim resurslari.

Raqamli texnologiyalarning asosiy afzalliklaridan biri ta'lim resurslaridan foydalanish imkoniyatlarini kengaytirishdir. Talaba elektron darsliklar, video ma'ruzalar, ilmiy maqolalar, virtual laboratoriyalar va boshqa resurslardan istalgan vaqtda foydalanishi mumkin. Bundan tashqari, raqamli muhit individual ta'lim trayektoriyasini shakllantirish imkonini beradi. Talabaning bilim darajasi va ehtiyojlariga mos ravishda turli topshiriqlar, elektron kurslar va qo'shimcha materiallardan foydalanish mumkin.

Masofaviy va aralash (blendid) ta'lim shakllari ham zamonaviy oliy ta'limning muhim tarkibiy qismiga aylanmoqda. Aralash ta'lim an'anaviy auditoriya mashg'ulotlarini elektron va onlayn faoliyat bilan birlashtiradi. Bunday yondashuv talabaning mustaqil ta'lim olishiga, o'z vaqtini samarali rejalashtirishiga va o'quv materiallarini qayta ko'rib chiqishiga va turli texnologiyalar va vositalar axborotning o'quv materialiga kiritilishiga imkon beradi.

Zamonaviy oliy ta'limda talabaning faolligini oshirish muhim vazifalardan biridir. Shu sababli interaktiv metodlardan foydalanish ta'lim samaradorligini oshirishning muhim vositalaridan hisoblanadi. “Brainstorming”, “Case study”, loyiha metodi, munozara, debat, muammoli vaziyatlarni tahlil qilish kabi metodlar talabalarning mustaqil fikrlashi va muloqot kompetensiyalarini rivojlantirishga yordam beradi. Masalan, **Case study** texnologiyasida talabaga real yoki modellashtirilgan muammoli vaziyat taqdim etiladi. Talabalar vaziyatni tahlil qiladi, muammoning sabablarini aniqlaydi va mumkin bo'lgan yechimlarni taklif etadi. Bu metod nazariy bilimlarni amaliy vaziyatlarga tatbiq etish imkonini beradi. **Loyiha asosida ta'lim** esa talabalarni muayyan muammoni mustaqil yoki guruh bo'lib o'rganishga yo'naltiradi. Bunda talabalar ma'lumot izlash, uni tahlil qilish, xulosa chiqarish va yakuniy natijani taqdim etish jarayonlarida faol ishtirok etadi.

So'nggi yillarda sun'iy intellekt texnologiyalarining rivojlanishi ta'lim jarayonida yangi imkoniyatlarni yuzaga keltirmoqda. Sun'iy intellekt asosidagi vositalar o'quv materiallarini tayyorlash, individual topshiriqlar yaratish, matnlarni tahlil qilish, ta'limiy kontent ishlab chiqish va ayrim baholash jarayonlarini qo'llab-quvvatlashda foydalanilishi mumkin. Biroq sun'iy intellektidan foydalanishda akademik halollik va axborotning ishonchliligi masalalariga alohida e'tibor berish zarur. Talaba tayyor javobni olish bilan cheklanmasdan, undan o'quv faoliyatini qo'llab-quvvatlovchi vosita sifatida foydalanishi lozim.

Quyidagi muammolarga e'tibor qaratish lozim:

- raqamli infratuzilmaning yetarli darajada rivojlanmaganligi;
- o'qituvchilarning raqamli kompetensiyasi turlicha bo'lishi;
- axborot xavfsizligi va shaxsiy ma'lumotlarni himoya qilish;
- talabalarni ortiqcha raqamli yuklamadan himoya qilish;
- sifatli elektron ta'lim kontentini yaratish;
- texnologiyalardan foydalanishning iqtisodiy xarajatlari.

Zamonaviy ta'lim texnologiyalarining samaradorligi bir qator muhim shartlarga bog'liq. Birinchidan, texnologiya aniq pedagogik maqsadga xizmat qilishi kerak. Ikkinchidan, o'qituvchi va talabalarining raqamli kompetensiyalarini muntazam rivojlantirish zarur. Uchinchidan, ta'lim muassasasida zarur texnik va metodik infratuzilma shakllantirilishi lozim. Bundan tashqari, raqamli ta'lim kontenti o'quv dasturiga mos, ilmiy jihatdan asoslangan va talabalar uchun tushunarli bo'lishi kerak. Ta'lim texnologiyalaridan foydalanishda inson omilini saqlab qolish ham muhim. O'qituvchi va talaba o'rtasidagi bevosita pedagogik muloqot texnologiya bilan to'liq almashtirilmasligi, balki texnologiya yordamida boyitilishi maqsadga muvofiq.

Xulosa qilib aytganda, zamonaviy ta'lim texnologiyalari oliy ta'limni rivojlantirishning muhim omillaridan biridir. Raqamli ta'lim, masofaviy va aralash ta'lim, interaktiv metodlar, multimedia vositalari, sun'iy intellekt va virtual ta'lim muhitlaridan oqilona foydalanish talabalarining ta'lim olish imkoniyatlarini kengaytirishi, mustaqil ta'lim faoliyatini qo'llab-quvvatlashi hamda ta'lim jarayonining interaktivligini oshirishi mumkin. Shu bilan birga, zamonaviy texnologiyalarni joriy etish texnik vositalarni ta'lim jarayoniga oddiy tarzda kiritish bilangina cheklanmasligi kerak. Eng muhim masala — texnologiyani pedagogik maqsadga muvofiq tanlash va undan samarali foydalanishdir. Shuning uchun oliy ta'lim muassasalarida pedagoglarning raqamli kompetensiyasini rivojlantirish, sifatli elektron ta'lim resurslarini yaratish va axborot xavfsizligini ta'minlash hamda barcha talabalar uchun teng raqamli imkoniyatlarni shakllantirish muhim vazifalar sifatida namoyon bo'ladi.

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ZAMONAVIY AXBOROT TEXNOLOGIYALARI ORQALI DARS SAMARADORLIGINI OSHIRISH USULLARI VA ULARNING AMALIY AHAMIYATI

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ANNOTATSIYA. Mazkur maqolada zamonaviy axborot va raqamli texnologiyalarni ta'lim jarayoniga joriy etish orqali dars samaradorligini oshirishning nazariy-metodologik asoslari, pedagogik shart-sharoitlari hamda amaliy ahamiyati keng qamrovda yoritilgan. Tadqiqotda multimedia vositalari, raqamli ta'lim platformalari, interfaol texnologiyalar va bulutli tizimlardan foydalanishning o'quvchilarning kognitiv faolligini oshirishdagi o'rni chuqur tahlil qilingan. Shuningdek, axborot texnologiyalarining ta'lim sifatini ta'minlashdagi samaradorligi tabaqalashtirilgan statistik ko'rsatkichlar asosida ochib berilib, ularni amaliyotga tatbiq etish

Kalit soʻzlar: Axborot texnologiyalari, dars samaradorligi, raqamli ta'lim, multimedia, interfaol vositalar, kognitiv faollik, innovatsion texnologiyalar, ta'lim sifati.

АННОТАЦИЯ. В данной статье широко освещены теоретико-методологические основы, педагогические условия и практическая значимость повышения эффективности учебных занятий посредством внедрения современных информационных и цифровых технологий в образовательный процесс. В исследовании глубоко проанализирована роль мультимедийных средств, цифровых образовательных платформ, интерактивных технологий и облачных систем в повышении когнитивной активности учащихся. Также эффективность информационных технологий в обеспечении качества образования раскрыта на основе дифференцированных статистических показателей, а также разработаны научно-педагогические рекомендации по их практическому внедрению.

Ключевые слова: информационные технологии, эффективность учебного занятия, цифровое образование, мультимедиа, интерактивные средства, когнитивная активность, инновационные технологии, качество образования.

Abstract. This article provides a comprehensive analysis of the theoretical and methodological foundations, pedagogical conditions, and practical significance of improving the effectiveness of lessons through the integration of modern information and digital technologies into the educational process. The study thoroughly examines the role of multimedia tools, digital learning platforms, interactive technologies, and cloud-based systems in enhancing students' cognitive activity. Furthermore, the effectiveness of information technologies in ensuring the quality of education is revealed on the basis of differentiated statistical indicators, and scientific and pedagogical recommendations are developed for their practical implementation.

Keywords: information technologies, lesson effectiveness, digital education, multimedia, interactive tools, cognitive activity, innovative technologies, quality of education.

KIRISH

Jahon miqyosida raqamli iqtisodiyot va axborotlashuv jarayonlari jadal rivojlanibborayotgan hozirgi davrda ta'lim tizimini tubdan takomillashtirish, o'quv jarayoniga zamonaviy axborot-kommunikatsiya texnologiyalarini (AKT) keng joriy etish eng ustuvor vazifalardan biriga aylandi. An'anaviy ta'lim shakllari ko'pincha passiv tinglash va tayyor bilimlarni yod olishga asoslangan bo'lib, ular zamonaviy o'quvchilarning intellektual ehtiyojlari, axborotni qabul qilish tezligi va talablarini to'laqonli qondira olmayapti. Shu bois, dars samaradorligini keskin oshirishda zamonaviy axborot texnologiyalaridan foydalanish pedagogik jarayonning kechiktirib bo'lmaydigan zaruriy talabidir.

Axborot texnologiyalari o'quvchilarga nafaqat tayyor bilimlarni yetkazib berish, balki ularda tanqidiy va mantiqiy fikrlash, mustaqil axborot izlash, tahlil qilish hamda ijodiy yondashuv ko'nikmalarini shakllantirish imkonini beradi. Multimedia dasturlari, elektron darsliklar, masofaviy ta'lim platformalari va virtual reallik elementlari darsni yanada qiziqarli, tushunarli va interfaol tarzda tashkil etishga xizmat qiladi. Mazkur maqolaning asosiy maqsadi – zamonaviy axborot texnologiyalari orqali dars samaradorligini oshirishning zamonaviy usullari va ularning amaliy ahamiyatini ilmiy-nazariy jihatdan chuqur tahlil qilishdan iborat.

MATERIALLAR VA USULLAR:

Tadqiqot jarayonida zamonaviy axborot texnologiyalarining ta'lim samaradorligiga ta'sirini har tomonlama o'rganish maqsadida kompleks va tizimli yondashuvga asoslangan quyidagi ilmiy-pedagogik metodlardan foydalanildi:

Tizimli tahlil va umumlashtirish: Axborot texnologiyalarining pedagogik imkoniyatlari, raqamli ta'lim resurslari va ilg'or xorijiy tajribalarga oid ilmiy adabiyotlarni o'rganish hamda tasniflash;

Qiyosiy pedagogik yondashuv: An'anaviy dars o'tish shakllari bilan zamonaviy AKT va raqamli vositalarga asoslangan darslarning o'zlashtirish ko'rsatkichlarini o'zaro solishtirish;

Empirik kuzatish va diagnostika: Ta'lim jarayonida raqamli vositalardan foydalanishning o'quvchilarning faolligi, diqqatini jamlashi va bilim darajasiga ta'sirini tabaqalashtirilgan holda kuzatish va baholash

MUHOKAMA

Ta'lim jarayoniga zamonaviy axborot texnologiyalarini tizimli ravishda joriy etish o'quvchilarning bilish faolligini tubdan o'zgartiradi. Dars samaradorligini oshiruvchi asosiy usullar va texnologiyalarga quyidagilar kiradi:

Multimedia va vizuallashtirish texnologiyalari: Mavzularni tushuntirishda animatsiyalar, video-lavhalar, interfaol taqdimotlar va infografikalardan foydalanish o'quvchilarning ko'ruv va eshitish retseptorlarini bir vaqtning o'zida faollashtirib, o'quv materialini xotirada saqlab qolish darajasini keskin oshiradi.

Elektron ta'lim platformalari va LMS tizimlari: Masofaviy va aralash (blended learning) ta'lim shakllari orqali o'quvchilarga o'zining individual sur'atida bilim olish, mustaqil test topshiriqlarini bajarish va o'zini o'zi baholash imkoniyatini taqdim etadi.

Gamifikatsiya (O'yin texnologiyalari): Ta'limiy raqamli o'yinlar, viktorinalar va interfaol topshiriqlar orqali o'quvchilarning darsga bo'lgan ichki motivatsiyasini kuchaytirish va qiziqishini doimiy ravishda yuqori darajada ushlab turish.

O'tkazilgan diagnostik kuzatuvlar va tahlillar natijalari zamonaviy axborot texnologiyalaridan foydalanilgan darslarda o'quvchilarning o'zlashtirish

Rivojlanish darajasi	Foiz ko'rsatkichi	Xarakterli pedagogik va psixologik xususiyatlar
Yuqori daraja	35%	Axborot texnologiyalardan erkin va ijodiy foydalanadi: o'quv materiallarini chuqur o'zlashtiradi; mustaqil ravishda raqamli manbalardan ma'lumot izlaydi va tanqidiy tahlil qiladi.
O'rta daraja	45%	Raqamli vositalar yordamida berilgan topshiriqlarni muvaffaqiyatli bajaradi, ammo murakkab dasturlar yoki mustaqil raqamli loyihalar tayyorlashda pedagogning yo'naltiruvchi yordamiga muhtoj.
Past daraja	20%	Axborot texnologiyalarini o'quv jarayonida qo'llashda ma'lum qiyinchiliklarga uchraydi, ko'proq an'anaviy usullarga tayanadi va raqamli savodxonligini oshirishga ehtiyoj sezadi.

Olingan natijalarning chuqur tahlili shuni ko'rsatadiki, o'quvchilarning mutlaq ko'pchiligi (45% o'rta va 35% yuqori daraja) raqamli texnologiyalar asosida tashkil etilgan darslarni ijobiy qabul qiladi. Axborot texnologiyalari o'qituvchining vaqtini ratsional tejash bilan birga, har bir

o'quvchining shaxsiy imkoniyatlaridan kelib chiqqan holda differensiallashgan ta'lim berish imkonini yaratadi.

XULOSA

Xulosa o'rnida ta'kidlash joizki, zamonaviy axborot texnologiyalaridan dars jarayonida foydalanish ta'lim sifatini yanada oshirishning eng muhim va hal qiluvchi omillaridan biridir. Multimedia, elektron platformalar va interfaol usullarni o'quv jarayoniga tatbiq etish o'quvchilarning kognitiv faolligini kuchaytiradi, darslarni jonli, qiziqarli va tushunarli qiladi hamda ularda zamonaviy raqamli kompetensiyalarni shakllantiradi. O'z vaqtida va pedagogik talablarga to'la mos ravishda tashkil etilgan raqamli ta'lim muhiti o'quvchilarning kelgusidagi kasbiy va hayotiy faoliyatida muvaffaqiyat qozonishining mustahkam poydevori bo'lib xizmat qiladi.

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GENERATIV SUN'IY INTELLEKT FILOLOGIK TADQIQOTDA: IMKONIYAT, TALQIN VA ILMIY ISHONCHLILIK MASALASI

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Annotatsiya. Maqolada generativ sun'iy intellekt vositalaridan filologik tadqiqotlarda foydalanishning imkoniyatlari va ular bilan bog'liq ilmiy-metodologik muammolar tahlil qilinadi. Sun'iy intellektning ilmiy adabiyotlarni izlash va tizimlashtirish, katta hajmdagi axborotni qayta ishlash, dastlabki tahliliy yo'nalishlarni belgilashdagi afzalliklari e'tirof etilgan holda, generativ model yaratgan matnni tayyor ilmiy xulosa sifatida qabul qilish mumkin emasligi asoslanadi. Xususan, birlamchi manbada mavjud bo'lmagan iqtiboslarning ilmiy matnga kiritilishi, xorijiy terminlarning mexanik tarjimasi, metodologik jihatdan yetarli asoslanmagan qiyoslar, badiiy matnning tarixiy-poetik tabiatiga mos kelmaydigan talqinlar hamda dissertatsiya matnida tadqiqotchining individual ilmiy pozitsiyasi zaiflashishi kabi masalalarga e'tibor qaratiladi.

Kalit so'zlar: generativ sun'iy intellekt, filologik tadqiqot, badiiy matn, talqin, ilmiy manba, qiyosiy tahlil, tarjima, mualliflik pozitsiyasi, verifikatsiya, ilmiy metod.

Annotatsiya. Maqolada generativ sun'iy intellekt vositalaridan filologik tadqiqotlarda foydalanishning imkoniyatlari va ular bilan bog'liq ilmiy-metodologik muammolar tahlil qilinadi. Sun'iy intellektning ilmiy adabiyotlarni izlash va tizimlashtirish, katta hajmdagi axborotni qayta ishlash, dastlabki tahliliy yo'nalishlarni belgilashdagi afzalliklari e'tirof etilgan holda, generativ model yaratgan matnni tayyor ilmiy xulosa sifatida qabul qilish mumkin emasligi asoslanadi. Xususan, birlamchi manbada mavjud bo'lmagan iqtiboslarning ilmiy matnga kiritilishi, xorijiy terminlarning mexanik tarjimasi, metodologik jihatdan yetarli asoslanmagan qiyoslar, badiiy matnning tarixiy-poetik tabiatiga mos kelmaydigan talqinlar hamda dissertatsiya matnida tadqiqotchining individual ilmiy pozitsiyasi zaiflashishi kabi masalalarga e'tibor qaratiladi.

Kalit so'zlar: generativ sun'iy intellekt, filologik tadqiqot, badiiy matn, talqin, ilmiy manba, qiyosiy tahlil, tarjima, mualliflik pozitsiyasi, verifikatsiya, ilmiy metod.

Аннотация. В статье анализируются возможности использования инструментов генеративного искусственного интеллекта в филологических исследованиях и связанные с ними научно-методологические проблемы. Наряду с признанием преимуществ искусственного интеллекта в поиске и систематизации научной литературы, обработке больших объёмов

информации и определении первоначальных направлений анализа обосновывается недопустимость восприятия текста, созданного генеративной моделью, в качестве готового научного вывода. В частности, рассматриваются такие вопросы, как включение в научный текст цитат, отсутствующих в первоисточнике, механический перевод иностранных терминов, методологически недостаточно обоснованные сопоставления, интерпретации, не соответствующие историко-поэтической природе художественного текста, а также ослабление индивидуальной научной позиции исследователя в тексте диссертации.

Ключевые слова: генеративный искусственный интеллект, филологическое исследование, художественный текст, интерпретация, научный источник, сравнительный анализ, перевод, авторская позиция, верификация, научный метод.

KIRISH

Generativ sun'iy intellektning ilmiy faoliyatga jadal kirib kelishi tadqiqot olib borishning odatiy tartibiga sezilarli ta'sir ko'rsatmoqda. Bugun tadqiqotchi qisqa vaqt ichida katta hajmdagi ilmiy adabiyotlarni saralashi, muayyan muammo bo'yicha dastlabki ma'lumotlarni to'plashi, chet tilidagi materialning mazmunini anglab olishi, tadqiqot savollarini aniqlashtirishi, hatto o'z ilmiy qarashiga qarama-qarshi bo'lgan fikrlarni shakllantirib ko'rishi mumkin. Shu ma'noda, sun'iy intellektidan foydalanishni ilmiy tadqiqot uchun mutlaq xavf sifatida baholash biryozlama yondashuv bo'ladi. Masala undan foydalanish yoki foydalanmaslikda emas, balki uning ilmiy izlanishdagi o'rnini to'g'ri belgilashdadir. UNESCOning generativ sun'iy intellektidan ta'lim va tadqiqotda foydalanishga oid tavsiyalarida ham ushbu texnologiyalar inson tafakkuri va ilmiy mas'uliyatining o'rnini egallamasligi, yakuniy nazorat esa insonda qolishi zarurligi ta'kidlanadi.[1]

Filologiya yo'nalishida bu masala alohida ahamiyat kasb etadi. Chunki adabiyotshunoslikda tadqiqotchi tayyor faktlar bilangina emas, matn va uning ma'nosi bilan ishlaydi. Badiiy obrazning vazifasi, muallif pozitsiyasi, hikoyachi ovozi, ramz yoki detalning semantik yuki muayyan kontekst, poetik tizim va adabiy an'ana asosida aniqlanadi. Shu sababli generativ model tomonidan yaratilgan grammatik jihatdan to'g'ri, mantiqan izchil va usluban ravon javob hali filologik xulosa hisoblanmaydi. U, avvalo, tekshirilishi zarur bo'lgan dastlabki mulohazadir.

O'zbek tilidagi generativ modellar faoliyatiga bag'ishlangan yangi tadqiqotlar ham bunday ehtiyotkorlik zarurligini ko'rsatmoqda. D. Solidjonov va M. Najmiddinov GPT-5, Gemini 2.0 Pro hamda LLaMA 4 tomonidan yaratilgan 240 ta o'zbekcha matnni tahlil qilib, ularda 1152 ta turli lingvistik xatoni qayd etganlar. Xatolarning salmoqli qismini morfologik hamda leksik-semantik nomuvofiqliklar tashkil etgan.[2] Mazkur natija tashqi ravonlik bilan lingvistik aniqlik har doim ham bir-biriga mos kelmasligini ko'rsatadi. Filologik tadqiqot uchun bu, ayniqsa, muhim: modelning o'zbek tilida ishonarli matn yaratishi uning adabiy tushuncha yoki badiiy hodisani to'g'ri anglaganini avtomatik ravishda bildirmaydi.

Amaliyotda masala ba'zan bundan ham jiddiyroq tus oladi. Xorijiy adabiyot bo'yicha tayyorlangan ayrim ilmiy ishlarda asarning originalidan olingani ta'kidlangan inglizcha jumla qo'shtirnoq ichida keltirilib, unga nashr yili va hatto aniq sahifa ko'rsatiladi. Jumladan so'ng uning o'zbekcha tarjimasi va shu iqtibosga tayangan batafsil badiiy tahlil beriladi. Bir qarashda bunday parcha ilmiy talablar asosida rasmiylashtirilgandek ko'rinadi. Biroq iqtibos birlamchi manba bilan qiyoslanganda ayrim jumlalarining original asarda aynan shu shaklda mavjud emasligi aniqlanishi mumkin. Eng murakkab jihati shundaki, bunday jumla asarning umumiy mazmuniga mos tushadi, muallifning boshqa o'rinlardagi fikrlarini eslatadi va shu bois haqiqiy iqtibos taassurotini uyg'otadi.

Filologiya uchun bu farq prinsipial ahamiyatga ega. Muallif fikrining mazmunini o'z so'zlari bilan bayon qilish boshqa, uni qo'shtirnoq ichida muallifning aynan o'z jumlasini sifatida berish boshqa ilmiy amaldir. Birinchi holatda biz talqin bilan ishlaymiz; ikkinchi holatda esa matnning birlamchi manbada haqiqatan mavjud bo'lishi shart. Shu sababli generativ sun'iy intellekt davrida "bu fikr asar mazmuniga mosmi?" degan savolning o'zi yetarli bo'lmay qolmoqda. Undan oldin "muallif haqiqatan ham aynan shunday yozganmi?" degan tekstologik savol qo'yilishi zarur.

Shunga yaqin muammo xorijiy adabiy terminlarning o'zbek tilida qo'llanishida ham kuzatiladi. *Authorial voice, narrative voice, implied author* singari tushunchalar bir qarashda ma'nodoshdek tuyulishi mumkin, ammo narratologiyada ular bir xil nazariy hodisani anglatmaydi. Generativ model esa ayrim hollarda terminni tarjima qilish bilan uning nazariy mazmunini tushuntirish o'rtasidagi chegarani yo'qotadi. Natijada inglizcha termin qavs ichida keltiriladi, unga o'zbekcha muqobil beriladi, biroq tushunchaning nazariy chegarasi ochilmay qoladi. Xorijiy terminning matnda mavjudligi ilmiylik belgisi emas; uning qaysi nazariy yondashuv doirasida va qanday ma'noda ishlatilayotgani muhimdir.

Ilmiy bayonda inglizcha asar nomining har gal o'zbekcha tarjimasi bilan qavs ichida takrorlanishi yoki o'zbek adabiyotshunosligida shakllangan termin o'rniga sun'iy sinonim izlab, so'ng qavs ichida yana asl terminni berish ham matnning tabiiyligini buzadi. Asar birinchi marta tilga olinganda uning original nomi va zarur bo'lsa o'zbekcha tarjimasini ko'rsatish ilmiy jihatdan asosli. Keyingi o'rinlarda esa tanlangan shaklning izchil ishlatilishi maqsadga muvofiq. Aks holda, matn qaysi tilda yozilayotgani emas, muallif qaysi terminni asosiy deb qabul qilayotgani noaniqlashadi.

Bunday belgilarni ko'rish bilan matn "sun'iy intellekt tomonidan yozilgan" degan hukm chiqarish, albatta, ilmiy jihatdan to'g'ri emas. Bitta noodatiy termin, qavs yoki sintaktik konstruktsiya buning dalili bo'la olmaydi. Muammo ular tekshirilmagan iqtiboslar, mexanik tarjimalar, bir xil tahliliy qoliplar va matnga yetarlicha bog'lanmagan umumiy xulosalar bilan muntazam birga kelganda yuzaga chiqadi. Shuning uchun AI-detektor ko'rsatkichidan ko'ra ilmiy matndagi fikr, iqtibos va xulosalarni ularning manbalarigacha kuzatib borish imkoniyati muhimroqdir.

Generativ sun'iy intellektning qiyosiy adabiyotshunoslikdagi imkoniyati ham, cheklovi ham uning o'xshashlikni nihoyatda tez topa olishida namoyon bo'ladi. Modelga tarixiy davri, janri va poetik tabiati bir-biridan ancha uzoq ikki asar berilganda ham, u ko'pincha "yolg'izlik", "inson va jamiyat", "ichki ziddiyat", "kurash", "umid" yoki "axloqiy tanlov" kabi umumiy tushunchalar orqali ularni bir-biriga bog'lay oladi. Bunday umumiyliklarning mavjudligi o'z-o'zidan noto'g'ri emas. Biroq u hali qiyosiy-tipologik xulosa uchun yetarli asos bo'la olmaydi.

Turli davr, milliy adabiyot va janrlarga mansub asarlar qiyoslanishi mumkin. Ammo bunday tadqiqotda qiyoslash mezonini aniq belgilanishi, tanlangan hodisalarni bir qiyosiy maydonga olib kirishning nazariy asosi ko'rsatilishi lozim. Ikki asarda bir xil motivning uchrashi uning poetik vazifasi ham bir xil degani emas. Sun'iy intellekt o'xshashlikni topishda tadqiqotchiga yordam berishi mumkin, lekin bu o'xshashlikning tipologik mushtaraklik darajasiga ko'tarilishini tadqiqotchining o'zi asoslab berishi kerak.

Mumtoz adabiyot bunday talqinning chegaralarini yanada yaqqol ko'rsatadi. Alisher Navoiyning "Kecha kelgumdur debon ul sarvi gulro' kelmadi, / Ko'zlarimg'a kecha tong otquncha uyqu kelmadi" baytlarida[3] hijron, intizorlik va amalga oshmagan visol holati mumtoz she'riyatning o'z obrazlar tizimi orqali ifodalangan. "Sarvi gulro'" ma'shuq obraziga daxldor bo'lsa, tonggacha davom etgan bedorlik kutishning ruhiy zo'riqlashini kuchaytiradi. G'azal bo'ylab takrorlanadigan "kelmadi" radifi esa ushbu holatni asarning asosiy hissiy-semantik yo'nalishiga aylantiradi.

Ayni baytlarni generativ modelga berib, ularni ekzistensializm nuqtayi nazaridan sharhlash so'ralsa, ma'shuqning kelmasligini inson kutishlariga javob bermaydigan borliq, tunni ontologik yolg'izlik, oshiqni esa mavjudlik qarshisidagi yolg'iz subyekt sifatida talqin qiluvchi tashqi jihatdan mukammal matn olish mumkin. Bunday nazariy o'qishning o'zi mutlaqo mumkin emas, degan fikrdan yiroqmiz. Muammo Navoiy poetikasi bilan zamonaviy falsafiy konsepsiya o'rtasidagi metodologik asos ko'rsatilmagan holda tayyor nazariy kategoriyalarni mumtoz matnga tatbiq etishda yuzaga keladi. Filologik tahlilda nazariyaning murakkabligi emas, uning matnga qay darajada asosli tatbiq etilgani muhim.

Shu muammoning sodda, ammo juda ko'rgazmali ko'rinishi adabiyot o'qitish amaliyotida ham uchramoqda. Talabalarga Abdulla Oripovning onasi xotirasiga bag'ishlangan "Onajon" she'rini o'qib, mustaqil tahlil qilish topshirig'i berilganda, ayrim hollarda asarning o'zi bilan ishlash o'rniga generativ sun'iy intellektidan tayyor tahlil olishga urinish kuzatildi. Holbuki,

she'ning poetik mazmuni umumiy "ona mehri" haqidagi fikrlar bilangina ochilmaydi. Undagi tush motivi, beshik va tobut obrazlarining keskin qarama-qarshiligi, onadan ayrilish iztirobi, ikkinchi qismdagi to'y bilan bog'liq armon asarning individual badiiy qiyofasini belgilaydi.[4] Generativ model esa aniq matn bilan ta'minlanmaganida muallif va mavzu haqidagi umumiy ma'lumotlarga tayangan holda ishonarli tahlil yaratishi, hatto matnda mavjud bo'lmagan obraz yoki mazmuniy bog'lanishlarni unga nisbat berishi mumkin. Talaba bunday javobni she'ning o'zi bilan solishtirmasa, ravon yozilgan tahlilning birlamchi matndan uzoqlashganini sezmay qoladi.

Mazkur pedagogik kuzatuv muammoning mohiyatini juda sodda ko'rsatadi: filologik tahlil asar nomidan emas, matnning o'zidan boshlanishi kerak. Matnni o'qish, undagi dalilni ko'rish, savol qo'yish va undan keyin xulosa chiqarish o'rnini "asar nomi – prompt – tayyor tahlil" ketma-ketligi egallasa, talabaning asosiy filologik faoliyati — mustaqil o'qish va talqin qilish jarayoni — qisqarib qoladi. Shuning uchun AI bergan tahlilni tekshirishning eng ishonchli yo'li uni boshqa generativ modelga qayta tekshirtirish emas, birlamchi matnga qaytishdir.

Bu masala dissertatsiyalarda metodlarni qo'llash bilan bog'liq yana bir muammoni yuzaga chiqaradi. Tadqiqot metodologiyasida qiyosiy-tipologik, germeneytik, biografik, psixologik, analitik yoki boshqa metodlarni sanab o'tishning o'zi ularning amalda qo'llanganini anglatmaydi. Agar tahlilda qaysi xulosa qanday metodologik tamoyil asosida chiqarilgani ko'rinmasa, metodlar ro'yxati deklarativ xarakter kasb etadi. Generativ modelga "asarni germeneytik metod asosida tahlil qil" yoki "ikki romanni qiyosiy-tipologik jihatdan solishtir" deb topshiriq berish esa metodning real ilmiy qo'llanilishiga teng emas. Metod — promptga kiritilgan atama emas; u materialni tanlash, savol qo'yish, dalilni sharhlash va xulosani asoslashning izchil ilmiy tartibidir.

Shu sababli yuzlab generativ tahlillarning mavjudligi tadqiqotning metodologik jihatdan kuchli ekanini o'z-o'zidan ko'rsatmaydi. Agar tahlillar bir xil umumiy qolip asosida yaratilgan, birlamchi matn bilan muntazam tekshirilmagan va tadqiqotchining o'z metodologik amaliyotidan o'tmagan bo'lsa, ularning ko'pligi ilmiy dalillar sonining ko'payganini anglatmaydi. Dissertatsiya tadqiqotchining faqat ma'lumot yig'ish qobiliyatini emas, material bilan mustaqil ishlash, dalillar orasidan ilmiy ahamiyatlisini tanlash va o'z xulosasini asoslash salohiyatini ham namoyon etishi kerak.

Generativ sun'iy intellektning akademik mualliflikka ta'siri bo'yicha olib borilgan tadqiqotlar ushbu masalaning boshqa tomonini ham ko'rsatadi. W. Zhao doktorlik dissertatsiyalari korpusi asosida generativ AI akademik matndagi muallif pozitsiyasini ifodalash vositalariga ta'sir qilayotganini aniqlagan. Jumladan, generativ vositalardan foydalanish kengaygan davrda ayrim ehtiyotkor pozitsiya markerlarining kamayishi va qat'iyroq ifodalarning ko'payishi kuzatilgan.[5] Filologik dissertatsiya nuqtayi nazaridan bu muhim, chunki ilmiy ish faqat to'g'ri tuzilgan gaplardan iborat emas. Unda muallifning savol qo'yish usuli, dalillarni tanlashi, boshqa qarashlarga munosabati va o'z xulosasining chegarasini anglashi ham ko'rinishi lozim.

Masalaning falsafiy tomoni ham aynan shu yerda namoyon bo'ladi. Fikrlarning ishonarli eshutilishi bilan uning asoslangan bo'lishi bir xil hodisa emas. Generativ model ehtimollik jihatidan mos va lingvistik jihatdan tabiiy javob yaratishga qodir; ilmiy tadqiqot esa fikrning manbasini, dalilini va tekshirish imkoniyatini talab qiladi. Shu sababli asar ruhiga mos, lekin asarda mavjud bo'lmagan iqtibos, terminologik jihatdan murakkab eshutiladigan, ammo matn tarixiga mos kelmaydigan talqin yoki ikki asar o'rtasidagi chiroyli, biroq metodologik jihatdan asoslanmagan o'xshashlik bir xil epistemologik muammoni yuzaga chiqaradi: ishonarli ko'rinish hali ilmiy ishonchlilik degani emas.

Ilmiy mualliflik mas'uliyati ham shu nuqtada boshlanadi. Sun'iy intellekt tadqiqotchiga ilmiy adabiyotlarni dastlabki saralash, katta hajmdagi materialni tizimlashtirish, savol variantlarini shakllantirish, qarama-qarshi fikrlarni ko'rish va matnni tahrirlashda yordam berishi mumkin. Lekin u iqtibosning haqiqiyiligi, tanlangan nazariyaning o'rirliligi yoki chiqarilgan ilmiy xulosaning to'g'riligi uchun javob bera olmaydi. COPEning AI va mualliflikka oid pozitsiyasida ham sun'iy intellekt vositalari ilmiy muallif sifatida e'tirof etilmasligi, chunki ular ilmiy mazmun uchun javobgarlikni o'z zimmasiga ola olmasligi ta'kidlangan.[6]

Shunday ekan, filologiyada generativ sun'iy intellektdan foydalanish masalasini "foydalanish mumkin" yoki "foydalanish mumkin emas" degan sodda qarama-qarshilik doirasida hal qilib bo'lmaydi. Uning ilmiy izlanishdagi foydali imkoniyatlarini saqlagan holda, talqin va ilmiy xulosa o'rtasidagi chegarani aniq belgilash zarur. AI o'xshashlikni topishi mumkin, lekin uning tipologik mushtaraklik ekanini tadqiqotchi asoslaydi; AI talqin variantini taklif qilishi mumkin, lekin uning matnga muvofiqligini filolog tekshiradi; AI iqtibos keltirishi mumkin, biroq uning mavjudligini faqat birlamchi manba tasdiqlaydi.

Filologiya ixtisosligida tadqiqot olib borayotgan izlanuvchilar uchun asosiy xavf sun'iy intellektning xato qilishining o'zida emas. Qo'pol xatoni aniqlash odatda qiyin emas. Murakkablik xatoning to'g'ri fikrga o'xshab qolishidadir. Shuning uchun generativ sun'iy intellekt davrida filologning kasbiy kompetensiyasiga yana bir muhim talab qo'shilmoqda: u nafaqat badiiy matnni, balki mashina yaratgan talqinni ham tanqidiy o'qiy olishi kerak. Texnologiya tadqiqotchiga javobni tezroq topishda yordam beradi, ammo nima uchun aynan shu javob ilmiy jihatdan asosli ekanini ko'rsatish vazifasi tadqiqotchining o'zida qoladi.

Shu bois generativ sun'iy intellektdan filologik tadqiqotda foydalanishda bir qator qat'iy ilmiy ehtiyoj choralariga rioya etish zarur. Eng avvalo, AI tomonidan taqdim etilgan har qanday iqtibos, bibliografik ma'lumot, asar nomi, mualliflik atributsiyasi va termin birlamchi yoki ishonchli akademik manba asosida alohida tekshirilishi lozim; sahifa raqami, nashr yili yoki havolaning mavjudligi ma'lumotning haqqoniyligini avtomatik ravishda kafolatlamaydi. Badiiy matn talqinida esa generativ modelning ravon va mantiqan izchil javobi dalil o'rnini bosmasligi kerak: har bir xulosa konkret matn, poetik detal, tarixiy-adabiy kontekst va tanlangan metodning real tatbiqi bilan asoslanishi shart. Ayniqsa, turli davr, milliy adabiyot yoki janrlarga mansub asarlarni qiyoslashda tashqi o'xshashlik, umumiy motiv yoki mavzu ilmiy mushtaraklik sifatida qabul qilinmasligi, qiyoslash mezonini va nazariy asosi oldindan aniq belgilanishi zarur. Xorijiy terminlarni o'zbekchalashtirishda mexanik tarjima, bir tushunchaga bir necha tasodifiy muqobil berish yoki inglizcha terminlarni ortiqcha qavslar orqali takrorlashdan qochish, terminning ilmiy an'anadagi aniq mazmuni va qo'llanish doirasini saqlash talab etiladi. Dissertatsiya va boshqa ilmiy ishlarda metodlarning nomini sanab o'tish bilan cheklanib qolmasdan, ularning tahlil jarayonida qanday ishlagani ko'rsatilishi kerak; promptda "germenevtik", "qiyosiy-tipologik" yoki "psixologik" so'zining mavjudligi metodning amalida qo'llanganini anglatmaydi. Talaba va yosh tadqiqotchilar uchun esa eng muhim talab — birlamchi matnni o'qimasdan tayyor generativ tahlilni qabul qilmaslik, AI javobini ilmiy haqiqat emas, tekshirilishi lozim bo'lgan yordamchi material sifatida ko'rishdir. Aks holda, filologik tadqiqotning eng muhim tamoyillari — matnga sodiqlik, manba aniqligi, terminologik izchillik, metodologik asoslanganlik va muallifning shaxsiy ilmiy javobgarligi — asta-sekin shaklan mukammal, biroq mazmunan tekshirilmagan generativ bayon bilan almashib qolishi mumkin. Shuning uchun sun'iy intellektdan foydalanishni taqiqlash emas, uning ilmiy chegaralarini qat'iy belgilash, har bir generativ ma'lumotni verifikatsiyadan o'tkazish va yakuniy xulosa uchun javobgarlikni tadqiqotchining o'zida saqlash bugungi filologik ilmning muhim metodologik talablaridan biri bo'lishi kerak.

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Artificial intelligence-assisted language learning and the development of communicative competence: Investigating the effectiveness of AI-powered interactive learning environments for EFL students

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Abstract: This study examines the potential of artificial intelligence (AI)-powered interactive learning environments in developing communicative competence among EFL students. It focuses on how AI-based tools can support speaking, writing, vocabulary development, grammatical accuracy, and learner interaction. The study proposes an instructional framework combining AI-supported practice with teacher guidance and independent learner reflection.

Keywords: artificial intelligence, EFL, communicative competence, AI-assisted learning, interactive learning, language education.

Аннотация: В статье рассматривается потенциал интерактивных образовательных сред на основе искусственного интеллекта (ИИ) в развитии коммуникативной компетенции студентов, изучающих английский язык как иностранный. Особое внимание уделяется развитию устной и письменной речи, словарного запаса, грамматической точности и взаимодействия учащихся. Предлагается модель обучения, объединяющая ИИ-практику, педагогическое руководство и самостоятельную рефлексию.

Ключевые слова: искусственный интеллект, английский язык как иностранный, коммуникативная компетенция, ИИ-обучение, интерактивная среда, языковое образование.

Annotatsiya: Ushbu maqolada sun'iy intellekt (SI) asosidagi interaktiv ta'lim muhitlarining ingliz tilini xorijiy til sifatida o'rganuvchi talabalarning kommunikativ kompetensiyasini rivojlantirishdagi imkoniyatlari tahlil qilinadi. Tadqiqotda gapirish, yozish, lug'at boyligi, grammatik aniqlik va kommunikativ o'zaro ta'sirni rivojlantirishga e'tibor qaratiladi. SI vositalaridan o'qituvchi rahbarligi va talabaning mustaqil refleksiyasi bilan uyg'un foydalanish modeli taklif etiladi.

Kalit so'zlar: sun'iy intellekt, EFL, kommunikativ kompetensiya, SI yordamida ta'lim, interaktiv ta'lim, til ta'limi.

INTRODUCTION

The rapid development of artificial intelligence has significantly influenced foreign language education. AI-powered tools can provide learners with immediate feedback, personalized practice, conversational interaction, and opportunities to use English beyond the traditional classroom. For EFL students, such environments may create additional opportunities to practice language skills and develop communicative competence.

Communicative competence involves not only grammatical knowledge but also the ability to use language appropriately and effectively in different contexts. Therefore, contemporary language teaching increasingly emphasizes meaningful interaction, fluency, vocabulary, pronunciation, and pragmatic competence. AI-powered interactive environments can support these dimensions by providing simulated conversations, writing assistance, vocabulary activities, and individualized feedback.

However, the effectiveness of AI depends on how it is integrated into the learning process. AI should function as a pedagogical support rather than replace teachers or learners' own cognitive

efforts. The present study therefore investigates the potential effectiveness of AI-assisted interactive learning environments and proposes a framework for their responsible use in EFL education.

Recent research indicates growing interest in AI-assisted language learning. AI-based chatbots and interactive systems can facilitate repeated language practice and provide immediate responses. Such tools are particularly useful for speaking and writing activities because learners can receive feedback and revise their language without waiting for teacher intervention.

Studies of AI-supported EFL learning have reported positive effects on learner engagement, speaking confidence, writing performance, and motivation. AI systems can also reduce anxiety by allowing students to practice privately and repeatedly. Nevertheless, AI-generated feedback may not always reflect the social, cultural, or pragmatic complexity of authentic communication.

Communicative competence requires meaningful interaction, contextual awareness, and the ability to interpret and respond appropriately to other speakers. Consequently, AI tools are most effective when they are integrated with teacher-led instruction, peer interaction, and authentic communicative tasks. The teacher remains essential for evaluating AI-generated content, explaining errors, and developing learners' critical digital literacy.

METHODS

The study adopts a mixed pedagogical and analytical framework for investigating AI-assisted EFL learning. The proposed participants are university-level EFL students who use an AI-powered interactive learning environment during language classes. The instructional procedure consists of four main stages. First, students complete communicative tasks independently. Second, they use AI tools for conversation practice, vocabulary development, grammar feedback, or writing revision. Third, students critically evaluate AI-generated responses and identify appropriate and inappropriate suggestions. Finally, they revise their performance independently and discuss their difficulties with the teacher.

Communicative competence can be assessed through speaking and writing tasks before and after AI-supported instruction. The assessment may include grammatical accuracy, lexical variety, fluency, pronunciation, coherence, interaction, and pragmatic appropriateness. Learner questionnaires and reflective activities may also be used to identify students' perceptions of AI-assisted learning.

RESULTS

As the present study proposes an instructional framework rather than reporting a completed experimental investigation, the results are formulated as expected outcomes. AI-supported interactive practice is expected to increase students' opportunities to communicate in English and provide more frequent individualized feedback. The most noticeable improvements are expected in speaking fluency, vocabulary use, grammatical accuracy, and learner confidence. Interactive AI conversations may encourage students to practice more frequently, while immediate feedback may help them recognize and correct recurring language problems.

At the same time, improvements may depend on students' ability to critically evaluate AI-generated information. Excessive dependence on AI may reduce independent language production and encourage learners to accept incorrect or contextually inappropriate suggestions. Therefore, AI use should be accompanied by teacher monitoring and reflective learning activities.

DISCUSSION

The potential effectiveness of AI-powered learning environments can be explained by their accessibility, interactivity, and ability to provide individualized practice. Unlike traditional classroom interaction, AI tools can offer students additional opportunities to practice outside scheduled lessons. This is particularly important in EFL contexts where exposure to authentic English may be limited.

Nevertheless, AI cannot fully reproduce human communication. Authentic communication includes emotional, cultural, pragmatic, and interpersonal dimensions that remain difficult for

artificial systems to represent completely. For this reason, AI should complement rather than replace teacher-student and student-student interaction. An effective pedagogical model should therefore combine three elements: AI-supported practice, teacher-mediated instruction, and learner autonomy. Teachers should guide students in evaluating AI feedback, identifying errors, and making independent decisions about language use. Such an approach can help learners develop not only communicative competence but also critical digital literacy.

CONCLUSION

AI-powered interactive learning environments have considerable potential for supporting communicative competence in EFL education. They can increase opportunities for language practice, provide immediate feedback, promote learner engagement, and support individualized learning. However, their effectiveness depends largely on pedagogical design and responsible implementation. The most appropriate approach is not to replace traditional instruction with AI but to integrate AI into a teacher-guided learning process. Future empirical research should compare students receiving conventional instruction with those participating in AI-assisted learning and examine changes in speaking, writing, vocabulary, grammar, fluency, and learner autonomy.

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KOMPYUTERLI MATEMATIK TIZIMLARDA NEYRON TARMOQLARINI NOLDAN LOYIHALASH VA O'RGATISH

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Annotatsiya. Ushbu tezisda KMT doirasida neyron tarmoqlarini noldan loyihalash va o'rgatishning nazariy hamda amaliy jihatlari yoritiladi. Neyron tarmog'ining tuzilishi, kirish va chiqish qatlamlari, yashirin qatlamlar, aktivatsiya funksiyalari hamda og'irlik koeffitsiyentlarining vazifalari ko'rib chiqiladi. Shuningdek, ma'lumotlarni tayyorlash, model parametrlarini boshlang'ich qiymatlarda berish, oldinga tarqatish, xatolikni hisoblash va teskari tarqatish orqali og'irliklarni yangilash jarayonlari tushuntiriladi. Tezisning asosiy maqsadi neyron tarmog'ini tayyor kutubxonalarga to'liq tayanmasdan, uning asosiy matematik mexanizmlarini anglagan holda qurish imkoniyatlarini ko'rsatishdan iborat.

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Kalit soʻzlar. KMT, neyron tarmogʻi, mashinaviy oʻrganish, sunʻiy neyron, aktivatsiya funksiyasi, ogʻirlik, gradient, backpropagation, oʻqitish maʼlumotlari, optimallashtirish.

Abstract. This paper explores the theoretical and practical aspects of designing and training neural networks from scratch within the context of machine learning. It examines the structure of a neural network, including input and output layers, hidden layers, activation functions, and the roles of weight coefficients. Additionally, the processes of data preparation, model parameter initialization, forward propagation, error calculation, and weight updating via backpropagation are explained. The primary objective of the paper is to demonstrate how to build a neural network by understanding its fundamental mathematical mechanisms, rather than relying entirely on pre-existing libraries.

Keywords: Machine learning, neural network, artificial neuron, activation function, weight, gradient, backpropagation, training data, optimization.

KIRISH

Bugungi kunda sunʻiy intellekt va mashinaviy oʻrganish texnologiyalari turli sohalarda keng qoʻllanilmoqda. Tasvirlarni tanib olish, matnlarni qayta ishlash, prognozlash, tavsiya tizimlari va murakkab maʼlumotlardan qonuniyatlarni aniqlash kabi vazifalarda neyron tarmoqlari muhim vositalardan biri hisoblanadi. Neyron tarmogʻini tayyor model sifatida ishlatish nisbatan oson boʻlsa-da, uni noldan loyihalash jarayoni model qanday ishlashini chuqurroq tushunishga yordam beradi.

KMTda neyron tarmogʻini loyihalash masalasi odatda muammoni matematik koʻrinishda ifodalashdan boshlanadi. Kiruvchi maʼlumotlar X , mos javoblar esa Y koʻrinishida beriladi. Tarmoq ushbu maʼlumotlar orasidagi bogʻlanishni oʻrganib, yangi kirishlar uchun kerakli natijani taxmin qilishga moslashtiriladi. Bunda model arxitekturasini, parametrlar soni va oʻqitish algoritmini toʻgʻri tanlash muhim ahamiyatga ega.

Sunʻiy neyron biologik neyronning soddalashtirilgan matematik modeli sifatida qaraladi. U bir nechta kirish qiymatlarini qabul qiladi va har bir kirishga mos ogʻirlikni qoʻllaydi. Neyronning umumiy signali

$$z = w_1x_1 + w_2x_2 + \dots + w_nx_n + b \text{ koʻrinishida hisoblanadi.}$$

Bu yerda x_i - kirish qiymati, w_i - ogʻirlik koeffitsiyenti, b - siljish parametri. Olingan qiymat aktivatsiya funksiyasidan oʻtkazilib, neyronning chiqishi hosil qilinadi.

Aktivatsiya funksiyasi modelga nolinearlik kiritadi. Amaliy masalalarda ReLU, sigmoid va tanh kabi funksiyalardan foydalanish mumkin. Masalan, ReLU funksiyasi $f(z) = \max(0, z)$ koʻrinishida boʻlib, hisoblash jihatidan sodda. Chiqish qatlamini esa vazifaga qarab tanlanadi: regressiyada uzluksiz qiymat, klassifikatsiyada esa sinflarga tegishli ehtimolliklar hosil qilinishi mumkin.

Neyron tarmogʻini yaratishning birinchi bosqichi masalani aniqlash va maʼlumotlar toʻplamini tayyorlashdir. Maʼlumotlar tozalanadi, yetishmayotgan qiymatlar koʻrib chiqiladi va zarur hollarda normalizatsiya qilinadi. Keyin maʼlumotlar oʻqitish va tekshirish qismlariga ajratiladi. Bu ajratish modelning yangi, oldin koʻrilmagan maʼlumotlarda qanday ishlashini baholashga imkon beradi.

Keyingi bosqichda tarmoq arxitekturasini belgilanadi. Masalan, oddiy koʻp qatlamli perseptron kirish qatlamini, bir yoki bir nechta yashirin qatlam va chiqish qatlamidan tashkil topishi mumkin. Har bir qatlamdagi neyronlar soni masalaning murakkabligiga mos tanlanadi. Juda sodda model yetarli qonuniyatni oʻrgana olmasligi, haddan tashqari murakkab model esa oʻqitish maʼlumotlarini yodlab qolishi mumkin.

Model parametrlari dastlab kichik tasodifiy qiymatlar bilan boshlanadi. Shundan soʻng oldinga tarqatish jarayonida kirish maʼlumotlari qatlamlardan ketma-ket oʻtkazilib, bashorat hosil qilinadi. Bashorat va haqiqiy javob orasidagi farq yoʻqotish funksiyasi yordamida oʻlchanadi. Masalan, regressiyada oʻrtacha kvadratik xatolikdan foydalanish mumkin.

O'rgatish jarayonining asosiy vazifasi og'irliklar va siljishlarni shunday o'zgartirishdan iboratki, modelning xatosi kamayib borsin. Buning uchun gradient tushishi usuli keng qo'llaniladi. Umumiy holda parametr yangilanishi

$\theta := \theta - \eta \nabla L(\theta)$ formula orqali ifodalanadi.

Bu yerda θ - model parametrlari, η - o'rganish tezligi, L - yo'qotish funksiyasi, ∇L esa uning gradientidir.

Gradientni hisoblashda teskari tarqatish (backpropagation) algoritmi muhim rol o'ynaydi. Algoritm chiqishdagi xatolikning har bir parametrga ta'sirini zanjir qoidasi yordamida aniqlaydi. Keyin gradientlar asosida parametrlar yangilanadi. Ushbu jarayon ko'p marta takrorlanib, model asta-sekin o'quv ma'lumotlaridagi qonuniyatlarni o'zlashtiradi.

O'qitish jarayonida epoch, batch va learning rate kabi tushunchalar muhimdir. Epoch - o'quv ma'lumotlarining model tomonidan bir marta to'liq ko'rib chiqilishidir. Batch esa ma'lumotlarning bitta yangilashda ishlatiladigan kichik qismidir. Learning rate juda katta tanlansa, model optimal yechim atrofida beqaror harakat qilishi, juda kichik bo'lsa, o'qitish sekinlashishi mumkin.

Model o'qitilgandan keyin uning sifatini faqat o'qitish ma'lumotlaridagi xato bilan baholash yetarli emas. Tekshirish yoki test ma'lumotlari modelning umumlashtirish qobiliyatini aniqlash uchun ishlatiladi. Klassifikatsiyada aniqlik, precision, recall yoki $F1$ ko'rsatkichi, regressiyada esa o'rtacha kvadratik xatolik kabi mezonlardan foydalanish mumkin.

Neyron tarmog'ini noldan yaratishda hisoblash samaradorligiga ham e'tibor berish zarur. Matritsalar bilan amallarni to'g'ri tashkil etish, ma'lumotlarni normalizatsiya qilish va mos o'qitish tezligini tanlash model ishini yaxshilaydi. Kichik tajribalarda barcha amallarni oddiy dasturiy vositalar yordamida tushunish mumkin; katta modellar uchun esa maxsus hisoblash kutubxonalari va grafik protsessorlardan foydalanish maqsadga muvofiq.

XULOSA

Xulosa qilib aytganda, KMTda neyron tarmoqlarini noldan loyihalash va o'rgatish jarayoni ma'lumotlarni tayyorlash, arxitekturani tanlash, matematik hisoblashlarni tashkil etish, yo'qotish funksiyasini aniqlash va gradient asosida parametrlarni yangilash bosqichlaridan iborat. Neyron tarmog'ining ichki mexanizmlarini amaliy ravishda qurish uning qanday ishlashini chuqur tushunishga yordam beradi. To'g'ri tanlangan arxitektura, sifatli ma'lumotlar va mos o'qitish algoritmi modelning samaradorligini oshiradi.

Kelgusida ushbu yondashuvni tasvirlarni klassifikatsiya qilish, vaqt qatorlarini prognozlash yoki tabiiy tilni qayta ishlash kabi murakkab masalalarga qo'llash mumkin. Shu bilan birga, modelni baholash, ortiqcha o'rganishning oldini olish va hisoblash resurslaridan samarali foydalanish neyron tarmoqlarini ishlab chiqishning muhim yo'nalishlari bo'lib qoladi.

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SUN'IY INTELLEKT ASOSIDA STEAM TA'LIMINI TASHKIL ETISH: IMKONIYATLAR, MUAMMOLAR VA ISTIQBOLLAR

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Annotatsiya. Ushbu maqola zamonaviy ta'lim tizimining dolzarb yo'nalishi – sun'iy intellekt (SI) texnologiyalarini STEAM (Fan, Texnologiya, Muhandislik, San'at va Matematika) ta'limiga integratsiyalash masalasiga bag'ishlangan. Tadqiqotda SI asosidagi adaptiv o'qitish tizimlari, aqlli repetitorlik dasturlari, virtual laboratoriyalar va generativ SI vositalarining STEAM ta'limi samaradorligini oshirishdagi roli tahlil qilinadi. Maqolada shaxsiylashtirilgan ta'lim, o'quvchilarning motivatsiyasini oshirish va fanlararo integratsiyani ta'minlashda SI texnologiyalarining imkoniyatlari yoritilgan. Shuningdek, SI ni ta'limga joriy etishdagi texnik, pedagogik va etik muammolar, jumladan o'qituvchilarning SI savodxonligini oshirish zarurati, infratuzilma muammolari va algoritmik tarqashlik masalalari tahlil qilinadi. Maqola O'zbekiston ta'lim tizimida SI va STEAM integratsiyasini amalga oshirish bo'yicha amaliy tavsiyalar bilan yakunlanadi.

Kalit so'zlar: sun'iy intellekt, STEAM ta'limi, adaptiv o'qitish, raqamli pedagogika, fanlararo integratsiya, ta'limda innovatsiyalar, generativ SI.

Аннотация. Данная статья посвящена актуальному направлению современной системы образования – интеграции технологий искусственного интеллекта (ИИ) в STEAM-образование (Наука, Технологии, Инженерия, Искусство и Математика). В исследовании анализируется роль адаптивных систем обучения на основе ИИ, интеллектуальных репетиторских программ, виртуальных лабораторий и инструментов генеративного ИИ в повышении эффективности STEAM-образования. В статье освещены возможности технологий ИИ в обеспечении персонализированного обучения, повышении мотивации учащихся и реализации междисциплинарной интеграции. Также анализируются технические, педагогические и этические проблемы внедрения ИИ в образование, включая необходимость повышения ИИ-грамотности учителей, проблемы инфраструктуры и вопросы алгоритмической предвзятости. Статья завершается практическими рекомендациями по внедрению интеграции ИИ и STEAM в образовательную систему Узбекистана.

Ключевые слова: искусственный интеллект, STEAM-образование, адаптивное обучение, цифровая педагогика, междисциплинарная интеграция, инновации в образовании, генеративный ИИ.

Abstract. This article addresses a current trend in modern education – the integration of artificial intelligence (AI) technologies into STEAM (Science, Technology, Engineering, Arts, and Mathematics) education. The study analyzes the role of AI-based adaptive learning systems, intelligent tutoring programs, virtual laboratories, and generative AI tools in enhancing the effectiveness of STEAM education. The paper highlights the potential of AI technologies in providing personalized learning, increasing student motivation, and enabling interdisciplinary integration. Furthermore, technical, pedagogical, and ethical challenges of implementing AI in education are examined, including the need to enhance teachers' AI literacy, infrastructure issues, and algorithmic bias concerns. The article concludes with practical recommendations for implementing AI and STEAM integration in Uzbekistan's educational system.

Keywords: artificial intelligence, STEAM education, adaptive learning, digital pedagogy, interdisciplinary integration, innovations in education, generative AI.

KIRISH

Bugungi globallashuv davrida ta'lim tizimi jamiyat taraqqiyotining asosiy harakatlantiruvchi kuchi hisoblanadi. Ayniqsa, fan, texnologiya, muhandislik, san'at va matematika (STEAM) yo'nalishlarida o'quvchilarning bilim va ko'nikmalarini oshirish kelajak avlodning raqobatbardoshligini ta'minlashda muhim ahamiyat kasb etadi³. STEAM ta'limi an'anaviy fanlarni yagona, integratsiyalashgan yondashuv orqali o'rgatishga qaratilgan bo'lib, o'quvchilarda tanqidiy fikrlash, muammolarni hal qilish, ijodkorlik va hamkorlik kabi XXI asr ko'nikmalarini rivojlantirishni maqsad qilgan⁴.

Shu bilan birga, sun'iy intellekt (SI) texnologiyalarining jadal rivojlanishi ta'lim sohasida ham tub o'zgarishlarga olib kelmoqda. SI vositalari o'quv jarayonini shaxsiylashtirish, o'qituvchilarning ishini engillashtirish va o'quvchilarning bilim olish imkoniyatlarini kengaytirishda muhim rol o'ynashi mumkin. Generativ SI vositalari, jumladan ChatGPT kabi modellar o'qituvchilarga dars rejalarini tayyorlash, o'quv materiallarini yaratish va o'quvchilarga individual yondashuvni amalga oshirishda yordam beradi⁵.

O'zbekiston Respublikasida ham ta'lim sohasida keng ko'lamli islohotlar amalga oshirilmoqda. Prezidentimiz Shavkat Mirziyoyevning ta'lim sohasidagi islohotlarga qaratilgan farmon va qarorlari doirasida STEAM yo'nalishini rivojlantirish ustuvor vazifalardan biri etib belgilangan⁶. Shu nuqtai nazardan, sun'iy intellekt asosida STEAM ta'limini tashkil etish masalasi ilmiy-amaliy jihatdan dolzarb hisoblanadi.

STEAM ta'limining mohiyati va ahamiyati. STEAM yondashuvi "S" – tabiiy fanlar orqali o'quvchi atrof-muhit, hodisalar va tabiat qonuniyatlarini kuzatadi; "T" – texnologiya orqali raqamli qurilmalar va amaliy ishlash usullarini o'rganadi; "E" – muhandislik orqali loyihalash va sinash faoliyatini bajaradi; "A" – san'at orqali estetik did va ijodkorlikni rivojlantiradi; "M" – matematika orqali o'lchash, hisoblash va natijani asoslashni o'rganadi. Shu jihatdan STEAM o'quvchini faqat bilim oluvchi emas, balki tadqiqotchi va yaratuvchi sifatida rivojlantiradi⁷.

Sun'iy intellektning STEAM ta'limidagi roli. Sun'iy intellekt texnologiyalari STEAM yondashuvini yanada samarali tashkil etishga xizmat qiladi:

Adaptiv o'qitish tizimlari: Tadqiqotlar shuni ko'rsatadiki, SI asosidagi adaptiv o'qitish tizimlari o'quv jarayonini shaxsiylashtirish, o'quvchilarning o'zlashtirish darajasini va motivatsiyasini oshirishda yuqori samaradorlikka ega. Bunday tizimlar har bir o'quvchining bilim darajasi, o'rganish tezligi va qiziqishlaridan kelib chiqib, unga mos o'quv materiallari va topshiriqlarni taklif qilishi mumkin.

Aqli repetitorlik dasturlari: Generativ SI vositalari o'qituvchilarga yuqori sifatli dars rejalarini tayyorlashda yordam berishi mumkin. Tadqiqotlar shuni ko'rsatadiki, ChatGPT yordamida tayyorlangan dars rejalarini an'anaviy usulda tayyorlangan rejalariga nisbatan yuqori baholangan⁸.

Virtual laboratoriyalar va simulyatsiyalar: SI integratsiyalashgan simulyatsiya muhitlari o'quvchilarga real jihozlar va xavfsizlik xavfisiz murakkab tajribalarni o'tkazish imkonini beradi. Masalan, Sloveniyada 12–14 yoshli o'quvchilar uchun ishlab chiqilgan "Avtomatlashtirish va SI"

³ IEYEE Xplore. (2026). "Teaching Smart Devices in Primary School through Simulation and Large Language Models."

⁴ Università degli Studi di Milano-Bicocca. (2025). "Humanity-Centered AI and the Future of STE(A)M Education."

⁵ ScienceOpen. (2025). "Human–Human–AI Co-design for Person-Centred STEAM Futures."

⁶ IEYEE Xplore. (2026). "Teaching Smart Devices in Primary School through Simulation and Large Language Models."

⁷ Università degli Studi di Milano-Bicocca. (2025). "Humanity-Centered AI and the Future of STE(A)M Education."

⁸ IEYEE Xplore. (2026). "The Impact of Generative Artificial Intelligence on Task Performance and Collaborative Problem-Solving process of Pre-Service Teachers in Design-Based Learning."

moduli doirasida katta til modellari (LLMs) SimulIDE simulyatsiya muhiti bilan integratsiyalashgan holda qo'llanilmoqda. Bu yondashuv o'quvchilarning kognitiv yukini kamaytirib, ularni yuqori darajadagi tahlil va baholash ko'nikmalarini rivojlantirishga yo'naltiradi⁹.

Ijodiy va dizayn yo'nalishidagi qo'llash: "Human-Human-AI Co-design" (Inson-Inson-SI hamkorlikdagi dizayn) modeli turli xil kelib chiqishga ega o'quvchilarni generativ SI vositalari (ChatGPT, DALL·E) bilan hamkorlikda STEAM o'quv ssenariylarini yaratishga jalb qilish orqali inson ijodkorligini qo'llab-quvvatlash, uni o'rnini bosmaslik tamoyilini ilgari suradi. Bu yondashuv transdisiplinar va teng huquqli ta'lim kelajagini qurish uchun muhim ahamiyatga ega¹⁰.

SI VA STEAM INTEGRATSIYASINI JORIY ETISHDAGI MUAMMOLAR

O'qituvchilarning tayyorgarligi: O'qituvchilar ko'pincha SI texnologiyalari bo'yicha yetarli bilimga ega emaslar. O'qituvchilarning SI savodxonligini oshirish bo'yicha tizimli dasturlar zarur.

Infratuzilma muammolari: Shahar va qishloq maktablari o'rtasida texnik jihozlanish va internet tezligi bo'yicha tafovut mavjud.

Etik masalalar: SI vositalarini qo'llashda shaxsiy ma'lumotlarni himoya qilish, algoritmik tarafdashlik va adolatlilik kabi etik masalalarni hisobga olish muhim.

Metodik qo'llanmalarining yetishmasligi: STEAM ta'limi va SI integratsiyasi bo'yicha standartlashtirilgan metodik qo'llanmalar va namunaviy dars ishlanmalari hali yetarlicha ishlab chiqilmagan¹¹.

XULOSA

Sun'iy intellekt STEAM ta'limini shaxsiylashtirish, interaktivlashtirish va samaradorligini oshirish uchun kuchli vosita bo'lib xizmat qiladi. Tadqiqotlar SI asosidagi STEAM ta'limi muhandislik kreativligini oshirishda an'anaviy usullarga nisbatan yuqori samaradorlikka ega ekanligini ko'rsatmoqda. SI vositalari o'quvchilarning "sintaksis to'sig'i"ni yengib o'tib, ularni yuqori darajadagi tahliliy fikrlashga yo'naltirish imkonini beradi¹².

O'zbekiston ta'lim tizimida SI va STEAM integratsiyasini samarali amalga oshirish uchun quyidagi tavsiyalar ishlab chiqilgan:

O'qituvchilarning malakasini oshirish: O'qituvchilarning SI savodxonligi va STEAM metodikasi bo'yicha tizimli malaka oshirish dasturlarini joriy etish.

Infratuzilmani rivojlantirish: Maktablarni zamonaviy jihozlar, internet va SI platformalari bilan ta'minlash, ayniqsa qishloq hududlariga alohida e'tibor qaratish.

Qulay raqamli kontent yaratish: Mahalliy til va madaniyatga moslashtirilgan SI ilovalari va STEAM o'quv materiallarini ishlab chiqish.

Xalqaro hamkorlikni kuchaytirish: Ilg'or xorijiy tajribalarni o'rganish va qo'shma tadqiqot loyihalarini amalga oshirish.

Etik meyorlarni ishlab chiqish: SI vositalarini ta'limda qo'llash bo'yicha etik qoidalar va meyorlarni belgilash.

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¹¹ IEYEE Xplore. (2026). "Teaching Smart Devices in Primary School through Simulation and Large Language Models."

¹² "Zamonaviy ta'limda sun'iy intellektni qo'llashning istiqbollari va muammolari" xalqaro ilmiy-amaliy anjuman materiallari. (2026).

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THE IMPACT OF ARTIFICIAL INTELLIGENCE USE ON UNIVERSITY STUDENTS' CRITICAL THINKING AND INDEPENDENT DECISION-MAKING

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Abstract. *The rapid integration of generative artificial intelligence into higher education has changed how students search for information, generate ideas, solve academic problems and make learning-related decisions. This article examines the possible influence of AI use on university students' critical thinking and independent decision-making. Rather than treating artificial intelligence as inherently beneficial or harmful, the paper argues that its cognitive effects depend on the purpose of use, the degree of student verification, instructional design and AI literacy. Recent systematic reviews indicate that generative AI can support higher-order thinking when it is embedded in inquiry, comparison, argumentation and reflective evaluation, while unstructured reliance may encourage cognitive offloading and reduce independent epistemic engagement. A conceptual empirical model is proposed in which intensity and mode of AI use are related to critical evaluation, reflective judgment and autonomous decision-making. The article concludes with pedagogical recommendations for using AI as a cognitive partner rather than a substitute for student reasoning.*

Keywords: artificial intelligence, generative AI, university students, critical thinking, independent decision-making, cognitive offloading, AI literacy, higher education.

Аннотация. *Быстрое внедрение генеративного искусственного интеллекта в высшее образование изменило способы поиска информации, выработки идей, решения учебных задач и принятия решений студентами. В статье рассматривается возможное влияние использования искусственного интеллекта на критическое мышление и самостоятельность принятия решений студентами. Подчеркивается, что когнитивный эффект ИИ зависит не столько от самого инструмента, сколько от цели его применения, проверки полученной информации, педагогического дизайна и уровня ИИ-грамотности. Предлагается концептуальная модель эмпирического исследования, связывающая характер использования ИИ с критической оценкой информации, рефлексивным суждением и автономностью решений.*

Ключевые слова: искусственный интеллект, генеративный ИИ, студенты, критическое мышление, самостоятельное принятие решений, когнитивная разгрузка, ИИ-грамотность, высшее образование.

Annotatsiya. *Generativ sun'iy intellektning oliy ta'limga tez kirib kelishi talabalarining axborot izlash, g'oya yaratish, o'quv muammolarini hal etish va qaror qabul qilish usullarini o'zgartirmoqda. Maqolada sun'iy intellektidan foydalanishning talabalarining tanqidiy fikrlashi va mustaqil qaror qabul qilishiga ehtimoliy ta'siri tahlil qilinadi. Sun'iy intellektning kognitiv ta'siri vositaning o'zidan ko'ra undan qanday maqsadda foydalanish, natijalarni tekshirish odati,*

pedagogik topshiriq tuzilishi va sun'iy intellekt savodxonligiga bog'liq ekanligi asoslanadi. Talabaning sun'iy intellektdan foydalanish xususiyatlarini axborotni tanqidiy baholash, reflektiv mulohaza va qaror mustaqilligi bilan bog'lovchi empirik model taklif etiladi.

Kalit so'zlar: *sun'iy intellekt, generativ sun'iy intellekt, talabalar, tanqidiy fikrlash, mustaqil qaror qabul qilish, kognitiv yukni tashqi vositaga o'tkazish, sun'iy intellekt savodxonligi, oliy ta'lim.*

INTRODUCTION

Generative artificial intelligence has moved rapidly from a specialized technology to an everyday academic tool. University students can now ask an AI system to explain a theory, compare viewpoints, generate examples, summarize a text, propose solutions or critique an argument within seconds. These functions can reduce routine cognitive load and provide immediate feedback. At the same time, they raise a fundamental educational question: when does AI extend a student's thinking, and when does it begin to replace it?

This question is particularly important for critical thinking and independent decision-making. Critical thinking requires students to examine evidence, recognize assumptions, compare alternatives, evaluate credibility and justify conclusions. Independent decision-making adds another dimension: the learner must take responsibility for choosing among alternatives rather than simply accepting a recommendation produced by an external source. Generative AI can support both processes by presenting counterarguments and alternative explanations, but it can also make premature conclusions unusually easy to obtain[5].

Recent evidence suggests that the relationship is conditional rather than uniformly positive or negative. A 2025 meta-analysis of 57 studies found positive effects of generative AI on several university learning outcomes, including higher-order thinking, but no statistically significant overall effect on metacognition. A 2026 systematic review of 67 empirical studies similarly concluded that ChatGPT supported critical and creative thinking most consistently when it was embedded in inquiry-oriented and scaffolded learning; unstructured use was more likely to produce cognitive offloading. These findings shift the research question from whether AI should be used to how it should be used.

THEORETICAL FRAMEWORK

Critical thinking can be understood as purposeful and self-regulated judgment involving interpretation, analysis, evaluation, inference and explanation. In an AI-mediated learning environment, these skills become visible when a student does not merely receive an answer but asks how the answer was produced, whether the evidence is sufficient, what assumptions are hidden, and whether an alternative interpretation is more plausible[1].

Independent decision-making refers to the capacity to define a problem, identify alternatives, assess consequences and select a course of action while retaining personal responsibility for the judgment. AI can expand the number of alternatives available to a learner. However, if the student delegates problem framing, evidence selection and final judgment to the system, the apparent efficiency of the decision may conceal reduced cognitive autonomy[2].

The concept of cognitive offloading is useful for explaining this tension. People routinely transfer mental work to external tools, such as calculators, notes and search engines. Such offloading is not inherently harmful. The educational risk emerges when the outsourced process is itself the learning objective. If the goal is to practice argument evaluation, asking AI to provide a finished evaluation may remove the very cognitive activity the student is expected to develop[3].

CURRENT EVIDENCE: BENEFITS AND RISKS

Research published since the widespread adoption of generative AI shows a mixed but increasingly coherent pattern. A 2025 systematic and bibliometric review identified uncritical dependence, uneven AI literacy and limited system transparency as major challenges, while also emphasizing that appropriately designed AI-supported learning can strengthen evaluative and self-regulated thinking. A 2026 review focusing specifically on critical-thinking skills reported that

classroom uses of ChatGPT can support analysis, interpretation and evaluation when embedded in structured instructional workflows.

The potential benefits are strongest when students use AI dialogically. For example, a learner may generate two competing explanations, identify weaknesses in each, verify claims using independent sources, revise the prompt, and then write a personally justified conclusion. In this sequence, AI increases the amount of material available for evaluation without determining the final judgment.

The risks become greater when AI is used as an answer-replacement system. Students may accept fluent text as accurate, stop searching for primary evidence, or choose an AI recommendation without considering alternatives. Systematic reviews of ChatGPT in higher education have therefore highlighted over-reliance, academic integrity and reduced independent learning as concerns alongside improved accessibility, feedback and engagement.

The emerging literature suggests that pedagogical framing is a major moderator. The same tool may stimulate reasoning in a debate task and suppress reasoning in an answer-copying task. Consequently, frequency of AI use alone is an insufficient predictor of cognitive outcomes; researchers should distinguish between reflective and substitutive patterns of use.

PROPOSED EMPIRICAL RESEARCH MODEL

An empirical study on this topic can be organized among undergraduate and graduate students using a correlational or mixed-method design. The central independent variable should not be limited to how often students use AI. It is preferable to measure at least three dimensions: frequency of use, purpose of use and verification behavior. Critical thinking and independent decision-making can then be examined as separate but related outcome variables.

The principal hypothesis is that reflective AI use - characterized by comparison, verification, questioning and revision - will be positively associated with critical thinking and decision autonomy. A second hypothesis is that substitutive use - asking AI to produce final answers or make choices without verification - will be negatively associated with these outcomes. A third hypothesis is that AI literacy will moderate these relationships[6].

Table 1. Proposed variables for an empirical study

Variable	Operational meaning	Expected role
Reflective AI use	Comparing outputs, checking evidence, requesting counterarguments, revising conclusions	Potential positive predictor
Substitutive AI use	Using AI to produce final answers or decisions with little personal evaluation	Potential negative predictor
AI literacy	Understanding limitations, bias, uncertainty, verification and ethical use	Moderator/protective factor
Critical thinking	Analysis, inference, evidence evaluation and reasoned judgment	Outcome variable
Independent decision-making	Generating alternatives, evaluating consequences and owning the final choice	Outcome variable
Academic context	Discipline, year of study, task type and assessment conditions	Control/context variable

METHOD AND STATISTICAL ANALYSIS

Participants may be recruited from several academic disciplines to avoid interpreting the habits of one field as a general student pattern. A sample of approximately 200 or more students

would allow basic correlational and multiple-regression analyses, although the final sample should be determined through an a priori power analysis. Participation should be voluntary and anonymous, with institutional ethical requirements observed[7].

The questionnaire can combine an AI-use scale developed for the study with validated measures of critical thinking disposition or skills and decision-making autonomy. The AI-use items should distinguish behaviors such as brainstorming, explanation seeking, fact checking, answer generation and final-decision delegation. A pilot study should be conducted to test wording, reliability and factor structure before the main data collection.

Descriptive statistics and reliability coefficients should be calculated first. Pearson or Spearman correlations can then examine associations among reflective AI use, substitutive AI use, AI literacy, critical thinking and independent decision-making. Multiple regression can test whether AI-use patterns predict cognitive outcomes after controlling for discipline and year of study. Moderation analysis can examine whether AI literacy changes the strength of the relationship between AI use and independent reasoning.

$$CT = \beta_0 + \beta_1(RAI) - \beta_2(SAI) + \beta_3(AIL) + \beta_4(RAI \times AIL) + \varepsilon$$

In the model, CT denotes critical thinking, RAI reflective AI use, SAI substitutive AI use, and AIL AI literacy. A parallel model can be estimated for independent decision-making. The signs in the conceptual equation represent hypothesized directions and must not be reported as empirical findings until real data have been collected.

FROM AI DEPENDENCE TO AI-SUPPORTED JUDGMENT

The educational objective should not be to maximize or minimize AI use. It should be to increase the quality of the student's cognitive participation. A useful distinction is whether the student remains the evaluator and decision-maker after interacting with the system. If AI supplies information but the learner verifies, compares and justifies, the technology functions as a scaffold. If AI supplies both the reasoning and the final choice, the learner's role becomes largely procedural.

This distinction is especially relevant for independent decision-making. Generative AI often produces confident recommendations even when a problem contains uncertainty or value judgments. Students therefore need to learn that a plausible recommendation is not equivalent to a justified decision. The final choice should be based on criteria that the student can explain and defend.

Table 2. AI-use patterns and their likely cognitive implications

AI-use pattern	Student cognitive action	Likely educational implication
Ask for a finished answer and submit it	Minimal evaluation	Risk of cognitive substitution
Ask AI to explain a difficult concept, then restate it independently	Interpretation and reconstruction	Potential conceptual support
Generate opposing arguments and evaluate evidence	Comparison and judgment	Supports critical analysis
Accept AI citations without checking them	Delegated credibility judgment	Risk of misinformation and weak source evaluation
Compare AI output with academic sources	Verification and synthesis	Strengthens evidence evaluation
Request recommendations but apply personal criteria to the final choice	Alternative generation plus autonomous judgment	Supports decision autonomy

PEDAGOGICAL RECOMMENDATIONS

First, university assignments should require visible reasoning rather than only a final product. Students can be asked to document which AI suggestions they rejected, what evidence they

verified and why they selected their final position. This makes independent judgment part of the assessed task.

Second, instructors can use adversarial prompting exercises. Students may ask AI to defend a position and then identify logical weaknesses, unsupported assumptions and missing evidence. A second AI response can be used as a counterargument, but students should produce the final evaluation themselves.

Third, AI literacy should include epistemic skills, not only technical prompt writing. Students need practice recognizing hallucinated information, uncertainty, bias, persuasive fluency and the difference between a generated answer and a verified claim.

Fourth, assessment design should preserve periods of unaided thinking. Initial problem framing, personal hypotheses or preliminary decisions can be completed before AI access, followed by an AI-assisted comparison stage and a final reflective revision. Such sequencing allows educators to use AI without losing visibility into the student's own reasoning.

CONCLUSION

Artificial intelligence is neither an automatic threat to critical thinking nor a guaranteed instrument for improving it. Its influence depends on the cognitive role assigned to the technology. When generative AI is used to produce alternatives, challenge assumptions and support verification, it can expand the material on which students think. When it is used to replace evaluation and final judgment, it may encourage cognitive offloading and weaken opportunities to practice independent reasoning.

For higher education, the key issue is therefore the design of AI-mediated learning. Students should remain responsible for evidence evaluation, argument quality and final decisions. Future empirical research should distinguish reflective AI use from substitutive use and examine the moderating role of AI literacy. Such an approach can provide a more precise understanding of when AI supports intellectual autonomy and when it begins to erode it.

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RAQAMLI TEXNOLOGIYALAR ASOSIDA MASOFAVIY TA'LIMNI RIVOJLANTIRISH ISTIQBOLLARI

ПЕРСПЕКТИВЫ РАЗВИТИЯ ДИСТАНЦИОННОГО ОБУЧЕНИЯ НА ОСНОВЕ ЦИФРОВЫХ ТЕХНОЛОГИЙ

PROSPECTS FOR THE DEVELOPMENT OF DISTANCE EDUCATION BASED ON DIGITAL TECHNOLOGIES

Annotatsiya. Maqolada masofaviy ta'limning normativ huquqiy asoslari, uning raqamli texnologiyalarini rivojlanishdagi o'rni, O'zbekiston ta'lim tizimidagi ahamiyati hamda axborot texnologiyalari sohasidagi ta'siri ilmiy jihatdan tahlil qilinadi. Shuningdek, zamonaviy platformalar, Learning Management System(LMS) tizimlari hamda mobil ta'lim vositalarining masofaviy ta'limdagi roli o'rganilgan. O'zbekistonda masofaviy ta'limning joriy etilishi, mavjud muammolar va istiqboldagi rivojlanish yo'nalishlari tahliliy yondashuv asosida bayon qilingan.

Аннотация. В статье научно анализируются нормативно-правовые основы дистанционного обучения, его роль в развитии цифровых технологий, значение в системе образования Узбекистана, а также влияние на сферу информационных технологий. Кроме того, изучена роль современных платформ, Learning Management System (LMS) и мобильных образовательных средств в дистанционном обучении. На основе аналитического подхода изложены вопросы внедрения дистанционного обучения в Узбекистане, существующие проблемы и перспективные направления развития.

Abstract. The article scientifically analyzes the legal and regulatory framework of distance learning, its role in the development of digital technologies, its importance in the educational system of Uzbekistan, and its impact on the field of information technology. In addition, the role of modern platforms, Learning Management Systems (LMS), and mobile learning tools in distance education is examined. The implementation of distance learning in Uzbekistan, existing challenges, and future development prospects are presented based on an analytical approach.

Kalit so'zlar: masofaviy talim, raqamli texnologiyalar, LMS, Moodle, Zoom, bulutli texnologiyalar, IT-ta'lim, raqamlashtirish.

Ключевые слова: дистанционное обучение, цифровые технологии, LMS, Moodle, Zoom, облачные технологии, IT-образование, цифровизация.

Keywords: distance learning, digital technologies, LMS, Moodle, Zoom, cloud technologies, IT education, digitalization.

KIRISH

Bizga ma'lumki, oxirgi yillarda jahonda ro'y berayotgan so'nggi o'zgarishlar ta'limni yuqori bosqichga olib chiqish masalasini ko'ndalang qo'ymoqda. O'zbekiston oliy ta'lim muassasalarida masofaviy ta'lim shaklini joriy etish axborot-kommunikatsiya texnologiyalari imkoniyatlaridan sohada samarali foydalanishni taqozo etmoqda.

2022 yil 3 oktabrda O'zbekiston Respublikasi Vazirlar mahkamasining "Oliy ta'lim tashkilotlarida masofaviy ta'lim shaklini joriy etish chora - tadbirlari to'g'risida"gi 559-sonli qarori masofaviy o'qitish tizimining normativ huquqiy hujjati sifatida tan olinmoqda. Ushbu qaroming ilova qismida "Oliy ta'lim tashkilotlarida masofaviy ta'limni tashkil etish tartibi to'g'risida nizom" keltirilgan. Nizom 7 bob, 33 banddan tashkil topgan bo'lib, O'zbekiston oliy ta'lim tashkilotlarida masofaviy ta'lim tizimini huquqiy asosini qamrab oladi.

Masofaviy ta'lim to'g'risidagi nizomda quyidagi asosiy tushunchalar keltirilgan [2]
Masofaviy ta'lim — talaba va ta'lim beruvchining axborot-kommunikatsiya texnologiyalaridan foydalanishiga, interaktiv audio va videokonferensiyalar orqali ma'lum vaqt orasida o'zaro muloqotda bolishiga, elektron pochta orqali to'g'ri va teskari aloqa o'rnatishiga, jumladan xabarlarni yuborishi va qabul qilishiga mo'ljallangan, bilim va ko'nikmalarni, o'quv dasturlarini masofadan turib o'zlashtirishga yo'naltirilgan ta'lim shakli;

Masofaviy ta'limni boshqarish tizimi — ta'lim jarayonini rejalashtirish, boshqarish, amalga oshirish va baholashda qo'llaniladigan dasturiy mahsulot (elektron ta'lim platformasi);

Masofaviy ta'lim jarayonining ishtirokchilari — ta'lim tashkilotining masofaviy ta'lim shakliga qabul qilingan talabalar, professor-o'qituvchilar hamda masofaviy ta'limning

tashkiliy-texnik va metodik ta'minotini amalga oshirishga mas'ul shaxslar;

Masofaviy ta'lim texnologiyasi — talabalarga o'quv materiallarining asosiy hajmini yetkazishni, talaba va professor-o'qituvchining o'zaro interfaol harakatini ta'minlab beruvchi, o'quv materialini o'zlashtirish bo'yicha mustaqil ishlashi uchun talabaga imkoniyat taqdim etuvchi axborot - kommunikatsiya va o'qitish texnologiyalari;

Sinxron rejim — o'quv jarayoni ishtirokchilarining Internet jahon axborot tarmog'ida real vaqtdagi o'zaro aloqa rejimi;

O'quv kontenti — o'quv jarayonida talabalarning foydalanishi uchun mo'ljallangan, masofaviy ta'limni boshqarish axborot tizimiga joylashtirilgan o'quv metodik materiallar (o'quv rejalari, o'quv dasturlari, ma'ruza matnlari, videodarslar, taqdimotlar, topshiriqlar, imtihon materiallari, o'quv adabiyotlari).

2019 yil fevral oyida Qarshi davlat universiteti mutaxassislari tomonidan jahon bankining AIF fondi asosida "O'zbekiston oliy ta'lim muassasalarida ta'lim jarayonini tashkil etishda yangi texnologiyalar" loyihasi o'z faoliyatini boshladi. Loyihaning asosiy maqsadi - talabalarni modul-kredit tizimi asosida o'qitish uchun eng muhim qismi talabalarning mustaqil ta'limiga e'tiborning qaratilganligi bo'ldi. Loyihaning bir qismi sifatida talabalarning mustaqil ta'lim olishi samaradorligini oshirishga qaratildi va mustaqil ta'limni to'liq bajarish mexanizmi shakllantirildi[3,4].

Loyihani bajarish jarayonida amaliy matematika, kimyo, filologiya va tillarni o'qitish: ingliz tili ta'lim yo'nalishlarining 1-kurslari tanlab olindi. Ushbu yo'nalishlarning barcha fanlari LMS platformasi orqali ro'yxatdan o'tkazildi va talabalarga platformada elektron resurslar bilan ta'minlandi. Loyihaning asosiy maqsadi talabalar bilimining baholashning shaffoflikka asoslangan texnologiyasini qo'llash, mustaqil ta'limga asoslangan masofaviy ta'lim uchun dastlabki shart-sharoitlar yaratishdan iborat[3,4]:

Loyihada ekspert OTMLar sifatida Buxoro davlat universiteti hamda Belgorod milliy tadqiqotlar universitetlari(Rossiya Federatsiyasi) professor-o'qituvchilari ishtirok etdilar. Loyiha ijrochilari tomonidan Rossiya Federatsiyasining Belgorod milliy tadqiqotlar universitetining "Pegas" masofaviy ta'lim tizimi chuqur o'rganilib, tahlil qilindi. <https://pegas.bsu.edu.ru> LMS kontentdagi ma'lumotlar, shuningdek ma'ruzalar, amaliy va laboratoriya mashg'ulotlari, videomateriallar, glossariylar, testlar va ularning har xil shakllari va adabiyotlar o'rganildi. Yuqoridagilarga asos qilib universitetning masofaviy ta'lim platformasi yaratildi. Platforma hozirgi paytda <https://moodle.qarshidu.uz> manzilida, sirtqi ta'lim shaklida esa <https://sirtqi.qarshidu.uz> manzilida faoliyat yuritmoqda. Platformada ma'ruza, topshiriq, test, seminar, glossariy, forum, chat, ma'lumotlar bazasi, kitob, gipermurojaat, papka, fayl, sahifa kabi elementlar shakllantirib borildi[4],

Dunyoda COVID-19 pandemiyasi masofaviy ta'limni rivojlanish uchun to'liq asos bo'ldi, deyishimiz mumkin. Loyiha doirasida 3 ta yo'nalishga 30 ga yaqin kurslar tashkil etilgan bo'lsa, o'rganilgan tajribalar asosida pandemiya paytida 1830 ta kurslar yaratildi. Quyidagi 1-jadvalda kurslarning fakultetlar kesimida taqdim etiladi [3]:

Fi«A»-aaiianaiik>	2*9	1»	М
Tahir» tanta	2*2	1Я	44
IJOUM» tafdu	m	224	<4
Xorijn taUu		3ГУ	•
FUafatb*	1*5	1»	3*
Vai анЬик-tlk	2W	143	М
РЫацирк»	243	LM	1*5
Лыпосм» matlanpal		В	24

bvtuta	*	«	*
Мжива аж1ф	М2	0	442
JAM	1«М	14П	442

Xulosa qiladigan bo‘lsak, maqolada O‘zbekiston Respublikasi oliy ta’lim tizimida masofaviy ta’limning normativ huquqiy asoslari yaratilganligi va uning afzalliklari keltirib o‘tilgan. Shuningdek, Qarshi davlat universitetida masofaviy ta’limni rivojlantirish uchun dastlabki shart- sharoitlar yaratilganligi hamda shaffoflikka asoslangan texnologiyani joriy qilinganligi ta’kidlab o‘tilgan.

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TA’LIM JARAYONIDA SMART TEXNOLOGIYALARIDAN FOYDALANISH ASOSLARI

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Annotatsiya. Mazkur maqolada zamonaviy ta’lim jarayonida SMART texnologiyalaridan foydalanishning pedagogik va metodik asoslari yoritilgan. SMART texnologiyalarining ta’lim sifatini oshirish, o‘quvchilarning mustaqil va interaktiv faoliyatini tashkil etish, individual ta’lim trayektoriyalarini shakllantirish hamda o‘qituvchi va ta’lim oluvchi o‘rtasidagi hamkorlikni kuchaytirishdagi imkoniyatlari tahlil qilingan. Shuningdek, SMART texnologiyalarining tarkibiy qismlari, ularni ta’lim jarayoniga joriy etish bosqichlari, afzalliklari va mavjud muammolari ko‘rib chiqilgan. Maqolada SMART doska, interaktiv ta’lim platformalari, mobil qurilmalar, bulutli texnologiyalar, multimedia vositalari, virtual va masofaviy ta’lim texnologiyalaridan foydalanishning metodik imkoniyatlariga alohida e’tibor qaratilgan.

Kalit so‘zlar: SMART texnologiyalar, raqamli ta’lim, axborot-kommunikatsiya texnologiyalari, interaktiv ta’lim, elektron ta’lim, raqamli kompetensiya, SMART doska, mobil ta’lim, bulutli texnologiyalar, ta’lim sifati.

Аннотация. В статье рассматриваются педагогические и методические основы использования SMART-технологий в современном образовательном процессе. Проанализированы возможности SMART-технологий в повышении качества образования, организации самостоятельной и интерактивной деятельности обучающихся, формировании индивидуальных образовательных траекторий, а также в укреплении сотрудничества между преподавателем и обучающимся. Кроме того, рассматриваются структурные

компоненты SMART-технологий, этапы их внедрения в образовательный процесс, преимущества и существующие проблемы их использования. Особое внимание уделено методическим возможностям применения SMART-досок, интерактивных образовательных платформ, мобильных устройств, облачных технологий, мультимедийных средств, технологий виртуального и дистанционного обучения.

Ключевые слова: SMART-технологии, цифровое образование, информационно-коммуникационные технологии, интерактивное обучение, электронное обучение, цифровая компетентность, SMART-доска, мобильное обучение, облачные технологии, качество образования.

Abstract. This article examines the pedagogical and methodological foundations of using SMART technologies in the modern educational process. It analyzes the potential of SMART technologies to improve the quality of education, organize students' independent and interactive activities, develop individual learning trajectories, and strengthen collaboration between teachers and learners. The article also considers the structural components of SMART technologies, the stages of their implementation in the educational process, their advantages, and existing challenges. Particular attention is paid to the methodological potential of using SMART boards, interactive learning platforms, mobile devices, cloud technologies, multimedia tools, and virtual and distance learning technologies in education.

Keywords: SMART technologies, digital education, information and communication technologies, interactive learning, e-learning, digital competence, SMART board, mobile learning, cloud technologies, quality of education.

KIRISH

Bugungi kunda jamiyatning barcha sohalarida raqamli texnologiyalarning jadal rivojlanishi ta'lim tizimiga ham katta ta'sir ko'rsatmoqda. Ta'lim jarayonini zamonaviy axborot-kommunikatsiya texnologiyalari asosida tashkil etish nafaqat o'quv materiallarini yetkazib berish shakllarini, balki o'qituvchi va ta'lim oluvchining o'zaro munosabatlarini, bilimlarni egallash va baholash mexanizmlarini ham tubdan o'zgartirmoqda.

An'anaviy ta'lim modelida o'qituvchi asosiy axborot manbai sifatida namoyon bo'lsa, zamonaviy raqamli ta'lim muhitida ta'lim oluvchi bilimni mustaqil izlash, tahlil qilish, qayta ishlash va amaliyotda qo'llash imkoniyatiga ega bo'lmoqda. Shu nuqtayi nazardan SMART texnologiyalar ta'lim jarayonini individuallashtirish, interaktivlashtirish va samaradorligini oshirishga xizmat qiluvchi muhim vositalardan biri hisoblanadi.

SMART texnologiyalaridan foydalanish orqali ta'lim oluvchilarning darsdagi faolligini oshirish, o'quv materiallarini vizual va interaktiv shaklda taqdim etish, tezkor teskari aloqani tashkil etish, bilimlarni avtomatik baholash hamda ta'lim natijalarini monitoring qilish imkoniyatlari kengayadi.

Smart texnologiyalar tushunchasi va uning mohiyati. SMART texnologiyalar tushunchasi zamonaviy raqamli vositalar, interaktiv platformalar, mobil qurilmalar, bulutli servislar va boshqa axborot texnologiyalaridan foydalanish orqali ta'lim jarayonini yanada moslashuvchan, interaktiv va samarali tashkil etishni anglatadi.

SMART ta'limning asosiy mazmuni faqat texnik vositalardan foydalanish bilan cheklanmaydi. U ta'lim mazmuni, pedagogik texnologiyalar, raqamli resurslar va ta'lim oluvchining individual ehtiyojlarini yagona tizimda birlashtirishni nazarda tutadi.

SMART ta'lim muhitining muhim xususiyatlari quyidagilardan iborat:

- ta'lim jarayonining interaktivligi;
- ta'limning individuallashtirilishi;
- raqamli ta'lim resurslaridan foydalanish;
- mobil qurilmalar orqali ta'lim olish imkoniyati;
- masofadan turib ta'lim olish;

tezkor teskari aloqa;
elektron baholash va monitoring;
multimedia vositalaridan foydalanish;
ta'lim jarayonining moslashuvchanligi;
o'quvchilarning mustaqil ta'lim faoliyatini qo'llab-quvvatlash.

Demak, SMART texnologiyalar ta'lim jarayonining barcha ishtirokchilari uchun yangi pedagogik imkoniyatlarni yaratadi.

Ta'lim jarayonida smart texnologiyalarining asosiy turlari. Ta'lim jarayonida foydalaniladigan SMART texnologiyalarni bir necha guruhlariga ajratish mumkin.

1. Interaktiv doskalar. SMART doskalar o'quv materiallarini multimedia shaklida namoyish qilish, matn, rasm, video, animatsiya va grafik materiallar bilan ishlash imkonini beradi. O'qituvchi dars davomida o'quvchilar bilan birgalikda interaktiv topshiriqlarni bajarishi mumkin.

2. Mobil texnologiyalar. Smartfon, planshet va boshqa mobil qurilmalar ta'lim jarayonining ajralmas vositalaridan biriga aylanmoqda. Mobil texnologiyalar yordamida elektron darsliklardan foydalanish, test topshiriqlarini bajarish, videodarslarni ko'rish va mustaqil ta'limni tashkil etish mumkin.

3. Bulutli texnologiyalar. Bulutli texnologiyalar o'quv materiallarini internet orqali saqlash, ulardan turli qurilmalarda foydalanish va ta'lim ishtirokchilari o'rtasida almashish imkonini beradi. Bu texnologiyalar hamkorlikda ishlashni tashkil etishda ayniqsa muhimdir.

4. Multimedia texnologiyalari. Audio, video, animatsiya, infografika va interaktiv taqdimotlardan foydalanish o'quv materiallarining tushunarliqligini oshiradi. Ayniqsa, murakkab nazariy tushunchalarni vizual tarzda tushuntirishda multimedia texnologiyalarining ahamiyati katta.

5. Ta'lim platformalari. Elektron ta'lim platformalari orqali o'quv materiallarini joylashtirish, topshiriqlar berish, testlar tashkil etish, natijalarni baholash va ta'lim oluvchilarning faolligini monitoring qilish mumkin.

6. Virtual va masofaviy ta'lim texnologiyalari. Virtual ta'lim vositalari o'quvchilarga real jarayonlarni modellashtirish, tajribalarni virtual muhitda bajarish va masofadan ta'lim olish imkoniyatini beradi.

Smart texnologiyalaridan foydalanishning pedagogik imkoniyatlari. SMART texnologiyalar ta'lim jarayonining pedagogik samaradorligini oshirish uchun bir qator imkoniyatlarni yaratadi.

Birinchidan, SMART texnologiyalar ta'limni individuallashtirish imkonini beradi. Har bir ta'lim oluvchining bilim darajasi, qiziqishi va o'zlashtirish sur'atidan kelib chiqib, unga mos topshiriqlarni taqdim etish mumkin.

Ikkinchidan, SMART texnologiyalar interaktiv ta'lim muhitini shakllantiradi. Ta'lim oluvchi tayyor bilimni passiv qabul qiluvchi emas, balki o'quv jarayonining faol ishtirokchisiga aylanadi.

Uchinchidan, mazkur texnologiyalar tezkor teskari aloqani ta'minlaydi. Elektron testlar va interaktiv topshiriqlar yordamida o'quvchining bilim darajasini qisqa vaqt ichida aniqlash mumkin.

To'rtinchidan, SMART texnologiyalar mustaqil ta'limni rivojlantiradi. O'quvchi darsdan tashqari vaqtda ham elektron resurslardan foydalanib, o'z bilimlarini mustaqil ravishda boyitishi mumkin.

Beshinchidan, SMART texnologiyalar hamkorlikda ta'lim olish imkoniyatlarini kengaytiradi. O'quvchilar elektron muhitda guruh bo'lib topshiriqlarni bajarish, fikr almashish va umumiy loyihalarni amalga oshirish imkoniyatiga ega bo'ladilar.

Smart texnologiyalarini ta'lim jarayoniga joriy etish bosqichlari. SMART texnologiyalarini samarali joriy etish tizimli yondashuvni talab qiladi. Buning uchun quyidagi bosqichlardan foydalanish maqsadga muvofiq:

Birinchi bosqich – ehtiyojni aniqlash. Ta'lim muassasasining texnik imkoniyatlari, o'qituvchilarning raqamli kompetensiyasi va ta'lim oluvchilarning ehtiyojlari aniqlanadi.

Ikkinchi bosqich – texnologiyani tanlash. Ta’lim maqsadiga mos raqamli vositalar, platformalar va elektron resurslar tanlanadi.

Uchinchi bosqich – metodik loyihalash. SMART texnologiyalaridan foydalaniladigan darsning maqsadi, mazmuni, metodlari va baholash mezonlari ishlab chiqiladi.

To’rtinchi bosqich – amaliy joriy etish. Tanlangan texnologiyalar dars jarayonida qo’llaniladi.

Beshinchi bosqich – monitoring va baholash. Texnologiyalardan foydalanish natijalari, o’quvchilarning faolligi va o’zlashtirish ko’rsatkichlari tahlil qilinadi.

Oltinchi bosqich – takomillashtirish. Aniqlangan kamchiliklar asosida SMART ta’lim modeli takomillashtiriladi.

Smart texnologiyalarining ta’lim sifatiga ta’siri. SMART texnologiyalaridan oqilona foydalanish ta’lim sifatining bir qator ko’rsatkichlarini yaxshilashi mumkin. Jumladan, o’quv materiallarini vizual va interaktiv shaklda taqdim etish o’quvchilarning mavzuni yaxshiroq anglashiga yordam beradi.

Ta’lim jarayonida raqamli resurslardan foydalanish o’quvchilarning:

axborotni izlash;

axborotni tahlil qilish;

tanqidiy fikrlash;

muammoli vaziyatlarni hal qilish;

kreativ fikrlash;

raqamli vositalardan foydalanish;

mustaqil qaror qabul qilish

kompetensiyalarini rivojlantirishga xizmat qiladi.

Shuningdek, SMART texnologiyalari o’qituvchiga ta’lim jarayonini monitoring qilish va o’quvchilarning individual yutuqlarini kuzatib borish imkonini beradi.

smart texnologiyalaridan foydalanishda o’qituvchining roli. SMART ta’lim muhitida o’qituvchining roli ham o’zgaradi. U faqat bilim beruvchi emas, balki ta’lim jarayonini loyihalovchi, tashkil etuvchi, yo’naltiruvchi va maslahat beruvchi sifatida faoliyat yuritadi.

O’qituvchi SMART texnologiyasini shunchaki texnik vosita sifatida emas, balki aniq pedagogik maqsadga erishish vositasi sifatida tanlashi kerak.

Masalan, darsning maqsadi yangi mavzuni tushuntirish bo’lsa, multimedia taqdimoti yoki interaktiv doskadan foydalanish mumkin. Agar maqsad bilimlarni nazorat qilish bo’lsa, elektron test va viktorinalardan foydalanish maqsadga muvofiq. Muammoli vaziyatlarni hal qilish uchun esa simulyatsiya, virtual laboratoriya yoki interaktiv topshiriqlardan foydalanish mumkin.

Shu sababli o’qituvchining raqamli kompetensiyasi SMART ta’limning muhim shartlaridan biridir.

Smart texnologiyalaridan foydalanishda muammolar. SMART texnologiyalarining ko’plab afzalliklariga qaramay, ularni ta’lim jarayoniga joriy etishda ayrim muammolar mavjud.

Jumladan:

1. texnik infratuzilmaning yetarli darajada rivojlanmaganligi;
2. internet tezligi va barqarorligidagi muammolar;
3. pedagoglarning raqamli kompetensiyasi yetarli emasligi;
4. sifatli elektron ta’lim resurslarining yetishmasligi;
5. texnologiyalardan foydalanish metodikasining yetarlicha ishlab chiqilmaganligi;
6. o’quvchilarning raqamli qurilmalardan noto’g’ri foydalanishi;
7. axborot xavfsizligi va shaxsiy ma’lumotlarni himoya qilish masalalari;
8. ta’lim muassasalarining moddiy-texnik imkoniyatlari o’rtasidagi farqlar.

Mazkur muammolarni hal qilish uchun o'qituvchilar malakasini muntazam oshirish, ta'lim muassasalarining texnik bazasini mustahkamlash, milliy elektron ta'lim resurslarini ko'paytirish va SMART ta'lim metodikasini takomillashtirish zarur.

Smart ta'limni rivojlantirish yo'nalishlari. Kelajakda SMART texnologiyalarining ta'limdagi qo'llanish sohasi yanada kengayishi kutiladi. Ayniqsa, sun'iy intellekt, adaptiv ta'lim, virtual reallik, kengaytirilgan reallik, katta ma'lumotlar va bulutli texnologiyalarning SMART ta'lim muhitiga integratsiyasi ta'lim jarayonining yangi imkoniyatlarini yuzaga keltiradi.

Sun'iy intellekt asosidagi tizimlar ta'lim oluvchining bilim darajasini tahlil qilib, unga individual o'quv materiallari va topshiriqlarni tavsiya qilishi mumkin. Bu esa SMART ta'limni adaptiv va shaxsga yo'naltirilgan ta'lim modeliga aylantirish imkonini beradi.

Shuningdek, virtual laboratoriyalar va simulyatsiyalar tabiiy fanlar, fizika, kimyo, biologiya kabi fanlarni o'qitishda murakkab jarayonlarni xavfsiz va ko'rgazmali tarzda o'rganish imkoniyatini beradi.

XULOSA

Xulosa qilib aytganda, SMART texnologiyalar zamonaviy ta'lim jarayonini takomillashtirishning muhim vositalaridan biridir. Ularning asosiy afzalligi ta'lim jarayonini interaktiv, moslashuvchan, individual va raqamli muhit asosida tashkil etish imkoniyatidan iborat.

SMART texnologiyalaridan samarali foydalanish natijasida ta'lim oluvchilarning o'quv jarayonidagi faolligi ortadi, mustaqil ta'lim olish imkoniyatlari kengayadi, o'quv materiallarini o'zlashtirishning zamonaviy shakllari paydo bo'ladi hamda o'qituvchi va ta'lim oluvchi o'rtasidagi teskari aloqa tezlashadi.

Biroq SMART texnologiyalarining samaradorligi faqat texnik vositalarning mavjudligi bilan belgilanmaydi. Bunda pedagogik maqsad, metodik ta'minot, o'qituvchining raqamli kompetensiyasi, ta'lim oluvchilarning tayyorgarligi va ta'lim muhitining imkoniyatlari muhim ahamiyatga ega.

Shuning uchun ta'lim muassasalarida SMART texnologiyalarini joriy etish jarayonini kompleks tashkil etish, pedagoglarning raqamli kompetensiyalarini rivojlantirish, zamonaviy elektron ta'lim resurslarini yaratish va SMART ta'lim metodikasini takomillashtirish dolzarb vazifalardan biri hisoblanadi.

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O'ZBEKISTON RESPUBLIKASIDA ELEKTRON ODIL SUDLOV TIZIMIDA SUN'IY INTELEKT TEXNOLOGIYALARINI JORIY ETISH ISTIQBOLLARI

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Annotatsiya. Mazkur tezisda O'zbekiston Respublikasida elektron odil sudlov tizimini takomillashtirishda sun'iy intellekt texnologiyalarini joriy etishning tarixiy-huquqiy asoslari va istiqbollari tahlil qilinadi. Elektron odil sudlov tizimining rivojlanish bosqichlari hamda raqamlashtirish islohotlarining amaliy natijalari rasmiy normativ-huquqiy hujjatlar va statistik ma'lumotlar asosida baholanadi.

Kalit so'zlar: elektron odil sudlov, sun'iy intellekt, E-SUD, my.sud.uz, raqamli sud, sud tizimi, sud-huquq islohotlari, raqamlashtirish.

Аннотация. В настоящих тезисах анализируются историко-правовые основы и перспективы внедрения технологий искусственного интеллекта в процесс совершенствования системы электронного правосудия в Республике Узбекистан. На основе официальных нормативно-правовых документов и статистических данных оцениваются этапы развития системы электронного правосудия, а также практические результаты реформ в сфере цифровизации.

Ключевые слова: электронное правосудие, искусственный интеллект, E-SUD, my.sud.uz, цифровой суд, судебная система, судебно-правовые реформы, цифровизация.

Abstract. This thesis analyzes the historical and legal foundations and prospects for introducing artificial intelligence technologies to improve the electronic justice system in the Republic of Uzbekistan. The stages of development of the electronic justice system and the practical results of digitalization reforms are assessed on the basis of official regulatory and legal documents and statistical data.

Keywords: electronic justice, artificial intelligence, E-SUD, my.sud.uz, digital court, judicial system, judicial and legal reforms, digitalization.

KIRISH

Raqamli transformatsiya va sun'iy intellekt texnologiyalarining jadal rivojlanishi sud hokimiyati faoliyatini modernizatsiya qilishning muhim omiliga aylandi. Mazkur jarayon O'zbekistonda ham sud-huquq tizimini isloh qilish doirasida izchil amalga oshirilib, 2017-yildan boshlab sud tizimini raqamlashtirishning huquqiy asoslari yaratildi [1][2]. Natijada elektron murojaatlar, videokonferensaloqa orqali sud majlislarini o'tkazish, sud hujjatlarining elektron nusxalarini olish va sud ishlarini masofadan kuzatish imkoniyatlari joriy etildi.

O'zbekistonda sud tizimini raqamlashtirish jarayoni sud-huquq islohotlarining izchil evolyutsiyasi sifatida shakllandi. Tarixiy-huquqiy tahlil ushbu jarayonni to'rt bosqichga ajratish imkonini beradi. Dastlab sud tizimiga alohida elektron xizmatlar joriy etilgan bo'lsa, keyinchalik kompleks axborot tizimlari va davlat organlari axborot bazalari bilan integratsiyalashuv bosqichiga o'tildi. Bugungi kunda esa ushbu jarayon sun'iy intellekt texnologiyalarini joriy etish bosqichiga kirib bormoqda.

O'zbekistonda sud tizimini raqamlashtirishning birinchi bosqichi (2017–2019-yillar) elektron odil sudlov tizimining shakllanish davri bo'lib, unda axborot-kommunikatsiya texnologiyalarini joriy etishning huquqiy va tashkiliy asoslari yaratildi. Mazkur davrda elektron murojaatlar, videokonferensaloqa orqali sud majlislarini o'tkazish hamda elektron hujjat almashinuvining dastlabki mexanizmlari amaliyotga tatbiq etilib, sud tizimini raqamlashtirishning institutsional poydevori shakllantirildi.

Sud tizimini raqamlashtirishning ikkinchi bosqichi (2020–2022-yillar) integratsiyalashuv va elektron xizmatlarni kengaytirish davri bo'lib, unda E-SUD axborot tizimi va my.sud.uz portali

takomillashtirildi, davlat organlari axborot tizimlari bilan elektron integratsiya yo'lga qo'yildi. Natijada sudlarga murojaat qilish jarayoni fuqarolar va yuridik shaxslar uchun sezilarli darajada soddalashtirildi.

Sud tizimini raqamlashtirishning uchinchi bosqichi (2023–2025-yillar) axborot tizimlarini kompleks integratsiyalash va elektron xizmatlarni takomillashtirish davri bo'ldi. Ushbu bosqichda sud axborot tizimlarining davlat organlari axborot bazalari bilan integratsiyalashuvi kengaytirilib, interaktiv xizmatlar hamda ishlarni avtomatlashtirilgan tarzda yuritish mexanizmlari rivojlantirildi. Natijada odil sudlovning ochiqligi, tezkorligi va samaradorligi sezilarli darajada oshdi.

Sud tizimini raqamlashtirishning to'rtinchi bosqichi (2025-yildan keyingi yillar) "Raqamli sud" konsepsiyasi asosida sun'iy intellekt yechimlarini amaliyotga joriy etish bilan boshlandi. Xususan, 2025-yil 21-avgustda qabul qilingan PF–140-son Farmoni bilan sud ishlarini bosqichma-bosqich to'liq elektron shaklga o'tkazish, sun'iy intellekt yordamida sud hujjatlarini avtomatik tayyorlash, sud majlislari bayonnomalarini real vaqt rejimida matnga aylantirish hamda my.sud.uz portalida virtual huquqiy maslahatchini ishga tushirish bo'yicha ustuvor vazifalar belgilandi [4].

O'zbekiston Respublikasida ham sud-huquq tizimini raqamlashtirish bo'yicha amalga oshirilayotgan islohotlar amaliy natijalar bermoqda. O'zbekiston Respublikasi Prezidenti Shavkat Mirziyoyevning 2025-yil 27-fevraldagi yig'ilishida ta'kidlanganidek, 2024-yilda sudlarda 3 milliondan ortiq ish va masala ko'rib chiqilgan, fuqarolar uchun 14 ta sud xizmati to'liq raqamlashtirilgan, qariyb 17 million sud ishi axborot tizimlari orqali yuritilgan, 15,5 million ish inson omilisiz avtomatik taqsimlangan, shuningdek, sudlarning ichki elektron hujjat aylanishi hisobiga 638 million so'm davlat mablag'i iqtisod qilingan. Mazkur ko'rsatkichlar sud tizimini raqamlashtirish izchil rivojlanayotganini hamda raqamli boshqaruv mexanizmlari bosqichma-bosqich takomillashayotganini ko'rsatadi [3].

Sun'iy intellekt texnologiyalarini sud tizimiga joriy etish bugungi kunda dunyoning ko'plab rivojlangan davlatlarida odil sudlovni modernizatsiya qilishning ustuvor yo'nalishlaridan biri sifatida e'tirof etilmoqda. Bunda sun'iy intellekt sudyaning o'rmini bosuvchi vosita emas, balki sud ishlarini boshqarish, sud amaliyotini tahlil qilish, protsessual hujjatlarni tayyorlash va fuqarolarga ko'rsatilayotgan sud xizmatlarining sifati hamda tezkorligini oshirishga xizmat qiluvchi yordamchi texnologiya sifatida qo'llaniladi. Shu jihatdan rivojlangan davlatlar tajribasini o'rganish O'zbekistonda elektron odil sudlov tizimini takomillashtirish va "Raqamli sud" konsepsiyasini samarali amalga oshirishda muhim ilmiy-amaliy ahamiyat kasb etadi.

Xalqaro tajriba shuni ko'rsatadiki, sun'iy intellekt texnologiyalarini sud tizimiga joriy etish odil sudlovning samaradorligi va shaffofligini oshirishning muhim omiliga aylanmoqda. Xususan, Hindistonda elektron sud tizimi orqali millionlab ishlar raqamli shaklda ko'rib chiqilib, videokonferensiya texnologiyalari hamda sun'iy intellekt asosidagi *SUVAS* va *SupACE* platformalari sud amaliyotida qo'llanilmoqda [5]. Estoniyada esa elektron identifikatsiya, raqamli imzo va to'liq elektron ish yuritish tizimi fuqarolarning sudga murojaat qilish jarayonini sezilarli darajada soddalashtirgan [7]. Shuningdek, Yevropa Kengashining Sudlar samaradorligi bo'yicha komissiyasi (CEPEJ) ma'lumotlariga ko'ra, 2025-yil holatida Yevropa davlatlari sud tizimida **125 ta** sun'iy intellekt va *cyberjustice* vositalari qo'llanilib, ular asosan sud ishlarini boshqarish, huquqiy hujjatlarni tahlil qilish hamda sudylar faoliyatini qo'llab-quvvatlashga xizmat qilmoqda.[6]

Mazkur tajriba O'zbekistonda sud tizimini raqamlashtirish bo'yicha muhim natijalarga erishilganini ko'rsatsa-da, sun'iy intellekt texnologiyalarini amaliyotga keng joriy etish hali rivojlanish bosqichida ekanini namoyon etadi. Shu bois ilg'or xorijiy tajribadan foydalanish "Raqamli sud" konsepsiyasini samarali amalga oshirish va sud xizmatlarini yanada takomillashtirishda muhim ahamiyat kasb etadi.

XULOSA

O'zbekistonda sud tizimini raqamlashtirish bo'yicha amalga oshirilayotgan islohotlar sud boshqaruvining samaradorligini oshirish, fuqarolar uchun qulay va ochiq sud xizmatlarini shakllantirish hamda zamonaviy boshqaruv mexanizmlarini rivojlantirishda muhim ahamiyat kasb etmoqda. Tadqiqot natijalari ushbu jarayonning izchil evolyutsion xarakterga ega ekanligini hamda

uni to‘rt tarixiy bosqich asosida davrlashtirish mumkinligini ko‘rsatdi. Kelgusida sun‘iy intellekt yechimlarini bosqichma-bosqich joriy etish, axborot xavfsizligini kuchaytirish va raqamli sud xizmatlarini yanada takomillashtirish mamlakatda sud-huquq tizimini xalqaro standartlar asosida rivojlantirish hamda fuqarolarning sud hokimiyatiga bo‘lgan ishonchini mustahkamlashga xizmat qiladi.

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INNOVATSION TEXNOLOGIYALARDAN FOYDALANISHNING NAZARIY VA AMALIY ASOSLARINI TAKOMILLASHTIRISH

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Annotatsiya: Mazkur maqolada innovatsion texnologiyalardan ta‘lim jarayonida samarali foydalanishning nazariy va amaliy asoslarini takomillashtirish masalalari yoritilgan. Ta‘limning zamonaviy tendensiyalari sharoitida innovatsion pedagogik texnologiyalarning mazmuni, didaktik imkoniyatlari va ta‘lim samaradorligini oshirishdagi ahamiyati tahlil qilingan. Shuningdek, innovatsion texnologiyalarni ta‘lim jarayoniga integratsiyalashning pedagogik shart-sharoitlari, o‘qituvchining innovatsion kompetentligini rivojlantirish hamda ta‘lim oluvchilarning mustaqil, ijodiy va tanqidiy fikrlash ko‘nikmalarini shakllantirish imkoniyatlari ochib berilgan. Tadqiqot natijasida innovatsion texnologiyalardan foydalanish samaradorligini oshirishga qaratilgan nazariy va amaliy yondashuvlar asoslangan hamda ta‘lim jarayonini takomillashtirish bo‘yicha ilmiy-metodik tavsiyalar ishlab chiqilgan.

Kalit so‘zlar: Innovatsion texnologiyalar, ta‘lim jarayoni, pedagogik texnologiyalar, innovatsion kompetentlik, ta‘lim samaradorligi, integratsiya, tanqidiy fikrlash.

Аннотация: В данной статье освещаются вопросы совершенствования теоретических и практических основ эффективного использования инновационных технологий в образовательном процессе. В условиях современных тенденций развития

образования проанализированы содержание инновационных педагогических технологий, их дидактические возможности и значение в повышении эффективности образовательного процесса. Особое внимание уделено педагогическим условиям интеграции инновационных технологий в образовательный процесс, развитию инновационной компетентности преподавателя, а также возможностям формирования у обучающихся навыков самостоятельного, творческого и критического мышления. В результате исследования обоснованы теоретические и практические подходы, направленные на повышение эффективности использования инновационных технологий, и разработаны научно-методические рекомендации по совершенствованию образовательного процесса.

Ключевые слова: Инновационные технологии, образовательный процесс, педагогические технологии, инновационная компетентность, эффективность образования, интеграция, критическое мышление.

Annotation: This article examines the issues of improving the theoretical and practical foundations for the effective use of innovative technologies in the educational process. In the context of contemporary trends in education, the content of innovative pedagogical technologies, their didactic potential, and their significance in enhancing the effectiveness of the educational process are analyzed. Particular attention is paid to the pedagogical conditions for integrating innovative technologies into the educational process, developing teachers innovative competence, and fostering learners abilities in independent, creative, and critical thinking. As a result of the study, theoretical and practical approaches aimed at increasing the effectiveness of innovative technology use were substantiated, and scientific and methodological recommendations for improving the educational process were developed.

Keywords: Innovative technologies, educational process, pedagogical technologies, innovative competence, educational effectiveness, integration, critical thinking.

KIRISH

Bugungi kunda ta'lim tizimining rivojlanishi zamonaviy pedagogik va axborot-kommunikatsiya texnologiyalaridan samarali foydalanish bilan chambarchas bog'liq. Ta'lim jarayoniga innovatsion texnologiyalarni joriy etish talabalarning bilim olish imkoniyatlarini kengaytirish, ta'lim sifatini oshirish, pedagog va talaba o'rtasidagi hamkorlikni kuchaytirish hamda individual ta'lim yondashuvlarini shakllantirish imkonini beradi. Ayniqsa, raqamli platformalar, multimedia vositalari, interaktiv metodlar, masofaviy ta'lim texnologiyalari va sun'iy intellekt imkoniyatlaridan foydalanish zamonaviy ta'limning muhim tarkibiy qismiga aylanmoqda. Oliy ta'lim muassasalarida innovatsion texnologiyalarni qo'llash sharoitida mutaxassislarni kasbiy tayyorlash jarayonining mazmuni va sifatiga qo'yiladigan zamonaviy malakaviy talablar ta'lim jarayonining kompetensiyaviy yondashuv asosida tashkil etilishini taqozo etmoqda. Mazkur talablar, o'z navbatida, kompetensiyaga yo'naltirilgan ta'lim dasturlari mazmuni bilan amaliy ta'lim muhitining o'zaro uyg'unligini ta'minlash, shuningdek, pedagoglarning kasbiy kompetensiyalarini uzluksiz rivojlantirishga xizmat qiluvchi malaka oshirish tizimi bilan hamkorlik mexanizmlarini takomillashtirish zaruratini yuzaga keltirmoqda. Shu nuqtayi nazardan, oliy ta'lim muassasalarida innovatsion texnologiyalardan samarali foydalanishni ta'minlovchi tashkiliy-pedagogik mexanizmlarni takomillashtirishga qaratilgan model ishlab chiqildi. Mazkur model innovatsion texnologiyalarni ta'lim jarayoniga maqsadli va tizimli integratsiya qilish, pedagoglarning innovatsion kompetentligini rivojlantirish hamda zamonaviy amaliy ta'lim muhitini shakllantirishning o'zaro bog'liq komponentlarini qamrab oladi.

Respublikada oliy ta'lim tizimini isloh qilish, ta'lim jarayoniga innovatsion texnologiyalarni joriy etish hamda ta'lim sifatini tubdan takomillashtirishga qaratilgan keng ko'lamli islohotlar oliy ta'lim muassasalarida ta'lim samaradorligi va sifat ko'rsatkichlarini oshirishga ijobiy ta'sir ko'rsatmoqda. Mazkur islohotlar zamonaviy ta'lim mazmunini shakllantirish, ta'lim jarayonini innovatsion yondashuvlar asosida tashkil etish va ta'lim oluvchilarning individual imkoniyatlarini ro'yobga chiqarishga xizmat qiluvchi pedagogik texnologiyalarni amaliyotga tatbiq etish uchun keng imkoniyatlar yaratmoqda. Shu bilan birga, ta'lim oluvchilarning bilimlarni o'zlashtirish jarayonida

hamkorlikka asoslangan ta'lim texnologiyalarini takomillashtirish, xususan, shaxsga yo'naltirilgan ta'lim texnologiyalaridan samarali foydalanish zarurati mavjud. Bunday yondashuv ta'lim oluvchining individual ehtiyojlari, qobiliyatlari va ta'limiy imkoniyatlarini hisobga olgan holda ta'lim jarayonini tashkil etish, uning mustaqil fikrlashi va ijodiy faolligini rivojlantirishga imkon beradi. Jahonning rivojlangan mamlakatlaridagi ilmiy va ta'lim muassasalari tajribasi shuni ko'rsatadiki, innovatsion texnologiyalardan ta'lim va ilmiy faoliyatda samarali foydalanish pedagogik faoliyatni strategik rivojlantirishning muhim yo'nalishlaridan biri hisoblanadi. Shu nuqtayi nazardan, oliy ta'lim tizimida innovatsion texnologiyalarni maqsadli va tizimli joriy etish ta'lim sifatini oshirish, pedagogik jarayonning samaradorligini ta'minlash hamda zamonaviy kompetensiyalarga ega mutaxassislarni tayyorlashning muhim omili sifatida namoyon bo'ladi.

N.A. Banko pedagogik ta'limni pedagoglar va ta'lim oluvchilarning birgalikdagi faoliyatini maqsadli tashkil etishga yo'naltirilgan, ta'lim jarayonining bevosita ishtirokchilarini ta'lim sohasidagi kasbiy faoliyatga tayyorlash uchun zarur shart-sharoitlarni yaratishni nazarda tutuvchi maxsus tashkil etilgan jarayon sifatida tavsiflaydi. Pedagogik ta'limni pedagog shaxsining kasbiy shakllanishi va uning pedagogik madaniyatini rivojlantirishga yo'naltirilgan uzluksiz jarayon sifatida talqin qiladi. Shundan kelib chiqib, oliy ta'lim muassasalarida innovatsion texnologiyalardan foydalanish jarayoni nafaqat talabalarning kasbiy bilimlarni egallashi va kasbiy-pedagogik tayyorgarligini ta'minlash, balki ularning shaxsiy va kasbiy jihatdan har tomonlama rivojlanishi uchun zarur pedagogik shart-sharoitlarni yaratishga ham xizmat qiladi. Bunday yondashuv talabalarning keyingi ta'lim bosqichlarida samarali faoliyat yuritishi, mustaqil bilim olish qobiliyatini rivojlantirishi hamda kasbiy kompetensiyalarini izchil takomillashtirishi uchun muhim ahamiyat kasb etadi. Oliy ta'lim muassasalarida innovatsion texnologiyalardan foydalanish modelining nazariy asosini mazkur jarayonning konseptual g'oyalari tashkil etadi. Ushbu konsepsiyaning metodologik asoslari esa ta'lim jarayonini tizimli, kompetensiyaviy, shaxsga yo'naltirilgan va innovatsion yondashuvlar asosida tashkil etish tamoyillariga tayanadi.

Innovatsion texnologiyalardan foydalanish jarayonining metodologik asoslarini belgilashda bir qator yondashuvlarga tayaniladi. Jumladan:

- **Tizimli yondashuv** – ilg'or pedagogik texnologiyalardan kompleks foydalanish orqali ta'lim jarayonining barcha tarkibiy qismlarini o'zaro bog'liq holda tashkil etish va pedagogning innovatsion kompetentligini shakllantirishni nazarda tutadi. Bunda ta'limning maqsadi, mazmuni, shakllari, metodlari va vositalari yagona metodik tizim sifatida qaraladi;
- **Innovatsion yondashuv** – ta'lim jarayoniga yangi pedagogik g'oyalar, texnologiyalar, metodlar va vositalarni maqsadli hamda tizimli ravishda joriy etishga asoslanadi;
- **Didaktik yondashuv** – ta'lim mazmunini, xususan, tabiiy-ilmiy fanlar blokiga mos o'quv predmetlarini tanlash, ularning mazmuniy va metodik uyg'unligini ta'minlashga yo'naltiriladi;
- **Kompleks yondashuv** – fanlararo integratsiya, uzviylik va izchillikni ta'minlash, ta'lim mazmuni hamda pedagogik faoliyatning turli tarkibiy qismlarini o'zaro uyg'unlashtirishni nazarda tutadi.

Shaxsiy mazmun deganda ta'lim oluvchining o'zlashtirilgan bilim va tajribani anglangan hamda subyektiv tajriba sifatida qabul qilishi, ularni shaxsiy faoliyati bilan bog'lay olishi tushuniladi. Kompetensiya esa o'zlashtirilgan bilim, ko'nikma va tajribalarni turli pedagogik vaziyatlarda, shuningdek, amaliy va hayotiy muammolarni hal etishda mustaqil va samarali qo'llay olish qobiliyatini ifodalaydi.

Shu nuqtayi nazardan, oliy ta'limda innovatsion texnologiyalardan foydalanish jarayonini kompetensiyaviy yondashuv asosida takomillashtirish ta'lim oluvchilarning nafaqat kasbiy bilimlarini, balki ularning mustaqil fikrlashi, ijodiy yondashuvi, muammoli vaziyatlarda qaror qabul qilishi va egallagan bilimlarini amaliy faoliyatga tatbiq eta olish kompetensiyalarini rivojlantirishga yo'naltirilishi lozim. Pedagogik ta'lim mazmunini shakllantirishda uzviylik va izchillik tamoyiliga rioya etish pedagogik ta'limning uzluksizligini ta'minlashning muhim shartlaridan biridir. Mazkur tamoyil ta'limning turli bosqichlari o'rtasida mazmuniy va metodologik bog'liqlikni ta'minlash,

pedagoglarning nazariy hamda amaliy tayyorgarligi darajasiga qo'yiladigan talablarni o'zaro muvofiqlashtirish orqali yagona ta'limiy maqsadga erishishga xizmat qiladi.

Uzviylik tamoyili pedagogik ta'limning barcha bosqichlarida ta'lim mazmuni, konseptual yondashuvlar, nazariy bilimlar va amaliy tayyorgarlikning izchil rivojlanishini nazarda tutadi. Bunda har bir ta'lim bosqichida shakllantirilgan bilim, ko'nikma, malaka va kompetensiyalar keyingi bosqich uchun zarur pedagogik asos vazifasini bajaradi. Shu nuqtayi nazardan, pedagogik ta'lim mazmunini ishlab chiqishda nazariy va amaliy tayyorgarlikning o'zaro uyg'unligini ta'minlash, fan mazmunini ta'lim bosqichlari kesimida muvofiqlashtirish hamda umumiy pedagogik maqsadga yo'naltirilgan uzluksiz ta'lim tizimini shakllantirish muhim ahamiyat kasb etadi. Bunday yondashuv pedagogik ta'lim sifatini oshirish va bo'lajak pedagoglarning kasbiy kompetensiyalarini izchil rivojlantirish uchun zarur shart-sharoitlarni yaratadi.

Oliy ta'lim muassasalarida innovatsion texnologiyalardan foydalanishning nazariy va amaliy asoslarini takomillashtirishga zamonaviy yondashuv tizimli hamda ta'lim tamoyillariga asoslanadi. Mazkur yondashuv ta'lim jarayonini yaxlit tizim sifatida tashkil etish, turli madaniy qadriyat va tajribalarni hisobga olish hamda zamonaviy mehnat bozori talablariga javob beradigan, keng qamrovli kompetensiyalarga ega mutaxassislarni tayyorlashni nazarda tutadi.

Shu nuqtayi nazardan, ko'p qirrali kasbiy, ijtimoiy va kommunikativ kompetensiyalarga ega bo'lgan mutaxassislarni sifatli tayyorlash oliy ta'limning ustuvor vazifalaridan biri hisoblanadi. Pedagogning innovatsion faolligi uning kasbiy faoliyatining muhim tarkibiy xususiyatlaridan biri bo'lib, kasbiy-pedagogik tayyorgarlik jarayonida shaxsning ajralmas kasbiy sifatiga aylanishi lozim. Innovatsion faollik pedagogning yangi pedagogik g'oyalarni izlash, ilg'or texnologiyalarni o'zlashtirish, ularni ta'lim amaliyotiga ijodiy tatbiq etish hamda pedagogik faoliyat samaradorligini muntazam oshirib borish qobiliyatini ifodalaydi.

Modelning motivatsion-maqsadli komponenti o'zaro bog'liq va ierarxik maqsadlar tizimini qamrab oladi. Ushbu maqsadlarning ustuvor yo'nalishi ta'lim oluvchilarda umumkasbiy tayyorgarlik asosida akademik, ilmiy-amaliy va kasbiy kompetensiyalarni shakllantirishdan iborat. Mazkur komponent ta'lim oluvchilarning innovatsion faoliyatga bo'lgan motivatsiyasini rivojlantirish, kasbiy maqsadlarini aniqlashtirish va zamonaviy pedagogik faoliyatga tayyorgarligini ta'minlashga yo'naltiriladi.

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KREDIT-MODUL TIZIMIDA TALABALARNING MUSTAQIL ISHINI REJALASHTIRISH, TASHKIL QILISH VA TA'LIM NATIJALARINI BAHOLASH USULLARI

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Annotatsiya. Maqolada kredit-modul tizimida talabalarining mustaqil ishini rejalashtirish, tashkil qilish va ta'lim natijalarini baholash usullari tadqiq etilgan. Tadqiqotning maqsadi mustaqil ish hajmi ortib borayotgan sharoitda uning turlarini me'yorlashtirish, masofaviy shaklda tashkil etish va baholash mexanizmlarini yagona metodologik tizimga birlashtirishdan iborat. Ishda normativ-huquqiy hujjatlarni tahlil qilish, qiyosiy tahlil va tizimlashtirish usullaridan foydalanilgan. Tadqiqot natijalariga ko'ra, kredit-modul tizimida mustaqil ish hajmi amaldagi 40 foizdan 50–60 foizgacha ortadi, biroq o'qituvchi rahbarligidagi mustaqil ish turlarining faqat bir qismi uchun vaqt me'yorlari belgilangan: kurs ishi - 2 soat, kurs loyihasi - 3 soat, bitiruv malakaviy ishi - 25 soat, magistrlik dissertatsiyasi - 50 soat, doktorantga ilmiy maslahatchilik - 100 soat. Masala yechish, esse, kollokvium, keys-stadi hamda masofaviy topshiriq turlari me'yorlanmagan. Maqolada Blum taksonomiyasi kategoriyalari, mustaqil ish topshiriqlari va raqamli vositalar o'rtasidagi moslikni belgilovchi tizim taklif etilgan hamda ta'lim natijalarini reyting va GPA asosida baholash tartibi asoslangan.

Kalit so'zlar: kredit-modul tizimi, talabaning mustaqil ishi, o'qituvchi rahbarligidagi mustaqil ish, me'yorlashtirish, masofaviy ta'lim, Blum taksonomiyasi, ta'lim natijalari, reyting nazorati, GPA.

Аннотация. В статье исследованы методы планирования и организации самостоятельной работы студентов, а также оценивания результатов обучения в кредитно-модульной системе. Цель исследования состоит в объединении в единую методологическую систему механизмов нормирования видов самостоятельной работы, её организации в дистанционной форме и оценивания в условиях роста её объёма. В работе применены методы анализа нормативно-правовых документов, сравнительного анализа и систематизации. Согласно результатам исследования, в кредитно-модульной системе объём самостоятельной работы возрастает с действующих 40 до 50–60 процентов, однако нормы времени установлены лишь для части видов самостоятельной работы под руководством преподавателя: курсовая работа - 2 часа, курсовой проект - 3 часа, выпускная квалификационная работа - 25 часов, магистерская диссертация - 50 часов, научное консультирование докторанта - 100 часов. Решение задач, эссе, коллоквиум, кейс-стади и дистанционные виды заданий не нормированы. В статье предложена система соответствия между категориями таксономии Блума, заданиями для самостоятельной работы и цифровыми инструментами, а также обоснован порядок оценивания результатов обучения на основе рейтинга и GPA.

Ключевые слова: кредитно-модульная система, самостоятельная работа студента, самостоятельная работа под руководством преподавателя, нормирование, дистанционное обучение, таксономия Блума, результаты обучения, рейтинговый контроль, GPA.

Abstract. The article examines the methods of planning and organising students' independent work and of assessing learning outcomes within the credit-module system. The purpose of the study is to integrate into a single methodological framework the mechanisms for setting time norms for types of independent work, organising it in a distance format and assessing it, under conditions in which its volume is increasing. The study applies analysis of regulatory documents, comparative analysis and systematisation. According to the results, in the credit-module system the volume of independent work rises from the current 40 to 50–60 percent, yet time norms are established only for part of the types of independent work supervised by a teacher: a course paper - 2 hours, a course project - 3 hours, a final qualification paper - 25 hours, a master's dissertation - 50 hours, scientific supervision of a doctoral student - 100 hours. Problem solving, essays, colloquia, case studies and distance assignment types remain unregulated. The article proposes a system of

correspondence between the categories of Bloom's taxonomy, independent work assignments and digital tools, and substantiates the procedure for assessing learning outcomes on the basis of rating scores and GPA.

Keywords: *credit-module system, students' independent work, teacher-supervised independent work, time norms, distance learning, Bloom's taxonomy, learning outcomes, rating assessment, GPA.*

KIRISH

Oliy ta'lim muassasalarida bo'lajak mutaxassislarning kasbiy tayyorgarligiga qo'yilayotgan talablar o'zgarib borishi ta'lim strategiyasini qayta ko'rib chiqishni taqozo etmoqda. Fundamental bilimlarning ahamiyati ortib, individuallashtirishga alohida urg'u berilmoqda, o'qituvchi rahbarligida amalga oshiriladigan o'quv faoliyatidan mustaqil ta'lim faoliyatiga o'tish jarayoni kechmoqda. Bo'lajak mutaxassis uchun kasbiy qarorlarni qabul qilishda mustaqil harakat qilish va mobillik hal qiluvchi ahamiyat kasb etadi, bularning barchasiga esa kasbiy kompetentlik orqali erishiladi.

Kredit-modul tizimida talabalarning mustaqil ishi (TMI) hajmi amaldagi ta'lim tizimidagi qariyb 40 foizdan 50–60 foizgacha ortadi. Demak, mustaqil ta'limga yetarlicha e'tibor qaratmasdan, uning uslubiy turlarini shakllantirmasdan va vaqt me'yorlarini belgilamasdan kredit-modul tizimini to'laqonli tatbiq qilib bo'lmaydi. Ayni paytda mustaqil ishning masofaviy va raqamli shakllari kengayib borayotgani ta'lim natijalarini oldindan loyihalash hamda topshiriq turlarini shu natijalarga moslashtirish zaruratini kuchaytirmoqda.

Muammoning nazariy asoslari M. Knowles tomonidan mustaqil ta'lim (self-directed learning) konsepsiyasi doirasida qo'yilgan bo'lib, unda o'quvchi o'z ehtiyojlarini aniqlash, maqsad qo'yish va natijani baholashda faol subyekt sifatida qaraladi [2]. D.R. Garrison mazkur yondashuvni o'z-o'zini boshqarish, o'z-o'zini nazorat qilish va motivatsiya komponentlarini birlashtirgan kompleks model sifatida rivojlantirgan [3], B.J. Zimmerman esa o'z-o'zini tartibga soluvchi o'quvchi shakllanishining bosqichlarini asoslagan [5]. Ta'lim natijalarini tasniflashda B. Bloom taksonomiyasi [1] va uning L. Anderson hamda D. Krathwohl tomonidan qayta ishlangan varianti [4] asosiy metodologik vosita bo'lib qolmoqda; A. Churches ushbu taksonomiyani raqamli muhitga moslashtirib, har bir kategoriyaga mos raqamli faoliyat turlarini ajratgan [8].

J. Biggs va C. Tang tomonidan ishlab chiqilgan konstruktiv moslik (constructive alignment) tamoyiliga ko'ra, ta'lim natijalari, o'quv topshiriqlari va baholash mezonlari o'zaro uzviy bog'langan bo'lishi lozim [9]; D. Nicol va D. Macfarlane-Dick shakllantiruvchi baholash va qayta aloqaning o'z-o'zini tartibga solishni rivojlantirishdagi rolini asoslagan [6]. D. Boud va N. Falchikov esa baholashni faqat joriy natijani o'lchash emas, balki uzoq muddatli o'rganish qobiliyatini shakllantirish vositasi sifatida ko'rib chiqishni taklif etadi [7]. Yevropa ta'lim maydonida o'quv yuklamasi va kreditlarni hisoblash tartibi ECTS qo'llanmasida belgilangan [10].

Mavjud tadqiqotlarda mustaqil ta'limning nazariy asoslari va ta'lim natijalarini loyihalash masalalari yetarlicha yoritilgan bo'lsa-da, mustaqil ish turlarini o'qituvchi yuklamasi nuqtayi nazaridan me'yorlashtirish, ularni Blum taksonomiyasi kategoriyalari bilan bog'lash va baholash tizimiga ulash masalasi yagona metodologik tizim sifatida ishlanmagan. Maqolaning maqsadi - kredit-modul tizimida mustaqil ishni rejalashtirish, tashkil qilish, me'yorlashtirish va ta'lim natijalarini baholashning yaxlit tartibini asoslashdan iborat.

MATERIALLAR VA USULLAR

Tadqiqotda normativ-huquqiy hujjatlarni tahlil qilish, qiyosiy tahlil, tizimlashtirish hamda mantiqiy umumlashtirish usullaridan foydalanilgan. Me'yorlashtirish masalasi O'zbekiston Respublikasi Oliy va o'rta maxsus ta'lim vazirining 2018-yil 10-sentabrdagi 20-2018-son buyrug'iga ilova qilingan «Oliy ta'lim muassasalari professor-o'qituvchilarining o'quv yuklamasi hajmini hisoblashning vaqt me'yorlari» [12] asosida, baholash masalasi esa 2018-yil 9-avgustdagi 19-2018-son buyrug'iga ilova qilingan «Oliy ta'lim muassasalarida talabalar bilimini nazorat qilish va baholash tizimi to'g'risida»gi nizom [11] asosida o'rganildi. Ta'lim natijalarini tasniflashda Blum

taksonomiyasining qayta ishlangan varianti [4] va uning raqamli muhitdagi talqini [8] metodologik asos sifatida qabul qilindi.

NATIJALAR VA MUHOKAMA

Talabanning mustaqil ishi - bu didaktik topshiriqlarni mustaqil bajarishga, o'qishga qiziqtirishga va muayyan fan sohasida bilimlarni oshirishga yo'naltirilgan o'ziga xos o'quv faoliyati. TMI ikki tarkibiy qismni qamrab oladi: talabanning bevosita o'zi bajaradigan mustaqil ta'limi (TMT) va o'qituvchi rahbarligidagi mustaqil ishi (O'RTMI). Kunduzgi bakalavriatda TMI ning umumiy soatlari fan hajmining yarmini tashkil etadi va uning ham deyarli yarmi O'RTMI ga ajratiladi; sirtqi ta'limda TMI hajmi fan hajmining 4/5 qismini tashkil etishi maqsadga muvofiq.

Mustaqil ishini texnologik jihatdan tashkil etish to'rt komponentni o'z ichiga oladi: maqsadlarni tanlash texnologiyasi (davlat ta'lim standartida belgilangan maqsadlardan kelib chiqib kasbiy maqsadlarni aniqlashtirish); mazmunni tanlash texnologiyasi (standart, o'z-o'zini tarbiyalash manbalari va talabalarning individual-psixologik jihatlarini hisobga olish); topshiriqlarni tanlash texnologiyasi (topshiriqlar turli darajadagi maqsadlarga mos kelishi va bilish faoliyatining turli tiplarini qamrab olishi); nazoratni tashkillashtirish texnologiyasi (nazorat vositalari, bosqichlari va individual shakllarini ishlab chiqish). Samaradorlikka erishish shartlari sifatida auditoriya mashg'ulotlari va mustaqil ish hajmlarining to'g'ri nisbatini ta'minlash, talabani zarur uslubiy materiallar bilan ta'minlash, bajarilishini nazorat qilish va sifatli bajarilganlik uchun rag'batlantirish ajratib ko'rsatiladi.

O'RTMI ning an'anaviy shakllariga masala yechish, referat, kollokvium, esse, taqdimot, keys-stadi, ish o'yinlari, glossariy, guruh loyihasi, hisob-chizma ishlari, kurs ishi va kurs loyihasi, diplom loyihasi, amaliyot hisoboti, fan to'garaklari, tanlovlar va olimpiadalarda ishtirok etish, ilmiy anjumanlarda ma'ruza qilish hamda maqola chop etish kiradi. Elektron shakldagi O'RTMI turlari sifatida Link (havoladagi materialni izohlash), Chart (jadval va diagrammalarni tahlil qilish), Q/A (platformada yozma javob berish), Review (annotatsiya yozish), SWOT-tahlil, Interview, Google Apps doirasidagi hamkorlikdagi topshiriqlar, dayjest va Report qo'llanilmoqda. Barcha O'RTMI turlari mavzusi, topshirig'i, o'tkazish shakli va soatlar hajmi ko'rsatilgan holda fanning sillabusida modullar bo'yicha keltiriladi.

Amaldagi vaqt me'yorlari tahlili O'RTMI turlarini me'yorlangan va me'yorlanmagan guruhlariga ajratish imkonini beradi. Me'yorlangan turlar va ular bo'yicha belgilangan vaqt hajmlari 1-jadvalda keltirilgan.

1-jadval

O'qituvchi rahbarligidagi mustaqil ishning me'yorlangan turlari va vaqt me'yorlari

№	Ish turi	Vaqt me'yori	Cheklovlar
3	Kurs ishi va kurs loyihasiga rahbarlik qilish, maslahat berish	Kurs ishi - 2 soat, kurs loyihasi - 3 soat	Bir semestrda bitta o'qituvchiga 50 tagacha
6	Nazorat, hisoblash va hisob-grafik ishlarini tekshirish, taqriz yozish	Bitta topshiriq - 0,3 soat	Bitta fanga ko'pi bilan 1 soat; 3 tagacha akademik guruh
8	Bakalavriat talabalari amaliyotiga rahbarlik, hisobotni baholash	Bir talabaga ish kuniga 0,5 soat; guruhga 6 soat	O'quv yuklamasining 20 foizidan oshmasligi
9	Bitiruv malakaviy ishiga rahbarlik qilish, xulosa yozish	O'quv yiliga bir talabaga 25 soat (texnik - 30)	Bitta o'qituvchiga 7 nafargacha talaba

№	Ish turi	Vaqt me'yori	Cheklovlar
11	Magistrantning ilmiy-pedagogik faoliyati va amaliyotiga rahbarlik	O'quv yiliga bir talabaga 50 soat	Professor - 5, dotsent - 3 nafargacha
12	Magistrlik dissertatsiyasi va ilmiy-tadqiqot ishiga rahbarlik	O'quv yiliga bir talabaga 50 soat	Professor - 5, dotsent - 3 nafargacha
14	Doktorant va mustaqil izlanuvchiga ilmiy maslahatchilik	Doktorantga 100, mustaqil izlanuvchiga 50 soat	Bitta rahbarga 3 nafargacha

Manba: 20-2018-son buyruqqa ilova qilingan vaqt me'yorlari [12] asosida muallif tomonidan tizimlashtirilgan.

1-jadval ma'lumotlaridan ko'rinadiki, vaqt me'yorlari asosan yakuniy va yirik ilmiy-uslubiy ish turlari uchun belgilangan. Masala yechish, referat, kollokvium, esse, taqdimot, keys-stadi, ish o'yinlari, glossariy va guruh loyihasi kabi turlar, shuningdek Link, Chart, Q/A, Review, SWOT, Interview, dayjest va Report kabi masofaviy topshiriqlar uchun alohida vaqt me'yorlari ko'zda tutilmagan. Ular bo'yicha maslahatlar kontakt soatlari - ma'ruza, amaliy, seminar va laboratoriya mashg'ulotlari uchun ajratilgan vaqt hisobidan amalga oshiriladi. Bu holat mustaqil ish hajmi 50–60 foizgacha ortadigan sharoitda o'qituvchi yuklamasini hisoblashda tizimli bo'shliq yuzaga keltiradi va me'yorlashtirish tartibini kengaytirishni taqozo etadi.

Mustaqil ishni masofaviy usulda tashkil etishda avvalo ta'lim natijalarini Blum taksonomiyasi orqali belgilab olish, so'ngra har bir kategoriyaga mos topshiriq turi va raqamli vositani tanlash zarur. Amaliyotda ko'pincha teskari tartib kuzatiladi: dastlab qulay ilova yoki platforma tanlanadi, topshiriq esa uning imkoniyatlariga moslashtiriladi. Natijada shakl jihatidan zamonaviy, biroq bilish darajasi past - asosan «bilish» va «tushunish» kategoriyalari bilan cheklangan topshiriqlar to'plami yuzaga keladi. Ta'lim natijasidan boshlanadigan tartib esa konstruktiv moslik tamoyiliga [9] javob beradi va topshiriqning shakli emas, balki kutilayotgan bilish darajasi hal qiluvchi mezon bo'lishini ta'minlaydi. Shu asosda taklif etilayotgan moslik tizimi 2-jadvalda keltirilgan.

2-jadval

Blum taksonomiyasi kategoriyalari, mustaqil ish topshiriqlari va raqamli vositalar mosligi

Kategoriya	Xarakterli fe'llar	Mos MI topshirig'i	Raqamli vositalar
Bilish	Nomlash, taniflash, eslash, sanab berish, izohlash, qayd qilish	Glossariy, dayjest, Link	Matn va slayd muharrirlari, kartochka ilovalari
Tushunish	Tasniflash, qiyoslash, xulosalash, sharhlash, tarjima qilish	Review, Chart, Q/A	Hujjatlar bilan hamkorlikda ishlash platformalari
Amalda qo'llash	Hisoblash, konstruksiyalash, tatbiq etish, tajriba o'tkazish	Masala yechish, hisob-grafik ishi, Report	Hisoblash va taqdimot vositalari
Tahlil qilish	Tarkibini aniqlash, sabab-oqibatni belgilash, tartiblash	SWOT-tahlil, keys-stadi	Ma'lumotlar tahlili va aqliy xarita ilovalari
Sintez qilish	Yaratish, loyihalash, dasturlash, tezis va maqola yozish	Guruh loyihasi, kurs loyihasi, video material	Video va nashr yaratish vositalari

Kategoriya	Xarakterli fe'llar	Mos MI topshirig'i	Raqamli vositalar
Baholash	Asoslash, taqriz berish, himoya qilish, tavsiya qilish	Esse, kollokvium, Interview	Muhokama forumlari va masofaviy platformalar

Manba: muallif tomonidan ishlab chiqilgan.

Ta'lim natijalarini baholash amaldagi nizom [11] asosida joriy, oraliq va yakuniy nazorat shakllarida amalga oshiriladi. Joriy nazorat og'zaki so'rov, yozma ish, kombinirlangan so'rov, uy ishlarini himoya qilish, bahs-munozara va treninglar, testlar hamda kurs ishi va kurs loyihasini bajarish orqali o'tkaziladi. Oraliq nazorat baholari tyutor tomonidan talabalarning auditoriyadagi faolligi va O'RTMI shakllari bo'yicha qo'yiladi, semestrning o'rtasi va oxiridagi haftalarda tasdiqlangan jadval asosida amalga oshiriladi. Baholar harfli tizimda qo'yiladi: A (95–100 foiz) - 4,0; A– (90–94) - 3,67; B+ (85–89) - 3,33; B (80–84) - 3,0; B– (75–79) - 2,67; C+ (70–74) - 2,33; C (65–69) - 2,0; C– (60–64) - 1,67; D+ (55–59) - 1,33; D (50–54) - 1,0; F (0–49) - 0. Oraliq nazoratda A– C darajasiga erishgan talabalar yakuniy nazoratga qo'yiladi.

Talabaning butun o'qish davri uchun o'rtacha o'zlashtirish darajasi GPA (Grade Point Average) ko'rsatkichi bilan aniqlanadi:

$$GPA = (K_1 \cdot U_1 + K_2 \cdot U_2 + \dots + K_n \cdot U_n) / (K_1 + K_2 + \dots + K_n) \quad (1)$$

bu yerda K - har bir fan yoki modulga ajratilgan kreditlar miqdori; U - har bir fan yoki modul bo'yicha talaba to'plagan baho. Kursdan kursga o'tkazuvchi eng kam GPA qiymati oliy ta'lim muassasasi tomonidan mustaqil belgilanadi: ikkinchi kursga o'tish uchun kamida 2,0, uchinchi kursga - 2,25–2,5, to'rtinchi kursga - 2,5–3,0 bo'lishi tavsiya etiladi.

XULOSA

Tadqiqot natijalari kredit-modul tizimida mustaqil ish hajmining 50–60 foizgacha ortishi uni tasodifiy topshiriqlar to'plamidan rejalashtiriladigan, me'yorlanadigan va baholanadigan yaxlit tizimga aylantirishni taqozo etishini ko'rsatdi. Amaldagi vaqt me'yorlari tahlili shuni ko'rsatdiki, me'yorlashtirish asosan kurs ishi, bitiruv malakaviy ishi, magistrlik dissertatsiyasi va ilmiy maslahatchilik kabi yirik ish turlarini qamrab olgan; kundalik o'quv jarayonida eng ko'p qo'llanadigan esse, kollokvium, keys-stadi, glossariy hamda masofaviy topshiriq turlari esa me'yorlanmagan holicha qolmoqda. Bu o'qituvchi yuklamasini real hisoblashni qiyinlashtiradi va mustaqil ish sifatiga bilvosita salbiy ta'sir ko'rsatadi.

Shu asosda quyidagi takliflar ishlab chiqildi:

1. O'RTMI ning me'yorlanmagan turlari - esse, kollokvium, keys-stadi, glossariy, guruh loyihasi hamda masofaviy topshiriqlar uchun vaqt me'yorlarini belgilash va ularni o'quv yuklamasini hisoblash tartibiga kiritish.

2. Har bir fanning sillabusida mustaqil ish topshiriqlarini kutilayotgan ta'lim natijasi bilan bog'lash: topshiriq turi Blum taksonomiyasining qaysi kategoriyasiga xizmat qilishi va qaysi baholash mezonini bilan o'lchanishi oldindan ko'rsatilishi lozim.

3. Masofaviy topshiriq turlarini raqamli vositalar bilan moslashtirishda vositaning ommabopligi emas, balki u ta'minlaydigan bilish darajasi asosiy mezon sifatida qabul qilinishi kerak (2-jadval).

4. Oraliq nazorat baholarini faqat yozma ish natijalari bilan emas, balki O'RTMI topshiriqlarining bajarilishi va auditoriyadagi faollik bilan uyg'un holda shakllantirish.

5. Mustaqil ish uchun uslubiy ta'minotni - topshiriq bankini, bajarish va baholash mezonlarini hamda namunaviy ishlarni - fan modullari kesimida oldindan tayyorlash va talabalar uchun ochiq qilish.

6. Mustaqil ishning sifatli bajarilishini rag'batlantirish mexanizmlarini joriy etish va uning natijalarini talabaning GPA ko'rsatkichida aks ettirish.

Mazkur yondashuv mustaqil ishni rejalashtirish, tashkil qilish, me'yorlashtirish va baholash bosqichlarini yagona metodologik zanjirga birlashtirish imkonini beradi hamda kredit-modul tizimining to'laqonli tatbiq etilishiga xizmat qiladi.

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TA'LIM JARAYONIDA RAQAMLI VOSITALARNI TATBIQ ETISHNING INNOVATSION YONDASHUVLARI VA ASOSLARI

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Annotatsiya: Mazkur ilmiy tezisda zamonaviy ta'lim tizimida raqamli vositalar va innovatsion texnologiyalarni tatbiq etishning nazariy-amaliy asoslari hamda konseptual yondashuvlari tahlil qilingan. Ta'lim jarayonini raqamlashtirishning pedagogik samaradorligi, talabalarning mustaqil ta'lim olish imkoniyatlarini kengaytirish va interaktiv muhitni shakllantirish masalalari yoritilgan. Shuningdek, sun'iy intellekt, bulutli texnologiyalar va LMS platformalarining o'quv jarayoniga integratsiyalashuvi natijasida erishiladigan sifat ko'rsatkichlari asoslab berilgan.

Kalit so'zlari: Raqamli ta'lim, innovatsion yondashuv, LMS platformalari, interaktiv ta'lim, raqamli kompetensiya, pedagogik texnologiyalar, bulutli xizmatlar.

Аннотация: В данной научной тезисной работе анализируются теоретические и практические основы, а также концептуальные подходы к внедрению цифровых инструментов и инновационных технологий в современную образовательную систему.

Освещены вопросы педагогической эффективности цифровизации обучения, расширения возможностей самостоятельного образования учащихся и формирования интерактивной среды. Также обоснованы показатели качества, достигаемые в результате интеграции искусственного интеллекта, облачных технологий и LMS-платформ в учебный процесс.

Ключевые слова: Цифровое образование, инновационный подход, LMS-платформы, интерактивное обучение, цифровая компетенция, педагогические технологии, облачные сервисы.

Abstract: This scientific thesis analyzes the theoretical and practical foundations, as well as conceptual approaches to the implementation of digital tools and innovative technologies in the modern educational system. The pedagogical effectiveness of educational digitalization, the expansion of opportunities for students' independent learning, and the creation of an interactive environment are highlighted. Furthermore, the quality metrics achieved through the integration of artificial intelligence, cloud technologies, and LMS platforms into the learning process are substantiated.

Keywords: Digital education, innovative approach, LMS platforms, interactive learning, digital competence, educational technology, cloud services.

KIRISH

Bugungi kunda global transformatsiya va axborot jamiyati shakllanishi sharoitida ta'lim tizimini raqamlashtirish strategik zaruriyatga aylandi. Ta'lim jarayonida raqamli vositalardan foydalanish shunchaki texnik uskunalaridan foydalanishni emas, balki pedagogik metodikaning konseptual o'zgarishini nazarda tutadi [1:428]. Raqamlashtirishning metodologik asosi – o'quvchi sub'yektligini oshirish va bilimlarni o'zlashtirishda moslashuvchan trayektoriyalarni yaratishdan iborat [2:65].

An'anaviy pedagogik modellar axborotni bir tomonlama uzatishga asoslangan bo'lsa, raqamli yondashuv bilim ma'lumotlarini konstruktiv tarzda qayta ishlash va ularni amaliyotga tatbiq etish imkonini beradi. O'zbekiston Respublikasi ta'lim tizimida ham raqamli texnologiyalardan foydalanish darajasi ta'lim sifatini belgilovchi asosiy mezonga aylandi. O'quv jarayoniga LMS (Learning Management System), MOOC (Massive Open Online Courses) va bulutli platformalarning joriy etilishi pedagogik faoliyatning uzviyligi hamda shaffofligini ta'minlamoqda [1:56].

Raqamli vositalarning nazariy fundamenti sifatida konstruktivizm va konnektivizm nazariyalari namoyon bo'ladi. Konnektivizm ta'lim oluvchining raqamli tarmoqlar, axborot resurslari va bilimlarni qayta ishlash tugunlari bilan o'zaro aloqasini asosiy pedagogik omil deb hisoblaydi [3:12]. Shu sababli, ta'lim muhitiga raqamli platformalarni tatbiq etishda texnik infratuzilma bilan bir qatorda pedagoglarning raqamli kompetentligini oshirish eng ustuvor vazifalardan biri hisoblanadi.

Raqamli texnologiyalarni pedagogik amaliyotga tatbiq etish shunchaki texnik vositalardan foydalanish bilan cheklanmay, balki ta'lim mazmuni, o'qitish metodologiyasi va baholash mezonlarini tubdan qayta ko'rib chiqishni talab etadi. Bugungi kunda ta'lim sifatini oshirishda va moslashuvchan ta'lim modellaridan foydalanish eng yuqori samara bermoqda [5:45]. Ushbu yondashuv har bir ta'lim oluvchining o'zlashtirish sur'ati, kognitiv rivojlanish darajasi hamda individual qiziqishlariga mos ravishda Shaxsiy Ta'lim Trayektoriyasini shakllantirish imkonini yaratadi.

Innovatsion mexanizmlar va amaliy yechimlar sirasida quyidagi yo'nalishlar alohida pedagogik ahamiyatga ega:

Sun'iy intellekt va adaptiv baholash tizimlari: Sun'iy intellekt (AI) algoritmlariga asoslangan platformalar ta'lim oluvchining bilim va ko'nikmalaridagi bo'shliqlarni avtomatik tarzda tahlil qiladi va moslashtirilgan o'quv materiallarini tavsiya etadi [6:88]. Bu orqali pedagog passiv statistik ma'lumot yig'ishdan ozod bo'lib, asosiy e'tiborni fasilitatsiya va tyutorlik faoliyatiga qaratadi.

Immersiv va simulyatsion texnologiyalar: To'ldirilgan borliq (AR - Augmented Reality) va virtual borliq (VR - Virtual Reality) vositalari orqali murakkab va real sharoitda bajarilishi xavfli

bo'lgan tajribalar, kimyoviy hamda fizika-texnik jarayonlar virtual laboratoriyalarda modellashtiriladi [7:34]. Bu tushunchalarni abstraktlikdan abstrakt-amaliy shaklga o'tkazib, xotirada uzoq saqlanishini ta'minlaydi.

Geymifikatsiya va interaktiv ta'lim platformalari: O'quv jarayoniga musobaqa hamda o'yin mexanizmlarining olib kirilishi talabalarning motivatsiyasini sezilarli darajada oshiradi [8:201]. LMS va Kahoot, Mentimeter kabi raqamli platformalar orqali muammoli vaziyatlarni hal qilish hamda guruhlarda kritik fikrlash ko'nikmalari shakllanadi.

Gibrid modellar: Mazkur modellar o'quv jarayonining vaqtiy va fazoviy chegaralarini kengaytiradi. Talaba nazariy bilimlarni mustaqil ravishda raqamli platformalar orqali o'zlashtiradi, auditoriya mashg'ulotlari esa mantiqiy bahs-munozara hamda keys-stadi tahlillariga bag'ishlanadi [9:14].

O'tkazilgan amaliy kuzatuvlar va empirik ma'lumotlar shuni ko'rsatadiki, raqamli vositalarning metodik va izchil integratsiyasi ta'lim oluvchilarning axborot bilan ishlash madaniyatini yuksaltiradi, ularni passiv tinglovchidan faol bilimlarni shakllantiruvchi sub'yektga aylantiradi.

Ta'lim jarayoniga raqamli vositalarni joriy etish yuqori samaradorlik ko'rsatkichlarini taqdim etishi bilan birga, bir qator tashkiliy, metodik va texnik xarakterdagi muammolarni ham yuzaga chiqaradi. Innovatsion yondashuvlarning barqarorligini ta'minlash uchun mavjud to'siqlarni har taraflama tahlil qilish va ularga sistemali yechimlar ishlab chiqish talab etiladi [10:77].

Raqamlashtirish jarayonida uchraydigan asosiy to'siqlar sirasiga quyidagilar kiradi: Pedagoglarning raqamli disbalansi va texnofobiyasi: Barcha o'qituvchilar ham zamonaviy raqamli vositalarni o'quv metodikasi bilan uzviy bog'lash vakolatiga ega emas [11:104].

Infratuzilmaviy va texnik cheklovlar: Ayrim hududlarda yuqori tezlikdagi internet tarmog'ining yetarli emasligi va apparat ta'minotidagi tafovutlar "raqamli tengsizlik"ni keltirib chiqaradi.

Kiberxavfsizlik va axborot gigiyenasi: O'quv jarayonidagi shaxsiy ma'lumotlar xavfsizligi va talabalarda axborot xurujlariga nisbatan kiber-gigiyena ko'nikmalarining shakllanmaganligi.

Tadqiqot natijalariga ko'ra, raqamli ta'lim muhitining samaradorligini oshirish va innovatsion yondashuvlarni takomillashtirish uchun quyidagi strategik yo'nalishlarni amalga oshirish tavsiya etiladi:

Raqamli-pedagogik kompetensiyani oshirish: Pedagog kadrlar uchun raqamli va pedagogik ko'nikmalarni integratsiya qiluvchi uzluksiz malaka oshirish kurslarini yo'lga qo'yish.

Pedagogik-texnologik kontent yaratish: Statik darsliklardan dinamik, interaktiv va multimedia elementlari bilan boyitilgan "aqlli" elektron ta'lim resurslariga o'tish.

Ekotizimli yondashuv: Ta'lim muassasalarida yagona raqamli ekotizimni yaratish orqali boshqaruv, o'qitish va baholash jarayonlarini raqamli algoritmlar asosida muvofiqlashtirish.

O'tkazilgan ilmiy-nazariy va amaliy tahlillar shuni ko'rsatadiki, ta'lim jarayonida raqamli vositalarni tatbiq etish modernizatsiyalashning asosiy tayanchi hisoblanadi. Raqamlashtirish — bu faqatgina an'anaviy dars xonasini texnik vositalar bilan jihozlash emas, balki pedagogik va kognitiv yondashuvlarni tubdan yangilash jarayonidir. Innovatsion yondashuvlar ta'lim oluvchilarning mustaqil va tanqidiy fikrlash darajasini oshirib, ularni zamonaviy mehnat bozori talablariga mos moslashuvchan mutaxassis bo'lib yetishishlariga zamin yaratadi. Strategik tavsiyalarning tizimli amalga oshirilishi ta'lim sifatini sifat jihatidan yangi bosqichga olib chiqishni ta'minlaydi.

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TA'LIMDA IVEN TEXNOLOGIYASINI QO'LLASHGA OID ILMIY IZLANISHLAR TAHLILI

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Osiyo xalqaro universiteti o'qtuvchisi

Annotatsiya. *Ta'lim jarayonida iven texnologiyasini qo'llashga oid ilmiy izlanishlar tahlili, mazkur texnologiyadan foydalanishning turli maqsad va vazifalarga asoslan qarashlari hamda ilgari surgan g'oyalari, pedagog, psixolog olimlarning turli yo'nalishlar va sohalarni rivojlantirishda IVEN texnologiyasini qo'llashga oid tavsiyalari, baholash mezonlari, usul va metodlari haqidagi tadqiqotlari mazmuni, o'quv natijalarini yaxshilash bo'yicha amalga oshirish zarur bo'lgan pedagogik yondashuvlar, texnologiyaning afzalliklari haqidagi fikrlari bayon etilgan.*

Kalit so'zlar: IVEN, talaba faolligi, motivatsiya, texnologiya integratsiyasi, akademik natijalar, baholash mezonlari.

Аннотация. *В статье представлен анализ научных исследований, посвящённых применению технологии IVEN в образовательном процессе, а также рассмотрены подходы к её использованию, основанные на различных целях и задачах, взгляды и идеи, выдвинутые исследователями. Изложено содержание исследований педагогов и психологов, посвящённых рекомендациям по применению технологии IVEN в развитии различных направлений и областей, критериям оценивания, методам и способам её использования. Также представлены педагогические подходы, необходимые для улучшения образовательных результатов, и мнения исследователей о преимуществах данной технологии.*

Ключевые слова: IVEN, активность студентов, мотивация, интеграция технологий, академические результаты, критерии оценивания.

Abstract. *The article presents an analysis of scientific research on the application of IVEN technology in the educational process. It examines approaches to the use of this technology based on various goals and objectives, as well as the views and ideas put forward by researchers. The article discusses the content of studies conducted by educators and psychologists concerning recommendations for applying IVEN technology to the development of various fields and areas, assessment criteria, methods, and techniques. It also presents pedagogical approaches necessary for improving learning outcomes and researchers' views on the advantages of this technology.*

Keywords: IVEN, student engagement, motivation, technology integration, academic outcomes, assessment criteria.

IVENni asosiy g'oyalari tadqiqotchilik bo'lib, asosiy g'oyalaritadqiqotchilik bo'lib, nazariya muammolarining ijodiy yechimini topish, bilim ijodiy ish jarayonida bir vosita sifatida kashfiyot sirlari ifodalanadi. IVEN nazariyasi asosiy o'rinni ijodiy tasavvurlarini rivojlantirish nazaryasida asosiy tasavvurlarni rivojlantirish (ITR) masalasi egallaydi. IVEN asosida rivojlantiruvchi ta'lim texnologiyasi xisoblangan muammoli izlanish metodlar turadi.

IVEN (ixtirochilik vazifalarini yechish nazariyasi)ning o'ziga xos tamoyillariga quyidagilar kiradi:

- o'qitishga faoliyatli yondashuv;
- nazariy xulosalarni shakllantirishga yo'nalganlik;
- o'qituvchi va o'quvchi o'rtasidagi ikki tomonlama muloqot;
- talim jarayonida muammoli masalalarni, muammoli vaziyatlarni qo'llash.

IVEN – ishlab chiqarishni, yangi texnik fikrlarni aniq fanga aylantiradi, ixtiroli masalalarni yechishga yordam beradi. IVEN – ta'limda eskiliklardan voz kechishdir. IVEN elementlari faqat texnik soxalarda emas, faqat texnik sohalarida emas, balki ta'lim-tarbiya, shuningdek, boshqa soxalarda xam ishlatishi mumkin. Hayot va tabiatdagi xar bir predmet, xar bir modda, xodisa, voqae, obyektida ichchimchilik siri, qaramaqarshilik mavjudligi o'quvchilarni xar bir narsaning nimasidir yaxshiyu, nimasidir yomon, bir tomondan foydali, ikkinchi tomondan zararli, bir jihatddan xalal bersa, ikkinchi jixatdan zarur ekanligiga qiziqish uyg'otadi va uni topishga undaydi. Bu bilan o'zlashtirilishi qiyin boshlagan ayrim materiallarni IVEN elementlar orqali osonlik bilan o'zlashtira olish imkoniyatiga ega bo'ladilar.

Tadqiqotimiz mavzusiga oid ilmiy izlanishlar shuni ko'rsatadiki, ta'lim va tarbiya jarayonida IVEN texnologiyasidan foydalanishga oid bir qator pedagog-olimlar ilmiy izlanishlar olib borishgan bo'lib, ular o'z tadqiqotlarida mazkur texnologiyadan foydalanishning turli maqsad va vazifalarga asoslanib o'zlarining qarashlari hamda g'oyalarini ilgari surishganligini quyidagicha tahlil qildik. Jumladan, Sankt-Peterburg davlat universiteti professori G.L.Tulchinskiy IVEN menejmenti, IVEN -marketingi va IVEN kommunikatsiyalari sohalarida ko'plab ilmiy tadqiqotlar olib borib, sohani rivojlantirishda mazkur texnologiyaning o'ziga xos afzalliklarini o'rganib chiqqan. Shu bilan bir qatorda mazkur universitet professori A.M.Kapterev IVEN texnologiyasini ta'lim tizimiga tatbiq etish bo'yicha bir qator ilmiy asarlar yaratgan bo'lib, bugungi kunda ulardan ta'lim va tarbiya jarayonida qo'llash maqsadga muvofiqdir.

Moskva davlat universiteti professori Y.V.Tixonravov o'z ilmiy izlanishlarini IVEN menejmentida tizimli yondashuv va loyihaviy yondashuvlar masalalariga bag'ishlagan. Ural federal universiteti professori V.A.Chistyakova IVEN texnologiyasi talabalarning kasbiy tayyorgarligini oshirish uchun qo'llashda samarali natijaorlikni ta'minlashiga oid nazariyalarni ishlab chiqan. Samara davlat iqtisodiyot universiteti professori Y.P.Gerasimov IVEN menejment va IVEN marketing sohalarida ko'plab ilmiy izlanishlar olib borgan. Olmaotadagi Abay nomidagi qozoq milliy pedagogika universiteti professori T.Ye.Loxina ham IVEN texnologiyasini ta'lim jarayoniga tatbiq etish bo'yicha tadqiqotlar olib borgan. Uralsk iqtisodiyot universiteti professori Ye.V.Popov IVEN loyihalarning samaradorligini baholash, ulardan marketingda foydalanish masalalarini tadqiq etgan. Moskva davlat universiteti dotsenti I.E.Nadeina IVEN texnologiyasini iqtisodiy tadbirlarda, korporativ tadbirlarda qo'llash bo'yicha ilmiy ishlar olib borgan. Rostov-na-Donu davlat universiteti dotsenti A.V.Yeliseyeva IVEN texnologiyasini shou-biznes sohasida qo'llash masalalarini o'rgangan. Qazon federal universiteti dotsenti Ye.A.Morozova IVEN menejmentda innovatsion yondashuvlar, IVEN marketingda tijorat ko'rsatkichlarini oshirish masalalarini tadqiq etgan. Novosibirsk davlat texnika universiteti professori D.A.Shevchuk IVEN texnologiyasini loyihalash va ularning samaradorligini ta'minlash masalalarida tadqiqotlar o'tkazgan. Volgograd davlat agrar universiteti professori N.P.Ketova IVEN texnologiyasini mintaqaviy rivojlanish dasturlarida qo'llash bo'yicha tadqiqotlarni amalga oshirib, IVEN texnologiyasi sohasiga oid nazariy va amaliy jihatlarini yanada rivojlantirishga erishgan.

IVEN texnologiyasiga oid ilmiy izlanishlar olib borgan boshqa olimlar qatoriga quyidagilarni ham kiritish mumkin: Bank ishi va moliya universiteti dotsenti Ye.YE.Isazade IVEN texnologiyalarni korporativ brend va imij rivojlantirishda qo'llash masalalarini o'rgangan.

Nevskiy instituti dotsenti V.G.Vlasova IVEN texnologiyasini madaniy-ma'rifiy tadbirlarni tashkil etishda qo'llash metodikasini ishlab chiqqan. Krasnodar davlat universiteti professori O.N.Yakovleva IVEN texnologiyasini o'quv jarayonida ishlatishning psixologik-pedagogik asoslarini tadqiq etgan. Smolensk davlat universiteti dotsenti A.A.Kalinina IVEN marketing va IVEN menejmentning zamonaviy yondashuvlari bo'yicha ilmiy ishlar olib borgan.

Belgorod davlat texnologiya universiteti dotsenti T.A.Divinskaya IVEN texnologiyasini turizm sohasida qo'llash istiqbollari tadqiq etgan. Tomsk politehnika universiteti professori N.Ye.Kopitova IVEN texnologiyasini korporativ tadbirlarda samarali tatbiq etishning ilmiy-amaliy asoslarini ishlab chiqqan. Bu olimlarning ilmiy ishlari IVEN texnologiyasi sohasidagi nazariy va amaliy bilimlarni yanada to'ldirishga xizmat qilmoqda.

IVEN texnologiyalarga oid ilmiy izlanishlar olib borgan olimlardan Ryazan davlat radiotexnika universiteti dotsenti Ye.A.Filippova IVEN loyihalarning brend qurilishi va kompaniya imijiga ta'sirini o'rgangan. Ivanovo davlat universiteti dotsenti A.S.Shvetsova IVEN menejmentda inson omilining ahamiyatini, IVEN mutaxassislar malakasini oshirish masalalariga bag'ishlangan ilmiy ishlar olib borgan. Sochi davlat universiteti professori K.V.Puxova IVEN texnologiyasining turizm sohasidagi qo'llanilishi va samaradorligini o'rgangan. Arxangelsk davlat texnika universiteti dotsenti N.B.Savina IVEN texnologiyasini madaniy-ijtimoiy loyihalarni tashkil etishda qo'llash masalalarini tadqiq etgan. Tyumen davlat universiteti dotsenti A.I.Lutova IVEN loyihalarni rejalashtirish va boshqarish jarayonlarini tizimli yondashuv asosida o'rgangan. Kursk davlat universiteti professori S.Y.Golubkov IVEN kommunikatsiyalarning biznes muhitida ahamiyatini, ulardan samarali foydalanish usullarini ilmiy jihatdan asoslagan. Ushbu olimlarning izlanishlari IVEN texnologiyalar sohasining amaliy jihatlarini yanada rivojlantirishga xizmat qiladi.

Bundan tashqari, IVEN texnologiyasiga oid ilmiy izlanishlar olib borgan boshqa olimlar qatoriga quyidagilarni ham kiritish mumkin: Saratov davlat universiteti dotsenti Ye.V.Sokolskaya IVEN texnologiyasini madaniy-tarixiy loyihalarda qo'llash masalalarini o'rgangan. Kemerovo davlat universiteti professori M.B.Protopopova IVEN menejmentda innovatsion uslublarni qo'llash va ularning samaradorligini tahlil qilgan. Voronej davlat universiteti dotsenti Y.A.Komarova IVEN texnologiyasini mahalliy o'zini o'zi boshqarish organlarida qo'llash istiqbollari tadqiq etgan. Orenburg davlat universiteti dotsenti A.N.Kuzina IVEN texnologiyasining ijtimoiy-madaniy funksiyalarini o'rganib, ularni jamoaviy rivojlanishda qo'llash masalalariga bag'ishlangan ilmiy ishlar olib borgan.

Ufa davlat neft texnika universiteti dotsenti D.YE.Nogina IVEN texnologiyasini innovatsion faoliyatni rag'batlantirishda qo'llash metodikasini ishlab chiqqan. Astraxan davlat universiteti dotsenti M.A.Polyakova IVEN loyihalarni moliyaviy-iqtisodiy baholash usullarini ishlab chiqqan. Bu olimlarning ilmiy ishlari IVEN texnologiyalar sohasining dolzarb yo'nalishlarini kengroq qamrab oladi.

IVEN texnologiyasini qo'llashga oid ilmiy izlanishlar olib borgan quyidagi olimlarni ham ta'kidlash mumkin: Rostov davlat iqtisodiyot universiteti dotsenti Ye.V.Radionova IVEN loyihalar loyihalashtirish va boshqarish usullarini ishlab chiqqan. Belgorod davlat milliy tadqiqot universiteti dotsenti M.N.Balakireva IVEN loyihalarni tashkil etishda inson resurslaridan samarali foydalanish masalalarini o'rgangan. Nijniy Novgorod davlat arxitektura-qurilish universiteti professori A.A.Ivanov IVEN texnologiyasining shahar va mintaqa imijini shakllantirishdagi ahamiyatini tadqiq etgan. Kazan federal universiteti dotsenti YE.V.Prokofeva IVEN menejmentning innovatsion modellarini rivojlantirish va uning yetakchilik xususiyatlarini tahlil qilgan. Ural federal universiteti dotsenti A.V.Demidova IVEN loyihalarda psixologik yondashuvlarni qo'llash va ularning samaradorligini baholash masalalarini o'rgangan. Peterburg davlat universiteti dotsenti N.A.Kornilova IVEN texnologiyasini korporativ hamjamiyat rivojlanishida qo'llash modellarini

tadqiq etgan. Mazkur olimlarning ilmiy ishlarida IVEN texnologiyasining zamonaviy trendlari, innovatsion uslublari o'z aksini topgan.

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MEDIA MATNLARDA KOMPYUTER VA INTERNET TERMINLARINING FUNKSIONAL XUSUSIYATLARI

Iqtisodiyot va pedagogika universiteti

Samarqand kampusi Xorijiy tillar kafedrasi dotsenti

PhD.Nasrulloeva N.S

Annotatsiya. Ushbu maqolada media matnlarda kompyuter va internet terminlarining qo'llanilishi tahlil qilinadi. Terminlarning o'zbek tilidagi xususiyatlari, ularning to'g'ri va samarali ishlatilishi media sohasida kommunikatsiyaning sifatini oshirishda muhim omil ekanligi ko'rsatildi. Tadqiqot natijalariga ko'ra, texnologik sohadagi terminlar ingliz tilidan ko'p miqdorda kirib kelgan bo'lsa-da, ularning to'g'ri va bir xil standartlarga mos tarzda qo'llanilishi hali ham muammoli hisoblanadi. Media matnlarda terminlarning kontekstga mosligi, o'zbek tilining qoidalariga muvofiqligi, shuningdek, o'zbeklashtirish jarayonidagi o'rinlari tahlil qilindi. Maqola tilshunoslik va kommunikatsiya sohasidagi mutaxassislar, jurnalistlar va media vakillari uchun terminologiyani to'g'ri ishlatishning ahamiyatini ta'kidlaydi hamda terminlarni o'zbek tiliga moslashtirish va yagona me'yorlarni ishlab chiqish bo'yicha tavsiyalar beradi.

Kalit so'zlar: kompyuter terminlari, internet terminlari, media matn, o'zbek tilida terminologiya, tilshunoslik, kommunikatsiya, terminlarning o'zbeklashtirilishi, axborot texnologiyalari, til me'yorlari, media til

Abstract. This article analyzes the use of computer and Internet terminology in media texts. It demonstrates that the characteristics of terminology in the Uzbek language and its correct and effective use are important factors in improving the quality of communication in the media sphere. According to the research findings, although a large number of terms in the technological field have entered the Uzbek language from English, their accurate and consistent use in accordance with unified standards remains problematic. The study analyzes the contextual appropriateness of terms in media texts, their conformity with the rules of the Uzbek language, as well as their role in the process of adaptation into Uzbek. The article emphasizes the importance of proper terminology use for specialists in linguistics and communication, journalists, and media professionals, and provides recommendations for adapting terms to the Uzbek language and developing unified linguistic standards.

Keywords: computer terminology, Internet terminology, media text, terminology in the Uzbek language, linguistics, communication, Uzbek adaptation of terms, information technology, language norms, media language.

Аннотация. В данной статье анализируется употребление компьютерной и интернет-терминологии в медиатекстах. Показано, что особенности терминов в узбекском языке, а также их правильное и эффективное использование являются важными факторами повышения качества коммуникации в медиасфере. Согласно результатам исследования, несмотря на то что значительное количество терминов технологической сферы вошло в узбекский язык из английского языка, их правильное и единообразное употребление в соответствии с установленными стандартами по-прежнему остается проблемным. В медиатекстах анализируются соответствие терминов контексту, их соответствие нормам узбекского языка, а также их место в процессе адаптации к узбекскому языку. В статье подчеркивается важность правильного использования терминологии для специалистов в области языкознания и коммуникации, журналистов и представителей медиа, а также даются рекомендации по адаптации терминов к узбекскому языку и разработке единых нормативных стандартов.

Ключевые слова: компьютерная терминология, интернет-терминология, медиатекст, терминология узбекского языка, языкознание, коммуникация, узбекизация терминов, информационные технологии, языковые нормы, язык медиа.

KIRISH

Zamonaviy jamiyatda kompyuter texnologiyalari va internet sohalarining jadal sur'atlarda rivojlanishi natijasida mazkur yo'nalishlarga oid terminologik birliklarning media matnlarda qo'llanish ko'lami sezilarli darajada kengayib bormoqda. Ushbu terminlarning mazmunan aniq, me'yoriy va maqsadga muvofiq qo'llanilishi axborotni auditoriyaga tushunarli tarzda yetkazish, shuningdek, kommunikativ jarayonning samaradorligini ta'minlashda muhim ahamiyat kasb etadi. Shu nuqtayi nazardan, media matnlarda kompyuter va internet terminlarining funksional hamda lingvistik xususiyatlarini tadqiq etish zamonaviy tilshunoslikning dolzarb yo'nalishlaridan biri hisoblanadi.

O'zbek tilidagi turli media matnlar (gazeta maqolalari, onlayn maqolalar, blog postlari va ijtimoiy tarmoqlardagi yozuvlar) namunasi olinib, undagi kompyuter va internet terminlari kontekstda qanday ishlatilayotgani tahlil qilindi. Shuningdek, terminlarning lug'aviy izohlari va ularning til qoidalari bilan muvofiqligi ham ko'rib chiqildi. Ushbu tadqiqotda media matnlarda kompyuter va internet terminlarining qo'llanilish xususiyatlarini o'rganish uchun sifat va miqdoriy tahlil usullari qo'llanildi. Tadqiqot materiali sifatida 2023-2024 yillarga tegishli turli media manbalaridan (gazeta maqolalari, onlayn nashrlar, bloglar, ijtimoiy tarmoqlar) namunalar yig'ildi. Terminlar kontekstda qanday ishlatilishi, ularning o'zbek tilining grammatik va leksik me'yorlariga qanchalik mos kelishi hamda terminologiyaning o'zbeklashtirish darajasi tahlil qilindi. Shuningdek, media matnlarda uchraydigan eng ko'p ishlatiladigan terminlar ro'yxati tuzilib, ularning to'g'ri yoki noto'g'ri qo'llanishi taqqoslandi. Terminlar kontekstda qanday ishlatilishini aniqlash uchun matnlar lingvistik tahlil qilindi. Bu jarayonda terminlarning o'zbek tilining grammatik, fonetik va leksik qoidalarga muvofiqligi, ularning to'g'ri joylashuvi va qo'llanilishi baholandi.

Shuningdek, terminlarning o'zbeklashtirish darajasi va ularning inglizcha variantlaridan farqlari ham ko'rib chiqildi. Terminlar ro'yxati tuzilib, ularning samarali qo'llanilishi hamda noto'g'ri ishlatilgan hollari tahlil qilindi.

Tadqiqotda so'rovnoma usuli ham qo'llanilib, media vakillari va tilshunoslar orasida terminologiya haqidagi fikrlar o'rganildi. Ushbu metodlar yordamida media matnlarda kompyuter va internet terminlarining hozirgi holati va ularning takomillashtirish yo'llari haqida aniq ma'lumotlar olindi.

Tahlil natijalariga ko'ra, media matnlarda inglizcha kompyuter va internet terminlarining ko'plab variantlari uchraydi. Ularning ba'zilar o'zbekchaga moslashtirilgan (masalan, "elektron pochta" o'rniga "email"), ba'zilar esa asl ko'rinishda qoldirilgan. Terminlarning noto'g'ri ishlatilishi, qisqartmalar va terminologiyaning chalkashligi matnlarning tushunarligiga salbiy ta'sir ko'rsatmoqda. Shu bilan birga, til birligini saqlash va o'zbek tilining boyligini rivojlantirish maqsadida terminlarni o'zbeklashtirishning muhimligi aniqlandi.

Birinchidan, terminlarning aksariyati ingliz tilidan kirib kelgan va ko'pincha o'zbek tilining fonetik va grammatik qoidalariga to'liq mos kelmasligi kuzatildi. Masalan, "email", "chat", "download", "upload" kabi so'zlar o'zbek tilida ko'pincha asl ko'rinishda, ba'zida esa noto'g'ri talaffuz va yozuv shaklida qo'llanmoqda.

Ikkinchidan, terminlarning o'zbek tiliga moslashtirilishi va tarjima qilinishi juda kam uchraydi. Ba'zi terminlar o'zbek tilida ekvivalent shaklda mavjud bo'lsa ham, ular ko'p hollarda ishlatilmaydi yoki noto'g'ri ishlatiladi. Misol uchun, "internet" o'rniga "axborot tarmog'i", "email" o'rniga "elektron pochta" kabi atamalar kamdan-kam ishlatiladi.

Uchinchidan, media matnlarda terminlarning qisqartmalari va jargon so'zlar ko'pligi o'quvchilarning matnni to'liq tushunishiga to'sqinlik qilmoqda. Masalan, "IP", "VPN", "HTTP" kabi qisqartmalarni tushuntirishsiz ishlatish, o'quvchilar orasida chalkashlik va tushunmovchiliklarga sabab bo'lmoqda.

To'rtinchidan, o'zbek tilining til qoidalariga rioya qilinmagan terminlar ham uchraydi. Bu, ayniqsa, grammatik jihatdan noto'g'ri qo'llanilgan so'zlarda yaqqol ko'rinadi, masalan, terminlarning ko'plik shakllari noto'g'ri hosil qilinishi yoki so'z tartibining buzilishi.

Beshinchidan, so'rovnoma natijalari media vakillari va tilshunoslar o'rtasida terminologiyani o'zbeklashtirish zarurati haqida fikrlar uyg'otdi. Ko'pchilik media mutaxassislari terminlarni o'zbeklashtirish va yagona standartlarni joriy qilishni qo'llab-quvvatlaydi.

Natijalardan kelib chiqib, media matnlarda kompyuter va internet terminlarining to'g'ri, aniq va kontekstga mos qo'llanilishi o'zbek tilining rivojlanishi hamda axborotning tushunarli yetkazilishida muhim ahamiyatga ega ekanligi ko'rsatildi.

Media sohasida ishlayotgan mutaxassislar va jurnalistlar uchun kompyuter va internet terminlarini to'g'ri qo'llash bo'yicha til bilimlarini oshirish zarur. Bundan tashqari, tilshunoslar tomonidan yagona va aniq terminologiya ishlab chiqilishi ham foydali bo'ladi. Bu nafaqat axborotning aniq va ravon yetkazilishiga, balki o'zbek tilining ilmiy va texnik tarmoqlardagi rivojlanishiga hissa qo'shadi.

Media tili – keng ommaga mo'ljallangan, tushunarli, ravon va mantiqiy bo'lishi kerak. Tilshunoslik nuqtai nazaridan qaralganda, kompyuter va internet terminlarini o'zbek tiliga moslashtirish orqali milliy til imkoniyatlarini kengaytirish, uning ilmiy-texnik salohiyatini oshirish mumkin.

Shu bilan birga, til madaniyati va axborot madaniyatining uyg'un rivojlanishi til siyosatining muhim yo'nalishlaridan biri bo'lishi kerak. Aks holda, zamonaviy texnologiyalarga oid tushunchalarni ifodalashda xorijiy tilga haddan ortiq bog'lanib qolishimiz mumkin, bu esa milliy tilning o'z sohasida yetakchilik rolini susaytiradi.

Media matnlarda kompyuter va internet terminlarining aniq va tushunarli qo'llanilishi kommunikatsiyaning sifatini oshiradi. Terminlarni o'zbeklashtirish va ularni yagona me'yorlarga muvofiq qo'llash bo'yicha qoidalar ishlab chiqilishi zarur. Kelgusida terminologiyani doimiy yangilab borish va media sohasida bu mavzuga oid o'quv dasturlarini yaratish tavsiya etiladi.

Tadqiqot natijalari shuni ko'rsatdiki, media matnlarda kompyuter va internet terminlari keng qo'llanilmoqda, biroq ularning to'g'ri va bir xil me'yorlarga muvofiq ishlatilishi yetarli darajada emas. Ingliz tilidan kirib kelgan terminlarning ko'pchiligi o'zbek tilining grammatik va leksik qoidalariga moslashtirilmagan yoki noto'g'ri qo'llanilgan. Bu esa axborotning tushunarligiga va kommunikatsiyaning samaradorligiga salbiy ta'sir ko'rsatmoqda.

Terminlarning o'zbeklashtirilishi va yagona standartlar asosida ishlatilishi o'zbek tilining rivojlanishi va media sohasidagi axborot sifatini oshirish uchun zarurdir. Media vakillari va tilshunoslar o'rtasida hamkorlikni kuchaytirish orqali yagona terminologiya standartlarini yaratish va ularni amaliyotga joriy qilish muhimdir.

Quyidagi tavsiyalar tadqiqot asosida ishlab chiqildi:

1. **Terminologiya standartlarini ishlab chiqish:** Kompyuter va internet sohasiga oid terminlarning o'zbek tilida yagona, aniq va tushunarli shakllarini belgilovchi me'yoriy hujjatlar tayyorlanishi zarur.
 2. **Media vakillari uchun treninglar:** Jurnalistlar va media mutaxassislari uchun terminologiyani to'g'ri qo'llash bo'yicha maxsus o'quv kurslari tashkil etilishi lozim.
 3. **Terminlarni o'zbeklashtirish bo'yicha izlanishlar:** Tilshunoslar tomonidan texnik soha terminlarini o'zbek tiliga samarali moslashtirish bo'yicha tadqiqotlar olib borilishi va natijalar media sohasida keng joriy qilinishi kerak.
 4. **Axborot resurslarida yagona terminologiyadan foydalanish:** O'zbek tilida internet va kompyuter sohasidagi ma'lumotlarni taqdim etuvchi rasmiy resurslarda yagona terminlarni qo'llashga e'tibor qaratilishi zarur.
 5. **Ijtimoiy tarmoqlarda targ'ibot:** Terminlarni to'g'ri ishlatish va o'zbeklashtirish haqida ijtimoiy tarmoqlarda axborot berish orqali keng ommaga yetkazish foydali bo'ladi.
- Ushbu choralar amalga oshirilsa, media matnlarda kompyuter va internet terminlarining qo'llanilishi yanada ravon, tushunarli va samarali bo'lib, o'zbek tilining rivojlanishiga hamda axborot madaniyatining oshishiga xizmat qiladi.

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TA'LIMDA SUN'IY INTELEKTDAN FOYDALANISHNING MOHIYATI, YO'LLARI VA NATIJALARI

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Annotatsiya: maqolada sun'iy intellektning mohiyati va uni ta'lim tizimiga joriy qilishning dolzarbligi, raqamli texnologiyalarning muhim elementi bo'lgan sun'iy intellektning ta'lim sohasida ham sezilarli o'zgarish va yangiliklar sodir qilayotganligi, uning hozirgi holati va yanada taraqqiy ettirish uchun yetarli shart-sharoitlar yaratish yuzasidan fikrlar bayon qilingan.

Kalit so'zlar: talim tizimi, sun'iy intellekt, elektron ta'lim, shaxsiy kompyuterlar, masofaviy ta'lim, raqamli interaktiv kitoblar.

Аннотация: В статье раскрывается сущность искусственного интеллекта и актуальность его внедрения в систему образования. Отмечается, что искусственный интеллект, являясь важным элементом цифровых технологий, вносит значительные изменения и новшества в сферу образования. Изложены мнения о современном состоянии искусственного интеллекта в образовательной сфере, а также о создании необходимых условий для его дальнейшего развития и эффективного применения в системе образования.

Ключевые слова: система образования, искусственный интеллект, электронное

образование, персональные компьютеры, дистанционное обучение, цифровые интерактивные книги.

Abstract: The article explores the essence of artificial intelligence and the relevance of its integration into the education system. It emphasizes that artificial intelligence, as an important element of digital technologies, is bringing significant changes and innovations to the field of education. The article presents views on the current state of artificial intelligence in education and discusses the creation of sufficient conditions for its further development and effective application in the education system.

Keywords: education system, artificial intelligence, e-learning, personal computers, distance learning, digital interactive books.

KIRISH

Rivojlanishning hozirgi davriga mos keladigan o'quv jarayonlarining tashkil etilishi qator muammolarni keltirib chiqarishi, tabiiy hol, albatta, masalan, bitta sinf yoki guruhdagi o'quvchi (talaba)lar sonini oladigan bo'lsak, ularning soni qancha ko'p bo'lsa, darsning samarasi shuncha past bo'ladi va aksincha.

Shu nuqtai-nazardan kelib chiqqan holda kimlardir mavjud muammoni o'quv jarayoniga ko'proq o'qituvchlarni jalb qilganholda hal qilishni taklif qiladilar, chunki bunda har bir o'quvchiga alohida e'tibor qaratilib, ularning talab-istaklari va qobiliyatlarini nazarga tutgan holda o'quv jarayonini optimal ravishda tashkil etish mumkin bo'ladi.

Ikkinchi guruh mutaxassislar ta'lim jarayoniga zamonaviy raqamli texnologiyalarning dasturiy-texnikvositalari va imkoniyatlarini keng jalb qilish orqali elektron ta'limga o'tish yaxshi natijalarga olib kelishimomkinligini ta'kidladilar. Zero, elektron ta'lim shaxsning bilimli va ilimli bo'lishiga yo'naltirilgan jarayon bo'lib, raqamli texnologiyalardan foydalangan holda ta'lim berishda insonlarni bir-birlariga maksimaldarajada yaqinlashtiradi.

Ko'pgina mamlakatlar tadqiqotchi olimlari va soha mutaxassislari davlatning barqaror ijtimoiy - iqtisodiy rivojlanishini ta'minlash va jahon iqtisodiy hamjamiyatida o'z mavqeini mustahkamlashda ta'limning o'rni tobora ortib borishi shart va zarurligini e'tirof etishmoqdalar. Mamlakatimiz Prezidenti ta'kidlab o'tganlaridek "Yangi O'zbekiston - maktab ostonasidan, ta'lim - tarbiya tizimidan boshlanadi" [1].

Har bir mamlakatni iqtisodiy barqaror rivojlantirish yoki undagi qoloqliq holatini tubdan o'zgartirishning asosiy yo'llaridan biri - bu ta'lim tizimiga zamonaviy raqamli texnologiyalarni keng miqyosda jalb qilishdir. Milliy iqtisodiyotning barcha tarmoq va sohalariga, shu jumladan, ta'limga zamonaviy texnika va texnologiyalarning keng joriy etilishi sun'iy intellekt elementlarini qo'llash uchun zaruriy imkoniyatlarni yaratadi. Shu nuqtai-nazardan ta'lim sohasiga qaratilgan mavzular o'ta dolzarb hisoblanadi.

MATERIALLAR VA USULLAR

Ta'lim sohasi hamma davrlarda ham ziyolilarning diqqat e'tiborida bo'lgan, jumladan Khan Academy - 2008 yilda moliyaviy analitik Salman Xan tomonidan asos solingan notijorat tashkiloti bo'lib, u matematika, fizika, biologiya, astronomiya va boshqa tabiiy fanlar bo'yicha turli-tuman topshiriqlar va videomateriallarning raqamli olamdagi o'ziga xos makoni hisoblanadi. Ushbu akademiyaning materiallari turli xil murakkablikda bo'lib, asosan o'rta maktab o'quvchilari uchun mo'ljallanilgan. Shuning uchun undagi materiallardan AQShdagi o'nlab o'quv muassasalarida doimiy asosda foydalaniladi.

Khan Academy raqamli ta'lim tizimi o'qituvchilarga ta'lim jarayonini tubdan o'zgartirishga imkon beradi, ya'ni, o'quvchilar uylarida internet orqali ma'ruzalarni eshitib oladilar va darsga kelganlarida o'qituvchi yordamida uy vazifalarini bajaradilar. O'qituchi esa istalgan paytda o'quvchi qanday materiallarni o'zlashtirgan yoki qaysi materiallarni o'zlashtirish unga qiyinchilik tug'dirayotganini tekshira oladi [2].

Kun sayin yanada ko'proq tajribali o'qituvchilar va professorlar o'z ma'ruzalarini boshqalar bemalol foydalanishi uchun YouTube va **iTunes** tizimlariga yozib qo'yayaptilar. Ularning ba'zilari, masalan, siyosiy falsafa bo'yicha Garvard professori Maykl Sendel o'zining ma'naviyat haqidagi «**Justice**» deb nomlangan kursini haddan tashqari ommalashib ketgani tufayli internetdagi mashhur shaxslardan biri bo'lib qoldi. Hozirgi paytda bu akademiyaga Bill & Melinda Gates Foundation va Google kompaniyalari moliyaviy yordam ko'rsatmoqdalar. Ushbu akademiya bilan to'liqroq ravishda www.khanacademy.org sayti orqali tanishib olish mumkin.

NATIJALAR VA MUHOKAMALAR

Hozirgi davrda esa bunday ehtirosli yondoshuvlarni uzoqni ko'ra bilmaslik bo'lganligini qayd etish mumkin. Turli darajadagi va sohalaridagi ta'limga oid mutaxassis-ekspertlarning holisona fikrlariga ko'ra, video o'yinlari, boshqa turdagi media vositalariga qaraganda real dunyodagi bilimlarni va tajrivalarni virtual dunyoga kirgan holda yaxshiroq o'zlashtirish imkonini yaratadi.

Avstraliyadagi Foresign Institutining ilmiy izlanishlariga ko'ra, video o'yinlarining Civilisation III deb nomlangan strategiyasi modeli tarixiy jarayonlarning rivojlanish mantiqi haqida juda yaxshi taa'surot hosil qiladi va buning natijasida nega ba'zi bir tsivilizatsiyalar yer yuzidan izziz yo'qolib ketishi va ba'zilarining esa tez sur'atlar bilan rivojlanib ketishi sabablarini tushuntirib beradi.

Kelajakda istalgan mamlakat fuqarosi planshetga sun'iy intellekt dasturlarini joylashtirib, o'qituvchisi bilan muloqot qilmasdan ham bilim olishi mumkin bo'ladi, vaqti soati kelib talaba uchun sun'iy intellekt vositasida oliy ta'lim olish oddiy hol bo'lib qoladi. Bunga misol qilib, 2017-yilning noyabrida Mikrosoft kompaniyasining xitoy tilini o'rganishga mo'ljallangan maxsus dastur ishlab chiqishi va o'quvchi-chat o'qituvchi-botning qisqacha so'zlardan iborat ma'lumotlariga javob bergan holda ta'lim olishini keltirish mumkin.

O'zbekiston Respublikasi Prezidentining 2023-yil 11-sentyabrda imzolagan "O'zbekiston-2030" strategiyasi to'g'risida"gi PF-158-sonli Farmonida Yangi O'zbekistonning taraqqiyot strategiyasini amalga oshirishda raqamli iqtisodiyotning muhim elementi hisoblangan sun'iy intellektni har tomonlama barqaror rivojlantirish masalalariga alohida e'tibir qaratilgan.

Farmonda strategiyada belgilangan maqsadlar va vazifalar ijrosini ta'minlash maqsadida sun'iy intellekt texnologiyalarini 2030 - yilga qadar rivojlantirish bo'yicha erishish lozim bo'lgan maqsadli ko'rsatkichlar, shu jumladan, mamlakatimizda sun'iy intellekt asosida yaratilgan dasturiy mahsulotlar va ko'rsatkichlar hajmini 1,5 mld. AQSh dollariga yetkazish, yagona interaktiv davlat xizmatlari portalida sun'iy intellekt asosida ko'rsatilgan xizmatlar ulushini 10 foizga yetkazish, sun'iy intellekt yo'nalishlarida faoliyat yurituvchi ilmiy laboratoriyalar sonini 10 taga yetkazish hamda yuqori quvvatli hisoblash serverlarini ishga tushurish, hukumatning sun'iy intellektga tayyorgarlik indeksida mamlakatimizning birinchi 50 ta o'rindagi davlatlar qatoriga kirishiga erishishi kabi vazifalar belgilab berilgan [3].

Sun'iy intellekt elementlaridan yanada samaraliroq foydalanish asosida mamlakat iqtisodiyotini barqaror rivojlantirish maqsadida O'zbekiston Respublikasi Prezidentining 2024-yil 14-oktyabrdagi "Sun'iy intellekt texnologiyalarini 2030 - yilga qadar rivojlantirish strategiyasi to'g'risida"gi PQ-358-sonli qarori qabul qilindi va hozirgi vaqtda bu qarorning ijrosini ta'minlash yuzasidan qator ishlar amalga oshirilmoqda [4].

Bugungi kunda dunyo ta'lim tizimida internet axborot manbalari ichida eng ommaviysiga aylanib ulgurd, uning inson hayotining barcha jabhalaridagi faol ishtiroki ko'chayib borib, uning faoliyatining bir bo'lagiga aylandi, insonlar internet xizmatlaridan har daqiqa, har soat, qolaversa har kuni foydalanishga odatlanib qoldi.

Raqamli texnologiyalar ta'limning deyarli barcha bosqichlarida alohida kurs sifatida o'qitila boshlandi. Har bir inson raqamli texnologiyalarning inson hayotining ta'lim, tijorat, siyosat, ko'ngilochar va boshqa sohalariga kirib borayotganligini yaxshi tasavvur qilayapti, uning guvohi va foydalanuvchisiga aylanib qoldi.

Dunyoning ayrim davlatlarida suni'iy intellektning yorqin elementi hisoblangan robotlardan dars jarayonlarida foydalanish ishlari eng qizg'in pallasiga yetib keldi, jumladan, Hindistondagi oddiy maktabda Iris ismli robot-o'qituvchining ishlashi yo'lga qo'yilgan bo'lib, robot-o'qituvchi talabalar bilan muloqot qiladi, ularning savollariga javob beradi [5].

Yaponiyada esa dunyodagi birinchi virtual maktab ochildi. O'quvchilarga bepul virtual reallik uskunalari beriladi va ular o'zlariga anime obrazlarini tanlashlari mumkin. O'qishni tamomlaganlar o'rta ma'lumot to'g'risidagi diplom bilan taqdirlanadi. Bildirilishicha, virtual maktab o'quv dasturi Yaponiya ta'lim qonuni standartlariga mos keladi.

Mutaxassislar bu shakldagi darslar nafaqat ta'lim jarayonini osonlashtiradi, balki bolalarning o'qishga bo'lgan qiziqishini ham oshiradi, degan fikrda, chunki bu xuddi onlayn o'yinga o'xshaydi. Har bir talaba mustaqil ravishda darslarda qatnashadigan avatarini tanlaydi. Shuningdek, o'smirlar bu virtual olamda tashqi ko'rinish haqida qayg'u'rishlariga hojat qolmaydi.

O'quv dasturi, shuningdek, trening darslar, maslahatlar, kibersport turnirlari, madaniy tadbirlar, festivallar va boshqa maktab tadbirlarini o'tkazishni o'z ichiga oladi. Bundan tashqari, maktab o'quvchilariga individual yondashuv, qo'shimcha kurslar va Tokio universitetiga kirish uchun tayyorgarlik ko'rishga yordam ko'rsatiladi. O'qishni tugatgandan so'ng bitiruvchilar o'rta maktabning namunaviy attestatiga ega bo'ladi [6].

Har yili dunyo miqyosidagi eng yaxshi bilimlarni to'plash va ularni internet orqali barchaning foydalanishi uchun tarmoqqa joylashtirish bo'yicha yangidan-yangi ishlar bajarilib, fidoi kishilar va tadbirkorlar buni moliyaviy tarafdin qo'llab-quvvatlamodalar. Ularning say'i-harakatlari tufayli dunyoning istalgan joyida istiqomat qiluvchi insonlarning zamonaviy bilim olishlari uchun mustahkam zamin yaratilayapti.

Turli xil ko'rinishdagi ta'lim turlarining paydo bo'lishi ta'lim vazirliklari qoshida malakali professor-o'qituvchilarni, shu jumladan, pensiyaga chiqqanlarni ham jalb qilgan holda raqamli interaktiv elektron kitoblar, elektron o'quv qo'llanmalar va alohida fanlar bo'yicha masofaviy ta'lim kurslari tayyorlash zaruriyatiga olib keladi.

Bu esa ushbu ishlarni amalga oshirish bo'yicha mamlakat Ishchi kengashini tashkil qilish vazifasiga olib keladi. Uning zimmasiga respublika miqyosida zamonaviy hamda sifatli raqamli interaktiv elektron kitoblar, raqamli elektron o'quv qo'llanmalari va masofaviy ta'lim kurslari tayyorlash yoki ularni chet tillardan o'zbek tiliga o'girish vazifasi yuklanadi.

Bu ishga majburiy tarzda mamlakatda informatsion texnologiyalarning tadbiri bilan shug'ullanadigan barcha tashkilotlar, ta'lim muassasalari, kompaniyalari va yetakchi institut hamda universitetlarni jalb qilish kerak bo'ladi.

Mamlakat miqyosida yaratilgan yoki tarjima qilingan raqamli interaktiv elektron kitoblar va o'quv qo'llanmalardan barcha talabalar va o'qituvchilar foydalana olishlari uchun ularni maxsus ta'lim portaliga, shu jumladan, vazirliklar va ta'lim muassasalari saytlariga, kutubxonalarga, resurs markazlariga joylashtirish maqsadga muvofiq bo'lar edi.

O'zbekiston Respublikasi Vazirlar Mahkamasining 2024-yil 13-yanvardagi "Respublika ta'lim muassasalarida o'quvchi va talabalarga o'quv-uslubiy filmlar yordamida dars o'tish tizimini joriy etish chora-tadbirlari to'g'risida"gi 24-sonli Qarori qabul qilinib, unga ko'ra ta'lim muassasalarida o'quv-uslubiy filmlar yordamida dars o'tish tizimi joriy etiladi [7].

XULOSA

Maqolada dunyoning ilg'or mamlakatlarida ta'lim sohasiga sun'iy intellekt texnologiyalarni joriy qilish yuzasidan olib borilayotgan ayrim yangiliklar va mamlakatimizda uning holati o'rganilib chiqilib, quyidagi xulosalarni qilish mumkin:

- har bir mamlakatning barqaror taraqqiyotida har tomonlama yetuk, zamonaviy bilim va hunarlarni puxta egallagan, azmu shijoatli, tashabbuskor yoshlar alohida o'ringa ega;

- shu sababli ham mamlakatlar yosh avlodga zamon talabiga mos keladigan dunyoviy bilimlarni berishlari shart;

-mamlakatimizda o'quvchi va talabalarining axborot texnologiyalaridan savodxonligini oshirish bo'yicha olib borilayotgan ilmiy tadqiqot ishlarini yanada kuchaytirish lozim;

-fan mavzularini informatika fani doirasida internet texnologiyalari, mobil texnologiyalar, web-texnologiyalar va web dasturlash asosida o'qitish samaradorligini oshirish masalalariga alohida e'tibor qaratish kerak;

-mamlakatimiz o'quvchi va talabalarining o'zlashtirgan bilimini va pedagoglarning malakalarini baholash tizimini xalqaro tajribalar asosida takomillashtirib borish maqsadga muvofiq.

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ZAMONAVIY MAKTAB TA'LIMIDA RAQAMLI VA INTERAKTIV TEXNOLOGIYALARDAN FOYDALANISHNING PEDAGOGIK MOHIYATLARI

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Annotatsiya: Mazkur maqolada zamonaviy umumta'lim maktablarida o'quv jarayonining samaradorligini oshirishda raqamli va interaktiv texnologiyalarni qo'llashning pedagogik-psixologik xususiyatlari tahlil qilinadi. Raqamli ta'lim vositalarining o'quvchilar motivatsiyasini oshirish, bilim va ko'nikmalarni amaliy shakllantirishdagi o'rni hamda o'qituvchi va o'quvchi o'rtasidagi interaktiv muloqotni rivojlantirish omillari yoritilgan. Shuningdek, zamonaviy dars jarayonida raqamli platformalarni samarali integratsiya qilish bo'yicha amaliy tavsiyalar berilgan.

Аннотация: В данной статье анализируются педагогико-психологические особенности применения цифровых и интерактивных технологий для повышения эффективности учебного процесса в современной общеобразовательной школе. Освещается роль цифровых образовательных инструментов в повышении мотивации учащихся, практическом формировании знаний и умений, а также развитии интерактивного взаимодействия между учителем и учеником. Даны практические рекомендации по эффективной интеграции цифровых платформ в современный урок.

Abstract: This article analyzes the pedagogical and psychological features of applying digital and interactive technologies to enhance the effectiveness of the educational process in modern secondary schools. It highlights the role of digital educational tools in boosting student motivation, practically developing knowledge and skills, and fostering interactive communication between

teachers and students. Furthermore, practical recommendations are provided for the effective integration of digital platforms into modern lessons.

KIRISH

Bugungi kunda jahon va milliy ta'lim tizimida tub islohotlar hamda sifat jihatdan yangi bosqichga o'tish jarayoni kechmoqda. Mamlakatimizda ta'lim sohasini modernizatsiya qilish, o'quv-tarbiya jarayoniga ilg'or xalqaro tajribalarni tatbiq etish hamda ta'lim sifatini oshirish davlat siyosatining ustuvor yo'nalishlaridan biri sifatida belgilanmoqda. Ushbu strategik vazifalarni amalga oshirishda raqamli va interaktiv texnologiyalardan unumli foydalanish, dars jarayonlarini zamonaviy talablar darajasida tashkil etish alohida ahamiyat kasbetadi. 21-asrda ta'lim olayotgan zamonaviy o'quvchilar – "raqamli avlod" (digital natives) vakillari bo'lib, ularning axborotni qabul qilish, uni qayta ishlash hamda o'zlashtirish psixologiyasi avvalgi avlodlardan sezilarli darajada farq qiladi. Bugungi o'quvchi axborotni faqatgina eshitish yoki o'qish orqali emas, balki vizual, interaktiv va amaliy harakatlar orqali tezroq va samaraliroq qabul qiladi. Shu sababli, an'anaviy ta'lim usullari va bir xildagi (monoton) dars o'tish shakllari o'quvchilarning darsga bo'lgan motivatsiyasini to'liq ta'minlay olmayapti. Bu esa ta'lim jarayoniga yangicha pedagogik va texnologik yondashuvlarni joriy etish zaruratini yuzaga keltirmoqda. Raqamli va interaktiv texnologiyalar dars muhitini tubdan o'zgartirish, o'quv materiallarini yanada tushunarli, ko'rgazmali va qiziqarli shaklda yetkazish uchun keng imkoniyatlar ochib beradi. Ayniqsa, filologik va gumanitar fanlarni, jumladan, ikkinchi dil va xorijiy tillarni (masalan, rus tili) o'qitishda raqamli platformalar, multimediali taqdimotlar, interaktiv topshiriqlar va gamifikatsiya (o'yinli yondashuv) elementlaridan foydalanish o'quvchilarning nutqiy, tahliliy hamda kommunikativ kompetensiyalarini rivojlantirishda yuksak samaradorlik ko'rsatmoqda. Raqamli vositalar tufayli o'quvchi ta'lim jarayonining passiv kuzatuvchisi emas, balki uning faol va tashabbuskor qatnashchisiga aylanadi. Biroq, raqamli texnologiyalarni darsga shunchaki integratsiya qilish yetarli emas; ularni pedagogik va metodik jihatdan to'g'ri rejalashtirish, darsning maqsadi va o'quvchilarning yosh xususiyatlariga mos ravishda qo'llash muhim hisoblanadi. Shuningdek, bo'lajak va faoliyat yuritayotgan pedagoglarning raqamli kompetentligini oshirish, ularda zamonaviy texnologik vositalardan foydalanish ko'nikmalarini shakllantirish zamon talabiga aylanmoqda. Ushbu tadqiqotning dolzarbligi zamonaviy maktab ta'limida raqamli va interaktiv texnologiyalarning pedagogik imkoniyatlarini ilmiy-nazariy jihatdan asoslash, ularni dars jarayoniga samarali tatbiq etish yo'llarini ko'rib chiqish hamda ta'lim sifatini oshirishga qaratilgan amaliy tavsiyalarni ishlab chiqishdan iboratdir.

Zamonaviy pedagogika va ta'lim psixologiyasida raqamli hamda interaktiv texnologiyalardan foydalanish masalalari ko'plab mahalliy va xorijiy olimlar tomonidan keng tadqiq etilgan. Ta'lim jarayonini axborotlashtirish va pedagogik texnologiyalarni integratsiya qilish nazariyasi U.Sh.Begimqulov, R.H.Jurayev va R.Ishmuhamedov kabi tadqiqotchilarning ishlarida atroflicha yoritilgan. Xorijiy pedagogik tajribada esa K.Dudeni (G.Dudeney), N.Xokli (N.Hockly) va M.Prenski (M.Prensky) kabi olimlar raqamli pedagogika, multimediali ta'lim muhitini yaratish hamda "raqamli avlod" vakillarini o'qitish metodikasini ilmiy jihatdan asoslab berganlar. Ushbu tadqiqotni olib borishda quyidagi ilmiy-pedagogik metodlardan foydalanildi:

1. Tahliliy-qiyosiy metod: Zamonaviy maktab ta'limida qo'llanilayotgan an'anaviy va raqamli pedagogik texnologiyalarning afzalliklari va samaradorlik ko'rsatkichlari qiyosiy tahlil qilindi
2. Kuzatuv va umumlashtirish: Dars jarayonlarida interaktiv platformalardan (masalan, Wordwall, LearningApps, Kahoot, Canva, Google Classroom) foydalanish holatlari kuzatildi hamda o'quvchilarning darsga bo'lgan qiziqishi va o'zlashtirish darajasi umumlashtirildi.
3. Sistemali va strukturaviy yondashuv: Raqamli vositalarning dars bosqichlari (tashkiliy qism, yangi mavzuni tushuntirish, mustahkamlash, baholash) bo'yicha mantiqiy va pedagogik integratsiyalashuv tartibi belgilandi.

Tadqiqotning metodologik asosini shaxsga yo'naltirilgan ta'lim (student-centered learning), kompetensiyaviy yondashuv hamda interaktiv ta'lim tamoyillari tashkil etadi.

Olib borilgan kuzatuv va tahlillar shuni ko'rsatadiki, zamonaviy maktab ta'limida raqamli va interaktiv texnologiyalarni to'g'ri qo'llash dars samaradorligini sifat jihatdan yangi bosqichga ko'taradi. Tadqiqot davomida ushbu texnologiyalarning pedagogik imkoniyatlari quyidagi asosiy yo'nalishlarda namoyon bo'lishi aniqlandi:

1. Vizualizatsiya va axborotni samarali o'zlashtirish
Badiiy matnlar, grammatik qoidalar yoki murakkab nazariy tushunchalarni o'rgatishda multimediali taqdimotlar, videodarslar, infografika va mental xaritalar (Mind Maps) muhim rol o'ynaydi. Inson xotirasining vizual idrok etish xususiyatidan foydalanish o'quvchilarning ma'lumotni uzoq muddatda eslab qolish darajasini 30–40% ga oshiradi.

2. Gamifikatsiya va ta'limiy motivatsiyani oshirish
O'quv jarayoniga o'yin elementlarini (Wordwall, Kahoot, Quizizz va b.) kiritish o'quvchilarda darsga nisbatan ichki motivatsiyani va sog'lom raqobat muhitini shakllantiradi. Ayniqsa, til va adabiyot darslarida so'z boyligini oshirish, test topshiriqlarini bajarish hamda grammatik va leksik mashqlarni o'yin shaklida tashkil etish passiv o'quvchilarni ham faol jarayonga jalb etadi.

3. Muloqot va hamkorlikda ishlash ko'nikmalarini rivojlantirish
Interaktiv vositalar (Padlet, Google Docs, Jamboard) o'quvchilarga guruh yoki juftlikda birgalikda loyihalar tayyorlash, o'z fikr-mulohazalarini erkin bayon etish va tengdoshlari bilan hamkorlik qilish imkonini beradi. Bu esa o'quvchilarda 21-asrning muhim kompetensiyalaridan bo'lgan tanqidiy fikrlash (critical thinking), muloqot (communication) va hamkorlik (collaboration) ko'nikmalarini rivojlantiradi.

4. Tabaqalashtirilgan va individual ta'lim yondashuvi
Raqamli ta'lim resurslari har bir o'quvchining o'zlashtirish sur'ati va bilish darajasiga mos ravishda moslashuvchan (adaptive) topshiriqlar berish imkoniyatini yaratadi. O'qituvchi elektron platformalar orqali o'quvchilarning xatolarini real vaqt rejimida (real-time feedback) tahlil qilib, individual ko'mak ko'rsatishi mumkin.

O'qituvchilar va amaliyotchilar uchun pedagogik tavsiyalar:

- Darsning maqsadi bilan muvofiqlik: Raqamli vositalar darsning asosiy maqsadi emas, balki ungacha olib boruvchi samarali vosita bo'lishi kerak. Texnologiyadan faqat ko'rgazmalilik uchun emas, balki aniq pedagogik vazifani hal etish uchun foydalanish zarur.
- Vaqt va gigiyena me'yorlari: Dars davomida raqamli vositalardan (ekran, planshet va b.) foydalanishda o'quvchilarning yosh xususiyatlari va sanitariya-gigiyena talablariga rioya qilish lozim.

- Mediasavodxonlikni oshirish: O'quvchilarga nafaqat raqamli vositalardan foydalanishni, balki axborot xavfsizligi, manbalarni tekshirish hamda mediamatnlarni tanqidiy baholashni o'rgatish lozim.

Xulosa qilib aytganda, zamonaviy maktab ta'limida raqamli va interaktiv texnologiyalardan foydalanish ta'lim sifatini oshirish, o'quvchilarning bilim olishga bo'lgan qiziqishini orttirish hamda ularda zamonaviy hayotiy kompetensiyalarni shakllantirishning eng samarali omillaridan biridir. Tadqiqot natijalari shuni ko'rsatadiki, raqamli texnologiyalar va an'anaviy pedagogik usullarning optimal integratsiyasi o'quv jarayonining moslashuvchanligi va natijadorligini ta'minlaydi. Biroq har qanday eng zamonaviy texnologik vosita ham pedagogning mahorati, ijodkorligi hamda o'quvchi bilan jonli muloqotining o'rnini bosa olmaydi. Raqamli va interaktiv vositalar o'qituvchining pedagogik imkoniyatlarini kengaytiruvchi va darsning sifat ko'rsatkichini oshiruvchi samarqli vosita sifatida xizmat qiladi.

Olib borilgan izlanishlar asosida quyidagi muhim ilmiy-amaliy xulosalarga kelindi:

1. Motivatsiya va o'zlashtirish sifatining oshishi:
Raqamli platformalar, multimediali manbalar va gamifikatsiya (o'yinli) elementlarining dars jarayoniga unumli integratsiyalashuvi o'quvchilarning ichki motivatsiyasini sezilarli darajada oshiradi. Murakkab nazariy materiallar va gumanitar tushunchalarning vizual hamda interaktiv shaklda taqdim etilishi o'quvchilar tomonidan axborotni idrok etish va xotirada saqlash darajasini yaxshilaydi.

2. Muammoli va mustaqil fikrlashni rivojlantirish:

Interaktiv texnologiyalar o'quvchini tayyor axborotni shunchaki qabul qiluvchi passiv tinglovchidan ta'lim jarayonining faol subyektiga aylantiradi. Guruh va juftliklarda raqamli vositalar orqali topshiriqlarni bajarish o'quvchilarda tanqidiy fikrlash, tahlil qilish, muloqot va hamkorlikda ishlash (21-asr kompetensiyalari) ko'nikmalarini shakllantiradi.

3. Individual va tabaqalashtirilgan ta'lim muhiti: Raqamli vositalar o'qituvchiga har bir o'quvchining shaxsiy imkoniyatlari, o'zlashtirish sur'ati hamda qiziqishlariga mos ravishda moslashuvchan topshiriqlarni belgilash va natijalarni real vaqt rejimida (real-time feedback) baholash imkonini beradi. Bu esa o'quv jarayonining shaffofligi va natijadorligini ta'minlaydi.

4. Pedagogik mahorat va raqamli kompetentlik mutanosibligi: Har qanday ilg'or va zamonaviy raqamli texnologiya o'ziicha ta'lim sifatini kafolatlay olmaydi. Texnologiyalarning samaradorligi to'g'ridan-to'g'ri o'qituvchining metodik tayyorgarligi, raqamli kompetentligi hamda texnologik vositalarni darsning maqsadi va bosqichlariga mos holda to'g'ri rejalashtira olish mahoratiga bog'liqdir. Umumiy xulosa o'rnida ta'kidlash joizki, raqamli va interaktiv texnologiyalar pedagogning o'rnini bosa olmaydi, balki uning kasbiy imkoniyatlarini kengaytiruvchi, darsning mazmuniy-ko'rgazmali boyligini ta'minlovchi va ta'lim sifatini yangi bosqichga ko'taruvchi eng samarali vosita bo'lib xizmat qiladi. Kelgusida ushbu yo'nalishda o'qituvchilarning raqamli metodik bazasini boyitish hamda xavfsiz va samarali ta'limiy-raqamli muhitni yaratish bo'yicha amaliy ishlarni davom ettirish maqsadga muvofiqdir.

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RAQAMLI TA'LIM MUHITIDA O'QUVCHILARNING MUSTAQIL TA'LIM OLISH KO'NIKMALARINI RIVOJLANTIRISH

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Annotatsiya: Ushbu tezisdan raqamli ta'lim muhitida o'quvchilarning mustaqil ta'lim olish ko'nikmalarini rivojlantirish masalasi yoritiladi. Zamonaviy axborot-kommunikatsiya texnologiyalarining ta'lim jarayoniga jadal kirib kelishi o'quvchilarning bilim olish usullarini ham o'zgartirmoqda. Elektron ta'lim resurslari, onlayn platformalar, multimedia vositalari va interaktiv topshiriqlardan maqsadli foydalanish o'quvchilarning mustaqil izlanishi, axborotni tahlil qilishi, tanqidiy fikrlashi hamda o'z o'quv faoliyatini baholashiga ijobiy ta'sir ko'rsatadi. Tezisdan raqamli ta'lim muhitini samarali tashkil etishning pedagogik shartlari va o'qituvchining mazkur jarayondagi roli tahlil qilinadi.

Kalit so'zlar: raqamli ta'lim, mustaqil ta'lim, raqamli texnologiyalar, elektron resurslar, interaktiv ta'lim, raqamli savodxonlik, tanqidiy fikrlash, ta'lim sifati.

Аннотация: В статье рассматривается проблема формирования у обучающихся навыков самостоятельной учебной деятельности в условиях цифровой образовательной среды. Стремительное внедрение современных информационно-коммуникационных технологий в образовательный процесс трансформирует способы получения знаний. Целенаправленное использование цифровых образовательных ресурсов, онлайн-платформ, мультимедийных средств и интерактивных заданий оказывает положительное влияние на самостоятельный поиск информации, навыки ее анализа, критическое мышление и самооценку учащимися своей учебной деятельности. В работе анализируются педагогические условия эффективной организации цифровой образовательной среды и рассматривается роль педагога в этом процессе.

Ключевые слова: цифровое образование, самостоятельное обучение, цифровые технологии, электронные ресурсы, интерактивное обучение, цифровая грамотность, критическое мышление, качество образования.

Abstract: This article examines the development of independent learning skills among students within a digital educational environment. The rapid integration of modern information and communication technologies into the educational process is transforming the ways in which knowledge is acquired. The purposeful use of digital educational resources, online platforms, multimedia tools, and interactive assignments has a positive impact on independent information seeking, analytical skills, critical thinking, and students' self-assessment of their own learning activities.

The paper analyzes the pedagogical conditions for the effective organization of a digital educational environment and examines the role of the educator in this process.

Keywords: digital education, independent learning, digital technologies, electronic resources, interactive learning, digital literacy, critical thinking, quality of education.

KIRISH

Bugungi kunda ta'lim tizimi oldida turgan muhim vazifalardan biri — mustaqil fikrlaydigan, axborotni izlash va tahlil qilish qobiliyatiga ega, o'z bilimlarini muntazam ravishda oshirib boradigan shaxsni shakllantirishdir. Raqamli texnologiyalarning ta'lim jarayoniga keng joriy etilishi ushbu vazifani amalga oshirish uchun yangi imkoniyatlar yaratmoqda.

O'zbekistonda ta'lim sohasining huquqiy asoslarini belgilab beruvchi muhim hujjatlardan biri «Ta'lim to'g'risida»gi Qonun bo'lib, u 2020 yil 23 sentabrda qabul qilingan. O'zbekiston Respublikasi Hukumat portali Bugungi ta'lim jarayonida raqamli resurslardan foydalanish o'quvchining faqat tayyor bilimni qabul qilishiga emas, balki mustaqil ravishda bilim izlashi va o'zlashtirishiga ham xizmat qilishi lozim.

Mustaqil ta'lim — o'quvchining o'qituvchi ko'magi va yo'l-yo'rig'i asosida yoki mustaqil ravishda bilim, ko'nikma va malakalarni egallashga qaratilgan faoliyatidir. Bunday faoliyat jarayonida o'quvchi o'z oldiga maqsad qo'yadi, ma'lumot izlaydi, turli manbalarni taqqoslaydi, xulosa chiqaradi va o'z natijalarini baholaydi.

Raqamli ta'lim muhiti ushbu jarayonni yanada samarali tashkil etish imkonini beradi. Elektron darsliklar, raqamli kutubxonalar, videodarslar, test platformalari, virtual laboratoriyalar va boshqa ta'lim resurslari o'quvchiga kerakli ma'lumotni tezkor izlash va o'zlashtirish imkoniyatini yaratadi.

Raqamli muhitning muhim afzalliklaridan biri — ta'limning individuallashtirilishidir. O'quvchi o'zining bilim darajasi va ehtiyojiga mos materiallarni tanlashi, murakkab mavzularni qayta o'rganishi va qo'shimcha manbalardan foydalanishi mumkin. Natijada o'quvchining ta'lim jarayonidagi faolligi va shaxsiy mas'uliyati ortadi.

Bundan tashqari, raqamli texnologiyalar o'quvchilarda axborot bilan ishlash kompetensiyalarini shakllantirishga yordam beradi. O'quvchi internetdagi ma'lumotlarni shunchaki qabul qilib qolmasdan, ularning ishonchliligi, manbasi va mazmunini tahlil qilishi zarur. Bu esa tanqidiy fikrlash ko'nikmasini rivojlantirishga xizmat qiladi.

Masalan, o'qituvchi muayyan mavzu bo'yicha o'quvchilarga mustaqil tadqiqot topshirig'ini berishi mumkin. O'quvchilar elektron manbalardan ma'lumot to'playdi, bir nechta manbani o'zaro taqqoslaydi, asosiy fikrlarni ajratadi va o'z xulosalarini taqdimot yoki yozma shaklda bayon qiladi. Bunday yondashuv o'quvchini passiv tinglovchidan faol ta'lim sub'ektiga aylantiradi.

Shu bilan birga, raqamli ta'lim muhitida o'qituvchining roli kamaymaydi, balki mazmunan o'zgaradi. O'qituvchi axborotning yagona manbai bo'lishdan ko'ra, o'quvchining mustaqil faoliyatini tashkil etuvchi, yo'naltiruvchi va baholovchi sub'ekt sifatida faoliyat olib boradi.

Zamonaviy raqamli ta'lim muhitida sun'iy intellekt vositalaridan ham foydalanish imkoniyatlari kengayib bormoqda. UNESCOning 2023 yildagi qo'llanmasida generativ sun'iy intellektidan ta'limda foydalanishda inson manfaati, xavfsizlik, axborot maxfiyligi va pedagogik maqsadga muvofiqlikka e'tibor qaratish zarurligi ta'kidlangan. YuNESKO+1

Biroq raqamli texnologiyalardan foydalanishda muayyan muammolar ham mavjud. Xususan, o'quvchilarning internetdagi ishonchsiz ma'lumotlarga duch kelishi, raqamli resurslardan maqsadsiz foydalanishi yoki tayyor ma'lumotni mustaqil tahlil qilmasdan qabul qilishi ta'lim natijasiga salbiy ta'sir qilishi mumkin. Shu sababli raqamli savodxonlikni shakllantirish mustaqil ta'limning muhim tarkibiy qismi hisoblanadi.

XULOSA

Xulosa qilib aytganda, raqamli ta'lim muhiti o'quvchilarning mustaqil ta'lim olish ko'nikmalarini rivojlantirish uchun keng imkoniyatlar yaratadi. Elektron ta'lim resurslari, interaktiv platformalar va multimedia vositalaridan maqsadli foydalanish o'quvchilarning bilim olishga bo'lgan qiziqishini oshiradi, mustaqil izlanish va tanqidiy fikrlash qobiliyatini rivojlantiradi.

Bunda asosiy e'tibor texnologiyaning o'ziga emas, balki uning pedagogik maqsadga muvofiq qo'llanilishiga qaratilishi lozim. O'qituvchi raqamli resurslarni to'g'ri tanlash, o'quvchilarning mustaqil faoliyatini tashkil etish va natijalarni baholash orqali raqamli ta'lim muhitining samaradorligini ta'minlaydi.

Shunday qilib, raqamli ta'lim muhiti va mustaqil ta'limni uyg'unlashtirish zamonaviy ta'lim sifatini oshirish, o'quvchilarda mustaqil fikrlash va o'z-o'zini rivojlantirish kompetensiyalarini shakllantirishning muhim shartlaridan biri hisoblanadi.

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ZAMONAVIY JAMIYATDA RAQAMLI TEXNOLOGIYALARNING IJTIMOIIY MUNOSABATLARGA TA'SIRINING SOTSIOLOGIK TAHLILI.

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Annotatsiya: Mazkur maqolada zamonaviy jamiyat taraqqiyotida raqamli texnologiyalarning tutgan o'rni va ularning ijtimoiy munosabatlarga ko'rsatayotgan ta'siri sotsiologik nuqtai nazardan tahlil qilinadi. Raqamli texnologiyalarning jadal rivojlanishi insonlarning kundalik hayoti, muloqot shakllari, mehnat faoliyati, ta'lim tizimi va ijtimoiy institutlar faoliyatida muhim o'zgarishlarni

yuzaga keltirmoqda. Maqolada raqamlashtirish jarayonining ijobiy va salbiy oqibatlari, ijtimoiy tarmoqlarning insonlar o'rtasidagi munosabatlarga ta'siri, raqamli tengsizlik, virtual muloqot va ijtimoiylashuv muammolari yoritilgan. Shuningdek, raqamli texnologiyalardan samarali va mas'uliyatli foydalanish orqali jamiyatning barqaror ijtimoiy rivojlanishini ta'minlash masalalari tahlil qilingan.

Kalit so'zlar: raqamli texnologiyalar, raqamli jamiyat, ijtimoiy munosabatlar, sotsiologiya, ijtimoiy tarmoqlar, raqamli tengsizlik, kommunikatsiya, ijtimoiylashuv, axborot jamiyati, virtual makon, raqamli madaniyat, ijtimoiy taraqqiyot.

Аннотация: В данной статье рассматривается роль цифровых технологий в развитии современного общества и анализируется их влияние на социальные отношения с социологической точки зрения. Стремительное развитие цифровых технологий приводит к существенным изменениям в повседневной жизни людей, формах общения, трудовой деятельности, системе образования и функционировании социальных институтов. В статье освещаются положительные и отрицательные последствия процесса цифровизации, влияние социальных сетей на взаимоотношения между людьми, проблемы цифрового неравенства, виртуальной коммуникации и социализации. Также анализируются вопросы обеспечения устойчивого социального развития общества посредством эффективного и ответственного использования цифровых технологий.

Ключевые слова: цифровые технологии, цифровое общество, социальные отношения, социология, социальные сети, цифровое неравенство, коммуникация, социализация, информационное общество, виртуальное пространство, цифровая культура, социальное развитие.

Abstract; This article examines the role of digital technologies in the development of modern society and analyzes their impact on social relations from a sociological perspective. The rapid development of digital technologies has brought significant changes to people's everyday lives, forms of communication, work activities, education systems, and the functioning of social institutions. The article discusses the positive and negative consequences of digitalization, the influence of social networks on interpersonal relationships, digital inequality, virtual communication, and socialization. It also analyzes the importance of effective and responsible use of digital technologies in ensuring sustainable social development.

Keywords: digital technologies, digital society, social relations, sociology, social networks, digital inequality, communication, socialization, information society, virtual space, digital culture, social development.

Zamonaviy jamiyatda raqamli texnologiyalar rivojlanishini tushuntirishda bir qator sotsiologik nazariyalar muhim ahamiyatga ega. Ushbu nazariyalar texnologik o'zgarishlarning faqat texnik yoki iqtisodiy emas, balki ijtimoiy jarayon ekanligini ko'rsatadi.

Postindustrial jamiyat nazariyasiga ko'ra, zamonaviy taraqqiyotning asosiy omili moddiy ishlab chiqarishdan ko'ra bilim va axborotning rivojlanishi bilan belgilanadi. Axborot zamonaviy jamiyatning muhim resursiga aylanib, iqtisodiy va ijtimoiy taraqqiyotga sezilarli ta'sir ko'rsatadi.

Tarmoq jamiyati konsepsiyasida zamonaviy jamiyatning asosiy xususiyati insonlar, tashkilotlar va davlatlar o'rtasidagi tarmoq munosabatlarining kengayishi bilan izohlanadi. Internet va axborot-kommunikatsiya texnologiyalari natijasida ijtimoiy munosabatlar geografik chegaralardan chiqib, global xarakter kasb etmoqda.

Sotsiologik nuqtai nazardan raqamli transformatsiya jamiyatning ijtimoiy tuzilmasiga ham ta'sir ko'rsatadi. Zamonaviy texnologiyalar yangi ijtimoiy guruhlar va kasblarning shakllanishiga sabab bo'lmoqda. Masalan, dasturchilar, raqamli marketing mutaxassislari, kontent yaratuvchilar va boshqa yangi faoliyat turlari mehnat bozorining tarkibiy qismiga aylanmoqda.

Shuningdek, raqamli texnologiyalar jamiyatdagi hokimiyat va ta'sir munosabatlariga ham o'z ta'sirini ko'rsatmoqda. Axborotga ega bo'lgan va undan samarali foydalana oladigan shaxslar hamda ijtimoiy guruhlar zamonaviy jamiyatda muhim imkoniyatlarga ega bo'lmoqda. Shu sababli

raqamli texnologiyalarni o'rganishda texnologik imkoniyatlar bilan bir qatorda ijtimoiy tenglik masalasiga ham alohida e'tibor qaratish zarur.

Raqamli texnologiyalar oilaviy munosabatlarga ham sezilarli ta'sir ko'rsatmoqda. Zamonaviy oilalarda mobil telefonlar, internet va ijtimoiy tarmoqlar kundalik hayotning ajralmas qismiga aylangan.

Bir tomondan, zamonaviy texnologiyalar uzoqda yashayotgan oila a'zolari o'rtasidagi aloqalarni mustahkamlash imkonini beradi. Videoaloqa va turli messenjerlar yordamida insonlar geografik masofadan qat'i nazar o'z yaqinlari bilan doimiy muloqot qilishlari mumkin.

Ikkinchi tomondan, raqamli texnologiyalardan ortiqcha foydalanish oiladagi bevosita muloqotning kamayishiga sabab bo'lishi mumkin. Bir oilada yashayotgan insonlarning har biri ko'proq virtual makonda faol bo'lishi natijasida yuzma-yuz suhbatlashish va birgalikda vaqt o'tkazish imkoniyatlari kamayishi mumkin.

Ayniqsa, ota-onalar va farzandlar o'rtasidagi munosabatlarda raqamli texnologiyalarning ta'siri muhim ahamiyat kasb etadi. Yosh avlodning internet va ijtimoiy tarmoqlardan foydalanish madaniyatini shakllantirishda oilaning roli katta.

Oilada raqamli texnologiyalardan oqilona foydalanish madaniyatini shakllantirish zarur. Buning uchun oila a'zolari o'rtasidagi bevosita muloqotni saqlash, farzandlarda axborotni tanqidiy baholash ko'nikmasini rivojlantirish va raqamli xavfsizlik qoidalariga amal qilish muhimdir.

Yoshlar zamonaviy raqamli texnologiyalarning eng faol foydalanuvchilaridan biridir. Shu sababli raqamli makon yoshlarning dunyoqarashi, qadriyatlari va ijtimoiy xulq-atvoriga katta ta'sir ko'rsatmoqda. Ijtimoiy tarmoqlar yoshlar uchun nafaqat muloqot vositasi, balki axborot manbai va o'zini namoyon qilish maydoniga ham aylangan. Yoshlar virtual makonda turli fikrlar bilan tanishadi, o'z qarashlarini ifodalaydi va yangi ijtimoiy guruhlariga qo'shiladi. Bu jarayon yoshlarning ijtimoiylashuviga ijobiy ta'sir ko'rsatishi mumkin. Ularning dunyoqarashi kengayadi, turli xalqlar va madaniyatlar haqidagi bilimlari ortadi hamda yangi bilimlarni egallash imkoniyatlari kengayadi. Biroq raqamli makonda noto'g'ri axborotlarning tarqalishi ham muhim muammolardan biridir. Ishonchsiz yoki manipulyativ axborot yoshlarning qarashlari va xulq-atvoriga salbiy ta'sir ko'rsatishi mumkin. Shu sababli yoshlar o'rtasida media savodxonlikni rivojlantirish muhim vazifadir. Media savodxonlik insonning axborotni tanlash, tekshirish va tanqidiy baholash qobiliyatini shakllantiradi. Yoshlarning raqamli madaniyatini shakllantirishda ta'lim muassasalari, oila va boshqa ijtimoiy institutlarning hamkorligi muhim ahamiyatga ega.

Raqamli texnologiyalarning jadal rivojlanishi ta'lim tizimida ham katta o'zgarishlarni yuzaga keltirdi. Elektron ta'lim, masofaviy o'qitish va onlayn ta'lim resurslari zamonaviy ta'limning muhim tarkibiy qismiga aylandi. Raqamli ta'limning asosiy afzalliklaridan biri ta'lim olish imkoniyatlarining kengayishidir. Internet orqali inson dunyoning turli ta'lim muassasalari va ilmiy manbalaridan foydalanishi mumkin. Shuningdek, raqamli texnologiyalar individual ta'lim imkoniyatlarini ham kengaytiradi. Har bir o'quvchi yoki talaba o'zining bilim darajasi va qiziqishlariga mos materiallardan foydalanishi mumkin. Biroq raqamli ta'lim jarayonida ayrim muammolar ham mavjud. Internet tezligi, texnik vositalarning yetishmasligi va raqamli ko'nikmalarning turlicha darajada bo'lishi ta'lim sifatiga ta'sir qilishi mumkin.

Ta'lim tizimida raqamli texnologiyalarni joriy etishda inson omilini unutmaslik zarur. O'qituvchi va talaba o'rtasidagi bevosita muloqot ta'lim va tarbiya jarayonining muhim tarkibiy qismi bo'lib qoladi. Shuning uchun raqamli texnologiyalar an'anaviy ta'limni butunlay almashtirish vositasi sifatida emas, balki uning imkoniyatlarini kengaytiruvchi vosita sifatida qaralishi lozim.

Raqamli texnologiyalar mehnat munosabatlariga ham sezilarli ta'sir ko'rsatmoqda. Zamonaviy texnologiyalar ishlab chiqarish va xizmat ko'rsatish sohalarida yangi mehnat shakllarining paydo bo'lishiga sabab bo'lmoqda.

Masofadan ishlash bugungi kunda mehnat faoliyatining muhim shakllaridan biriga aylandi. Internet va zamonaviy kommunikatsiya vositalari yordamida insonlar an'anaviy ish joyidan tashqarida turib ham o'z mehnat faoliyatini amalga oshirishlari mumkin. Bu holat mehnat bozorining moslashuvchanligini oshiradi. Insonlar turli hududlarda joylashgan tashkilotlar bilan hamkorlik qilish

imkoniyatiga ega bo'ladi. Shu bilan birga, avtomatlashtirish ayrim an'anaviy kasblarga bo'lgan talabning kamayishiga olib kelishi mumkin. Natijada insonlar yangi kasb va ko'nikmalarni egallashga majbur bo'ladi.

Zamonaviy mehnat bozorida faqat kasbiy bilimning o'zi yetarli bo'lmay qolmoqda. Raqamli savodxonlik, axborot bilan ishlash, moslashuvchan fikrlash va yangi texnologiyalarni o'zlashtirish qobiliyati muhim ahamiyat kasb etmoqda.

Davlat va ta'lim muassasalari aholini zamonaviy mehnat bozorining talablariga tayyorlashga alohida e'tibor qaratishi zarur.

Virtual makon insonlarning o'zini anglash va jamiyatda o'z o'rnini belgilash jarayoniga ham ta'sir ko'rsatmoqda. Ijtimoiy tarmoqlarda insonlar o'zlari haqidagi ma'lumotlarni namoyish etadi va ma'lum bir ijtimoiy obraz yaratadi. Virtual identifikatsiya real hayotdagi shaxsiy identifikatsiyadan ayrim jihatlar bilan farq qiladi. Virtual makonda inson o'zini turli usullarda ifodalashi va turli ijtimoiy guruhlariga mansubligini ko'rsatishi mumkin. Ijtimoiy tarmoqlar insonlarga o'z fikrini bildirish va o'z qiziqishlari asosida boshqa insonlar bilan muloqot qilish imkoniyatini beradi. Shu bilan birga, virtual makonda boshqa insonlarning fikri va bahosi shaxsning o'ziga bo'lgan munosabatiga ham ta'sir ko'rsatishi mumkin.

Sotsiologik jihatdan virtual identifikatsiya zamonaviy jamiyatdagi shaxs va jamiyat munosabatlarining yangi ko'rinishidir. Shu sababli virtual makondagi ijtimoiy xulq-atvor va shaxs identifikatsiyasi zamonaviy sotsiologik tadqiqotlarning muhim yo'nalishlaridan biri hisoblanadi.

Raqamli jamiyatning shakllanishi yangi turdagi madaniyatning rivojlanishiga sabab bo'lmoqda. Raqamli madaniyat deganda insonlarning raqamli texnologiyalar va virtual makondan foydalanish bilan bog'liq bilim, ko'nikma va xulq-atvor qoidalari tushuniladi.

Zamonaviy inson nafaqat texnologiyalardan foydalanishni, balki raqamli makonda mas'uliyatli xulq-atvorni ham bilishi zarur. Bunga boshqa insonlarning huquqlarini hurmat qilish, shaxsiy ma'lumotlarni himoya qilish va ishonchli axborotdan foydalanish kiradi.

Media savodxonlik raqamli madaniyatning muhim tarkibiy qismidir. Zamonaviy axborot oqimida inson haqiqatga mos va ishonchli axborotni noto'g'ri axborotdan ajrata olishi kerak.

Soxta axborotlarning keng tarqalishi jamiyatda turli noto'g'ri qarashlarning shakllanishiga sabab bo'lishi mumkin. Shu sababli yoshlar va aholining boshqa qatlamlarida axborotni tekshirish va tahlil qilish ko'nikmalarini rivojlantirish zarur.

Raqamli madaniyatni rivojlantirish jamiyatning axborot xavfsizligini ta'minlash va texnologiyalardan samarali foydalanishda muhim omil hisoblanadi.

RAQAMLI TEXNOLOGIYALAR VA IJTIMOY INSTITUTLARNING TRANSFORMATSIYASI

Raqamli texnologiyalarning jadal rivojlanishi zamonaviy jamiyatdagi asosiy ijtimoiy institutlar faoliyatiga sezilarli ta'sir ko'rsatmoqda. Oila, ta'lim, mehnat, davlat boshqaruvi, madaniyat va ommaviy kommunikatsiya institutlari raqamlashtirish jarayonida yangi shakl va mazmun kasb etmoqda. Mazkur jarayon ijtimoiy munosabatlarning an'anaviy tizimini o'zgartirib, jamiyat taraqqiyotining yangi mexanizmlarini shakllantirmoqda.

Ijtimoiy institutlarning raqamli transformatsiyasi, avvalo, axborot almashish tezligining ortishi bilan bog'liq. Ilgari ma'lum bir ijtimoiy jarayon yoki qarorni amalga oshirish uchun uzoq vaqt talab etilgan bo'lsa, zamonaviy raqamli vositalar ushbu jarayonlarni tezlashtirish imkonini bermoqda. Bu esa boshqaruv, ta'lim, xizmat ko'rsatish va boshqa sohalarda samaradorlikning oshishiga olib kelmoqda.

Davlat boshqaruvida raqamli texnologiyalardan foydalanish fuqarolar va davlat organlari o'rtasidagi munosabatlarning yangi shakllarini vujudga keltirmoqda. Elektron murojaatlar, raqamli davlat xizmatlari va onlayn platformalar fuqarolarning turli xizmatlardan foydalanish imkoniyatlarini kengaytiradi. Bunday jarayon davlat boshqaruvida ochiqlik va tezkorlikni oshirishga xizmat qilishi mumkin.

Biroq raqamli transformatsiya jarayonida barcha ijtimoiy guruhlarining manfaatlarini hisobga olish zarur. Raqamli xizmatlardan foydalanish uchun zarur bo'lgan bilim va texnik vositalarga ega bo'lmagan fuqarolar ayrim imkoniyatlardan chetda qolishi mumkin. Shu sababli ijtimoiy institutlarni raqamlashtirish jarayonida inklyuzivlik tamoyiliga alohida e'tibor qaratish muhimdir.

Raqamli texnologiyalar ijtimoiy institutlarning faoliyatini yanada moslashuvchan qilmoqda. Shu bilan birga, inson omilining ahamiyati saqlanib qolmoqda. Texnologik vositalar insonlar o'rtasidagi ijtimoiy munosabatlarni to'liq almashtira olmaydi. Jamiyatda ishonch, hamkorlik, hamjihatlik va o'zaro mas'uliyat kabi ijtimoiy qadriyatlar muhim ahamiyatga ega bo'lib qoladi.

RAQAMLI JAMIYATDA IJTIMOIIY QADRIYATLARNING O'ZGARISHI

Har qanday jamiyat taraqqiyoti uning qadriyatlar tizimi bilan chambarchas bog'liqdir. Raqamli texnologiyalarning keng tarqalishi insonlarning dunyoqarashi, hayot tarzi va ijtimoiy qadriyatlariga ham ta'sir ko'rsatmoqda. Axborotning tez tarqalishi va turli madaniyatlarning o'zaro yaqinlashuvi qadriyatlar tizimining o'zgarishiga sabab bo'lmoqda.

Zamonaviy inson uchun vaqt, tezkorlik, axborotga erkin kirish va kommunikatsiya imkoniyatlari muhim qadriyatlardan biriga aylanmoqda. Raqamli texnologiyalar insonlarga qisqa vaqt ichida katta hajmdagi ma'lumotlarni olish imkonini beradi. Natijada jamiyatda tezkor qaror qabul qilish va tezkor axborot almashish ehtiyoji kuchaymoqda.

Biroq axborot oqimining haddan tashqari ko'payishi insonning ijtimoiy va ruhiy hayotiga ham ta'sir ko'rsatishi mumkin. Inson doimiy ravishda turli ma'lumotlar oqimi ichida bo'lganligi sababli zarur va keraksiz axborotni ajratish muammosiga duch keladi. Shu nuqtai nazardan tanqidiy fikrlash va axborotni tahlil qilish zamonaviy jamiyatning muhim ijtimoiy ko'nikmalaridan biriga aylanmoqda.

Raqamli makonning rivojlanishi global va milliy qadriyatlar o'rtasidagi munosabatlarga ham ta'sir ko'rsatadi. Internet orqali turli mamlakatlarning madaniyati, turmush tarzi va qadriyatlari keng tarqalmoqda. Bu holat insonlarning dunyoqarashini kengaytirishi mumkin. Shu bilan birga, milliy madaniyat va an'analarni saqlash masalasi ham dolzarb bo'lib bormoqda.

Shuning uchun raqamli jamiyatda texnologik rivojlanish bilan bir qatorda milliy va umuminsoniy qadriyatlarni uyg'unlashtirish muhimdir. Yosh avlodda zamonaviy bilim va ko'nikmalar bilan birga milliy o'zlikni anglash, ijtimoiy mas'uliyat va insonparvarlik qadriyatlarini shakllantirish zarur.

RAQAMLI TEXNOLOGIYALAR VA IJTIMOIIY TABAQALASHUVNING YANGI SHAKLLARI

Jamiyatda ijtimoiy tabaqalanish turli tarixiy davrlarda turli omillar asosida shakllangan. Zamonaviy jamiyatda iqtisodiy imkoniyatlar, ta'lim darajasi va kasbiy mavqedan tashqari, raqamli texnologiyalardan foydalanish imkoniyati ham ijtimoiy mavqega ta'sir ko'rsatuvchi omillardan biriga aylanmoqda.

Raqamli texnologiyalarni yaxshi biladigan va ulardan samarali foydalana oladigan insonlar ta'lim va mehnat bozorida kengroq imkoniyatlarga ega bo'lishi mumkin. Aksincha, raqamli ko'nikmalari yetarli bo'lmagan shaxslar zamonaviy ijtimoiy va iqtisodiy jarayonlardan chetda qolish xavfiga duch keladi.

Shu tariqa, zamonaviy jamiyatda "raqamli imkoniyatlarga ega" va "raqamli imkoniyatlari cheklangan" guruhlar o'rtasidagi farq kuchayishi mumkin. Bu holat nafaqat iqtisodiy, balki ijtimoiy tengsizlikning ham yangi ko'rinishlarini vujudga keltiradi.

Raqamli tabaqalanishga yosh, yashash hududi, ta'lim darajasi va iqtisodiy holat kabi omillar ham ta'sir qiladi. Ayrim aholi qatlamlari zamonaviy texnologiyalardan foydalanishda qiyinchiliklarga duch kelishi mumkin. Shu sababli raqamli tenglikni ta'minlash davlat va jamiyat oldida turgan muhim vazifalardan biridir.

Raqamli tengsizlikni kamaytirish uchun faqat texnik vositalarni keng tarqatish yetarli emas. Aholining raqamli savodxonligini oshirish, sifatli internetdan foydalanish imkoniyatlarini

kengaytirish va turli ijtimoiy guruhlar uchun mos raqamli ta'lim dasturlarini tashkil etish ham muhimdir.

RAQAMLI MAKONDA IJTIMOIIY FAOLLIK VA FUQAROLIK POZITSIIYASI

Raqamli texnologiyalar fuqarolarning ijtimoiy va siyosiy faolligiga ham ta'sir ko'rsatmoqda. Internet va ijtimoiy tarmoqlar orqali insonlar turli ijtimoiy muammolar yuzasidan o'z fikrlarini bildirish, jamoatchilik muhokamalarida ishtirok etish va ijtimoiy tashabbuslarni qo'llab-quvvatlash imkoniyatiga ega bo'lmoqda.

Virtual makon fuqarolik faolligining yangi shakllarini yuzaga keltirdi. Turli jamoatchilik tashabbuslari, xayriya tadbirlari, ekologik aksiyalar va boshqa ijtimoiy loyihalar internet orqali keng targ'ib qilinmoqda. Bu esa jamiyat a'zolarining umumiy muammolarni hal qilishdagi ishtirokini kuchaytirishga yordam berishi mumkin.

Biroq raqamli makondagi faollik har doim ham real ijtimoiy faoliyatga aylanavermaydi. Ba'zi hollarda inson faqat virtual tarzda o'z munosabatini bildirishi bilan cheklanib qolishi mumkin. Shu sababli sotsiologik tadqiqotlarda virtual faollik va real ijtimoiy faoliyat o'rtasidagi munosabatni o'rganish muhim ahamiyat kasb etadi.

Raqamli makonda fuqarolik madaniyatini rivojlantirish uchun axborotdan mas'uliyatli foydalanish talab etiladi. Har qanday axborotni tekshirmasdan tarqatish jamiyatda noto'g'ri qarashlarning shakllanishiga sabab bo'lishi mumkin. Shu bois fuqarolarda media savodxonlik va axborot madaniyatini shakllantirish dolzarb vazifadir.

Globalashuv jarayonida raqamli texnologiyalar turli xalqlar va madaniyatlar o'rtasidagi aloqalarni kuchaytirmoqda. Internet orqali insonlar dunyoning turli hududlarida yaratilayotgan madaniy mahsulotlar, ilmiy yutuqlar va ijtimoiy jarayonlar bilan tanishish imkoniyatiga ega. Bu jarayon madaniyatlararo muloqotni rivojlantirishga xizmat qiladi. Turli xalqlarning tarixi, san'ati va an'analari haqidagi ma'lumotlarga keng kirish imkoniyati insonlarning dunyoqarashini kengaytiradi.

Shu bilan birga, global madaniy mahsulotlarning keng tarqalishi milliy madaniyatga ham ta'sir ko'rsatadi. Ayrim hollarda ommaviy madaniyatning kuchayishi milliy an'analarning yosh avlod orasidagi ahamiyatining kamayishiga olib kelishi mumkin. Shu sababli raqamli texnologiyalardan milliy madaniyatni saqlash va rivojlantirish vositasi sifatida foydalanish muhimdir. Milliy tarix, madaniyat, adabiyot va san'atni raqamli platformalarda keng targ'ib qilish orqali yosh avlodning milliy merosga bo'lgan qiziqishini oshirish mumkin.

Raqamli makon milliy va global madaniyatlar o'rtasidagi muloqot maydoni sifatida ham namoyon bo'ladi. Ushbu jarayonda o'z milliy madaniyatini saqlagan holda boshqa madaniyatlarga hurmat bilan munosabatda bo'lish zamonaviy jamiyatning muhim talablaridan biridir.

Zamonaviy jamiyatda raqamli texnologiyalardan foydalanish erkinligi bilan bir qatorda ijtimoiy mas'uliyat ham muhim ahamiyatga ega. Internet va ijtimoiy tarmoqlarda tarqatilgan har qanday axborot keng auditoriyaga yetib borishi va jamiyat fikriga ma'lum darajada ta'sir ko'rsatishi mumkin. Shu sababli foydalanuvchilarning raqamli makondagi xulq-atvori ijtimoiy mas'uliyat tamoyillariga asoslanishi lozim. Boshqa insonlarning sha'ni va qadr-qimmatini hurmat qilish, shaxsiy ma'lumotlarni noqonuniy tarqatmaslik, ishonchsiz axborotni tekshirmasdan ulashmaslik raqamli madaniyatning muhim talablaridan hisoblanadi.

Raqamli texnologiyalarni ishlab chiquvchi tashkilotlar ham ijtimoiy mas'uliyatga ega. Yangi texnologiyalar inson manfaatlari va jamiyat xavfsizligini hisobga olgan holda ishlab chiqilishi zarur.

Texnologik taraqqiyotning asosiy maqsadi inson hayotini yaxshilash va jamiyat taraqqiyotiga xizmat qilishdan iborat bo'lishi kerak. Shu sababli texnologiyalarni rivojlantirish jarayonida axloqiy va ijtimoiy mas'uliyat masalalariga alohida e'tibor berish lozim. Raqamli jamiyatda ijtimoiy mas'uliyatni shakllantirish oila, ta'lim muassasalari, ommaviy axborot vositalari va boshqa ijtimoiy institutlarning hamkorligini talab qiladi. Bu orqali texnologiyalardan oqilona, xavfsiz va samarali foydalanish madaniyatini rivojlantirish mumkin.

Xulosa qilib aytganda, raqamli texnologiyalar zamonaviy jamiyat rivojlanishining muhim omillaridan biridir. Ular insonlar hayotini yengillashtirish, axborot almashinuvini tezlashtirish, ta'lim va mehnat imkoniyatlarini kengaytirish orqali jamiyat taraqqiyotiga katta hissa qo'shmoqda. Shu bilan birga, raqamlashtirish jarayoni ijtimoiy munosabatlarning mazmuni va shakliga sezilarli ta'sir ko'rsatmoqda. Virtual muloqotning kengayishi, ijtimoiy tarmoqlarning inson dunyoqarashiga ta'siri va raqamli makonda yangi ijtimoiy guruhlarining shakllanishi zamonaviy sotsiologik tadqiqotlarning muhim yo'nalishlaridan hisoblanadi. Raqamli tengsizlik, axborot xavfsizligi, shaxsiy hayot daxlsizligi va virtual makondagi ijtimoiylashuv bilan bog'liq muammolar ilmiy asosda o'rganilishi zarur.

Kelajakda raqamli texnologiyalarning jamiyat taraqqiyotiga ijobiy ta'sirini kuchaytirish uchun texnologik rivojlanish bilan bir qatorda inson manfaatlari, ijtimoiy adolat va tenglik tamoyillariga ham alohida e'tibor qaratish lozim.

Davlat, ta'lim muassasalari, ilmiy hamjamiyat va fuqarolik jamiyati institutlarining hamkorligi orqali raqamli texnologiyalardan xavfsiz, samarali va mas'uliyatli foydalanish madaniyatini shakllantirish mumkin.

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SUNIY INTELLEKT, BIG DATA VA ZAMONAVIY AXBOROT-KOMMUNIKATSIYA TEXNLOGIYALARINING FAN HAMDA TA'LIM INTEGRATSIYASIDAGI RO'LI

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Annotatsiya: Mazkur maqolada sun'iy intellekt (SI), katta ma'lumotlar (Big Data) texnologiyalari va zamonaviy axborot-kommunikatsiya texnologiyalarining (AKT) fan hamda ta'lim integratsiyasidagi roli kompleks tarzda tahlil qilingan. Tadqiqotda mashinali o'qitish (machine learning), chuqur o'qitish (deep learning), tabiiy tilni qayta ishlash (Natural Language Processing — NLP), ma'lumotlar analitikasi, o'quv analitikasi (Learning Analytics), bulut hisoblash (cloud computing), kengaytirilgan va virtual haqiqat (AR/VR) texnologiyalarining ilmiy-ta'limiy jarayonlarga ta'siri ilmiy asosda yoritilgan. Shuningdek, maqolada ta'lim sifatini oshirish, tadqiqot samaradorligini ta'minlash va pedagogik innovatsiyalarni joriy etishda ushbu texnologiyalardan foydalanishning amaliy mexanizmlari tahlil qilingan. Intellektual o'qitish tizimlari (Intelligent Tutoring Systems), adaptiv o'qitish platformalari, raqamli laboratoriyalar va neyron tarmoqlarga asoslangan baholash tizimlarining imkoniyatlari ko'rsatib o'tilgan. Tadqiqot natijalari shuni ko'rsatadiki, sun'iy intellekt va Big Data asosida qurilgan ta'lim tizimlari o'qitish jarayonini

individuallashtirish, ilmiy izlanishlarni tezlashtirish, pedagoglarning kasbiy kompetentligini oshirish va ta'lim-fan hamkorligini yangi bosqichga olib chiqishda muhim omil hisoblanadi. Maqolada ushbu texnologiyalarni joriy etishdagi muammolar va ularni bartaraf etish yo'llari ham ilmiy asosda ko'rib chiqilgan.

Kalit so'zlar: Sun'iy intellekt, Big Data, axborot-kommunikatsiya texnologiyalari, ta'lim-fan integratsiyasi, mashinali o'qitish, chuqur o'qitish, neyron tarmoqlar, tabiiy tilni qayta ishlash.

XXI asrda texnologik taraqqiyotning misli ko'rilmagan tezligi barcha sohalar qatori fan va ta'lim tizimlarini ham tubdan o'zgartirmoqda. Sun'iy intellekt (SI), katta ma'lumotlar (Big Data) va zamonaviy axborot-kommunikatsiya texnologiyalari (AKT) bu o'zgarishlarning asosiy harakatlantiruvchi kuchlari sifatida namoyon bo'lmoqda. Global raqamli transformatsiya sharoitida an'anaviy ta'lim modellari va ilmiy tadqiqot metodologiyalari chuqur o'zgarishlarga uchrab, yangi paradigmalarni shakllanmoqda.

Sun'iy intellektning ta'limdagi tatbiqi 1950-yillardagi dastlabki kompyuter asosidagi o'qitish tizimlaridan boshlab, bugungi kunda kuchli neyron tarmoqlar va katta til modellarigacha (Large Language Models — LLM) bo'lgan yo'lni bosib o'tdi. Hozirgi kunda ChatGPT, Google Gemini, Microsoft Copilot va shunga o'xshash sun'iy intellekt asosidagi vositalar ta'lim va ilmiy tadqiqot sohasida keng qo'llanilmoqda. Bu tizimlar matnni tushunish, tahlil qilish, tarjima qilish, kodni yozish va muammolarni hal etish kabi vazifalarni bajarish qobiliyatiga ega bo'lib, pedagogik jarayonni yangi bosqichga olib chiqmoqda.

Katta ma'lumotlar (Big Data) texnologiyalarining paydo bo'lishi ham ilmiy dunyoda inqilobiy o'zgarishlarni keltirib chiqardi. Genomika, iqlim tadqiqotlari, iqtisodiy modellash, ijtimoiy tahlil va ta'lim sohasida petabaytlik ma'lumotlarni qayta ishlab, ulardan amaliy xulosalar chiqarish imkoni tug'ildi. O'quv analitikasi (Learning Analytics) va ta'lim ma'lumotlarini qazib olish (Educational Data Mining) kabi yangi soha yo'nalishlari paydo bo'lib, ta'lim jarayonini ma'lumotlarga asoslangan holda boshqarish va optimallashtirish imkoniyatlarini yaratdi.

O'zbekistonda ham ta'lim va fan sohasini raqamlashtirish, sun'iy intellekt hamda AKT dan keng foydalanish davlat siyosatining ustuvor yo'nalishlaridan biriga aylangan. O'zbekiston Respublikasi Prezidentining «Raqamli O'zbekiston — 2030» strategiyasi ta'lim tizimini modernizatsiya qilish, ilmiy salohiyatni oshirish va raqamli iqtisodiyotni rivojlantirishga qaratilgan keng ko'lamli islohotlarni o'z ichiga oladi. Milliy ta'lim siyosati doirasida qabul qilingan normativ-huquqiy hujjatlar ta'lim jarayonini raqamlashtirish, zamonaviy pedagogik texnologiyalarni joriy etish va pedagoglarning raqamli savodxonligini oshirishga qaratilgan.

Shu nuqtai nazardan, sun'iy intellekt, Big Data va zamonaviy AKT ning fan-ta'lim integratsiyasidagi rolini ilmiy jihatdan tahlil qilish, ushbu texnologiyalardan samarali foydalanishning nazariy va amaliy mexanizmlarini asoslab berish dolzarb ilmiy-amaliy vazifalardan biri hisoblanadi. Mazkur maqolaning maqsadi — ushbu texnologiyalarning fan hamda ta'lim integratsiyasiga ko'rsatayotgan ta'sirini kompleks tahlil qilish va ularni amaliyotga joriy etishning pedagogik hamda texnologik asoslarini ishlab chiqishdan iborat.

[Adabiyotlar tahlili.](#)

Sun'iy intellekt va Big Data texnologiyalarining ta'lim va fanga integratsiyasi masalasi so'nggi yigirma yil ichida xalqaro ilmiy hamjamiyat tomonidan faol tadqiq etilmoqda. Russell va Norvig (2020) tomonidan yozilgan «Artificial Intelligence: A Modern Approach» asarida zamonaviy sun'iy intellekt tizimlari va ularning amaliy tatbiqlari to'liq yoritilgan bo'lib, ushbu manba ta'lim sohasida SI ni qo'llashning nazariy asosini tashkil etadi.

LeCun, Bengio va Hinton (2015) tomonidan «Nature» jurnalida nashr etilgan «Deep learning» maqolasi neyron tarmoqlar va chuqur o'qitish texnologiyasining ilmiy-texnik asoslarini bayon etib, ta'lim tizimlari uchun yangi imkoniyatlar eshigini ochdi. Ushbu kashfiyot 2018-yilda Turing mukofotiga sazovor bo'ldi va sun'iy intellektning keyingi jadal rivojlanishiga zamin yaratdi.

Mayer (2009) tomonidan ishlab chiqilgan multimedia o'qitish nazariyasi raqamli ta'lim texnologiyalarining samaradorligini tushuntirishda muhim ilmiy asos bo'lib xizmat qiladi. Ushbu nazariyaga ko'ra, vizual va audial axborotning uyg'unligi o'quvchilarning bilimlarni samarali

o'zlashtirishiga, uzoq muddatli xotiraga yozilishiga va tushunish chuqurligining oshishiga xizmat qiladi. Bu yondashuv interaktiv web-saytlar va multimedia platformalarida o'quv materiallarini loyihalashda asosiy metodik tamoyil sifatida qo'llaniladi.

UNESCO ning 2019-yilgi «Artificial Intelligence in Education» hisobotida sun'iy intellekt ta'limni demokratlashtirish, sifatini oshirish va hammabaop qilishda strategik vosita ekanligi ta'kidlangan. Hisobotda SI ning ta'limdagi to'rtta asosiy qo'llanilish sohasi ajratilgan: o'qishni personallashtirish, o'qituvchilarni qo'llab-quvvatlash, ta'lim ma'muriyatini optimallashtirish va ta'lim tizimlarini tahlil qilish.

Yevropa Komissiyasi tomonidan ishlab chiqilgan DigCompEdu (Digital Competence of Educators, 2017) modeli pedagoglarning raqamli kompetentligini tizimli ravishda tavsiflaydi. Redecker va Punie tomonidan asoslangan ushbu model pedagog faoliyatini olti asosiy soha bo'yicha — professional muhit, raqamli resurslar, o'qitish va o'qish, baholash, o'quvchilarni kuchaytirish va o'quvchilarning raqamli kompetentligi — rivojlantirishni nazarda tutadi.

Zawacki-Richter va boshqalar (2019) tomonidan olib borilgan tizimli ko'rib chiqish (systematic review) oliy ta'limda sun'iy intellektni qo'llash bo'yicha ikki o'n yillik tadqiqotlarni tahlil qilib, ushbu sohadagi asosiy tendensiyalar, muammolar va kelajak yo'nalishlarini aniqlagan. Tadqiqot shuni ko'rsatadiki, SI asosidagi adaptiv o'qitish tizimlari o'quvchilarning bilim darajasini o'rtacha 15-25 foizga oshirish imkonini beradi.

Williamson (2017) «Big Data in Education» asarida katta ma'lumotlar texnologiyasining ta'lim siyosati, amaliyoti va kelajagiga ta'sirini keng ko'lamda tahlil qilgan. Muallif Big Data ning ta'limdagi «ma'lumotlarga asoslangan qarorlar qabul qilish» (data-driven decision making) paradigmasini shakllantirishdagi rolini alohida ta'kidlaydi.

Mahalliy ilmiy adabiyotlarda Abduqodirov va Pardayev (2013) «Ta'limda axborot texnologiyalari» asarida raqamli texnologiyalarni o'zbek ta'lim tizimiga joriy etishning pedagogik asoslarini ishlab chiqqanlar. Muslimov, Usmonboyeva va Tojimatov (2015) esa «Innovatsion ta'lim texnologiyalari» kitobida zamonaviy pedagogik yondashuvlar va raqamli vositalarning uyg'unligini ilmiy jihatdan asoslab berganlar. Yusupov (2021) va Toshmatov, Begimqulov (2022) larning tadqiqotlari O'zbekistonda raqamli pedagogikani rivojlantirish bo'yicha muhim nazariy va amaliy hissa qo'shmoqda.

ASOSIY QISIM

Sun'iy intellektning ta'lim tizimidagi vazifalari va imkoniyatlari.

Sun'iy intellekt texnologiyalari ta'lim jarayonini tubdan o'zgartirishning asosiy vositasiga aylanib bormoqda. Mashinali o'qitish (Machine Learning) algoritmlari yordamida har bir o'quvchining bilim darajasi, o'rganish sur'ati, qiziqqan sohalari va individual ehtiyojlari aniqlanib, unga mos ta'lim kontenti taqdim etiladi. Bu adaptiv o'qitish (adaptive learning) tizimlarining poydevorini tashkil etib, ta'lim samaradorligini sezilarli darajada oshiradi. Khan Academy, Duolingo, Coursera kabi dunyo miqyosida mashhur ta'lim platformalari ushbu texnologiyalardan foydalanib, millionlab foydalanuvchilarga shaxsiy ta'lim yo'nalishini taklif etmoqda.

Tabiiy tilni qayta ishlash (NLP) texnologiyalari asosida yaratilgan intellektual o'qitish tizimlari (Intelligent Tutoring Systems — ITS) o'quvchilar bilan dialogik muloqotni ta'minlab, ularning savollariga real vaqt rejimida javob berish va individual yo'l-yo'riq ko'rsatish imkoniyatiga ega. Carnegie Learning, ALEKS, AutoTutor kabi ITS tizimlari sinf sharoitida individual ta'lim berish samarasiga yaqin natijalarni ko'rsatganligini tadqiqotlar tasdiqlagan. ChatGPT va shunga o'xshash katta til modellari (LLM) esa ta'lim jarayonida o'quv materiallarini tushuntirish, referat va insholarni tekshirish, matematik masalalarni bosqichma-bosqich yechish va ijodiy topshiriqlarni bajarishda keng qo'llanila boshlagan.

Kompyuter ko'rish (Computer Vision) texnologiyalari dars jarayonini video-tahlil qilish, o'quvchilarning darsga diqqatini va emotsional holatini kuzatish, qo'l yozuvini raqamlashtirish hamda onlayn imtihonlarda proctoring funksiyalarini bajarish uchun qo'llanilmoqda. Nutqni aniqlash (Speech Recognition) va sintez qilish texnologiyalari til o'rganish platformalarida, eshitishda muammosi bo'lgan o'quvchilar uchun maxsus vositalarda va avtomatlashtirilgan og'zaki baholash

tizimlarida keng tatbiq etilgan. Reinforcement Learning (mustahkamlash orqali o'qitish) texnologiyasi esa o'quvchiga eng samarali ta'lim strategiyasini dinamik ravishda tanlash va uni doimiy moslashtirib borish imkonini beradi.

Big Data va o'quv analitikasining ta'lim-fan integratsiyasidagi o'rni.

Katta ma'lumotlar (Big Data) texnologiyalari ta'lim va fanning integratsiyasida yangi imkoniyatlar yaratmoqda. Ta'lim jarayonida to'planadigan ulkan hajmdagi ma'lumotlar — o'quvchilarning sinovdagi natijalari, onlayn platformalardagi harakatlari, o'quv resurslaridan foydalanish statistikasi, dars soatidagi ish faolligi va hokazo — o'quv analitikasi (Learning Analytics) orqali qayta ishlanib, ta'lim sifatini oshirish uchun foydali xulosalar chiqarish imkonini beradi. Bu esa ta'lim muassasalariga ma'lumotlarga asoslangan qarorlar qabul qilish, riskdagi o'quvchilarni erta aniqlash va maqsadli pedagogik aralashuv dasturlarini ishlab chiqish imkonini yaratadi.

Ilmiy tadqiqot sohasida Big Data texnologiyalari genomika, iqlim o'zgarishi tahlili, dori-darmon kashfiyotlari, iqtisodiy prognozlash va ijtimoiy tahlil kabi sohalarda inqilobiy o'zgarishlarga olib kelmoqda. Apache Hadoop, Apache Spark, TensorFlow va PyTorch kabi Big Data va mashinali o'qitish platformalari yordamida petabaytlab ma'lumotlarni qayta ishlab, an'anaviy usullar bilan ilgari amalga oshirib bo'lmaydigan ilmiy kashfiyotlar qilish imkoniyati tug'ildi. Masalan, AlphaFold (DeepMind) sun'iy intellekti yordamida 200 milliondan ortiq oqsil tuzilmasini bashorat qilish biologiya va tibbiyot sohasida yangi davr boshlanganini e'lon qildi.

Educational Data Mining (EDM) sohasi o'quvchilarning xatti-harakatlarini tahlil qilish, ular o'rtasidagi qonuniyatlarni aniqlash va ta'lim jarayonini optimallashtirish uchun ma'lumotlarni qazib olish usullarini qo'llaydi. Klasterlash, tasniflash, regressiya va assotsiativ qoidalar kabi data mining algoritmlari o'quvchilarni guruhlash, ularning kelajakdagi natijalarini bashorat qilish va ta'lim muammolarining sabablarini aniqlashda samarali vosita sifatida qo'llanilmoqda. Open Data harakati esa ilmiy bilimlarni demokratlashtirish va jahon ilmiy hamjamiyatiga ommabop qilishning asosiy yo'nalishi bo'lib qolmoqda.

Zamonaviy AKT ning fan va ta'lim integratsiyasidagi strategik roli.

Zamonaviy AKT vositalari — bulut hisoblash (cloud computing), Internet of Things (IoT), blockchain texnologiyasi, kengaytirilgan va virtual haqiqat (AR/VR) hamda metaverse — ta'lim va fan sohasida tobora keng tatbiq etilmoqda. Bulut hisoblash platformalari (Google Cloud, Microsoft Azure, Amazon AWS) ta'lim muassasalari va tadqiqot markazlariga ulkan hisoblash resurslaridan foydalanish imkonini berib, qimmatbaho lokal infratuzilmaga sarmoya kiritish zaruratini kamaytirmoqda. Bu ayniqsa kichik va o'rta ta'lim muassasalari uchun superilmiy hisoblash imkoniyatlariga ega bo'lishning asosiy yo'lga aylanmoqda.

Virtual va kengaytirilgan haqiqat texnologiyalari (VR/AR) ta'lim jarayonida laboratoriya tajribalarini xavfsiz simulatsiya qilish, murakkab ilmiy tushunchalarni uch o'lchamli vizuallashtirish va o'quvchilarni immersiv ta'lim muhitiga jalb etish uchun qo'llanilmoqda. Tibbiyot, muhandislik, arxitektura va tabiiy fanlar sohasida ushbu texnologiyalar an'anaviy laboratoriya amaliyotlarining samarali alternativi sifatida e'tirof etilmoqda. Google Expeditions, zSpace, Labster kabi platformalar dunyo bo'ylab minglab ta'lim muassasasida foydalanilmoqda. Metaverse konsepsiyasi esa ta'limning kelajagi sifatida ko'rilmogda — unda o'quvchilar va o'qituvchilar virtual dunyoda bir-birlari bilan real vaqt rejimida muloqot qilish va birgalikda o'rganish imkoniyatiga ega bo'ladilar.

LMS (Learning Management System) platformalari — Moodle, Canvas, Blackboard, Google Classroom kabi tizimlar — o'quv jarayonini boshqarish, monitoring qilish, baholash va tahlil etishda markaziy ahamiyat kasb etmoqda. Ushbu platformalar SI va Big Data bilan integratsiyalashib, ta'limni individuallashtirish, differensiallashtirish va uzluksiz kasbiy rivojlanishni ta'minlash imkonini bermoqda. Gamifikatsiya (gamification) elementlarining LMS platformalariga qo'shilishi esa o'quvchilarning motivatsiyasi va darsga jalb bo'lishini sezilarli darajada oshirmoqda. Blockchain texnologiyasining ta'limdagi qo'llanilishi esa akademik sertifikatlar va diplomlarni soxtalashtirmasdan saqlash va tekshirish uchun yangi imkoniyatlar yaratmoqda.

Biroq ushbu texnologiyalarni joriy etishda qator muammolar ham mavjud. Texnik infratuzilmaning yetarli emasligi, raqamli tengsizlik (digital divide), ma'lumotlar maxfiyligi va xavfsizligi, sun'iy intellektning algoritmik noxolisligi (algorithmic bias), pedagog va tadqiqotchilarning raqamli kompetentligining yetarli darajada shakllanmaganligi hamda ta'limda SI dan foydalanishning etik masalalari ushbu jarayonning samaradorligiga salbiy ta'sir ko'rsatishi mumkin. Shu sababli ushbu muammolarni bartaraf etish uchun kompleks yondashuv, ya'ni texnologik, pedagogik, huquqiy va tashkiliy jihatlarni uyg'unlashtirgan holda tizimli islohotlarni amalga oshirish zarur.

XULOSA

Olib borilgan ilmiy tahlillar shuni ko'rsatadiki, sun'iy intellekt, Big Data va zamonaviy AKT ning fan hamda ta'lim integratsiyasidagi roli tobora ortib bormoqda va bu texnologiyalar zamonaviy ta'lim paradigmasining ajralmas tarkibiy qismiga aylanib bormoqda. Ushbu texnologiyalar ta'lim jarayonini tubdan o'zgartirish, ilmiy tadqiqot metodologiyasini yangilash va fan-ta'lim hamkorligini yangi bosqichga olib chiqish salohiyatiga ega.

Tadqiqot natijalariga ko'ra: birinchidan, sun'iy intellekt asosidagi adaptiv o'qitish tizimlari va intellektual o'qitish tizimlari ta'limni individuallashtirish, o'quvchilarning bilim olish samaradorligini oshirish va pedagogik faoliyatni optimallashtirish imkonini beradi; ikkinchidan, Big Data texnologiyalari va o'quv analitikasi ta'lim natijalarini bashorat qilish, riskdagi o'quvchilarni erta aniqlash va ta'lim sifatini uzluksiz oshirishga xizmat qiladi; uchinchidan, zamonaviy AKT vositalari — bulut hisoblash, VR/AR, IoT va LMS platformalari — ta'lim-fan integratsiyasini tezlashtiradi, global ilmiy hamjamiyatga kirish imkonini beradi va ilmiy tadqiqot samaradorligini oshiradi.

Shu bilan birga, ushbu texnologiyalarni samarali qo'llash uchun bir qator shartlar zarur: texnik infratuzilmani rivojlantirish, pedagog va tadqiqotchilarning raqamli savodxonligini oshirish, ma'lumotlar xavfsizligini ta'minlash, algoritmik noxolislikning oldini olish va sun'iy intellektidan foydalanishning aniq etik me'yorlarini belgilash. O'zbekiston ta'lim va fan tizimida ham ushbu texnologiyalarni kompleks joriy etish, milliy raqamli ta'lim ekotizimini shakllantirish, xalqaro ilmiy hamkorliklarni kuchaytirish va raqamli pedagogikani rivojlantirish muhim strategik vazifalar sifatida belgilanishi lozim.

Umuman olganda, sun'iy intellekt, Big Data va zamonaviy AKT ning fan-ta'lim integratsiyasidagi roli kelajakda yanada ortib borishi kutilmoqda. Kelgusida ushbu yo'nalishda ilmiy tadqiqotlarni chuqurlashtirish, innovatsion texnologiyalarni ta'lim amaliyotiga joriy etish, milliy raqamli ta'lim siyosatini shakllantirishga hissa qo'shish hamda o'qituvchi va o'quvchilarning raqamli kompetentligini oshirish zamonaviy pedagogika fanining ustuvor vazifalaridan biri bo'lib qoladi.

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ФОРМИРОВАНИЕ ИИ-КОМПЕТЕНЦИЙ ПЕДАГОГОВ ПОСРЕДСТВОМ ПРОГРАММЫ ПОВЫШЕНИЯ КВАЛИФИКАЦИИ

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Аннотация. В статье рассматривается проблема подготовки педагогических кадров к работе с инструментами искусственного интеллекта в условиях цифровой трансформации образования. Обосновывается необходимость системного подхода, предполагающего формирование технологической грамотности, методической компетентности и рефлексивно-оценочных умений педагогов. Описана модульная программа повышения квалификации «Искусственный интеллект и инновационные технологии в образовании», направленная на устранение выявленных дефицитов. Приведены результаты итоговой диагностики, подтверждающие положительную динамику сформированности компетенций и готовность педагогов к практическому применению ИИ-инструментов при сохранении гуманистической направленности образовательного процесса.

Ключевые слова: искусственный интеллект, ИИ-компетенции педагогов, цифровая трансформация образования, программа повышения квалификации.

Abstract. The article presents a model for the systemic training of teachers in the use of artificial intelligence tools in professional activities. The necessity of developing technological literacy, methodological competence and reflective-evaluative skills is substantiated. Based on the ascertaining stage of the study, deficits in the cognitive, operational-activity, value-motivational and ethical-reflective components of AI competencies were identified. A modular professional development program “Artificial Intelligence and Innovative Technologies in Education” aimed at eliminating the identified deficits is described. The results of the final diagnostics confirming the positive dynamics of competence formation and teachers’ readiness for the practical application of AI tools are presented.

Keywords: artificial intelligence, teachers’ AI competencies, digital transformation of education, professional development program.

Annotatsiya. Maqolada pedagoglarning kasbiy faoliyatida sun’iy intellekt vositalaridan foydalanishga tizimli tayyorgarlik modeli taqdim etilgan. Texnologik savodxonlik, metodik kompetentlik va reflektiv-baholash ko‘nikmalarini shakllantirish zarurati asoslab berilgan. Tadqiqotning konstatatsiya bosqichi asosida SI kompetentsiyalarining kognitiv, operatsional-faoliyat, qadriyat-motivatsion va etik-reflektiv komponentlaridagi kamchiliklar aniqlangan. Aniqlangan kamchiliklarni bartaraf etishga qaratilgan “Sun’iy intellekt va ta’limdagi innovatsion texnologiyalar” malaka oshirish moduli dasturi tavsiflangan. Kompetentsiyalarning shakllanishidagi ijobiy dinamika va pedagoglarning SI vositalarini amaliy qo‘llashga tayyorligini tasdiqlovchi yakuniy diagnostika natijalari keltirilgan.

Kalit so‘zlar: sun’iy intellekt, pedagoglarning SI kompetentsiyalari, ta’limning raqamli transformatsiyasi, malaka oshirish dasturi.

Современная цифровая трансформация системы образования предъявляет качественно новые требования к профессиональной подготовке педагогов. Среди ключевых направлений обновления педагогической практики особое место занимает освоение технологий искусственного интеллекта (далее, ИИ). В современной системе подготовки педагогов в вузах, освоение этого направления выражено крайне слабо, хотя внедрение в образовательную практику ИИ-инструментов открывает возможности для персонализации обучения, автоматизации рутинных процессов и повышения эффективности образовательной деятельности. Вместе с тем успешная интеграция этих технологий возможна лишь при условии целенаправленной и системной подготовки педагогов и студентов педагогических направлений, что обуславливает необходимость разработки научно обоснованной модели формирования соответствующих компетенций. Зачастую педагогические вузы, осознают необходимость разработки специализированных модулей, направленных на освоение современных цифровых инструментов, но условиях высокой скорости внедрения инноваций не успевают перерабатывать и модернизировать образовательные программы.

Согласно требованиям ФГОС, современный учитель должен не только владеть предметными знаниями, но и уметь интегрировать инновационные технологии в образовательный процесс, обеспечивая его персонализацию и повышение эффективности. Исследователи подчеркивают, что освоение ИИ требует комплексного подхода, охватывающего технические, методические и этические аспекты [1].

По мнению исследователей, внедрение ИИ в систему образования требует не только системного подхода в освоении учителями и преподавателями технических навыков работы с цифровыми ресурсами и нейросетями, но и разработку системы педагогической адаптации этих технологий как для студентов педагогических вузов, так и для педагогов, имеющих опыт в системе образования [2, 4, 5]. В качестве ведущих критериев сформированности ИИ-компетенций педагогов как правило, выделяют технологическую грамотность, методическую компетентность и рефлексивно-оценочные умения [4, 5]. Технологическая грамотность предполагает понимание базовых принципов функционирования ИИ, умение работать с генеративными моделями, адаптивными образовательными платформами и сервисами планирования учебного процесса, а также осознание ограничений технологий. Зачастую, в работах разных исследователей можно встретить разные классификации данной грамотности педагогов, так, например, работах зарубежных авторов, выделяют семнадцать компонентов ИИ-грамотности (D. Long и B. Magerko [6]).

Методическая компетентность выражается в способности проектировать учебные занятия с учетом возможностей ИИ, разрабатывать адаптивные учебные материалы, применять элементы геймификации и формирующего оценивания, интегрировать технологии в проектно-исследовательскую деятельность обучающихся. Рефлексивно-оценочные умения связаны с анализом эффективности использования ИИ в педагогической практике, включая диагностику результатов обучения и корректировку образовательных траекторий обучающихся. Учитывая многоаспектность в формировании ИИ-компетенции у педагогов, процесс их подготовки к работе с ИИ должен быть непрерывным и многоуровневым, сочетающим формальное обучение (курсы повышения квалификации, мастер-классы) и неформальные практики (самообразование через цифровые платформы и на базе профессиональных объединений педагогов).

Эмпирическая часть исследования опиралась на диагностику, проведенную по методике П.В. Сысоева [4]. В рамках исследования мы провели диагностику профессиональных педагогических компетенций у молодых педагогов школ Тюменской области (38 человек) и студентов педагогической магистратуры Тюменского государственного университета (70 человек) по адаптированному опроснику Сысоева П.В., составленному на основе перечисленных выше критериев и показателей ИИ-компетенций.

Наиболее проблемной областью оказался операционально-деятельностный компонент ИИ-компетенции, лишь 19,4% педагогов способны создавать и адаптировать учебный контент с помощью ИИ-инструментов, а умением формулировать эффективные промпты владеют

только 22,6% респондентов, то есть, реальное применение имеющихся знаний в данной сфере в педагогической практике отсутствовало полностью, что указывает на разрыв между потенциальной готовностью педагогов к использованию ИИ и их фактическим поведением в профессиональной деятельности[1]. Выявленные дефициты напрямую влияют на возможность интеграции преподавателями ИИ в реальный образовательный процесс, поскольку без навыков генерации учебных материалов и грамотного взаимодействия с нейросетями применение технологий остаётся эпизодическим и несистемным.

Значимые дефициты зафиксированы в когнитивном компоненте, где понимание принципов машинного обучения демонстрируют лишь 29,0% педагогов, а идентификацию ИИ-технологий и различий между слабым и общим искусственным интеллектом 41,9%, такое отсутствие базовых знаний о работе ИИ-алгоритмов и типологии систем закономерно влечет за собой непонимание границ применимости технологий, их сильных и слабых сторон, что снижает осознанность выбора инструментов для решения конкретных педагогических задач.

Ценностно-мотивационный компонент характеризуется парадоксальной ситуацией, при которой с одной стороны, у педагогов и студентов существует высокая потребность в обучении ИИ (74,2%) и готовность к освоению технологий, а с другой стороны, проявляется низкая готовность и осознанность роли человека в работе с ИИ-системами и практически полным отсутствием систематического применения инструментов в повседневной педагогической практике (88,7%). По сути, эти данные отражают недоверие преподавателей к искусственному интеллекту и его инструментам, преподаватели не спешат тесно взаимодействовать с передовыми технологиями и углубляться в изучение искусственного интеллекта в целом, часть респондентов избегают использования ИИ на постоянной основе и лишь изредка пользуются отдельными сервисами для решения педагогических задач. Также данный результат может свидетельствовать о том, что мотивационный потенциал (32,3% педагогов проявляют наличие такового) не реализуется в деятельность не только из-за отсутствия практических навыков, но и из-за отсутствия методической поддержки педагогов на практике в данном направлении.

Этико-рефлексивный компонент также демонстрирует существенные дефициты: способность выявлять и анализировать этические риски использования ИИ (конфиденциальность, алгоритмическая предвзятость, проблемы авторства) сформирована лишь у 51,6% педагогов, а понимание потенциальных изменений профессии преподавателя в связи с развитием ИИ-технологий только у 37,1%. Скорее всего такой результат может быть связан с отсутствием осознания трансформации профессиональной роли педагога (от транслятора знаний к наставнику и фасилитатору) и несформированность этической грамотности, включая пассивное копирование машинно-сгенерированного контента обучающимися и нарушение конфиденциальности данных.

Опираясь на выявленные дефициты, нами была разработана модульная программа повышения квалификации для молодых педагогов и студентов магистерских программ педагогической направленности «Искусственный интеллект и инновационные технологии в образовании». Программа ориентирована на формирование четырех групп компонентов ИИ-компетенций, описанных выше (когнитивного, операционально-деятельностного, ценностно-мотивационного и этико-рефлексивного). Структура программы включает четыре модуля: «Основы искусственного интеллекта в образовании»; «Создание и обработка текстового контента с помощью ИИ»; «Визуальные технологии и ИИ»; «Геймификация в образовательном процессе».

Практико-ориентированный характер программы реализуется через выполнение комплекса заданий, результаты которых оформляются в виде портфолио. В процессе обучения по данной программе, каждый слушатель выполнил комплекс практических заданий, результаты которых были оформлены в виде портфолио. Анализ представленных работ позволяет констатировать, что педагоги сформировали следующие практические кейсы, которые смогут напрямую использовать в своей педагогической практике: текстовые материалы (разработки планов уроков, сценариев внеурочных занятий, тестовых заданий,

методических рекомендаций с использованием генеративных нейросетей) представлены у 100% слушателей; визуальные материалы (тематические презентации, инфографики, иллюстрации для учебных материалов, созданные с помощью генераторов изображений) у 85,5% слушателей; интерактивные элементы (квизы, викторины, игровые симуляции и пр.) у 61,3% слушателей; мультимедийные продукты (аватарные видео, анимированные изображения, созданные с помощью различных сервисов) у 19,4% слушателей.

Результаты итоговой диагностики, проведенной после освоения программы повышения квалификации, свидетельствуют о положительной динамике показателей. Педагоги, продемонстрировавшие на констатирующем этапе низкий (48,4%) и средний (38,7%) уровни сформированности ИИ-компетенций, по итогам освоения программы повышения квалификации перешли в категорию осознанных практиков и инноваторов. Таким образом, полученные нами данные свидетельствуют об успешности реализации программы повышения квалификации и доказывают ее результативность в формировании всех компонентов ИИ-компетенций педагогов, которые не только приобрели знания о возможностях ИИ в образовательном процессе, но и сформировали методическую копилку, состоящую из практических разработок, готовых к внедрению в профессиональную деятельность.

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SUN'IY INTELEKT TEXNOLOGIYALARIDAN O'QUV JARAYONIDA FOYDALANISHNING HOZIRGI HOLATI

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Annotatsiya. Mazkur maqolada sun'iy intellekt texnologiyalarining zamonaviy ta'lim tizimidagi o'rni, o'quv jarayoniga joriy etilishining hozirgi holati va pedagogik imkoniyatlari tahlil

qilinadi. Sun'iy intellekt asosidagi texnologiyalar ta'lim mazmunini individuallashtirish, o'quvchilarning bilim va ko'nikmalarini diagnostika qilish, ta'lim natijalarini baholash, o'qituvchining kasbiy faoliyatini qo'llab-quvvatlash hamda ta'lim resurslarini yaratishda muhim vositaga aylanib bormoqda. Maqolada ChatGPT, Gemini, kabi generativ sun'iy intellekt vositalaridan foydalanish imkoniyatlari, ularning afzalliklari va ta'lim jarayonida yuzaga kelishi mumkin bo'lgan muammolar ko'rib chiqilgan. Shuningdek, sun'iy intellektdan samarali foydalanish uchun pedagoglarning raqamli va sun'iy intellekt savodxonligini oshirish, akademik halollikni ta'minlash, axborot xavfsizligi va etik me'yorlarga rioya qilish zarurligi keltirilgan.

Kalit so'zlar: sun'iy intellekt, ta'lim, o'quv jarayoni, raqamli texnologiyalar, generativ sun'iy intellekt, ChatGPT, adaptiv ta'lim, individuallashtirish, raqamli savodxonlik, ta'lim sifati, pedagogik texnologiyalar.

Аннотация. В статье анализируется роль технологий искусственного интеллекта в современной системе образования, современное состояние их внедрения в образовательный процесс и основные педагогические возможности. Технологии на основе искусственного интеллекта становятся важным инструментом индивидуализации содержания образования, диагностики знаний и навыков обучающихся, оценки образовательных результатов, поддержки профессиональной деятельности преподавателя, а также создания образовательных ресурсов. В статье рассматриваются возможности использования генеративных инструментов искусственного интеллекта, таких как ChatGPT и Gemini, их преимущества, а также потенциальные проблемы и риски, возникающие при их применении в образовательном процессе. Особое внимание уделяется необходимости повышения цифровой и искусственно-интеллектуальной грамотности педагогов, обеспечения академической добросовестности, информационной безопасности и соблюдения этических норм при использовании технологий искусственного интеллекта в образовании.

Ключевые слова: искусственный интеллект, образование, образовательный процесс, цифровые технологии, генеративный искусственный интеллект, ChatGPT, адаптивное обучение, индивидуализация, цифровая грамотность, качество образования, педагогические технологии.

Abstract. This article analyzes the role of artificial intelligence technologies in the modern education system, the current state of their implementation in the educational process, and their main pedagogical potential. Artificial intelligence-based technologies are becoming an important tool for individualizing educational content, diagnosing learners' knowledge and skills, assessing learning outcomes, supporting teachers' professional activities, and developing educational resources. The article examines the potential of generative artificial intelligence tools, such as ChatGPT and Gemini, their advantages, as well as potential challenges and risks associated with their use in the educational process. Particular attention is paid to the need to improve teachers' digital and artificial intelligence literacy, ensure academic integrity, maintain information security, and comply with ethical standards when using artificial intelligence technologies in education.

Keywords: artificial intelligence, education, educational process, digital technologies, generative artificial intelligence, ChatGPT, adaptive learning, individualization, digital literacy, quality of education, pedagogical technologies.

KIRISH

Bugungi kunda raqamli transformatsiya jamiyat hayotining barcha sohalari qatori ta'lim tizimiga ham jadal kirib kelmoqda. Ayniqsa, sun'iy intellekt texnologiyalarining rivojlanishi ta'lim jarayonini tashkil etish, o'quv materiallarini ishlab chiqish, bilimlarni baholash va ta'lim oluvchilarning individual ehtiyojlarini aniqlashga yangicha yondashuvlarni shakllantirmoqda.

An'anaviy ta'limda o'quvchilarning bilim darajasi, qiziqishi va individual xususiyatlarini hisobga olish ko'pincha o'qituvchining vaqt va imkoniyatlari bilan chegaralanadi. Sun'iy intellektga asoslangan tizimlar esa katta hajmdagi ma'lumotlarni tezkor tahlil qilish, o'quvchining faoliyatini kuzatish va uning ehtiyojlariga mos ta'limiy tavsiyalar berish imkonini yaratmoqda. Sun'iy intellektdan foydalanishning dolzarbligi, ayniqsa, generativ AI texnologiyalarining ommalashuvi

bilan yanada ortdi. Matn yaratish, savollarga javob berish, topshiriqlar ishlab chiqish, tarjima qilish, o'quv materiallarini umumlashtirish va ta'limiy kontent tayyorlash imkoniyatlari o'qituvchi va o'quvchilarning faoliyatini sezilarli darajada o'zgartirmoqda.

Shu nuqtayi nazardan, sun'iy intellekt texnologiyalaridan o'quv jarayonida foydalanishning hozirgi holatini o'rganish, uning pedagogik imkoniyatlari va mavjud muammolarini aniqlash muhim ilmiy-amaliy ahamiyatga ega.

Ta'limda sun'iy intellektdan foydalanishning zamonaviy tendensiyalari. Sun'iy intellekt - insonning intellektual faoliyatiga xos bo'lgan muammolarni hal qilish, ma'lumotlarni tahlil qilish, o'rganish, xulosa chiqarish va qaror qabul qilish jarayonlarini kompyuter tizimlari yordamida amalga oshirishga xizmat qiluvchi texnologiyalar majmuasidir.

Ta'lim sohasida sun'iy intellektdan foydalanish bir necha asosiy yo'nalishlarda rivojlanmoqda:

1. Adaptiv ta'lim tizimlari - o'quvchining bilim darajasiga qarab ta'lim mazmuni va topshiriqlarni moslashtiradi.
2. Intellektual repetitorlar - o'quvchiga individual tushuntirish va tavsiyalar beradi.
3. Avtomatlashtirilgan baholash - test, yozma ish va ayrim turdagi topshiriqlarni tezkor baholash imkonini beradi.
4. Generativ sun'iy intellekt - matn, savol, topshiriq, reja, taqdimot mazmuni va boshqa ta'lim resurslarini yaratishda foydalaniladi.
5. Ta'lim analitikasi - o'quvchilarning faoliyati va natijalarini tahlil qilib, pedagogik qarorlarni qo'llab-quvvatlaydi.
6. Virtual yordamchilar va chatbotlar - o'quvchilarning savollariga tezkor javob berish va mustaqil ta'limni qo'llab-quvvatlashga xizmat qiladi.

Ushbu yo'nalishlar ta'lim jarayonini yanada moslashuvchan, interaktiv va individual yo'naltirilgan holda tashkil etish imkoniyatlarini kengaytirmoqda.

O'QUV JARAYONIDA GENTRATIV SUN'IY INTELLERTDAN FOYDALANISH

So'nggi yillarda generativ sun'iy intellekt ta'lim sohasidagi eng tez rivojlanayotgan texnologik yo'nalishlardan biriga aylandi. ChatGPT, Google Gemini kabi vositalar foydalanuvchining tabiiy tildagi so'rovlariga javob berish, matn yaratish, tushuntirish, savollar ishlab chiqish va boshqa ko'plab vazifalarni bajarishga qodir.

O'qituvchi faoliyatida generativ AI quyidagi vazifalarda qo'llanishi mumkin:

dars rejasini ishlab chiqish;
mavzu bo'yicha savol va testlar yaratish;
amaliy topshiriqlar tayyorlash;
murakkab mavzularni sodda tilda tushuntirish;
differensial topshiriqlar ishlab chiqish;
baholash mezonlarini shakllantirish;
ta'limiy matnlarni tahrirlash;
o'quv materiallarini umumlashtirish;
taqdimot uchun mazmun tayyorlash;
mustaqil ta'lim topshiriqlarini ishlab chiqish.

Bunda sun'iy intellekt o'qituvchining o'rmini to'liq egallovchi vosita sifatida emas, balki uning pedagogik faoliyatini qo'llab-quvvatlovchi yordamchi texnologiya sifatida qaralishi maqsadga muvofiq.

SUN'IY INTELEKTNING O'QUVCHILAR FAOLIYATIDAGI IMKONIYATLARI

Sun'iy intellekt o'quvchilarning mustaqil ta'lim olish imkoniyatlarini kengaytiradi. O'quvchi o'ziga tushunarsiz bo'lgan mavzuni turli usullarda izohlashni so'rashi, qo'shimcha misollar

olishi, o'z bilimini test orqali tekshirishi yoki topshiriq yechish jarayonida yo'naltiruvchi maslahat olishi mumkin.

Masalan, boshlang'ich ta'limda sun'iy intellekt yordamida:

matn asosida savollar tuzish;

matematik masalalarni bosqichma-bosqich tushuntirish;

tabiat hodisalarini sodda tilda izohlash;

o'qish savodxonligini rivojlantirish uchun topshiriqlar yaratish;

o'quvchining yosh xususiyatlariga mos mashqlar tayyorlash;

ijodiy topshiriqlar va muammoli vaziyatlar yaratish mumkin.

Shu bilan birga, AI tomonidan berilgan javobni tayyor bilim sifatida qabul qilish emas, balki uni tahlil qilish, tekshirish va baholash o'quvchining tanqidiy fikrlashini rivojlantirishga xizmat qiladi.

Sun'iy intellektdan foydalanishning pedagogik afzalliklari. Sun'iy intellekt texnologiyalarining o'quv jarayonidagi asosiy afzalliklarini quyidagicha umumlashtirish mumkin:

Birinchidan, individuallashtirish. AI o'quvchining bilim darajasi va ehtiyojlariga mos materiallarni taklif qilish imkonini beradi.

Ikkinchidan, tezkor fikr-mulohaza. O'quvchi topshiriq bajarish jarayonida tezkor izoh va tavsiyalar olishi mumkin.

Uchinchidan, o'qituvchi vaqtini tejash. Test, topshiriq, dars rejasi va boshqa materiallarning dastlabki variantlarini tez tayyorlash pedagogning vaqtini tejaydi.

To'rtinchidan, ta'lim resurslarining xilma-xilligi. Bir mavzu bo'yicha turli murakkablikdagi savollar, misollar va tushuntirishlar yaratish mumkin.

Beshinchidan, ta'lim analitikasi. O'quvchilarning natijalarini tahlil qilish orqali qaysi mavzularda qiyinchilik mavjudligini aniqlash mumkin.

Oltinchidan, inklyuziv ta'lim imkoniyatlari. Ayrim AI vositalari matnni ovozga aylantirish, nutqni matnga o'tkazish va murakkab axborotni soddalashtirish orqali turli ehtiyojlarga ega ta'lim oluvchilarni qo'llab-quvvatlashi mumkin.

Sun'iy intellektdan foydalanishdagi muammolar. Sun'iy intellekt texnologiyalarining imkoniyatlari keng bo'lishiga qaramay, ularni ta'lim jarayoniga joriy etishda qator muammolar mavjud.

Eng muhim muammolardan biri - AI tomonidan noto'g'ri yoki ishonchsiz ma'lumotlarning taqdim etilishi. Generativ AI ba'zan mavjud bo'lmagan manbalarni yoki noto'g'ri faktlarni ishonchli ko'rinishda taqdim etishi mumkin. Shu sababli pedagog va o'quvchi AI javoblarini tanqidiy baholashi hamda ishonchli manbalar orqali tekshirishi zarur.

Ikkinchi muammo - akademik halollik. O'quvchining topshiriqni mustaqil bajarmasdan, tayyor AI javobidan foydalanishi uning real bilim va kompetensiyalarini aniqlashni qiyinlashtiradi.

Uchinchi muammo - raqamli tengsizlik. Barcha ta'lim oluvchilarning yuqori tezlikdagi internet, zamonaviy qurilmalar va AI xizmatlaridan teng foydalanish imkoniyati mavjud emas.

To'rtinchi muammo - maxfiylik va ma'lumotlar xavfsizligi. Ta'lim jarayonida o'quvchilarning shaxsiy ma'lumotlarini sun'iy intellekt tizimlariga kiritishda ehtiyotkorlik talab etiladi.

Beshinchi muammo - pedagoglarning AI kompetensiyasi. O'qituvchi AI vositasidan samarali foydalanish uchun nafaqat texnik ko'nikmaga, balki pedagogik va axloqiy kompetensiyaga ham ega bo'lishi kerak.

O'qituvchining roli va sun'iy intellect. Sun'iy intellektning rivojlanishi o'qituvchining rolini kamaytirmaydi, aksincha, uning faoliyat mazmunini o'zgartiradi. O'qituvchi endilikda faqat bilim beruvchi emas, balki ta'lim jarayonini loyihalovchi, o'quvchini yo'naltiruvchi, axborotni tanqidiy baholashga o'rgatuvchi va AI vositalaridan foydalanish madaniyatini shakllantiruvchi subyekt sifatida namoyon bo'ladi.

Pedagog sun'iy intellekt yordamida tayyorlangan materialni bevosita darsga kiritishdan oldin uning ilmiyligi, pedagogik maqsadga muvofiqligi, yosh xususiyatlariga mosligi va metodik sifatini tekshirishi lozim.

Shuning uchun kelajakdagi ta'lim modeli "o'qituvchi yoki sun'iy intellekt" shaklida emas, balki "o'qituvchi + sun'iy intellekt + o'quvchi" hamkorligiga asoslangan model sifatida rivojlanishi mumkin.

Sun'iy intellektdan samarali foydalanishning pedagogik shartlari. Ta'lim jarayonida AI texnologiyalaridan samarali foydalanish uchun quyidagi shartlarni ta'minlash muhim:

- pedagoglarning sun'iy intellekt bo'yicha malakasini muntazam oshirish;
- AI vositalaridan foydalanishning aniq metodik tavsiyalarini ishlab chiqish;
- o'quvchilarda raqamli va AI savodxonligini shakllantirish;
- akademik halollik tamoyillarini kuchaytirish;
- AI yordamida yaratilgan materiallarni pedagogik ekspertizadan o'tkazish;
- shaxsiy ma'lumotlarni himoya qilish;
- AI vositalaridan foydalanishda etik me'yorlarni belgilash;
- an'anaviy pedagogik metodlar bilan AI texnologiyalarini uyg'unlashtirish;
- o'quvchilarning mustaqil fikrlashi va ijodkorligini saqlab qolish.

XULOSA

Bugungi kunda sun'iy intellekt texnologiyalari ta'lim tizimining raqamli transformatsiyasida muhim omillardan biriga aylanmoqda. Ular ta'limni individuallashtirish, o'quvchilarning bilimlarini diagnostika qilish, ta'lim resurslarini yaratish, baholash jarayonlarini takomillashtirish va o'qituvchining kasbiy faoliyatini qo'llab-quvvatlash uchun katta imkoniyatlar yaratmoqda.

Shu bilan birga, sun'iy intellektdan foydalanish avtomatik ravishda ta'lim sifatining oshishini anglatmaydi. Uning samaradorligi texnologiyaning o'zidan ko'ra, undan qanday pedagogik maqsadda va qanday metodika asosida foydalanilishiga bog'liq.

Shuning uchun zamonaviy ta'lim tizimida asosiy vazifa sun'iy intellektni shunchaki o'quv jarayoniga kiritish emas, balki undan ilmiy asoslangan, pedagogik jihatdan maqsadga muvofiq, xavfsiz, etik va samarali foydalanish metodikasini shakllantirishdan iborat.

Kelgusida AI texnologiyalarining rivojlanishi adaptiv va individuallashtirilgan ta'lim imkoniyatlarini yanada kengaytirishi kutiladi. Bunda o'qituvchining professional kompetensiyasi, tanqidiy fikrlashi va pedagogik qaror qabul qilish qobiliyati hal qiluvchi ahamiyatga ega bo'lib qoladi.

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ИННОВАЦИОННЫЕ ТЕХНОЛОГИИ В ВЫСШЕМ ОБРАЗОВАНИИ

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Аннотация. В статье рассматриваются современные направления использования инновационных образовательных технологий в системе высшего образования. Раскрывается значение цифровизации обучения, интерактивных методов, проектной и проблемно-ориентированной деятельности, смешанного обучения и инструментов искусственного интеллекта в формировании профессиональных и универсальных компетенций студентов. Особое внимание уделяется развитию критического мышления, самостоятельности, цифровой грамотности, коммуникативных навыков и способности студентов применять полученные знания для решения практических задач. Обосновывается необходимость педагогически обоснованного использования цифровых технологий при сохранении ведущей роли преподавателя и живого взаимодействия участников образовательного процесса.

Ключевые слова: инновационные технологии, высшее образование, цифровизация, интерактивное обучение, искусственный интеллект, цифровая грамотность, самостоятельная работа, критическое мышление, компетенции, проектное обучение.

Abstract : The article examines modern trends in the use of innovative educational technologies in higher education. It explores the significance of digitalization of education, interactive methods, project-based and problem-based learning, blended learning, and artificial intelligence tools in developing students' professional and transferable competencies. Particular attention is paid to the development of critical thinking, independence, digital literacy, communication skills, and students' ability to apply acquired knowledge to solve practical problems. The article substantiates the need for pedagogically sound use of digital technologies while preserving the leading role of the teacher and live interaction among participants in the educational process.

Keywords: innovative technologies, higher education, digitalization, interactive learning, artificial intelligence, digital literacy, independent learning, critical thinking, competencies, project-based learning

Annotatsiya: Mazkur maqolada oliy ta'lim tizimida innovatsion ta'lim texnologiyalaridan foydalanishning zamonaviy yo'nalishlari ko'rib chiqiladi. Ta'limni raqamlashtirish, interaktiv metodlar, loyihaviy va muammoli ta'lim faoliyati, aralash ta'lim hamda sun'iy intellekt vositalarining talabalarda kasbiy va universal kompetensiyalarni shakllantirishdagi ahamiyati yoritiladi. Talabalarda tanqidiy fikrlash, mustaqillik, raqamli savodxonlik, kommunikativ ko'nikmalar hamda egallagan bilimlarini amaliy muammolarni hal etishda qo'llash qobiliyatini rivojlantirishga alohida e'tibor qaratiladi. Raqamli texnologiyalardan pedagogik jihatdan

asoslangan holda foydalanish, bunda o'qituvchining yetakchi roli va ta'lim jarayoni ishtirokchilarining jonli o'zaro hamkorligini saqlab qolish zarurligi asoslab beriladi.

Kalit so'zlar: *innovatsion texnologiyalar, oliy ta'lim, raqamlashtirish, interaktiv ta'lim, sun'iy intellekt, raqamli savodxonlik, mustaqil ta'lim, tanqidiy fikrlash, kompetensiyalar, loyihaviy ta'lim.*

Современная система высшего образования развивается в условиях стремительных технологических и социальных изменений. Цифровизация экономики, распространение искусственного интеллекта, увеличение объема информационных ресурсов и изменение требований работодателей предъявляют новые требования к качеству подготовки специалистов. Сегодня от выпускника требуется не только владение профессиональными знаниями, но и способность самостоятельно обучаться, анализировать информацию, сотрудничать, быстро адаптироваться к новым условиям и принимать обоснованные решения.

В связи с этим традиционная модель образования, при которой преподаватель преимущественно передает студентам готовые знания, постепенно дополняется личностно ориентированными, компетентностными и деятельностными подходами. В центре образовательного процесса находится активная учебная деятельность студента. Инновационные технологии в данном случае следует понимать не только как применение компьютеров, электронных платформ или отдельных цифровых инструментов. Они предполагают изменение самого характера образовательного взаимодействия, методов организации занятий, способов получения и оценки знаний.

Одним из основных направлений модернизации высшего образования является переход от преимущественно репродуктивной модели обучения к модели, ориентированной на активное участие студента. В современной аудитории студент должен не только воспринимать информацию, но и задавать вопросы, обсуждать различные позиции, проводить анализ, самостоятельно искать решения и представлять результаты своей деятельности.

Такой подход требует изменения роли преподавателя. Преподаватель становится организатором образовательной среды, консультантом и координатором самостоятельной и совместной деятельности студентов. Его задача заключается не только в объяснении учебного материала, но и в создании условий для интеллектуального развития обучающихся.

Инновационные методы позволяют организовать обучение таким образом, чтобы студент постоянно находился в процессе познавательной деятельности. Например, при использовании кейс-метода обучающимся предлагается конкретная профессиональная или социальная ситуация. Они должны определить проблему, выделить причины ее возникновения, рассмотреть несколько вариантов решения и обосновать собственную позицию.

Важным результатом такой работы становится не только усвоение определенной темы, но и формирование способности применять знания в новых условиях. Одним из эффективных направлений инновационного обучения является интерактивное взаимодействие. Его особенностью является активное участие всех обучающихся в образовательном процессе.

К интерактивным методам относятся дискуссии, мозговой штурм, работа в малых группах, дебаты, ролевые и деловые игры, анализ ситуаций, учебные проекты, взаимное оценивание и другие формы совместной деятельности.

При групповой работе студенты учатся распределять обязанности, слушать мнения других участников, аргументировать собственные предложения и совместно принимать решения. В результате формируются коммуникативные и социальные компетенции, которые имеют большое значение для будущей профессиональной деятельности.

Особое значение приобретает умение работать с различными точками зрения. Студент должен понимать, что одна и та же проблема может иметь несколько вариантов решения. Поэтому преподавателю важно создавать ситуации, в которых обучающиеся могут сравнивать позиции, приводить аргументы и приходить к обоснованному выводу. Интерактивное обучение также способствует повышению познавательной мотивации. Если студент видит практическую значимость изучаемого материала, его участие в учебной деятельности становится более осознанным.

Цифровизация существенно расширила возможности высшего образования. Электронные образовательные платформы, видеоконференции, цифровые библиотеки, интерактивные тесты, виртуальные доски, мультимедийные материалы и электронные курсы позволяют организовать обучение независимо от времени и места. Однако цифровизация не должна сводиться к простому переводу бумажного учебника в электронный формат. Более перспективным является создание цифровой образовательной среды, в которой студент получает возможность самостоятельно планировать часть своей учебной деятельности, пользоваться различными информационными ресурсами, получать обратную связь и отслеживать собственный прогресс.

Цифровые инструменты особенно полезны при организации самостоятельной работы. Преподаватель может предоставить студентам электронные материалы, видеолекции, дополнительные источники, тестовые задания и практические задачи. Студент, в свою очередь, получает возможность выбирать темп работы и дополнительно изучать интересующие его вопросы.

Вместе с тем цифровая среда требует развития информационной грамотности. Современный студент сталкивается с огромным количеством информации, но далеко не вся она является достоверной. Поэтому необходимо учить обучающихся проверять источники, сопоставлять сведения, выявлять противоречия и отличать научно обоснованную информацию от непроверенных утверждений.

UNESCO отмечает, что цифровые технологии могут расширять доступ к образовательным ресурсам и поддерживать обучение, однако существуют проблемы цифрового неравенства, защиты данных, конфиденциальности и качества цифрового контента. Поэтому цифровая трансформация должна осуществляться одновременно с развитием соответствующих компетенций преподавателей и студентов.

Важным элементом инновационной педагогики является проектное обучение. Проект объединяет теоретическую подготовку студента с практической деятельностью. Работа над проектом обычно включает определение проблемы, постановку цели, планирование деятельности, поиск информации, ее обработку, подготовку продукта и презентацию полученного результата.

Проектная работа способствует развитию самостоятельности и ответственности. Студент получает возможность самостоятельно принимать часть решений, распределять время и контролировать выполнение поставленных задач. Не менее важным является проблемно-ориентированное обучение. Его основой является создание учебной ситуации, для решения которой недостаточно механически воспроизвести ранее изученную информацию. Например, студентам можно предложить профессиональную ситуацию, содержащую несколько противоречивых факторов. Они должны определить основную проблему, рассмотреть возможные варианты и аргументировать наиболее эффективное решение. Такой подход способствует развитию критического мышления и практической направленности обучения. Проектный и проблемный подходы особенно эффективно сочетаются с цифровыми технологиями. Студенты могут осуществлять поиск информации в электронных базах данных, использовать цифровые инструменты анализа, создавать презентации, инфографику, видеоматериалы и другие продукты.

Современная система высшего образования предполагает постепенное увеличение доли самостоятельной деятельности студентов. Это связано с тем, что профессиональные знания быстро обновляются, а специалисту необходимо постоянно учиться. Самостоятельная работа должна включать не только выполнение заданий преподавателя, но и постановку учебных целей, поиск необходимых ресурсов, анализ результатов и самооценку. Важную роль здесь играет формирующее оценивание. Его задача заключается не только в выставлении итоговой отметки, но и в предоставлении студенту информации о том, что уже освоено и какие аспекты требуют дальнейшего совершенствования. Эффективной формой может стать самооценивание. После выполнения задания студент отвечает на вопросы: что удалось выполнить, какие трудности возникли, какие способы решения оказались эффективными и что необходимо изменить в дальнейшем. Так формируется рефлексивная компетентность, необходимая для непрерывного профессионального развития.

Внедрение инновационных технологий не уменьшает значение преподавателя. Напротив, в условиях большого объема цифровой информации возрастает потребность в профессиональном педагогическом сопровождении. Преподаватель должен уметь выбирать технологию в соответствии с конкретной дидактической целью. Если для объяснения сложного теоретического материала эффективнее краткая лекция, ее не следует искусственно заменять интерактивной технологией. Если же требуется сформировать умение анализировать, сравнивать и принимать решения, целесообразнее использовать дискуссию, кейс или проект. Следовательно, инновационный подход предполагает педагогически обоснованное сочетание различных методов. Современный преподаватель также должен обладать цифровой компетентностью. Она включает не только умение работать с программами и платформами, но и способность критически оценивать цифровые ресурсы, обеспечивать информационную безопасность, соблюдать авторские права и использовать технологии в соответствии с образовательными целями.

Грамотно организованный инновационный образовательный процесс позволяет формировать у студентов комплекс взаимосвязанных компетенций.

К основным результатам относятся:

- развитие критического и аналитического мышления;
- повышение самостоятельности в обучении;
- формирование цифровой и информационной грамотности;
- развитие коммуникативных навыков;
- способность работать в команде;
- развитие творческого подхода к решению задач;
- формирование исследовательских навыков;
- повышение ответственности за результаты собственной деятельности;
- способность адаптироваться к новым условиям;
- готовность к непрерывному профессиональному обучению.

Особое значение имеет комплексное развитие данных качеств. Современному специалисту недостаточно обладать только профессиональными знаниями. Он должен уметь эффективно использовать знания в конкретной ситуации, работать с информацией и взаимодействовать с другими людьми.

Таким образом, инновационные технологии становятся одним из важных факторов модернизации высшего образования. Их применение позволяет перейти от преимущественно информационной модели обучения к образовательной среде, ориентированной на активность, самостоятельность и развитие компетенций студентов. Интерактивные методы, цифровые образовательные ресурсы, проектная и проблемно-ориентированная деятельность, смешанное обучение и инструменты искусственного интеллекта расширяют возможности преподавателя и студента. Однако эффективность этих

средств определяется не количеством используемых технологий, а их соответствием образовательным целям.

Главным результатом современного образования должно стать формирование специалиста, способного самостоятельно приобретать знания, критически оценивать информацию, применять ее в практической деятельности, сотрудничать с другими людьми и адаптироваться к новым профессиональным условиям. Следовательно, инновационное образование следует рассматривать как целостную педагогическую систему, в которой технологии, содержание обучения, методы преподавания и самостоятельная деятельность студентов взаимосвязаны. При таком подходе цифровизация становится не самоцелью, а инструментом повышения качества образования и развития личности будущего специалиста.

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AHOLIGA TELEKOMMUNIKATSIYA XIZMATLARINI KO'RSATISH SIFATINI OSHIRISH VA TARMOQNI TIZIMLI RIVOJLANTIRISHNING EMPIRIK TADQIQOTI (QASHQADARYO VILOYATI MISOLIDA)

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Annotatsiya. Maqolada aholiga telekommunikatsiya xizmatlarini ko'rsatish sifatini oshirish va tarmoqni tizimli rivojlantirish masalalari Qashqadaryo viloyati misolida empirik tarzda o'rganilgan. Tadqiqotda xizmat sifati indeksining 2017–2025-yillardagi dinamikasi va uning respublika optik-tolali aloqa infratuzilmasi kengayishi bilan bog'liqligi tahlil qilingan. Natijalar xizmat sifati indeksining barqaror o'sib borayotganini (56,4 dan 90,3 gacha) va bu o'sish optik-tolali tarmoq uzunligining kengayishi (67,4 ming km dan 118,0 ming km gacha) bilan uzviy bog'liqligini ko'rsatgan. Tarmoqni tizimli rivojlantirish bo'yicha amaliy tavsiyalar ishlab chiqilgan.

Kalit so'zlar. Telekommunikatsiya xizmatlari, xizmat sifati, tarmoqni tizimli rivojlantirish, optik-tolali aloqa, empirik tadqiqot, raqamli infratuzilma, Qashqadaryo viloyati.

KIRISH

Telekommunikatsiya bozorining muvaffaqiyatli rivojlanishi uchun turli telekommunikatsiya xizmatlarini uzluksiz taqdim etish sifati, ularning ishonchliligi va texnik mukammalligi hal qiluvchi ahamiyatga ega. O'zbekiston Respublikasi Vazirlar Mahkamasining

2021-yil 19-noyabrda 699-son “O‘zbekiston Respublikasi telekommunikatsiya infratuzilmasini yanada rivojlantirish chora-tadbirlari to‘g‘risida”gi qarorida 150 ming km optik-tolali aloqa liniyalari qurish, barcha aholi punktlarini internet tarmog‘iga ulash hamda ko‘rsatilayotgan xizmatlar sifatini oshirish vazifalari belgilangan.

Raqamli texnologiyalar vazirligi ma'lumotlariga ko‘ra, so‘nggi yillarda telekommunikatsiya tarmog‘ini rivojlantirish maqsadida qo‘shimcha 50 ming kilometr optik-tolali aloqa liniyalari qurilib, ularning umumiy uzunligi 118 ming kilometrga yetkazilgan, natijada aholi maskanlarining 67 foiziga mazkur tarmoq kirib borgan. Shu bilan birga, mobil internet tezligi 1,5 barobar oshirilib, 14 150 ta qo‘shimcha tayanch stansiyalari o‘rnatilgan. Bunday jadal infratuzilma rivojlanishi xizmat sifatiga qanchalik ta'sir ko‘rsatayotganini mintaqa darajasida empirik jihatdan baholash muhim ilmiy-amaliy ahamiyat kasb etadi.

TADQIQOT MUAMMOSI

Ushbu tadqiqot quyidagi aniq muammoni hal etishga qaratilgan: Qashqadaryo viloyatida telekommunikatsiya tarmog‘ining kengayishi (optik-tolali aloqa liniyalari uzunligining oshishi) aholiga ko‘rsatilayotgan xizmatlar sifatiga qanday va qay darajada ta'sir qiladi, hamda xizmat sifatini yanada oshirish uchun tarmoqni qanday tizimli rivojlantirish kerak? Bu savolga aniq javob berish orqali cheklangan investitsiya resurslarini eng samarali infratuzilma loyihalariga yo‘naltirish mumkin bo‘ladi.

Qashqadaryo viloyati o‘zining keng hududi va nisbatan tarqoq aholi joylashuvi bilan ajralib turadi, bu esa telekommunikatsiya infratuzilmasini barcha aholi punktlariga yetkazishni murakkablashtiradi. Shu bilan birga, viloyatda yirik sanoat korxonalari (Sho‘rtan gaz-kimyo majmuasi, Muborak gazni qayta ishlash zavodi) faoliyat yuritayotgani sababli, ishonchli va yuqori tezlikdagi aloqa xizmatlariga bo‘lgan talab ham yuqori. Bunday sharoitda xizmat sifati va infratuzilma rivojlanishi o‘rtasidagi bog‘liqlikni aniq baholash mintaqaviy raqamli rivojlanish strategiyasini shakllantirishda alohida dolzarblik kasb etadi.

Adabiyotlar tahlili.

O‘zbekistonda telekommunikatsiya bozorini rivojlantirish istiqbollari o‘rgangan tadqiqotda turli telekommunikatsiya xizmatlarini uzluksiz taqdim etish sifati, ularning ishonchliligi va texnik mukammalligi bozorning muvaffaqiyatli rivojlanishi uchun hal qiluvchi ahamiyatga ega ekanligi, shuningdek iste'molchilar ehtiyojlari va uyali aloqa kompaniyalarining moliyaviy tarkibiy qismlariga oid muammolar tahlil qilingan [1].

O‘zbekiston Respublikasi Prezidentining “Raqamli O‘zbekiston – 2030” strategiyasini tasdiqlash to‘g‘risidagi PF-6079-son Farmonida telekommunikatsiya infratuzilmasini jadal rivojlantirish, shahar va qishloq hududlari o‘rtasidagi “raqamli tafovut”ni bartaraf etish hamda taqdim etilayotgan xizmatlar sifatini oshirish uchun zarur shart-sharoitlar yaratish davlat siyosatining ustuvor yo‘nalishi sifatida belgilangan [2]. Telekommunikatsiya tarmoqlariga texnik xizmat ko‘rsatish masalalarini o‘rgangan tadqiqotda tolali optik aloqa tizimlari va tarmoqlariga texnik xizmat ko‘rsatishning barqaror va jadal rivojlantirish uchun yangicha yondashuv va tamoyillarni ishlab chiqish zarurligi asoslab berilgan [3]. Ushbu manbalarni umumlashtirib aytish mumkinki, telekommunikatsiya infratuzilmasini rivojlantirishning umumiy yo‘nalishlari yaxshi o‘rganilgan bo‘lsa-da, infratuzilma kengayishi bilan xizmat sifati o‘rtasidagi bog‘liqlikni mintaqa darajasida empirik baholash masalasi, xususan Qashqadaryo viloyati misolida, ilmiy adabiyotda hali yetarli darajada yoritilmagan.

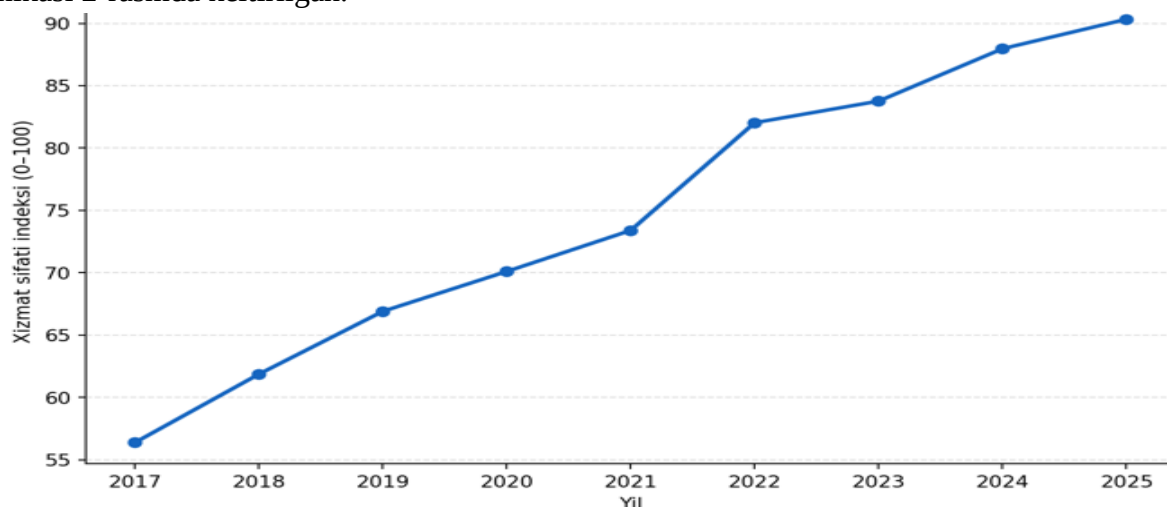
Metodologiya.

Tadqiqotda xizmat sifati indeksi (0–100 shkalada, uzilishsiz ulanish vaqti, mijozlar shikoyatlari darajasi va tarmoq tezligi kabi ko‘rsatkichlar asosida qurilgan kompozit ko‘rsatkich) bog‘liq o‘zgaruvchi sifatida, respublika optik-tolali aloqa tarmog‘i uzunligi esa infratuzilma rivojlanishining proksi-ko‘rsatkichi sifatida qabul qilindi. Ikkala ko‘rsatkichning 2017–2025-yillardagi dinamikasi qiyosiy tahlil qilindi. Tadqiqotning kirish ma'lumotlari 1-jadvalda keltirilgan.

Xizmat sifati indeksi va optik-tolali tarmoq uzunligi (2017–2025)

Yil	Xizmat sifati indeksi	Optik tola, ming km
2017	56,4	67,4
2018	61,9	74,6
2019	66,9	81,9
2020	70,1	92,0
2021	73,4	99,6
2022	82,0	104,8
2023	83,8	110,6
2024	88,0	117,1
2025	90,3	118,0

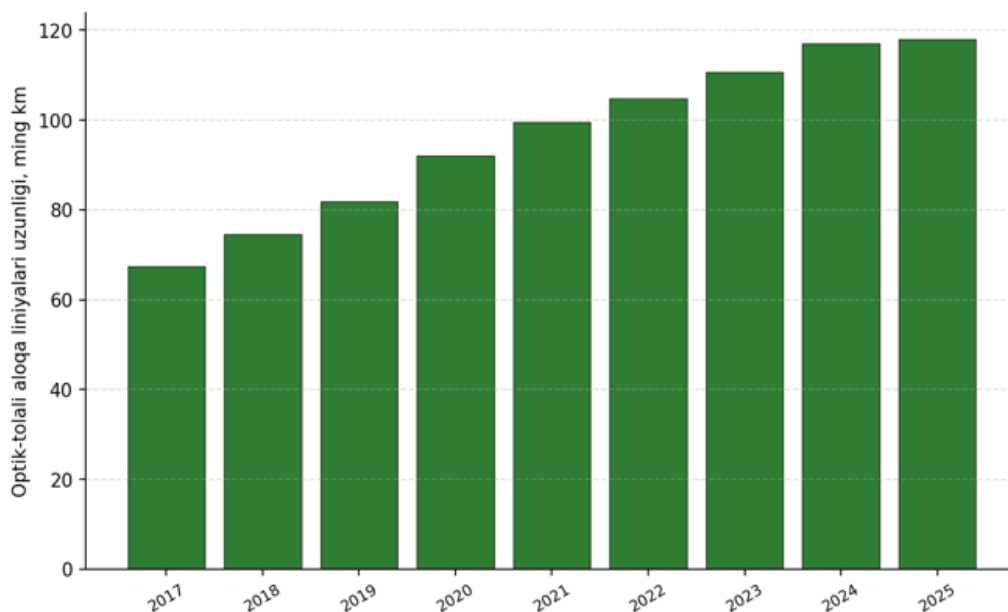
Tahlil va Natijalar. Xizmat sifati indeksining dinamikasi 1-rasmda, optik-tolali infratuzilma dinamikasi 2-rasmda keltirilgan.



1-rasm. Qashqadaryo viloyatida shaxsiy kommunikatsiya xizmatlari sifat indeksining dinamikasi (2017-2025).

1-rasmdan ko‘rinib turibdiki, xizmat sifati indeksi 2017-yildagi 56,4 dan 2025-yilda 90,3 gacha barqaror o‘ydi, bu esa 9 yil ichida qariyb 1,6 baravar yaxshilanishni bildiradi.

¹³ Muallifning shaxsiy izlanishlari asosida tuzilgan



2-rasm. Respublika telekommunikatsiya tarmog‘ining optik-tolali infratuzilmasi dinamikasi

2-rasmdan ko‘rinib turibdiki, optik-tolali aloqa tarmog‘i uzunligi 2017-yildagi 67,4 ming km dan 2025-yilda 118,0 ming km gacha, ya‘ni 1,75 baravar o‘sdi. Ikkala ko‘rsatkichning parallel dinamikasi ular o‘rtasida kuchli bog‘liqlik mavjudligidan dalolat beradi: infratuzilma kengayishining sekinlashishi davrida (2023–2025-yillar, tarmoq uzunligi o‘sshi sekinlashgan) xizmat sifati indeksining o‘ssish sur‘ati ham nisbatan pasaygan, bu esa xizmat sifatini yanada oshirish uchun infratuzilma kengayishini jadallashtirish zarurligini ko‘rsatadi.

Tizimli rivojlantirishning amaliy jihatlari. Tarmoqni tizimli rivojlantirish nafaqat optik-tolali liniyalarning fizik uzunligini oshirishni, balki mavjud infratuzilmadan foydalanish samaradorligini ham oshirishni talab qiladi. Xususan, qishloq hududlarida tarmoq zichligining past bo‘lishi, texnik xizmat ko‘rsatish tizimining zamonaviylashtirilmaganligi va malakali muhandis-texnik kadrlar yetishmovchiligi xizmat sifatini oshirishning asosiy cheklovchi omillari hisoblanadi. Shu sababli, tizimli rivojlantirish strategiyasi infratuzilma qurilishi bilan bir qatorda, texnik xizmat ko‘rsatish sifatini nazorat qilish tizimini va kadrlar tayyorlash dasturlarini ham qamrab olishi lozim.

Milliy kontekstdagi qo‘shimcha dalillar. Aniqlangan bog‘liqlikning ishonchliligini kuchaytiruvchi dalil sifatida milliy darajadagi ko‘rsatkichlarni keltirish mumkin: internet xizmatidan foydalanuvchilar soni 22 milliondan oshgan bo‘lib, shundan mobil internet foydalanuvchilari soni 19 millionni tashkil etadi, magistral telekommunikatsiya tarmoqlarining o‘tkazuvchanlik qobiliyati esa viloyatlararo darajada 200 Gbit/s.ga, tumanlararo darajada 40 Gbit/s.ga yetkazilgan. Bunday infratuzilma ko‘rsatkichlarining barqaror o‘sshi telekommunikatsiya xizmatlari sifatini oshirishning moddiy-texnik asosini tashkil etadi.

XULOSA

Tadqiqotning boshida qo‘yilgan muammoga javoban, natijalar shuni ko‘rsatadiki, Qashqadaryo viloyatida telekommunikatsiya tarmog‘ining kengayishi aholiga ko‘rsatilayotgan xizmatlar sifatiga sezilarli ijobiy ta‘sir ko‘rsatgan, biroq bu o‘ssish sur‘ati so‘nggi yillarda birmuncha sekinlashgan. Xizmat sifatini yanada oshirish uchun infratuzilma kengayishini davom ettirish bilan bir qatorda, texnik xizmat ko‘rsatish sifatini ham tizimli tarzda yaxshilash zarur.

Amaliy tavsiya sifatida quyidagilarni keltirish mumkin: qishloq va chekka hududlarda optik-tolali aloqa tarmog‘ini qamrab olishni kengaytirish, bu esa shahar va qishloq o‘rtasidagi “raqamli tafovut”ni kamaytiradi; telekommunikatsiya operatorlari uchun xizmat sifati bo‘yicha aniq me‘yoriy ko‘rsatkichlarni (SLA) joriy etish va ularning bajarilishini muntazam monitoring qilish; texnik xizmat ko‘rsatish sohasida malakali muhandis-texnik kadrlar tayyorlash dasturlarini kengaytirish; hamda xizmat sifati indeksini mintaqaviy statistik monitoring tizimiga joriy etib, uning dinamikasini infratuzilma investitsiyalari bilan muntazam taqqoslab borish.

Bundan tashqari, xizmat sifatini oshirishda raqamli boshqaruv tizimlarini joriy etish alohida ahamiyat kasb etadi. Real vaqt monitoringi tizimlari orqali tarmoqdagi nosozliklarni oldindan aniqlash va bartaraf etish, mijozlar murojaatlarini avtomatlashtirilgan tarzda qayd etish va tahlil qilish, xizmat sifati ko'rsatkichlarini shaffof tarzda ochiq statistik ma'lumotlar shaklida e'lon qilish kabi choralar aholi va telekommunikatsiya operatorlari o'rtasidagi ishonchni mustahkamlashga xizmat qiladi. Shuningdek, raqobat muhitini rivojlantirish orqali operatorlarni xizmat sifatini oshirishga undash ham muhim tizimli chora hisoblanadi.

Xulosa qilib aytganda, ushbu empirik tadqiqot telekommunikatsiya infratuzilmasini kengaytirish va xizmatlar sifatini oshirish o'rtasidagi bog'liqlikni Qashqadaryo viloyati misolida miqdoriy jihatdan tasdiqladi, bu esa mintaqaviy raqamli infratuzilma siyosatini ilmiy asoslashga xizmat qiladi.

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SUN'IY INTELLEKT TEXNOLOGIYALARI ASOSIDA BO'LAJAK O'QITUVCHILARNING RAQAMLI KOMPETENTLIGINI RIVOJLANTIRISH MEXANIZMLARI

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Annotatsiya : Mazkur maqolada sun'iy intellekt texnologiyalari asosida bo'lajak o'qituvchilarning raqamli kompetentligini rivojlantirish mexanizmlari ilmiy-pedagogik jihatdan tahlil qilingan. Tadqiqot davomida raqamli ta'lim muhiti, interaktiv platformalar, adaptiv o'qitish tizimlari hamda sun'iy intellekt vositalarining pedagogik jarayondagi o'rni yoritilgan.

Kalit so'zlar: sun'iy intellekt, raqamli kompetentlik, bo'lajak o'qituvchi, innovatsion ta'lim, raqamli pedagogika, adaptiv o'qitish, axborot texnologiyalari, pedagogik texnologiyalar.

Аннотация : В данной статье рассматриваются механизмы развития цифровой компетентности будущих педагогов на основе технологий искусственного интеллекта. В ходе исследования проанализированы роль цифровой образовательной среды, интерактивных платформ, адаптивных систем обучения и инструментов искусственного интеллекта в педагогическом процессе.

Abstract : This article analyzes the mechanisms for developing the digital competence of future teachers based on artificial intelligence technologies from a scientific and pedagogical perspective. The study highlights the role of digital educational environments, interactive platforms, adaptive learning systems, and AI-based tools in the educational process.

Keywords: artificial intelligence, digital competence, future teacher, innovative education, digital pedagogy, adaptive learning, information technologies, pedagogical technologies.

KIRISH

Bugungi kunda dunyo miqyosida raqamli texnologiyalarning jadal rivojlanishi barcha sohalarda tub o'zgarishlarni yuzaga keltirmoqda. Ayniqsa, ta'lim tizimida amalga oshirilayotgan

islohotlar pedagogik faoliyatning mazmuni va shakliga yangicha yondashuvlarni talab etmoqda. Zamonaviy jamiyatda o'qituvchidan nafaqat o'z fanini mukammal bilish, balki raqamli texnologiyalar bilan ishlash, elektron ta'lim vositalaridan samarali foydalanish va innovatsion metodlarni amaliyotga joriy etish kabi kompetensiyalar ham talab qilinmoqda. Shu sababli bo'lajak o'qituvchilarning raqamli kompetentligini rivojlantirish bugungi pedagogikaning dolzarb masalalaridan biri hisoblanadi. Ayniqsa, sun'iy intellekt texnologiyalarining ta'lim tizimiga kirib kelishi bu jarayonni yangi bosqichga olib chiqmoqda. Raqamli kompetentlik tushunchasi pedagogning axborot-kommunikatsiya texnologiyalaridan samarali foydalanish, elektron resurslarni yaratish, axborotni tahlil qilish va undan maqsadli foydalanish qobiliyatini anglatadi. Zamonaviy o'qituvchi nafaqat kompyuter yoki internetdan foydalanishni bilishi, balki ta'lim jarayonini raqamli muhitda tashkil eta olishi ham zarur. Sun'iy intellekt texnologiyalari esa ushbu kompetensiyalarni shakllantirishda keng imkoniyatlarni yaratmoqda.

AI vositalari yordamida o'qituvchilar darslarni rejalashtirishi, interaktiv topshiriqlar yaratishi va o'quvchilarning bilim darajasini tezkor tahlil qilishi mumkin. Bo'lajak o'qituvchilarning raqamli kompetentligini rivojlantirishda innovatsion ta'lim muhitining o'rni katta. Hozirgi davrda oliy ta'lim muassasalarida elektron platformalar, virtual laboratoriyalar va masofaviy o'qitish tizimlari keng joriy etilmoqda.¹⁴ Bu esa talabalarning mustaqil ishlash ko'nikmalarini rivojlantirishga xizmat qiladi.

Sun'iy intellekt texnologiyalarining pedagogik faoliyatdagi eng muhim afzalliklaridan biri adaptiv ta'limni tashkil etish imkoniyatidir. Adaptiv ta'lim tizimi o'quvchining bilim darajasi, qiziqishi va o'zlashtirish tezligini tahlil qilib, unga mos o'quv materiallarini tavsiya etadi. Raqamli kompetentlikni rivojlantirish mexanizmlaridan biri interaktiv ta'lim metodlaridan foydalanishdir. Zamonaviy pedagogikada interaktiv usullar o'quvchilarning faolligini oshirish, kreativ fikrlashini rivojlantirish va mustaqil qaror qabul qilish ko'nikmalarini shakllantirishga xizmat qiladi. Sun'iy intellekt asosidagi ta'lim dasturlari yordamida testlar, virtual simulyatsiyalar, elektron treninglar va multimedia vositalari yaratilmoqda. Bunday vositalar bo'lajak o'qituvchilarning texnologik savodxonligini oshirishda muhim omil hisoblanadi.

Sun'iy intellekt texnologiyalari yordamida axborotlarni tezkor qayta ishlash va tahlil qilish imkoniyati kengaymoqda. Shu sababli bo'lajak pedagoglar raqamli axborot bilan ishlash madaniyatiga ega bo'lishlari lozim. Raqamli pedagogika zamonaviy ta'limning muhim yo'nalishiga aylanmoqda. Elektron ta'lim resurslari, onlayn platformalar va virtual auditoriyalar o'qitishning yangi shakllarini yuzaga keltirdi. Ayniqsa, masofaviy ta'lim tizimida sun'iy intellektning ahamiyati sezilarli darajada oshdi. Virtual yordamchilar va chatbotlar talabalar bilan muloqot qilish, savollarga javob berish hamda o'quv materiallarini tushuntirish imkoniyatiga ega bo'lmoqda. Bo'lajak o'qituvchilarda kreativlik va innovatsion fikrlashni shakllantirish ham raqamli kompetentlikning muhim tarkibiy qismi hisoblanadi. Zamonaviy pedagog faqat tayyor bilimlarni yetkazuvchi emas, balki yangi g'oyalarni ishlab chiqishga qodir innovator bo'lishi kerak. Sun'iy intellekt texnologiyalari esa kreativ yondashuvlarni rivojlantirish uchun keng imkoniyat yaratadi. Masalan, multimedia loyihalari, virtual tajribalar va interaktiv taqdimotlar o'qituvchilarning ijodiy salohiyatini oshirishga yordam beradi. Sun'iy intellekt asosidagi ta'lim tizimlarining yana bir muhim jihati - ta'lim sifatini monitoring qilish imkoniyatidir. AI tizimlari o'quvchilarning natijalarini doimiy ravishda tahlil qiladi va statistik ma'lumotlarni shakllantiradi. Bu esa ta'lim jarayonidagi kamchiliklarni aniqlash va ularni bartaraf etish imkonini beradi. Shuningdek, sun'iy intellekt texnologiyalaridan foydalanishda axloqiy va huquqiy masalalarga ham e'tibor qaratilishi lozim. Raqamli texnologiyalar bilan ishlash jarayonida shaxsiy ma'lumotlarni himoya qilish, akademik halollik va axborot xavfsizligi masalalari dolzarb hisoblanadi. Shu sababli bo'lajak o'qituvchilarga nafaqat texnologik bilimlar, balki raqamli etika qoidalarini ham o'rgatish zarur. Bu esa kelajakda xavfsiz va samarali raqamli ta'lim muhitini yaratishga yordam beradi.

¹⁴ Abduqodirov A. A. Axborot texnologiyalari va masofaviy ta'lim asoslari. – Toshkent: Fan, 2021.

Bugungi kunda sun'iy intellekt asosida ishlovchi ko'plab ta'lim platformalari mavjud bo'lib, ular o'quv jarayonini yanada qulay va samarali tashkil etishga xizmat qilmoqda. Bunday platformalar yordamida o'quv materiallarini avtomatik tarzda yangilash, individual topshiriqlar yaratish va o'quvchilarning natijalarini tahlil qilish mumkin. Natijada ta'lim tizimi yanada moslashuvchan va zamonaviy shaklga ega bo'lmoqda.¹⁵ Kelajakda pedagogik faoliyatning muvaffaqiyati ko'p jihatdan o'qituvchilarning raqamli kompetentligiga bog'liq bo'ladi. Chunki zamonaviy texnologiyalar bilan ishlay oladigan pedagoggina innovatsion ta'lim muhitida samarali faoliyat yurita oladi. Shu sababli oliy ta'lim muassasalarida bo'lajak o'qituvchilarning raqamli kompetentligini rivojlantirishga alohida e'tibor qaratilishi zarur. Sun'iy intellekt texnologiyalaridan samarali foydalanish esa ushbu jarayonning muhim mexanizmlaridan biri sifatida namoyon bo'ladi. Xususan, elektron platformalar bilan ishlash, raqamli dars ishlanmalarini yaratish, multimedia vositalaridan foydalanish hamda sun'iy intellekt asosidagi dasturlarni ta'lim jarayoniga moslashtirish bo'lajak o'qituvchilarning muhim kompetensiyalaridan biri hisoblanadi. Bugungi kunda sun'iy intellekt yordamida yaratilayotgan aqlli ta'lim tizimlari o'quvchilarning bilim olish jarayonini yengillashtirmoqda. Masalan, virtual yordamchilar va chatbotlar o'quvchilarning savollariga tezkor javob berish, murakkab mavzularni tushuntirish hamda mustaqil ta'lim olishiga ko'maklashish imkoniyatiga ega. Bu esa o'quvchilarning o'z ustida ishlash motivatsiyasini oshiradi. Bo'lajak o'qituvchilar bunday texnologiyalar bilan ishlashni o'zlashtirishi orqali kelajakda zamonaviy ta'lim muhitini samarali tashkil eta oladi. Raqamli kompetentlikni rivojlantirishda xalqaro tajribalarni o'rganish ham muhim ahamiyatga ega. Rivojlangan davlatlar ta'lim tizimida sun'iy intellektdan foydalanish orqali o'quv jarayonini avtomatlashtirish va individuallashtirishga katta e'tibor qaratmoqda. Ushbu tajribalarni milliy ta'lim tizimiga moslashtirish orqali pedagogik faoliyat samaradorligini oshirish mumkin. Shu bilan birga, xalqaro platformalar orqali tajriba almashish bo'lajak o'qituvchilarning kasbiy rivojlanishiga ijobiy ta'sir ko'rsatadi. Kelajakda raqamli texnologiyalar ta'limning ajralmas qismiga aylanishi kutilmoqda. Shu sababli pedagog kadrlarni tayyorlash tizimida sun'iy intellekt va raqamli pedagogika asoslarini chuqur o'rgatish zarur hisoblanadi.

Xulosa qilib aytganda sun'iy intellekt texnologiyalari asosida bo'lajak o'qituvchilarning raqamli kompetentligini rivojlantirish ta'lim sifatini oshirish, innovatsion muhitni shakllantirish va pedagogik faoliyatni zamon talablariga moslashtirishda muhim omil bo'lib xizmat qiladi. Texnologiyalarni samarali qo'llash orqali ta'lim tizimini yangi bosqichga olib chiqish va kelajak avlodni zamonaviy bilimlar bilan qurollantirish imkoniyati yanada kengayadi. Sun'iy intellekt texnologiyalari asosida bo'lajak o'qituvchilarning raqamli kompetentligini rivojlantirish zamonaviy ta'lim tizimining ustuvor yo'nalishlaridan biridir. Raqamli texnologiyalar pedagogik faoliyatni samarali tashkil etish, individual ta'limni yo'lga qo'yish va ta'lim sifatini oshirishda muhim vosita bo'lib xizmat qilmoqda.

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¹⁵ Azizxo'jayeva N. N. Pedagogik texnologiyalar va pedagogik mahorat. – Toshkent: TDPU, 2020.

RAQAMLI ASALARICHILIK TEXNOLOGIYALARI SAMARADORLIGINI OSHIRISH TAMOYILLARI

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Annotatsiya: Maqolada raqamli asalarichilik texnologiyalaridan samarali foydalanishning asosiy tamoyillari tadqiq etilgan. IoT, sun'iy intellekt, Big Data va raqamli monitoringning asalarichilikda qo'llanilishi tahlil qilinib, ularning iqtisodiy, ekologik va biologik samaradorlikni oshirishdagi ahamiyati asoslangan. Raqamli asalarichilikni boshqarishning integratsiyalashgan yondashuvi taklif etilgan.

Kalit so'zlar: raqamli asalarichilik, IoT, sun'iy intellekt, Big Data, raqamli monitoring, iqtisodiy samaradorlik.

KIRISH

Bugungi kunda qishloq xo'jaligida raqamli texnologiyalardan foydalanish ishlab chiqarish samaradorligini oshirishning muhim yo'nalishlaridan biriga aylanmoqda. Bu jarayon asalarichilik uchun ham dolzarb bo'lib, asalari oilalarining biologik holati, iqlim sharoiti, oziqa bazasi va ishlab chiqarish jarayonlarini doimiy nazorat qilishni talab etadi. An'anaviy boshqaruv usullari bunday jarayonlarni tezkor va uzluksiz kuzatish imkoniyatini cheklaydi.

Raqamli asalarichilik texnologiyalari, jumladan IoT sensorlari, sun'iy intellekt, Big Data va raqamli monitoring ushbu muammolarni hal etish imkonini beradi. Ular orqali asalari uyalarining harorati, namligi va biologik holati haqida ma'lumotlarni real vaqt rejimida olish, mavjud xavflarni erta aniqlash hamda boshqaruv qarorlarini tezkor qabul qilish mumkin. Natijada ishlab chiqarish xarajatlarini kamaytirish, resurslardan foydalanishni optimallashtirish va mahsuldorlikni oshirish imkoniyati yaratiladi.

Shu bilan birga, raqamli texnologiyalarning asalarichilikdagi samaradorligi faqat texnik vositalarni joriy etishga emas, balki ularni iqtisodiy, biologik, ekologik va institutsional omillar bilan uyg'unlashtirishga bog'liq. Shu sababli raqamli asalarichilik texnologiyalaridan foydalanish samaradorligini oshirish tamoyillarini tizimlashtirish va ularni yagona boshqaruv modeli asosida shakllantirish muhim ilmiy-amaliy vazifa hisoblanadi.

Mazkur tadqiqotning maqsadi raqamli asalarichilik texnologiyalaridan foydalanish samaradorligini oshirishning asosiy tamoyillarini aniqlash, ularni tizimlashtirish va "Raqamli asalarichilik boshqaruvi"ning integratsiyalashgan konseptual modelini ishlab chiqishdan iborat.

MAVZUGA OID ADABIYOTLAR TAHLILI

Raqamli asalarichilikni rivojlantirish masalalari xorijiy va mahalliy tadqiqotlarda keng o'rganilgan. Pal P., Sahu M. va Juyal R. asalarichilikda IoT texnologiyalari va masofaviy monitoringdan foydalanish imkoniyatlarini asoslagan. Turyagyenda A. IoT va mashinali o'rganish texnologiyalarining aniq asalarichilikdagi ahamiyatini tahlil qilgan. Vatskel V. va boshqalar esa IoT hamda mashinali o'rganishni yagona boshqaruv tizimiga integratsiyalash masalalarini tadqiq etgan [1-3].

Mahalliy tadqiqotlarda Farmanov J.Z. asalarichilikni rivojlantirishning iqtisodiy mexanizmlari, xorijiy tajriba, raqamli texnologiyalarni moliyalashtirish va ulardan foydalanish samaradorligi masalalarini o'rgangan [5-9].

Mavjud adabiyotlar tahlili shuni ko'rsatadiki, tadqiqotlarda raqamli monitoring, IoT, sun'iy intellekt va iqtisodiy mexanizmlar alohida yo'nalishlarda o'rganilgan. Shu bois ushbu tadqiqotda mazkur yondashuvlarni birlashtirgan holda raqamli asalarichilik texnologiyalari samaradorligini oshirish tamoyillarini kompleks tizimlashtirishga alohida e'tibor qaratilgan.

TADQIQOT METODOLOGIYASI.

Tadqiqotning metodologik asosini tizimli, qiyosiy va iqtisodiy tahlil usullari tashkil etadi. Tadqiqotda raqamli asalarichilik texnologiyalarining samaradorligi texnologik, iqtisodiy, biologik, ekologik va institutsional omillar o'zaro bog'liqligida o'rganildi.

Tadqiqot jarayonida IoT, sun'iy intellekt, Big Data va raqamli monitoring texnologiyalarining asalarichilikdagi qo'llanilishi bo'yicha ilmiy manbalar qiyosiy tahlil qilindi. Shuningdek, raqamli texnologiyalarning ishlab chiqarish xarajatlarini kamaytirish, resurslardan foydalanish samaradorligini oshirish, asalari oilalarining biologik holatini monitoring qilish va mahsuldorlikni oshirish imkoniyatlari baholandi.

Olingan natijalarni umumlashtirish asosida raqamli asalarichilik samaradorligini oshirishning 10 ta asosiy tamoyili tizimlashtirildi hamda ular asosida "Raqamli asalarichilik boshqaruvi"ning integratsiyalashgan konseptual modeli shakllantirildi.

TADQIQOT NATIJALARI VA TAHLIL.

Tadqiqot natijasida raqamli asalarichilik texnologiyalari samaradorligini oshirishning 10 ta asosiy tamoyili tizimlashtirildi.

Ma'lumotga asoslangan boshqaruv tamoyili

Ma'lumotga asoslangan boshqaruv raqamli asalarichilik tizimining asosiy tamoyillaridan biridir. Ushbu yondashuv boshqaruv qarorlarini subyektiv tajribadan real vaqt rejimida olinadigan obyektiv ma'lumotlarga o'tkazishni nazarda tutadi.

IoT sensorlari, raqamli monitoring vositalari va boshqa qurilmalar orqali yig'ilgan ma'lumotlar asalari uyalarining holatini doimiy nazorat qilish imkonini beradi. Bunday ma'lumotlar asosida resurslardan foydalanish samaradorligini oshirish, yo'qotishlarni kamaytirish va muammoli vaziyatlarni oldindan aniqlash mumkin.

Strategik jihatdan mazkur tamoyil "aqlli boshqaruv" tizimini shakllantiradi. Buning uchun ma'lumotlarni yig'ish, saqlash va himoyalash bo'yicha tegishli raqamli standartlarni joriy etish zarur.

Iqlimga moslashuvchanlik tamoyili

Asalarichilikning biologik xususiyati uni iqlim o'zgarishlariga sezgir tarmoqlardan biriga aylantiradi. Harorat, namlik va ob-havo sharoitlari asalari oilalarining holati va mahsuldorligiga ta'sir ko'rsatadi.

Shuning uchun iqlim ko'rsatkichlarini real vaqt rejimida monitoring qilish va tahlil etish muhim hisoblanadi. Raqamli texnologiyalar asosida iqlimiy o'zgarishlarni oldindan aniqlash orqali asalari oilalarini himoya qilish va tegishli moslashuv choralarini ko'rish mumkin.

Mazkur tamoyilning strategik ahamiyati iqlim o'zgarishlariga moslashgan agroekotizimni shakllantirishdan iborat. Buning uchun iqlim monitoringi va ekologik me'yorlarni takomillashtirish zarur.

Integratsiyalashgan texnologik yondashuv

IoT, sun'iy intellekt, Big Data va bulutli texnologiyalardan alohida foydalanishdan ko'ra ularni yagona tizimga integratsiyalash yuqori samaradorlikka erishish imkonini beradi.

Bunday integratsiya texnologik uzilishlarni kamaytirib, ma'lumotlarni yig'ishdan boshlab tahlil qilish va boshqaruv qarorini qabul qilishgacha bo'lgan jarayonni yagona tizimga birlashtiradi.

Natijada raqamli asalarichilik ekotizimi shakllanadi. Bunda raqamli platformalar faoliyatini tartibga soluvchi normativ-huquqiy mexanizmlarni ishlab chiqish muhim hisoblanadi.

Iqtisodiy samaradorlik va optimallashtirish tamoyili

Raqamli texnologiyalarni joriy etishning yakuniy maqsadlaridan biri iqtisodiy samaradorlikni oshirishdan iborat. Shu sababli texnologiyalarni tanlashda ularning xarajatlari va kutilayotgan iqtisodiy natijalari o'rtasidagi nisbatni baholash zarur.

Raqamli monitoring orqali mehnat, vaqt, energiya va boshqa resurslardan foydalanishni optimallashtirish mumkin. Natijada ishlab chiqarish xarajatlari kamayib, mahsuldorlik va rentabellik oshishi uchun sharoit yaratiladi.

Mazkur tamoyil asalarichilikni barqaror va raqobatbardosh biznes modeliga aylantirishga xizmat qiladi.

Biologik xavfsizlik va sogʻliqni monitoring qilish tamoyili

Asalari oilalarining biologik holati va sogʻligʻi asalarichilik samaradorligining muhim omilidir. Kasalliklar va stress omillarini kech aniqlash ishlab chiqarish yoʻqotishlariga olib kelishi mumkin.

Raqamli monitoring vositalari orqali biologik holatdagi oʻzgarishlarni erta aniqlash va tegishli choralarni oʻz vaqtida koʻrish imkoniyati yaratiladi. Natijada yoʻqotishlar kamayadi, mahsulot sifati yaxshilanadi va oziq-ovqat xavfsizligi mustahkamlanadi.

Bunda veterinariya va bioxavfsizlik standartlarini raqamli monitoring tizimlari bilan uygʻunlashtirish talab etiladi.

Shaffoflik va izlenebilirlik tamoyili

Asalarichilik mahsulotlarining sifati va kelib chiqishini kuzatish zamonaviy bozorda muhim ahamiyatga ega. QR-kod va Blockchain texnologiyalari yordamida asal ishlab chiqarish jarayonini raqamli kuzatish imkoniyati paydo boʻladi.

Bunday tizim isteʼmolchi ishonchini oshirish, mahsulotning kelib chiqishi va ishlab chiqarish jarayonini tasdiqlash hamda soxta mahsulotlarga qarshi kurashishda muhim vosita boʻlib xizmat qiladi.

Shuningdek, traceability tizimi ichki va eksport bozorlarida mahsulot raqobatbardoshligini oshirishga yordam beradi. Buning uchun sertifikatlash va raqamli markirovka tizimlarini takomillashtirish talab qilinadi.

Hududiy moslashuv va differensial yondashuv

Oʻzbekiston hududlarining iqlimiy, tabiiy-resurs va infratuzilmaviy sharoitlari bir xil emas. Shu sababli barcha hududlar uchun yagona texnologik yechimdan foydalanish oʻrniga hududning oʻziga xos xususiyatlarini hisobga olgan differensial yondashuv zarur.

Mazkur tamoyil hududiy tengsizlikni kamaytirish va mavjud resurslardan samarali foydalanishga xizmat qiladi. Masalan, Qashqadaryo viloyati uchun hududning iqlimi, resurslari va infratuzilmasini hisobga oluvchi alohida raqamli asalarichilik modeli ishlab chiqilishi mumkin.

Innovatsion uzluksizlik tamoyili

Raqamli texnologiyalar tez surʼatlarda takomillashib borayotganligi sababli bir marta texnologiya joriy etishning oʻzi uzoq muddatli samaradorlikni taʼminlamaydi. Texnologiyalarni bosqichma-bosqich yangilash va takomillashtirib borish zarur.

Innovatsion uzluksizlik ishlab chiqarish barqarorligini taʼminlaydi, texnologik raqobatbardoshlikni oshiradi va uzoq muddatli raqamli transformatsiyani shakllantiradi. Shu sababli innovatsiyalarni qoʻllab-quvvatlovchi institutsional mexanizmlarni kuchaytirish lozim.

Kadrlar va raqamli savodxonlik tamoyili

Raqamli texnologiyalarni joriy etishning samaradorligi nafaqat texnik vositalarga, balki ulardan foydalanuvchi inson kapitalining bilim va koʻnikmalariga ham bogʻliq.

Asalarichilarni IoT, raqamli monitoring, maʼlumotlarni tahlil qilish va raqamli platformalardan foydalanishga oʻrgatish zarur. Raqamli savodxonlikning oshishi mehnat unumdorligi va malakani oshirish bilan birga, yangi turdagi bandlik imkoniyatlarini ham kengaytiradi.

Shu sababli maxsus treninglar, malaka oshirish kurslari va raqamli bilim transferi tizimini shakllantirish muhim hisoblanadi.

Barqarorlik va yashil iqtisodiyot tamoyili

Raqamli asalarichilikning uzoq muddatli samaradorligi ekologik barqarorlik bilan uzviy bogʻliq. Ekologik toza, resurs-tejamkor va chiqindilarni kamaytirishga yoʻnaltirilgan texnologiyalarni qoʻllash atrof-muhit muhofazasini kuchaytiradi.

Mazkur tamoyil asalarichilikni yashil iqtisodiyot konsepsiyasi bilan uyg'unlashtiradi. Resurslardan oqilona foydalanish, biologik xilma-xillikni saqlash va ekologik xavfsizlikni ta'minlash tarmoqning uzoq muddatli barqarorligiga xizmat qiladi.

Raqamli asalarichilikni boshqarishning integratsiyalashgan modeli

Yuqoridagi tamoyillar asosida faylda "Raqamli asalarichilik boshqaruvi" markaziy integrator sifatida belgilangan. Ushbu modelda ma'lumotga asoslangan boshqaruv, iqlimga moslashuvchanlik, integratsiyalashgan texnologiyalar, biologik xavfsizlik, shaffoflik, yashil iqtisodiyot, kadrlar, innovatsion uzluksizlik, hududiy moslashuv va iqtisodiy samaradorlik o'zaro bog'langan.

Modelning markaziy qismi - ma'lumotga asoslangan boshqaruv bo'lib, IoT sensorlari, Big Data va sun'iy intellekt orqali olingan ma'lumotlardan foydalanishga asoslanadi. Bunda boshqaruv qarorlari real vaqt ma'lumotlariga tayanadi. Natijada subyektiv yondashuv kamayib, qarorlarning tezkorligi va aniqligi oshadi.

Modelning ikkinchi muhim elementi - iqlimga moslashuvchanlik. Iqlim monitoringi, prognozlash va moslashuv choralarining birgalikda qo'llanilishi asalari oilalarining iqlim stresslariga bardoshlilikini oshirishga xizmat qiladi.

Integratsiyalashgan texnologik yondashuv esa IoT, AI, mobil ilovalar va raqamli platformalarni yagona tizimga birlashtiradi. Bunday yondashuv texnologik fragmentatsiyani kamaytirib, boshqaruv jarayonlarining yaxlitligini ta'minlaydi.

Biologik xavfsizlik bloki asalari salomatligi va mahsulot sifatini nazorat qilishga yo'naltiriladi. Kasalliklarni erta aniqlash ishlab chiqarishdagi yo'qotishlarni kamaytirish imkonini beradi.

Shaffoflik va izleniblik bloki QR va Blockchain texnologiyalaridan foydalanib, asalning kelib chiqishini kuzatish imkonini beradi. Bu iste'molchilar ishonchini oshirish va bozor raqobatbardoshligini kuchaytirishga xizmat qiladi.

Iqtisodiy samaradorlik modelning natijaviy blokini tashkil etadi. Yuqoridagi barcha elementlarning uyg'unligi natijasida mahsuldorlikni oshirish, xarajatlarni kamaytirish va rentabellikni yaxshilash uchun sharoit yaratiladi.

XULOSA

Tadqiqot natijalari raqamli asalarichilik texnologiyalaridan foydalanish samaradorligi ularni alohida joriy etish bilan emas, balki yagona boshqaruv tizimiga integratsiyalash orqali oshishini ko'rsatdi. Tadqiqot asosida samaradorlikni oshirishning 10 ta asosiy tamoyili tizimlashtirildi: ma'lumotga asoslangan boshqaruv, iqlimga moslashuvchanlik, texnologik integratsiya, iqtisodiy optimallashtirish, biologik xavfsizlik, shaffoflik va izlenebilirlik, hududiy moslashuv, innovatsion uzluksizlik, raqamli savodxonlik hamda barqaror rivojlanish.

Ushbu tamoyillar asosida taklif etilgan "Raqamli asalarichilik boshqaruvi" modeli IoT, Big Data, sun'iy intellekt va raqamli monitoringni yagona tizimga birlashtiradi. Mazkur yondashuv ishlab chiqarish xarajatlarini kamaytirish, resurslardan foydalanishni optimallashtirish, asalari oilalarining holatini tezkor nazorat qilish va mahsulot sifatini oshirish uchun metodik asos yaratadi.

Shunday qilib, raqamli texnologiyalarni tizimli joriy etish O'zbekiston sharoitida asalarichilikni iqtisodiy samaradorligi, biologik xavfsizligi va ekologik barqarorligini oshirishning muhim yo'nalishi hisoblanadi.

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RAQAMLI TA'LIM SHAROITIDA KASBIY IDENTIFIKATSIYA TRANSFORMATSIYASI

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Annotatsiya: Mazkur maqolada oliy ta'lim tizimining raqamli transformatsiyasi sharoitida bo'lajak mutaxassislarining kasbiy identifikatsiyasi shakllanishi va o'zgarishi masalasi tahlil qilinadi. An'anaviy akademik muhitdan raqamli va gibrid ta'lim formatiga o'tish jarayonida talabalarida kasbiy o'zlikni anglash dinamikasi, yangi kompetensiyalar talabi hamda yuzaga kelayotgan psixologik ziddiyatlar ko'rsatib berilgan.

Kalit so'zlar: raqamli ta'lim, kasbiy identifikatsiya, transformatsiya, bo'lajak mutaxassis, raqamli kompetensiya, kognitiv moslashuv, professional o'zlik.

Аннотация: В данной статье анализируются вопросы формирования и изменения профессиональной идентичности будущих специалистов в условиях цифровой трансформации системы высшего образования. Отражена динамика осознания студентами профессионального «я», требования к новым компетенциям, а также возникающие психологические противоречия в процессе перехода от традиционной академической среды к цифровому и гибриднему форматам обучения.

Ключевые слова: цифровое образование, профессиональная идентичность, трансформация, будущий специалист, цифровая компетенция, когнитивная адаптация, профессиональное «я».

Annotation: This article analyzes the formation and evolution of future specialists' professional identity within the context of the digital transformation of higher education. It highlights the dynamics of students' professional self-awareness, emerging competency demands, and psychological conflicts arising during the transition from a traditional academic environment to digital and hybrid learning formats.

Keywords: digital education, professional identity, transformation, future specialist, digital competence, cognitive adaptation, professional self-concept.

KIRISH

Axborot-kommunikatsiya texnologiyalari va sun'iy intellekt vositalarining oliy ta'lim tizimiga shiddat bilan kirib kelishi an'anaviy ta'lim paradigmasini tubdan yangiladi. Bilimlarni

yetkazish mexanizmlarining avtomatlashuvi, onlayn platformalar va masofaviy kurslar ta'lim oluvchilarga moslashuvchanlik yaratish bilan birga, mutaxassis shaxsining kasbiy shakllanish jarayoniga yangicha talablar qo'yimoqda.

Kasbiy identifikatsiya — shaxsning o'zini muayyan kasbiy hamjamiyatning teng huquqli a'zosi sifatida anglashi, sohaviy qadriyatlar, etika va me'yorlarni o'z ichki e'tiqodiga aylantirish jarayonidir. An'anaviy ta'limda ushbu jarayon professor-o'qituvchi bilan bevosita yuzma-yuz muloqot, laboratoriya mashg'ulotlari va bevosita jamoaviy muhit orqali amalga oshirilgan bo'lsa, raqamli ta'limda sotsializatsiya traektoriyasi virtual maydonga ko'chmoqda. Ushbu sharoitda talabalarda kasbiy identifikatsiyaning qanday transformatsiyaga uchrayotganini o'rganish Oliy attestatsiya komissiyasi (OAK) talablariga mos dolzarb ilmiy-nazariy yo'nalishlardan biridir.

MATERIALLAR VA USULLAR

Raqamli ta'lim muhitida bo'lajak mutaxassislar kasbiy o'zligining transformatsiyalanishi masalasi pedagogika, psixologiya va sotsiologiya fanlari tutashuvidagi ko'p qirrali ilmiy muammo hisoblanadi. Mazkur jarayonning nazariy-metodologik ildizlari hamda zamonaviy empirik talqinlari ilmiy adabiyotlarda bir-birini to'ldiruvchi bir necha asosiy yo'nalishlar doirasida tadqiq etib kelinmoqda.

Kasbiy identifikatsiya fenomenining nazariy poydevori shaxs rivojlanishining psixosotsial bosqichlari hamda faoliyat konsepsiyalariga borib taqaladi. E. Eriksonning identifikatsiya inqirozi g'oyasini empirik o'lchovlar tizimiga olib chiqqan J. Marsia tadqiqotlarida o'zlikni anglash — shaxsning ijtimoiy rollarni sinab ko'rishi (moratoriy) va muayyan qadriyatlar tizimiga ongli tarzda sodiq qolishi (erishilgan maqom) o'rtasidagi dinamik muvozanat sifatida talqin etiladi [1].

Mahalliy va xorijiy olimlar (A.N. Leontyev, V.D. Shadrikov, N.A. Muslimov) esa identifikatsiya jarayonini faoliyatli yondashuv prizmasi orqali yoritishgan [2], [3]. Ularning konsepsiyalariga ko'ra, kasbiy o'zlik tashqi ta'sirlarning passiv o'zlashtirilishi emas, balki bevosita o'quv-ishlab chiqarish faoliyatida sub'yektning o'z ichki imkoniyatlarini professional talablarga moslashtirish jarayonida tarkib topadi. N.A. Muslimov bo'lajak kasb ta'limi o'qituvchilarini shakllantirishda kasbiy motivatsiya, o'z-o'zini rivojlantirish hamda amaliy ko'nikmalarning integratsiyalashuvini birlamchi omil sifatida asoslaydi [3]. Biroq mazkur klassik tadqiqotlar asosan barqaror auditoriya va bevosita sub'yekt-sub'yekt munosabatlari hukmron bo'lgan an'anaviy ta'lim muhiti qonuniyatlariga tayanadi.

Axborot-kommunikatsiya vositalarining oliy ta'lim jarayoniga integratsiyalashuvi hamda o'quv muhitini raqamlashtirish mexanizmlari U.Sh. Begimqulov, X.I. Ibragimov, Sh.A. Abdullayeva kabi mahalliy tadqiqotchilarning ilmiy ishlarida konseptual jihatdan ochib berilgan [4], [5]. U.Sh. Begimqulov pedagogik ta'lim jarayonlarini axborotlashtirishni tashkil etish modelini ishlab chiqib, elektron axborot-ta'lim resurslari talabalarining mustaqil bilim olish traektoriyasini kengaytirishini ta'kidlaydi [4].

Shunga qaramay, mazkur tadqiqotlar ko'proq raqamli infratuzilmani yaratish, axborot texnologiyalarini o'qitish metodikasi hamda didaktik ta'minot masalalariga urg'u bergan bo'lib, raqamli muhitning talaba ruhiyatiga, xususan, uning kasbiy qadriyatlar tizimiga va shaxsiy identifikatsiyasiga ko'rsatadigan bilvosita ta'siri alohida tadqiqot ob'yekti sifatida to'liq qamrab olinmagan.

Raqamli o'zlik va virtual sotsializatsiyaning xorijiy modellari

G'arb ilmiy diskursida ta'limning raqamlashuvi jarayonida kasbiy identifikatsiyani o'rganish konnektivizm (G. Simens) va tarmoqli jamiyat nazariyalari (M. Kastels) asosida jadal rivojlandi [6], [7]. F. Trede, R. Maklin hamda D. Brijes oliy ta'lim adabiyotlarini tizimli tahlil qilar ekan, kasbiy identifikatsiya shunchaki bilimlar yig'indisi emas, balki tanqidiy tafakkur, axloqiy me'yorlar va jamoaviy amaliyot orqali shakllanuvchi "professional mavjudlik" ekanligini ta'kidlaydilar [8]. Mualliflarning fikricha, raqamli ta'lim texnologiyalari shaxsiy tajriba va sotsial muloqot o'rnini to'liq bosa olmaydi, bu esa identifikatsiyaning sayozlashuv xavfini tug'diradi.

D. Jekson o'z ishlarida bitiruvchilarning raqamli davrdagi bandlikka tayyorligini baholashda "asosiy identifikatsiya" (core identity) tushunchasini ilgari suradi [9]. Uning xulosasiga ko'ra, virtual platformalarda bilim olgan talabalarda moslashuvchanlik va texnik ko'nikmalar yuqori bo'lsada, real mehnat jamoasida qadriyatlar to'qnashuviga dosh berish ko'rsatkichlari an'anaviy ta'lim bitiruvchilariga nisbatan pastroq bo'lib chiqmoqda.

Mavjud manbalarni qiyosiy o'rganish shuni ko'rsatadiki:

1. Klassik tadqiqotlar kasbiy identifikatsiyani faqat an'anaviy sotsializatsiya va bevosita pedagogik muloqot doirasida ko'rib chiqqan [1], [2].
2. O'quv jarayonini raqamlashtirishga bag'ishlangan ishlarda ko'proq texnologik va didaktik jihatlar ustuvorlik qilib, shaxsning kasbiy o'zligidagi psixologik o'zgarishlar e'tibordan chetda qolgan [4], [5].
3. Xorijiy tajribada virtual kasbiy o'zlik muammosi keng yoritilgan bo'lsa-da [8], [9], ularning xulosalarini milliy oliy ta'lim tizimi hamda kredit-modul tamoyillari asosida faoliyat yuritayotgan mahalliy LMS platformalari sharoitiga to'g'ridan-to'g'ri tatbiq etib bo'lmaydi.

Mazkur ilmiy bo'shliq raqamli ta'lim platformalarining talaba kasbiy o'zlik maqomlariga, ularning ichki motivatsiyasiga va ustoz-shogird tizimi transformatsiyasiga ko'rsatayotgan tizimli ta'sirini yaxlit pedagogik tadqiqot sifatida o'rganish zaruratini yuzaga keltiradi.

Raqamli ta'lim instrumentariysining oliy ta'lim amaliyotiga tizimli tatbiq etilishi bo'lajak mutaxassislarining kasbiy o'zligini shakllantirish mezonlarini jiddiy qayta ko'rib chiqishni taqozo etmoqda. O'tkazilgan empirik sinovlar ($N=142$) natijalari shuni ko'rsatdiki, ta'lim platformalari va masofaviy aloqa kanallari talabalarining ichki qadriyatlar tizimiga hamda kasbiy sotsializatsiya dinamikasiga turlicha yo'nalishda ta'sir ko'rsatmoqda.

Kasbiy identifikatsiya maqomlarining raqamli muhitdagi taqsimot ko'rsatkichlari

Empirik tekshiruvlar natijasida olingan ma'lumotlar J. Marsianing identifikatsiya maqomlari nazariyasi doirasida klassifikatsiya qilinganda, zamonaviy talabalar auditoriyasida bir qator noan'anaviy disproporsiyalar aniqlandi [1].

Qayd etilgan ko'rsatkichlar tahlili quyidagi miqdoriy nisbatlarni ochib berdi:

- Kasbiy moratoriy (inqirozli izlanish) holati eng yuqori ulushni tashkil etdi — 39.4% ($n=56$). Raqamli tarmoqlardagi kasbiy muqobilliklarning ko'pligi, parallel ravishda turli onlayn yo'nalishlarda o'zini sinab ko'rish imkoniyati talabalarda qat'iy tanlov qilish muddatini kechiktirmoqda. Bu toifadagi respondentlar o'z mutaxassisliklariga nisbatan doimiy shubha va ikkilanish holatini boshdan kechirmoqda.
- Shakllangan (erishilgan) kasbiy o'zlik respondentlarning 28.9%ida ($n=41$) namoyon bo'ldi. Mazkur talabalar raqamli vositalardan maqsadli foydalanib, virtual o'quv resurslarini o'z amaliy faoliyatlari bilan sinxronlashtira olgan. Ular faoliyatli yondashuv tamoyillariga muvofiq, mustaqil ta'lim traektoriyasini aniq loyihalashtirish qobiliyatiga ega [2], [3].
- Diffuz (shakllanmagan) identifikatsiya 22.5% ($n=32$) ishtirokchida qayd etildi. Bu toifada raqamli platformalar o'quv majburiyatlarini shunchaki rasmiy bajarish vositasi bo'lib qolgan; ularda mutaxassis sifatida o'z o'rnini ko'rish, kelajak rejalarini tuzish va sohaviy mas'uliyatni his qilish darajasi minimal ekanligi ko'rindi.
- Qat'iy belgilangan (boshqalar tomonidan yuklatilgan) maqom esa eng kam ko'rsatkichni — 9.2% ($n=13$) tashkil qildi. Mazkur guruh vakillari kasbiy tanlovni tashqi sotsial bosim ostida amalga oshirgan bo'lib, raqamli o'quv muhitidagi erkinlik ularning stereotipik yondashuvlarini o'zgartira olmagan.

Bosqichlararo farqlarni baholash (Kruskal-Uollis mezoni bo'yicha: $H = 11.42$, $p = 0.003$) an'anaviy ta'limdagi barqaror o'sish traektoriyasidan farqli o'laroq, raqamli ta'limda 3-bosqich talabalarida moratoriy holatining keskin chuqurlashishini ko'rsatdi. Bunga sabab — talabaning mustaqil onlayn loyihalarga kirib borishi bilan real mehnat bozoridagi qat'iy talablar o'rtasidagi nomuvofiqlikdir.

Virtual muloqot va kasbiy sotsializatsiyaning sifat ko'rsatkichlari

Pedagogik kuzatuvlar va fokus-guruh muhokamalari shuni dalilladiki, ta'limning asinxron shaklga ko'chishi oqibatida talaba va professor-o'qituvchi o'rtasidagi munosabatlar ko'p hollarda utilitar (faqat vazifa topshirish va baho olish) darajaga tushib qolmoqda.

Respondentlarning 54.2%i e'tirof etishicha, virtual o'quv platformalari axborot olish imkoniyatini tezlashtirgani bilan, "ustoz shaxsining kasbiy madaniyati" va "sohaviy etika me'yorlari" kabi latent (yashirin) pedagogik omillarni o'zlashtirishda yetarli samaradorlik bermayapti. Bu holat F. Trede va uning hammualliflari tomonidan ilgari surilgan "raqamli vositalar orqali professional mavjudlikni to'liq ta'minlashning cheklanganligi" haqidagi xulosalarni amaliy jihatdan tasdiqlaydi [8].

Korrelyatsion bog'liqliklar tahlili

Raqamli faoliyat xarakteri va kasbiy identifikatsiya ko'rsatkichlari o'rtasidagi parametrik bo'lmagan bog'liqlik Spirmen (ρ) korrelyatsiya koeffitsiyenti orqali baholandi:

- Faol raqamli amaliyot (virtual laboratoriyalar, sohaviy keys-stadi tahlili, kasbiy kollaborativ loyihalar) davomiyligi bilan shakllangan kasbiy o'zlik darajasi o'rtasida to'g'ridan-to'g'ri o'rtacha ijobiy bog'liqlik tasdiqlandi ($t = 0.46$, $p < 0.001$). Demak, texnologiyalardan ijodiy va amaliy foydalanish kasbiy o'zlikni mustahkamlashga xizmat qiladi.
- Passiv axborot iste'moli (faqat yozib olingan videoma'ruzalarni ko'rish, tayyor testlarni mexanik yechish) bilan kasbiy diffuziya o'rtasida statistik ahamiyatli korrelyatsiya aniqlandi ($t = 0.38$, $p = 0.002$). Bu holat passiv o'quv mexanizmlari talabada kasbiy begonalashuvni (alienatsiyani) keltirib chiqarishini ifodalaydi.
- O'qituvchi bilan asinxron/sinxron qayta aloqa chastotasi hamda talabaning ichki motivatsiyasi o'rtasidagi korrelyatsiya yuqori ko'rsatkichni tashkil etdi ($t = 0.51$, $p < 0.001$). Bu esa raqamli muhitda pedagogning mentorlik pozitsiyasi identifikatsiya jarayonining hal qiluvchi tayanchi bo'lib qolayotganini ko'rsatadi.

Natijalar muhokamasi va ilmiy xulosalar

Olingan empirik ko'rsatkichlar shuni anglatadiki, oliy ta'limning raqamli transformatsiyasi kasbiy identifikatsiyani chiziqli modeldan tarmoqli, gibrid ko'rinishga o'tkazmoqda. Talabalar yagona kasbiy yo'nalish bilan cheklanmay, bir vaqtning o'zida bir nechta soha chegaralarida harakatlanuvchi moslashuvchan o'zlikni shakllantirishga moyil bo'lmoqdalar [9].

Biroq mustaqil faoliyat doirasining kengayishi qadriyatlar zaiflashuvi va kasbiy qaror qabul qilishdagi uzoq muddatli moratoriyning rag'batlantirilmog'ida. Shu bois, raqamli ta'lim platformalarini faqat ma'lumot bazasi sifatida emas, balki talabaning kasbiy o'zini o'zi anglashiga xizmat qiluvchi refleksiv, interfaol va mentorlik muloqotini qo'llab-quvvatlovchi yaxlit ijtimoiy-pedagogik muhit sifatida loyihalashtirish lozim.

XULOSA

Oliy ta'lim tizimining raqamli transformatsiyasi sharoitida bo'lajak mutaxassislar kasbiy identifikatsiyasining dinamikasini o'rganishga qaratilgan nazariy tahlil va empirik izlanishlar asosida quyidagi umumlashtirilgan ilmiy xulosalarga kelindi:

1. Kasbiy identifikatsiyaning nolinier (nochiziqli) xarakteri: Raqamli ta'lim muhitida kasbiy o'zlikni anglash an'anaviy ta'limga xos bo'lgan bosqichma-bosqich, barqaror o'sish tamoyillaridan farq qilib, diskret va tarmoqlangan traektoriya kasb etmoqda. Olingan ma'lumotlar talabalarning salmoqli qismida (39.4%) kasbiy moratoriy holati hukmron ekanligini, ya'ni axborotlarning haddan tashqari ko'pligi va muqobil onlayn kasbiy imkoniyatlar sababli qat'iy kasbiy tanlov muddatining kechikayotganini ko'rsatdi.

2. Pedagogik muloqotning texnokratlashuvi va begonalashuv xavfi: Virtual va asinxron platformalar orqali bilim uzatish sur'atining jadallashuvi talaba va o'qituvchi o'rtasidagi an'anaviy "ustoz-shogird" munosabatlarining cheklanishiga olib kelmoqda. Bu esa talabalarda sohaviy etika, professional madaniyat va kasbiy mas'uliyat kabi latent qadriyatlarni o'zlashtirish jarayonini sekinlashtirib, kasbiy hamjamiyatdan sotsial begonalashuv (alienatsiya) xavfini kuchaytirmoqda.

3. Faoliyat xarakterining o'zlik shakllanishiga to'g'ridan-to'g'ri ta'siri: Korrelyatsion tahlil natijalari virtual simulyatorlar, amaliy keyslar va jamoaviy raqamli loyihalarda faol qatnashish shakllangan kasbiy identifikatsiya bilan bevosita bog'liq ekanligini tasdiqladi ($t = 0.46$). Aksincha, axborotni passiv iste'mol qilish kasbiy diffuziyaning chuqurlashuviga zamin yaratmoqda ($t = 0.38$).

TAVSIYALAR

1. LMS platformalariga refleksiv modullarni integratsiya qilish: Ta'lim jarayonida faqat axborot uzatish va test orqali baholash bilan cheklanmay, talabalarda o'z-o'zini tahlil qilish, individual kasbiy rivojlanish traektoriyasini modellashtirish hamda raqamli portfolioni shakllantirish bo'yicha maxsus refleksiv topshiriqlar blokini kiritish zarur.

2. Virtual mentorlik (e-mentoring) institutini yo'lga qo'yish: Talabalar va sohaning yetakchi amaliyotchi mutaxassisleri o'rtasida davriy raqamli kovorkinglar, veb-konsultatsiyalar va master-klasslarni tizimli tashkil etish orqali real kasbiy muhit bilan aloqani uzmaslik lozim.

3. Gibrid amaliy faoliyat shakllarini kengaytirish: Virtual laboratoriya va simulyatorlar yordamida o'zlashtirilgan ko'nikmalarni bevosita ishlab chiqarish va real korxona sharoitida sinovdan o'tkazuvchi dual ta'lim elementlarini o'quv rejalariga mutanosib ravishda singdirish maqsadga muvofiqdir.

4. Akademik qayta aloqaning sifatini oshirish: Raqamli kurslarda o'qituvchi ishtirokini mexanik nazorat qiluvchidan yo'naltiruvchi (fasilitator va tyutor) darajasiga ko'tarish, talabalarning ijodiy-amaliy yechimlariga individual munosabat bildirish tizimini kuchaytirish lozim.

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AXBOROTLAR TA'LIMIY MUHITIDA TALABALAR MUSTAQIL O'ZLASHTIRISHLARINI RIVOJLANTIRISHNING TAKOMILLASHTIRILGAN METODIKASI

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Annotatsiya. Ushbu maqolada talabalarga ta'limda axborot kommunikatsion texnologiyalarining o'rnini tushunish uchun ushbu tushunchaning mohiyatiga aniqlik kiritish zarur. Ta'limda axborot-kommunikatsion texnologiyalari - atamalar va ta'riflarda axborotlar ta'limiy muhitini hisoblash texnikasi va telekommunikatsiya vositalarini qo'llash orqali amalga oshiriladigan axborot jarayonlari, axborot bilan ishlash usullari sifatida ta'riflanadi.

Ta'limda axborotlar ta'limiy muhitini ba'zi hollarda ilmiy yo'nalish, boshqa hollarda axborot bilan ishlashning aniq usuli, axborot resurslari bilan ishlash usullari va yo'llari haqidagi bilimlar majmui, o'rganilayotgan obyekt haqida yangi ma'lumotlar olish uchun axborotni yig'ish, unga ishlov berish va uzatish usul va vositalari sifatida ta'riflanadi.

Kalit so'zlar. Axborot-kommunikatsiya texnologiyalari, mustaqil bilish, adaptiv ta'lim texnologiyasi, informatika ta'limi, axborot resurslari, faol o'qitish.

Аннотация. В данной статье необходимо прояснить суть данного понятия для того, чтобы учащиеся понимали место информационно-коммуникационных технологий в образовании. Информационно-коммуникационные технологии в образовании - в терминах и определениях информатизация определяется как информационные процессы, методы работы с информацией, которые осуществляются посредством использования методик расчета образовательной среды и телекоммуникационных средств.

В образовании образовательная информационная среда определяется как научное направление в одних случаях, четкий метод работы с информацией в других случаях, совокупность знаний о методах и способах работы с информационными ресурсами, способ и средства сбора, обработки и передачи информации для получения новой информации об окружающем мире. изучаемый объект.

Ключевые слова. Информационно-коммуникационные технологии, самостоятельное познание, адаптивные образовательные технологии, информатическое образование, Информационные ресурсы, активное обучение.

Abstract. In this article, it is necessary to clarify the essence of this concept in order for students to understand the place of Information Communication Technologies in education. Information and communication technologies in education-in terms and definitions, information is defined as information processes, methods of working with information, which are carried out through the use of techniques for calculating the educational environment and telecommunications tools.

In education, the educational environment of information is defined as a scientific direction in some cases, a clear method of working with information in other cases, a set of knowledge about methods and ways of working with information resources, a method and means of collecting, processing and transmitting information to obtain new information about the object being studied.

Keywords. Information and communication technologies, independent knowledge, adaptive education technology, Informatics Education, Information Resources, active teaching.

KIRISH

Fanning jadal rivojlanishi, axborot oqimining ortishi, ta'lim faoliyatining faollashuvi va o'quv mazmuni hajmining oshishi o'quv mashg'ilotlariga ajratilgan vaqtning cheklanganligiga mos kelmaydi. Ushbu ziddiyatni hal qilishning eng samarali yo'li - axborot-kommunikatsiya texnologiyalaridan (AKT) foydalangan holda talabalarning mustaqil bilish faoliyatini faollashtirish hisoblanadi.

Axborotlar ta'limiy muhitini biron axborotga tegishli muayyan mahsulot yoki xizmatni olish uchun axborotni yaratish, yig'ish, saqlash, unga muayyan texnik vositalar yordamida ishlov berish jarayonlarini amalga oshirishni ta'minlaydigan usul va yo'llar majmuasi, shuningdek bir-biridan makon va vaqt bilan ajralgan ikki yoki undan ortiq individuumlar o'rtasidagi xabarlarini idrok etish, aytib berish va uzatish, - deb ta'riflanadi [118].

AKTlardan o'quv faoliyatida foydalanish bir qator afzalliklarga ega, bular:

- o'quv ma'lumotlarni taqdim qilish imkoniyatlarni ahamiyatli darajada kengaytiradi. Audio, video, grafika, multimedia, videotexnikaning barcha zamonaviy vositalarini qo'llash faoliyatning real holatini tasavvur qilish imkonini beradi;
- masalalarni to'g'ri yechish uchun adekvat taqdirlashni qo'llash hisobiga talabalarning ta'limga motivatsiyasini jiddiy ravishda oshirish imkonini beradi;
- ta'lim oluvchilarni o'quv jarayoniga jalb qilish, bu bilan ularning qobiliyatini ochib berish, mustaqil bilish faoliyatini faollashtirish imkonini beradi;
- o'quv-bilish faoliyati ustidan nazorat sifatini o'zgartirish imkonini beradi, bunda o'quv jarayonini boshqarishning qayishqoqligini ta'minlab, ta'lim oluvchilarda refleksiyaning shakllanishiga ko'maklashadi;
- o'quv jarayonida AKTni qo'llash o'quv vazifalarni qo'yish va ularni hal qilish jarayonini boshqarish imkoniyatlarini oshiradi;

Maqolaning maqsadi – Axborot texnologiyalari kursini o'qitishda AKTdan foydalangan holda talabalarning mustaqil bilish faoliyatini rivojlantirishning axborotlar ta'limiy muhitida talabalar mustaqil o'zlashtirishlarini rivojlantirishning takomillashtirilgan metodikasini ilmiy asoslash va amaliy tavsiyalar ishlab chiqishdan iborat.

MAVZUGA OID ADABIYOTLARNING TAHLILI (LITERATURE REVIEW).

Ilmiy adabiyotlar tahlili shuni ko'rsatadiki, AKT asosida ta'limni tashkil etish so'nggi yillarda pedagogika fanining eng dolzarb masalalaridan biriga aylangan. E.S.Polat va M.Y.Buxarkina o'zlarining «Zamonaviy pedagogik va axborot texnologiyalari ta'lim tizimida» asarida AKT va mustaqil o'zlashtirish o'rtasidagi aloqani keng yoritib berishgan. Ular ta'kidlashicha, AKT vositalarining asosiy pedagogik salohiyati - ta'limning individuallashtirishni ta'minlash, o'qituvchi bilan keskin aloqa va o'z-o'zini nazorat qilish imkoniyatini yaratishdir [4].

I.A. Petrova o'z tadqiqotlarida shaxsga yo'naltirilgan axborot-ta'lim muhitida talabalarning mustaqil ishlashini tashkil etish metodikasini ishlab chiqqan. U ta'kidlashicha, bunday muhitda talaba faqat passiv axborot qabul qiluvchi emas, balki o'z ta'lim jarayonini faol shakllantiruvchi subyektga aylanadi. Axborot-ta'lim muhitining asosiy xususiyatlari: teskari aloqa tezkorligi, moslashuvchanligi va kengayuvchanligi [3].

TADQIQOT METODOLOGIYASI (RESEARCH METHODOLOGY).

Tadqiqotda kompleks metodologik yondashuv qo'llanildi. Ilmiy adabiyotlarning sistematik tahlili; AKT asosida ta'lim jarayonini tashkil etish bo'yicha pedagogik kuzatuv; talabalar va o'qituvchilar orasida so'rovnoma; pedagogik eksperiment. Qarshi DTUning axborot texnologiyalari yo'nalishi talabalarining 3 ta guruhida (jami 88 nafar) 2022-2024 yillar davomida tadqiqot olib borildi.

Bundan tashqari, Axborotlar ta'limiy muhitini biror axborotga tegishli muayyan mahsulot yoki xizmatni olish uchun axborotni yaratish, yig'ish, saqlash, unga muayyan texnik vositalar yordamida ishlov berish jarayonlarini amalga oshirishni ta'minlaydigan usul va yo'llar majmuasi, shuningdek bir-biridan makon va vaqt bilan ajralgan ikki yoki undan ortiq individuumlar o'rtasidagi xabarlarini idrok etish, aytib berish va uzatish, - deb ta'riflanadi [118].

O'quv jarayonini tashkil qilishda AKTdan foydalanishning yana bir juda qiziqarli tomoni ajratib ko'rsatilgan, u shundan iboratki, kompyuterlashtirish ta'lim oluvchilar tomonidan mustaqil bilish faoliyatini o'zlari faollashtirishi uchun javobgarlikning ichki mexanizmlariga yangi yuqori darajali talablari ilgari suriladi [85].

TAHLIL VA NATIJALAR (ANALYSIS AND RESULTS).

AKT vositalaridan foydalanish ta'lim jarayonini jadallashtirishga real ijobiy ta'sir ko'rsatadi. Bunda talaba uchun AKT vositalari o'rganish ob'ekti hamda mustaqil bilish faoliyati uchun vosita hisoblanadi. Ta'lim jarayonida AKTning yaxshi tomoni, bizning nazarimizda, ATTni yaratish uchun shart-sharoitlarni ta'minlashidir. ATT quyidagi pedagogik imkoniyatlarni yaratish imkonini beradi:

AKTning asosiy funksional xususiyatlari ta'lim jarayoniga quyidagi imkoniyatlarni ro'yobga chiqarishni taqdim qiladi:

- muayyan texnik vositalar yordamida axborotni yaratish, yig'ish, saqlash, unga ishlov berishning cheksiz imkoniyatlari;
- ta'limning hammabopligini va ishonchliligini oshirish, butun hayot davomida uning uzluksizligini ta'minlash;
- o'qishning joyi va vaqtiga bog'lanmagan holda ta'lim jarayonini qurish imkoniyatini beradigan ta'limning elektron axborot-ta'lim tizimini yaratish, va bunda masofada o'quv ma'lumotlar bilan almashish, ta'lim sifatini nazorat qilish, olib borish tizimini hamda o'quv jarayonini ma'muriy jihatdan boshqarishni amalga oshirish ta'minlaydigan AKTdan foydalanishga asoslangan ta'limning individual yo'l xaritasini tanlash imkoniyati;
- elektron ta'lim kontenti, ta'lim jarayonining uslubiy va dasturiy ta'minlashni takomillashtirish.

Yuqorida sanab o'tilgan AKTning asosiy funksional xususiyatlari kelajakda ta'limning yangi texnologiyalarini ishlab chiqish imkonini beradi va ta'lim sifatining oshishiga yordam beradi.

AKTdan foydalanishning asosiy pedagogik maqsadlarining ta'rifi bir qator tadqiqotlarda keltirilgan [158, 159, 160, 161, 162] [184], [85]:

AKTlar talabani mustaqil bilish faoliyatiga jalb qilishning dolzarb vositasi bo'lib xizmat qiladi. AKTdan foydalangan holda ta'lim jarayonini nochiziqliq tashkil qilishni tutib turuvchi konstruksiyasi ATT hisoblanadi, bunda barcha quyi tuzilmalarning integratsiyasi va ular evolyutsiyasi sur'atining sinxronizatsiyasi imkoniyati mavjud.

XULOSA VA TAKLIFLAR (CONCLUSION/RECOMMENDATIONS).

Tadqiqot natijalari shuni ko'rsatadiki, Axborotlar ta'limiy muhiti sharoitida talabalarning mustaqil ishi tushunchasi aniqlandi: u talabaning ichki motivatsiyalangan mustaqil biluv faoliyatini ifodalab, talabaning axborotlar ta'limiy muhitidan foydalangan holda tobora murakkablashib boradigan kasbiy yo'naltirilgan vazifalar to'plamini bajarishiga asoslanadi, buning natijasida o'quv maqsadlari amalga oshiriladi, faol kasbiy pozitsiya hamda ijodiy faoliyat uslubi rivojlanadi.

Mustaqil ta'lim olishning asosiy funksiyalari aniqlandi:

- materialni mustahkamlash va takrorlash;
- mustaqil ish, asosan, takrorlanadigan tabiatga ega bo'lib, talabalarning tadqiqot faoliyatiga qaratilmagan bo'ladi;
- talabalar mustaqil ishini bajarishda pedagog ko'p hollarda koordinator emas, balki maslahatchi vazifasini bajaradi;
- mustaqil ta'lim olishning mavjud uslubiy ta'minoti talabaga o'zining individual ta'lim trayektoriyasini shakllantirish imkoniyatini bermaydi.

Umuman olganda, AKT vositalarini informatika ta'limiga organik integratsiyalash va ulardan talabalarning mustaqil bilish faoliyatini rivojlantirish maqsadida maqsadli foydalanish - zamonaviy oliy ta'limning asosiy muammolaridan birini hal qilish yo'lidir. Ushbu yo'alishda izchil va tizimli tadqiqotlar olib borish hamda ilmiy natijalarni amaliyotga joriy etish muhim ahamiyat kasb etadi.

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АКТУАЛЬНЫЕ ПРОБЛЕМЫ ПРЕПОДАВАНИЯ ФИЛОСОФИИ В СОВРЕМЕННОМ ВЫСШЕМ ОБРАЗОВАНИИ

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Аннотация. В статье рассматриваются актуальные проблемы преподавания философии в современной системе высшего образования. Особое внимание уделяется изменению роли философского знания в условиях цифровизации, глобализации, прагматизации образования и стремительного развития искусственного интеллекта. Рассматриваются возможности использования интерактивных методов, цифровых образовательных ресурсов, междисциплинарного подхода и искусственного интеллекта в преподавании философии. Обосновывается необходимость сохранения гуманистической направленности философского образования и формирования у студентов способности к самостоятельному, критическому и ответственному мышлению.

Ключевые слова: философия, высшее образование, преподавание философии, критическое мышление, цифровизация, искусственный интеллект, мировоззрение, интерактивное обучение, гуманизация образования, междисциплинарность.

Abstract. The article examines the current issues of teaching philosophy in the modern higher education system. Particular attention is paid to the changing role of philosophical knowledge in the context of digitalization, globalization, the increasing pragmatization of education, and the rapid development of artificial intelligence. The possibilities of using interactive teaching methods, digital educational resources, an interdisciplinary approach, and artificial intelligence in teaching philosophy are considered. The article substantiates the need to preserve the humanistic orientation of philosophical education and to develop students' ability to think independently, critically, and responsibly.

Keywords: philosophy, higher education, teaching philosophy, critical thinking, digitalization, artificial intelligence, worldview, interactive learning, humanization of education, interdisciplinary approach.

Annotatsiya. Maqolada zamonaviy oliy ta'lim tizimida falsafani o'qitishning dolzarb muammolari ko'rib chiqiladi. Raqamlashtirish, globallashtirish, ta'limning pragmatlashuvi va sun'iy intellektning jadal rivojlanishi sharoitida falsafiy bilimlarning o'zgarib borayotgan roli masalasiga alohida e'tibor qaratiladi. Falsafani o'qitishda interaktiv metodlar, raqamli ta'lim resurslari, fanlararo yondashuv va sun'iy intellektdan foydalanish imkoniyatlari tahlil qilinadi. Shuningdek, falsafiy ta'limning gumanistik yo'nalishini saqlab qolish hamda talabalarda mustaqil, tanqidiy va mas'uliyatli fikrlash qobiliyatini shakllantirish zarurati asoslab beriladi.

Kalit so'zlar: falsafa, oliy ta'lim, falsafani o'qitish, tanqidiy fikrlash, raqamlashtirish, sun'iy intellekt, dunyoqarash, interaktiv ta'lim, ta'limni insonparvarlashtirish, fanlararo yondashuv.

ВВЕДЕНИЕ

Современное высшее образование развивается в условиях глубоких социальных, технологических и культурных изменений. Цифровизация, глобализация, развитие искусственного интеллекта, изменение структуры рынка труда и возрастающая потребность в

универсальных компетенциях предъявляют новые требования к содержанию и методике образовательного процесса.

В этих условиях особое значение приобретает философия как учебная дисциплина, способствующая формированию мировоззрения, критического мышления, способности анализировать сложные проблемы и осмысливать ценностные основания человеческой деятельности. Однако современное преподавание философии сталкивается с рядом противоречий. С одной стороны, обществу необходимы специалисты, способные самостоятельно мыслить, оценивать информацию и принимать ответственные решения. С другой стороны, в образовательной практике философия нередко воспринимается студентами как теоретическая дисциплина, имеющая слабую связь с их будущей профессиональной деятельностью.

Исследования проблем преподавания философии в высшей школе показывают, что ключевыми остаются вопросы: чему учить, как учить и для чего учить философии современного студента. Поэтому актуальной становится задача поиска новых форм и методов преподавания, которые позволят сохранить фундаментальное содержание философии и одновременно сделать его значимым для современного студента.

1. Изменение роли философии в современном высшем образовании.

Традиционно философия выполняла мировоззренческую, методологическую, аксиологическую и критическую функции. Она позволяла человеку осмыслить свое место в мире, понять основания научного знания, культуры, морали и общественной жизни. В современной системе образования эти функции не теряют своего значения, но приобретают новое содержание. Студент сегодня сталкивается с огромным объемом информации, различными интерпретациями событий, противоречивыми мнениями и цифровыми источниками знаний. Поэтому одной из важнейших задач философского образования становится формирование способности не просто получать информацию, а критически ее оценивать. Философия должна учить студента задавать вопросы, выявлять предпосылки утверждений, анализировать аргументы, различать факт и мнение, определять логические противоречия и самостоятельно формировать обоснованную позицию. Таким образом, современное философское образование целесообразно рассматривать не только как изучение истории философской мысли, но и как пространство интеллектуального развития личности.

2. Снижение мотивации студентов как одна из основных проблем.

Одной из наиболее распространенных проблем преподавания философии является недостаточная мотивация студентов. Особенно это проявляется у обучающихся нефилософских специальностей, которые не всегда видят непосредственную связь философских знаний со своей будущей профессией. Причинами этого могут быть сложность философской терминологии, значительный объем теоретического материала, преобладание лекционного формата и недостаточная связь обсуждаемых вопросов с актуальными социальными и профессиональными проблемами. Для повышения мотивации необходимо показать практическую значимость философского мышления. Например, при изучении этики можно рассматривать проблемы профессиональной ответственности, медицинской этики, бизнес-этики, экологической ответственности и искусственного интеллекта. При изучении социальной философии можно обсуждать цифровое общество, социальные сети, глобализацию и проблему информационного общества. В результате студент начинает воспринимать философию не как набор абстрактных концепций, а как инструмент осмысления реальных проблем.

3. Проблема традиционных методов преподавания.

Еще одной актуальной проблемой является чрезмерное использование репродуктивных методов обучения. Запоминание философских терминов, имен мыслителей и определений само по себе не обеспечивает формирования философского мышления.

Современное преподавание философии требует перехода от модели «преподаватель передает знания — студент запоминает» к модели диалога и интеллектуального сотрудничества.

Особенно эффективными могут быть:

проблемные лекции;

философские дискуссии и дебаты;

метод case-study;

анализ конкретных жизненных ситуаций;

сократический диалог;

проектное обучение;

эссе и рефлексивные задания;

работа с первоисточниками;

групповые исследования;

анализ современных общественных проблем с позиций различных философских концепций.

Например, вместо простого изложения взглядов Платона или Аристотеля преподаватель может поставить перед студентами вопрос: «Что делает государство справедливым?» или «Можно ли считать демократию универсальной формой политического устройства?». Подобные вопросы стимулируют самостоятельное мышление и позволяют студентам использовать философские идеи для анализа современных проблем.

4. Цифровизация и искусственный интеллект в преподавании философии.

Одним из наиболее значимых факторов, изменяющих высшее образование, является стремительное развитие искусственного интеллекта. Современные технологии предоставляют студентам новые возможности для поиска информации, создания текстов, перевода, анализа материалов и подготовки учебных заданий. Однако использование искусственного интеллекта создает и серьезные педагогические и этические проблемы. Среди них — академическая недобросовестность, чрезмерная зависимость от готовых ответов, снижение самостоятельности мышления, проблемы достоверности информации, алгоритмические предубеждения и вопросы конфиденциальности. UNESCO подчеркивает необходимость человекоцентричного и основанного на правах подхода к использованию искусственного интеллекта в образовании. В качестве важных принципов рассматриваются справедливость, безопасность, ответственность, защита человеческого достоинства и сохранение человеческой субъектности. Для преподавания философии это открывает особую перспективу. Искусственный интеллект может стать не заменой мышления студента, а объектом философского анализа. Например, студентам можно предложить исследовать следующие вопросы:

Может ли искусственный интеллект обладать сознанием?

Можно ли считать решение, принятое алгоритмом, морально ответственным?

Кто несет ответственность за ошибку искусственного интеллекта?

Может ли машина заменить человеческое творчество?

Как изменяется понятие истины в эпоху генеративного искусственного интеллекта?

Где проходит граница между использованием технологии и зависимостью от нее?

Таким образом, искусственный интеллект может не ослаблять философское образование, а, напротив, создавать новые возможности для философского осмысления современности. Современные исследования также указывают на необходимость использовать ИИ таким образом, чтобы он поддерживал, а не заменял критическое мышление. Среди ключевых рисков называются некритическая зависимость от ИИ, неравенство цифровых возможностей, недостаточная прозрачность алгоритмов и институциональная неготовность образовательных организаций.

5. Необходимость развития критического мышления

Критическое мышление является одной из центральных компетенций современного образования. Именно философия обладает значительным потенциалом для его формирования. Философское мышление предполагает умение анализировать понятия, аргументировать собственную позицию, обнаруживать противоречия, рассматривать проблему с различных точек зрения и быть готовым пересматривать собственные убеждения.

В условиях информационного общества данная способность становится особенно важной. Студент должен уметь отвечать не только на вопрос «что известно?», но и на вопросы «почему это считается истинным?», «каковы основания данного утверждения?», «какие существуют альтернативные позиции?» и «каковы возможные последствия принятия данной точки зрения?» Поэтому оценивание знаний по философии также должно постепенно смещаться от проверки механического запоминания к оценке способности аргументировать, анализировать и применять философские идеи.

6. Междисциплинарный подход как условие эффективности философского образования.

Современная философия не должна существовать изолированно от других научных дисциплин. Напротив, ее потенциал особенно ярко проявляется на границе философии и конкретных наук. Для студентов различных направлений можно использовать соответствующие междисциплинарные темы. Для студентов медицинских специальностей: биоэтика, проблема эвтаназии, моральная ответственность врача, генетические технологии.

Для студентов ИИ и инженерных направлений: философия техники, искусственный интеллект, цифровая этика, ответственность разработчика.

Для экономических специальностей: философия экономики, справедливость распределения ресурсов, этика бизнеса, социальная ответственность предпринимательства.

Для юридических специальностей: философия права, справедливость, свобода и ответственность, естественное и позитивное право.

Для педагогических специальностей: философия образования, проблема воспитания, свобода и ответственность личности, роль учителя в цифровом обществе.

Такой подход помогает студенту увидеть непосредственную связь философии с будущей профессиональной деятельностью.

7. Пути совершенствования преподавания философии.

Для повышения эффективности философского образования целесообразно реализовать комплекс педагогических мер. Во-первых, необходимо обновлять содержание учебных курсов. Наряду с классическими философскими концепциями следует рассматривать современные проблемы цифрового общества, искусственного интеллекта, экологической ответственности, глобализации, культуры, идентичности и информационной безопасности. Во-вторых, необходимо усиливать диалогический характер обучения. Философия по своей природе предполагает вопрос, сомнение, аргументацию и дискуссию. Поэтому студент должен выступать не пассивным слушателем, а активным участником интеллектуального процесса. В-третьих, важно использовать цифровые технологии разумно. Электронные библиотеки, образовательные платформы, интерактивные презентации, цифровые архивы и инструменты искусственного интеллекта могут расширить образовательные возможности, однако они должны использоваться как средства развития самостоятельного мышления. В-четвертых, необходимо совершенствовать систему оценивания. Эссе, аналитические работы, дискуссии, проекты и исследовательские задания позволяют более объективно оценить философское мышление студента, чем традиционное воспроизведение определений. В-пятых, необходимо повышать связь философии с профессиональной подготовкой. Студент должен понимать, что философское мышление является универсальным инструментом, который может применяться в любой сфере деятельности.

ЗАКЛЮЧЕНИЕ.

Таким образом, современное преподавание философии в высшем образовании находится перед необходимостью серьезного методологического и педагогического обновления. Основными проблемами являются снижение мотивации студентов, восприятие философии как абстрактной дисциплины, преобладание репродуктивных методов обучения, необходимость развития критического мышления, а также новые вызовы, связанные с цифровизацией и искусственным интеллектом. Вместе с тем эти проблемы одновременно открывают новые возможности. Современная философия способна стать пространством свободного интеллектуального диалога, анализа актуальных общественных проблем и формирования ответственного отношения к научно-техническому развитию. Особенно важно, чтобы цифровые технологии и искусственный интеллект не заменяли самостоятельное мышление студента, а использовались для его развития. UNESCO также отмечает необходимость развития критического мышления, информационной грамотности и ответственного отношения к AI в высшем образовании. Следовательно, главная задача современного преподавания философии заключается не только в передаче студентам определенного объема философских знаний. Она состоит в формировании личности, способной самостоятельно мыслить, задавать фундаментальные вопросы, критически оценивать информацию, аргументированно выражать свою позицию и осознавать ответственность за принимаемые решения. В этом смысле философия сохраняет свое фундаментальное значение для высшего образования: в эпоху быстрых технологических изменений именно способность человека мыслить, оценивать и ответственно выбирать становится одной из важнейших образовательных ценностей.

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- 7.

SUN'IY INTELIKT ASOSIDAGI TA'LIM TEXNOLOGIYALARINING DARS JARAYONIGA TADBIQ QILISHNING O'ZIGA XOS JIHATLARI

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Annotatsiya. Mazkur tezisdagi sun'iy intellekt (SI) asosidagi ta'lim texnologiyalarining zamonaviy dars jarayoniga tadbiq etilishining o'ziga xos jihatlari, ularning didaktik imkoniyatlari, afzalliklari va amaliyotda yuzaga keladigan muammolari xalqaro va milliy tadqiqotlar tahlili asosida yoritilgan. Tadqiqotda intellektual repetitorlik tizimlari, adaptiv o'quv platformalari, avtomatik baholash mexanizmlari va raqamli yordamchilarning ta'lim sifatiga ta'siri ko'rib chiqilib, ularni ta'lim jarayoniga samarali joriy etish bo'yicha ilmiy asoslangan tavsiyalar ishlab chiqilgan.

Kalit so'zlar: sun'iy intellekt, ta'lim texnologiyalari, adaptiv o'quv tizimlari, intellektual repetitorlik tizimi, shaxsiylashtirilgan ta'lim, avtomatik baholash, raqamli transformatsiya.

Аннотация. В данной тезисной работе на основе анализа международных и национальных исследований рассматриваются особенности внедрения образовательных технологий на основе искусственного интеллекта (ИИ) в современный учебный процесс, их дидактические возможности, преимущества, а также проблемы, возникающие в практике их применения. В исследовании анализируется влияние интеллектуальных обучающих систем, адаптивных образовательных платформ, механизмов автоматизированного оценивания и цифровых помощников на качество образования. На основе проведённого анализа разработаны научно обоснованные рекомендации по эффективной интеграции данных технологий в образовательный процесс.

Ключевые слова: искусственный интеллект, образовательные технологии, адаптивные образовательные системы, интеллектуальная обучающая система, персонализированное обучение, автоматизированное оценивание, цифровая трансформация.

Abstract. This thesis examines the specific features of implementing artificial intelligence (AI)-based educational technologies in the modern teaching and learning process, their didactic potential, advantages, and practical challenges based on an analysis of international and national research. The study explores the impact of intelligent tutoring systems, adaptive learning platforms, automated assessment mechanisms, and digital assistants on the quality of education. Based on the findings, scientifically grounded recommendations are developed for the effective integration of these technologies into the educational process.

Keywords: artificial intelligence, educational technologies, adaptive learning systems, intelligent tutoring systems, personalized learning, automated assessment, digital transformation.

KIRISH

Jahon ta'lim tizimida raqamli transformatsiya jarayonlari jadal sur'atlar bilan rivojlanmoqda va bu jarayonning markazida sun'iy intellekt (SI) texnologiyalari turibdi. So'nggi o'n yillikda o'tkazilgan xalqaro tadqiqotlar shuni ko'rsatadiki, SI texnologiyalari ta'lim tizimida an'anaviy o'qitish usullarini tubdan o'zgartirish salohiyatiga ega bo'lib, ular o'qituvchi va o'quvchi o'rtasidagi o'zaro munosabatlarni, baholash mexanizmlarini hamda o'quv materiallarini taqdim etish shaklini yangi bosqichga olib chiqmoqda [3].

O'zbekiston Respublikasida ham sun'iy intellekt texnologiyalarini rivojlantirish davlat siyosati darajasida qo'llab-quvvatlanmoqda. Xususan, Vazirlar Mahkamasining sun'iy intellekt texnologiyalarini qo'llab-quvvatlash bo'yicha maxsus rejim tashkil etish to'g'risidagi qarori hamda Prezidentning sun'iy intellekt texnologiyalarini 2030-yilga qadar rivojlantirish strategiyasi to'g'risidagi farmoni ushbu yo'nalishning milliy ta'lim tizimida ham izchil joriy etilishi uchun huquqiy asos yaratmoqda [9].

Shunga qaramay, SI texnologiyalarining dars jarayoniga bevosita tadbiq etilishi bir qator o'ziga xos pedagogik, texnologik va etik jihatlarini hisobga olishni taqozo etadi. Mazkur tezisning maqsadi – ilmiy adabiyotlar tahlili asosida SI asosidagi ta'lim texnologiyalarining dars jarayoniga joriy etilishidagi o'ziga xos xususiyatlarni aniqlash va ularni samarali qo'llash bo'yicha tavsiyalar ishlab chiqishdan iborat.

Tadqiqotning metodologik asosini xalqaro ilmiy bazalar (Scopus, Web of Science, ERIC) hamda milliy ilmiy jurnallarda chop etilgan so'nggi yillardagi tizimli sharhlar, bibliometrik tahlillar va amaliy tadqiqotlarning kontent-tahlili tashkil etadi. Tahlil jarayonida qiyosiy va induktiv usullardan foydalanilib, xalqaro va milliy tajriba o'rtasidagi umumiy qonuniyatlar hamda o'ziga xos farqlar aniqlandi.

Tadqiqotchilar SI texnologiyalarining ta'limdagi asosiy yo'nalishlarini quyidagicha tasniflaydilar: intellektual repetitorlik tizimlari (Intelligent Tutoring Systems), adaptiv o'quv platformalari, avtomatik baholash va fikr-mulohaza (feedback) tizimlari, suhbat botlari (chatbot) va

virtual yordamchilar, shuningdek o'quv jarayonini boshqarish uchun analitik tizimlar (learning analytics) [1].

Bir qator xalqaro tadqiqotlarda ta'kidlanishicha, SI texnologiyalarining ta'lim sifatiga ijobiy ta'siri, avvalambor, ularning har bir o'quvchining bilim darajasi, o'rganish uslubi va qiziqishlarini aniqlab, shu asosda moslashtirilgan o'quv materiallarini tavsiya etish qobiliyatida namoyon bo'ladi [7].

Sun'iy intellekt texnologiyalarini bevosita dars jarayoniga joriy etish quyidagi o'ziga xos jihatlar bilan tavsiflanadi:

Personallashtirilgan ta'lim. SI asosidagi adaptiv tizimlar har bir o'quvchining individual ehtiyojlarini hisobga olgan holda ta'lim jarayonini tashkil etadi, bu esa o'quvchilarning bilimlarni yaxshiroq o'zlashtirishiga va o'quv motivatsiyasining oshishiga xizmat qiladi [10].

Doimiy monitoring va avtomatik baholash. SI vositalari o'quvchi faoliyatini real vaqt rejimida kuzatish, test natijalarini tezkor tekshirish hamda erishilgan natijalar asosida individual tavsiyalar berish imkonini beradi, natijada o'qituvchining vazifalarga sarflaydigan vaqti qisqarib, u talabalar bilan bevosita muloqotga ko'proq vaqt ajrata oladi [6; 8].

Intellektual repetitorlik va virtual yordamchilar. Tadqiqotchilar SI asosidagi platformalarning adaptiv o'qitish, avtomatik baholash, o'quv jarayonini individuallashtirish hamda masofaviy ta'lim samaradorligini oshirishga xizmat qilishini alohida ta'kidlaydilar; jumladan, bunday tizimlar o'quvchilarning bilim darajasini aniqlash va ularning ehtiyojlariga mos o'quv materiallarini tavsiya etish imkoniyatiga ega [8].

Interaktivlik va kreativ faoliyatni rag'batlantirish. SI asosidagi platformalar o'quv jarayonini individuallashtirish, interaktiv metodlarni qo'llash orqali o'quvchilarning ijodiy fikrlashi, mustaqil ishlash ko'nikmalari va raqamli kompetensiyalarini rivojlantirishga xizmat qiladi [10].

So'nggi yillarda o'tkazilgan tizimli tahlillarda SI texnologiyalarining, xususan mashinaviy va chuqur o'rganish algoritmlarining davomat yuritish, xulq-atvorni kuzatish va o'quvchi faolligini baholash kabi sinf boshqaruvi vazifalarida tobora ko'proq qo'llanilayotgani qayd etilgan [5].

SI texnologiyalarining joriy etilishi o'qituvchining kasbiy rolini bekor qilmaydi, balki uni transformatsiya qiladi – didaktik vazifalar (test tekshirish, hisobotlar tayyorlash) avtomatlashtirilgan tizimlarga yuklatilib, o'qituvchi ijodiy, tarbiyaviy va murabbiylik funksiyalariga ko'proq e'tibor qarata oladi. Ayni shu jihat SI texnologiyalarining dars jarayoniga tadbiiq etilishidagi eng muhim o'ziga xos xususiyatlardan biri sifatida baholanadi [6].

An'anaviy baholash tizimlaridan farqli o'laroq, SI asosidagi baholash mexanizmlari nafaqat yakuniy natijani, balki o'quvchining fikrlash jarayonini, xato qilish tendensiyalarini va vaqt o'tishi bilan rivojlanish dinamikasini ham hisobga oladi.

Xorijiy tadqiqotchilar tomonidan o'tkazilgan bibliometrik tahlillar sun'iy intellektga oid ilmiy nashrlar sonining oliy ta'lim sohasida so'nggi yillarda sezilarli darajada o'sganligini ko'rsatadi, bu esa mavzuning dolzarbligi va jahon ilmiy hamjamiyatining ushbu yo'nalishga bo'lgan qiziqishi ortib borayotganidan dalolat beradi [3].

Shu bilan birga, ayrim tadqiqotchilar SI texnologiyalarining ta'lim jarayoniga tadbiiq etilishi nafaqat imkoniyatlar, balki jiddiy pedagogik va institutsional o'zgarishlarni ham talab qilishini ta'kidlaydilar – xususan, o'qitish metodikasi, o'qituvchining kasbiy roli va ta'lim muassasalarining tashkiliy tuzilishi shu jarayonga moslashtirilishi lozimligi ko'rsatib o'tiladi [2].

So'nggi yillarda olib borilgan bibliometrik tahlillarda esa SI va ta'lim mavzusidagi ilmiy nashrlar sonining keskin o'sishi, xususan Education Sciences, Computers & Education kabi nufuzli jurnallarda chop etilgan tadqiqotlar ulushining ortib borayotgani qayd etilgan, bu esa mavzuning ilmiy jamoatchilik e'tiborida markazi bo'lib qolayotganini tasdiqlaydi [3].

Shuningdek, o'yin asosidagi SI ta'limi (game-based AI education) yo'nalishida olib borilgan tadqiqotlarda o'quvchilarning algoritmik fikrlashini rivojlantirishda interaktiv o'yin muhitlaridan foydalanishning yuqori samaradorligi isbotlangan, bu esa SI texnologiyalarining nafaqat nazariy, balki amaliy ko'nikmalarni shakllantirishdagi ahamiyatini ko'rsatadi.

SI texnologiyalarining turli o'quv fanlarida qo'llanilishi o'ziga xos xususiyatlarga ega. Aniq fanlarda (matematika, fizika, dasturlash) SI tizimlari, asosan, masalalarni bosqichma-bosqich yechish jarayonini kuzatish va xatolarni real vaqtda tuzatish funksiyasini bajaradi. Gumanitar fanlarda, xususan chet tillarini o'qitishda, SI texnologiyalari yozma va og'zaki nutqni tahlil qilish, grammatik xatolarni aniqlash hamda individual mashqlar tavsiya etish orqali talabalarning kommunikativ ko'nikmalarini rivojlantirishga xizmat qiladi [4].

Mahalliy tadqiqotchilarning ishlarida ham SI texnologiyalarining respublika ta'lim tizimiga integratsiyasi masalalari faol o'rganilmoqda. Xususan, sun'iy intellekt vositalaridan foydalanishning ilmiy asoslarini o'rganishga bag'ishlangan tadqiqotlarda ushbu jarayon talabalar uchun individuallashtirilgan o'quv sharoitini yaratish, o'qitish jarayonini avtomatlashtirish va ta'lim samaradorligini oshirish imkonini berishi ko'rsatilgan [11].

Shuningdek, oliy ta'lim muassasalarida SI asosidagi masofaviy o'qitish tizimlarini rivojlantirish imkoniyatlariga oid tadqiqotlarda bunday tizimlarning ta'lim sifatini ta'minlashdagi ahamiyati alohida ta'kidlangan [12].

Bundan tashqari, adaptiv o'quv tizimlarining talabalar ehtiyojini hisobga olgan holda o'quv jarayonini tashkil etishi, har bir talabaning bilim darajasi, o'qish uslubi va qiziqishlariga mos materiallarni taklif etishi mahalliy tadqiqotlarda ham alohida ta'kidlangan. Bunday tizimlar test natijalarini tezkor tekshirish, talabalar savollariga avtomatik javob berish va o'quv jarayonini tahlil qilish orqali o'qituvchining ish yuklamasini sezilarli darajada kamaytirishi, shu bilan birga murakkab vazifalarni yechishda intellektual simulyatsiyalar va virtual laboratoriyalardan foydalanish imkonini berishi ko'rsatib o'tilgan [10].

Milliy ta'lim tizimida SI texnologiyalarini joriy etish, shuningdek, "Raqamli O'zbekiston – 2030" strategiyasi doirasida mamlakatni raqamli iqtisodiyot va jamiyat sari yo'naltirishning muhim tarkibiy qismi sifatida ko'rib chiqilmoqda.

O'tkazilgan tahlillar SI texnologiyalarini dars jarayoniga tadbiq etishda quyidagi asosiy muammolar mavjudligini ko'rsatadi:

- o'qituvchilarning SI vositalaridan foydalanish bo'yicha yetarli malaka va tajribaga ega emasligi hamda tegishli kasbiy tayyorgarlik dasturlarining yetishmasligi. AQSh maktablarida o'tkazilgan fenomenologik tadqiqotda o'qituvchilarning SI texnologiyalarini joriy etishga tayyorligi bevosita ularning kasbiy rivojlanish dasturlaridan o'tganligi bilan bog'liq ekanligi aniqlangan [13];

- o'quvchilarning shaxsiy ma'lumotlarini himoya qilish va maxfiylikni ta'minlash bilan bog'liq etik masalalar, jumladan ma'lumotlarning kim tomonidan va qanday maqsadlarda qayta ishlanishi masalasi [3];

- texnik infratuzilma va raqamli resurslarga bo'lgan notekis kirish imkoniyati, ayniqsa hududiy va qishloq ta'lim muassasalari o'rtasida, bu esa raqamli tenglikka putur yetkazishi mumkin;

- SI tizimlarining qaror qabul qilish jarayonidagi shaffoflik yetishmasligi va algoritmik noaniqliklar (bias) xavfi, bu esa baholash natijalarining xolisligiga shubha tug'dirishi mumkin;

- o'qituvchining pedagogik mas'uliyati va texnologiyaga ortiqcha ishonish o'rtasidagi muvozanatning buzilishi xavfi – ba'zi tadqiqotchilar SI vositalaridan haddan tashqari foydalanish o'quvchilarning mustaqil tanqidiy fikrlash qobiliyatiga salbiy ta'sir ko'rsatishi mumkinligini ogohlantiradilar [2].

Bundan tashqari, o'quv dasturlari va davlat ta'lim standartlarining SI texnologiyalari bilan integratsiyasi bo'yicha yagona metodik ko'rsatmalarning yetishmasligi ham amaliyotchi o'qituvchilar uchun qo'shimcha qiyinchilik tug'diradi. Bu, o'z navbatida, SI vositalarini tizimli emas, balki tarqoq va nomuvofiq tarzda qo'llash holatlariga olib kelmoqda.

O'tkazilgan tahlil shuni ko'rsatadiki, sun'iy intellekt asosidagi ta'lim texnologiyalarini dars jarayoniga tadbiq etish ta'lim sifatini oshirish, o'quv jarayonini individuallashtirish va o'qituvchi mehnatini yengillashtirish uchun katta salohiyatga ega. Biroq ushbu jarayonning samaradorligi ko'p jihatdan uning pedagogik jihatdan puxta asoslangan, bosqichma-bosqich va o'qituvchilarning uzluksiz kasbiy rivojlanishi bilan uyg'unlashgan holda amalga oshirilishiga bog'liq.

Yuqoridagilardan kelib chiqib, quyidagi tavsiyalar ishlab chiqildi:

- o‘qituvchilar uchun SI texnologiyalaridan foydalanish bo‘yicha uzluksiz malaka oshirish kurslari va amaliy seminarlar tashkil etish;
- SI asosidagi vositalarni tanlashda ta’lim maqsadlariga mosligi, ma’lumotlar xavfsizligi va pedagogik asoslanganlik mezonlaridan kelib chiqish;
- SI texnologiyalarini an’anaviy o‘qitish usullari bilan uyg‘unlashtirgan holda, o‘qituvchining yetakchi rolini saqlab qolgan aralash (blended) modeldan foydalanish;
- ta’lim muassasalarida raqamli infratuzilmani mustahkamlash va barcha o‘quvchilar uchun teng imkoniyatlarni ta’minlash;
- o‘quvchilarning shaxsiy ma’lumotlarini himoya qilish bo‘yicha aniq me’yoriy-huquqiy talablarni ishlab chiqish va ta’lim muassasalarida ma’lumotlar xavfsizligi siyosatini joriy etish;
- SI vositalarini qo‘llashda o‘quvchilarning mustaqil va tanqidiy fikrlash qobiliyatini rivojlantirishga alohida e’tibor qaratish, ya’ni texnologiyani maqsad emas, balki pedagogik vositaga aylantirish.

Xulosa qilib aytganda, sun’iy intellekt texnologiyalarining dars jarayoniga ilmiy asoslangan tarzda tadbiq etilishi zamonaviy ta’lim tizimini sifat jihatidan yangi bosqichga olib chiqishning muhim omillaridan biri hisoblanadi.

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RAQAMLI TA'LIM MUHITIDA TALABALARNING MUSTAQIL TA'LIM OLISH KOMPETENSIYASINI RIVOJLANTIRISHNING PEDAGOGIK-METODIK ASOSLARI (NODAVLAT OLIY TA'LIM MUASSASALARI MISOLIDA)

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Annotatsiya: Mazkur maqolada raqamli ta'lim muhitida talabalarning mustaqil ta'lim olish kompetensiyasini rivojlantirishning pedagogik-metodik asoslari nodavlat oliy ta'lim muassasalari (OTM) misolida tahlil qilingan. Kompetensiyaning motivatsion, kognitiv, refleksiv va texnologik tarkibiy komponentlari nazariy jihatdan asoslangan, ularning rivojlanish bosqichlari aniqlangan. Tadqiqot M. Noulzning mustaqil ta'lim nazariyasi, D. Garrisonning mustaqil ta'lim modeli va B. Zimmermanning o'z-o'zini boshqarish nazariyasiga tayanadi. Nodavlat OTMlarning moslashuvchan, bozor talabiga yo'naltirilgan tuzilishi kompetensiya rivojlanishi uchun qo'shimcha pedagogik shart-sharoitlar yaratishi asoslab berilgan.

Kalit so'zlar: mustaqil ta'lim olish kompetensiyasi, raqamli ta'lim muhiti, nodavlat oliy ta'lim muassasasi, o'z-o'zini boshqarish, motivatsion komponent, refleksiya.

Аннотация: В статье анализируются педагогико-методические основы развития компетенции самостоятельного обучения студентов в цифровой образовательной среде на примере негосударственных вузов. Обоснованы структурные компоненты компетенции (мотивационный, когнитивный, рефлексивный, технологический) и этапы их развития на основе теорий М. Ноулза, Д. Гаррисона и Б. Циммермана.

Ключевые слова: компетенция самостоятельного обучения, цифровая образовательная среда, негосударственный вуз, саморегуляция.

Abstract: The article analyzes the pedagogical and methodological foundations for developing students' self-directed learning competence in a digital learning environment, using non-state higher education institutions as a case. The structural components (motivational, cognitive, reflective, technological) and their developmental stages are substantiated based on the theories of M. Knowles, D. Garrison, and B. Zimmerman.

Keywords: self-directed learning competence, digital learning environment, non-state higher education institution, self-regulation.

KIRISH

O'zbekistonda oliy ta'lim tizimini raqamlashtirish davlat siyosatining ustuvor yo'nalishlaridan biriga aylandi¹⁶. Bu jarayonda talabaning auditoriyadan tashqarida mustaqil bilim olish, axborot resurslarini izlash, tahlil qilish va o'z ta'lim faoliyatini rejalashtirish qobiliyati markaziy o'rin egallamoqda. Raqamli ta'lim muhiti talabaga bir tomondan cheksiz resurslarga kirish imkonini bersa, ikkinchi tomondan o'z-o'zini nazorat qilish va motivatsiyani saqlab qolish borasida yuqori talablar qo'yadi.

¹⁶O'zbekiston Respublikasi Prezidentining "Raqamli O'zbekiston – 2030" strategiyasini tasdiqlash to'g'risida"gi Farmoni, 2020-yil 5-oktabr, PF-6079-son.

Nodavlat oliy ta'lim muassasalari so'nggi yillarda O'zbekiston ta'lim tizimida sezilarli o'rin egallamoqda; ularning o'quv dasturlari nisbatan moslashuvchan, bozor ehtiyojlariga tezkor javob beruvchi tuzilishga ega bo'lib, bu xususiyat talabalarning mustaqil ta'lim olish kompetensiyasini rivojlantirish uchun o'ziga xos pedagogik muhit yaratadi. Shu bilan birga, nodavlat OTMlarda raqamli infratuzilma va metodik ta'minot darajasi turlicha bo'lishi mumkin, bu esa mazkur muammoni alohida o'rganishni taqozo etadi.

Mustaqil ta'lim olish tushunchasi pedagogika fanida uzoq tarixga ega. M. Noulz mustaqil ta'limni shaxsning o'z bilim olish ehtiyojlarini aniqlash, maqsad qo'yish, resurslarni tanlash va natijalarni baholash bo'yicha mas'uliyatni o'z zimmasiga olish jarayoni sifatida ta'riflaydi¹⁷. D. Garrison bu g'oyani rivojlantirib, o'z-o'zini boshqarish (self-management), o'z-o'zini nazorat qilish (self-monitoring) va motivatsiya komponentlaridan iborat uch o'lchovli kompleks modelini taklif etadi¹⁸. L. Guglielmino va R. Merdick esa shaxsning mustaqil ta'limga tayyorligini o'lchash mumkin bo'lgan barqaror xususiyat sifatida ko'rib chiqadilar¹⁹.

Raqamli muhit kontekstida B. Zimmermann o'z-o'zini boshqarish (self-regulated learning) nazariyasi alohida ahamiyat kasb etadi. Ushbu nazariyaga ko'ra, o'quv jarayoni uch bosqichli tsiklik strukturaga ega: oldindan o'ylash (forethought), bajarish (performance) va o'z-o'zini refleksiya qilish (self-reflection)²⁰. P. Uinn va A. Xadvin bu jarayonni axborotni qayta ishlash modeli asosida tushuntirib, o'quvchining maqsad qo'yishi, strategiya tanlashi va natijani monitoring qilishini bosqichma-bosqich tavsiflaydilar²¹. E. Panadero o'z-o'zini boshqarilgan ta'lim bo'yicha oltita asosiy modelni qiyosiy tahlil qilib, ularning barchasida motivatsion va metakognitiv komponentlarning birgalikda ishlashi zarurligini ta'kidlaydi²².

L. Vygotskiyning ijtimoiy konstruktivizm nazariyasi raqamli vositalarni "madaniy asbob" sifatida, ya'ni talabaning mustaqil faoliyatini qo'llab-quvvatlovchi scaffolding vositasi sifatida talqin qilish imkonini beradi²³. Yevropa Ittifoqining DigComp 2.1 raqamli kompetentlik ramkasi esa raqamli muhitda mustaqil ishlash uchun zarur bo'lgan bilim, ko'nikma va munosabatlar majmuini tizimlashtiradi²⁴. Mahalliy tadqiqotlarda S.P. Turdiyev axborotlashgan ta'lim muhitida talabalarning mustaqil ishini tashkil etish metodikasini takomillashtirish masalalarini o'rgangan²⁵, biroq bu tadqiqotlar nodavlat OTMlar kontekstini alohida ajratib ko'rsatmagan, shu jihat mazkur maqolaning ilmiy yangiligini belgilaydi.

Tadqiqotning maqsadi raqamli ta'lim muhitida talabalarning mustaqil ta'lim olish kompetensiyasini rivojlantirishning pedagogik-metodik asoslarini nodavlat OTM sharoitida ishlab chiqishdan iborat. Ushbu maqsadga erishish uchun quyidagi vazifalar belgilandi: 1) "mustaqil ta'lim olish kompetensiyasi" tushunchasini nazariy tahlil qilish; 2) uning tarkibiy komponentlarini aniqlash; 3) rivojlanish bosqichlarini ishlab chiqish; 4) nodavlat OTM sharoitida zarur pedagogik shart-sharoitlarni asoslash.

¹⁷Knowles M.S. Self-Directed Learning: A Guide for Learners and Teachers. New York: Association Press, 1975.

¹⁸Garrison D.R. Self-directed learning: Toward a comprehensive model // *Adult Education Quarterly*. 1997. Vol. 48, No. 1. P. 18-33.

¹⁹Guglielmino L.M., Murdick R.G. Self-directed learning: The quiet revolution // *NASSP Bulletin*. 1997. Vol. 81, No. 588. P. 1-14.

²⁰Zimmerman B.J. Attaining self-regulation: A social cognitive perspective // *Handbook of Self-Regulation*, 2000. P. 13-39.

²¹Winne P.H., Hadwin A.F. Studying as self-regulated learning // *Metacognition in Educational Theory and Practice*, 1998. P. 277-304.

²²Panadero E. A review of self-regulated learning: Six models and four directions for research // *Frontiers in Psychology*. 2017. Vol. 8. Art. 422.

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²⁴Carretero S., Vuorikari R., Punie Y. *DigComp 2.1: The Digital Competence Framework for Citizens*. Luxembourg, 2017.

²⁵Turdiyev S.P. Talabalarning mustaqil ishini tashkil etishda axborot ta'lim resurslaridan foydalanish metodikasi // *Science and Innovation International Scientific Journal*. 2022.

METODLAR

Tadqiqot nazariy tahlil, kontent-tahlil va qiyosiy-pedagogik tahlil metodlariga asoslandi. Tahlil predmeti sifatida 2015-2026 yillar oralig'ida chop etilgan mahalliy va xorijiy ilmiy adabiyotlar, shuningdek O'zbekiston Respublikasining ta'lim sohasidagi normativ-huquqiy hujjatlari o'rganildi.

Nazariy modelni ishlab chiqish uchun mustaqil ta'lim va o'z-o'zini boshqarish nazariyalari (Noulz, Garrison, Zimmerman, Uinn va Xadvin) qiyosiy tahlil qilindi, ularning umumiy va farqlanuvchi jihatlari aniqlandi. Kontent-tahlil metodi orqali har bir nazariyada takrorlanuvchi tarkibiy elementlar (motivatsiya, o'z-o'zini nazorat, kognitiv strategiyalar, refleksiya) ajratib olindi va yagona nazariy modelga integratsiya qilindi.

Ishlab chiqilgan model nodavlat OTM sharoitiga moslashtirilgan holda ekspert baholash uchun taklif etiladi; mazkur maqolada nazariy-metodik model taqdim etiladi, uning keng ko'lamli empirik tekshiruvi (so'rovnoma, pedagogik kuzatuv) tadqiqotning navbatdagi bosqichida amalga oshirilishi rejalashtirilgan.

NATIJALAR

O'tkazilgan nazariy tahlil natijasida talabalarning mustaqil ta'lim olish kompetensiyasi to'rt tarkibiy komponentdan iborat model sifatida shakllantirildi:

1) Motivatsion komponent talabani bilim olishga ichki ehtiyoji, maqsadga yo'naltirilganligi va o'z faoliyatini qadrlash darajasini aks ettiradi hamda Garrison modelidagi "motivatsiya" o'lchoviga mos keladi²⁶.

2) Kognitiv komponent axborotni izlash, tanlash, tahlil qilish va tizimlashtirish ko'nikmalarini o'z ichiga oladi. Raqamli muhitda bu komponent axborot-kommunikatsiya vositalaridan samarali foydalanish qobiliyati bilan uzviy bog'liq²⁷.

3) Refleksiv komponent talabani o'z ta'lim faoliyati natijalarini baholashi, xatolarni aniqlashi va strategiyasini tuzatishi qobiliyatini bildiradi hamda Zimmermanning "o'z-o'zini refleksiya qilish" bosqichiga mos keladi²⁸.

4) Texnologik komponent raqamli platformalar, elektron resurslar va onlayn vositalardan maqsadli va mustaqil foydalanish ko'nikmasini bildiradi.

Ushbu to'rt komponent asosida kompetensiyani rivojlanish bosqichlari ishlab chiqildi. Moslashuv bosqichida talaba raqamli muhit vositalari bilan tanishadi va tashqi ko'rsatmalarga tayanadi. Qaram bosqichda talaba o'qituvchi nazorati ostida topshiriqlarni bajaradi, biroq mustaqil qaror qabul qilish tajribasi endigina shakllanmoqda. Interaktiv bosqichda talaba hamkorlikdagi, masalan forum yoki guruh loyihalari kabi, faoliyat orqali mustaqillikni oshiradi. Mustaqil bosqichda esa talaba o'z ta'lim trayektoriyasini o'zi rejalashtiradi, resurslarni tanlaydi va natijalarni mustaqil baholaydi.

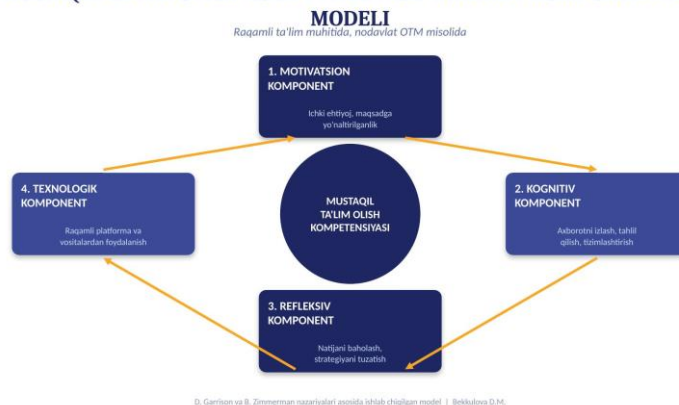
Nodavlat OTM sharoitida kompetensiya rivojlanishi uchun zarur pedagogik shart-sharoitlar sifatida quyidagilar aniqlandi: raqamli resurslarga erkin va barqaror kirish imkoniyati; o'qituvchining an'anaviy "bilim uzatuvchi"dan "tyutor-navigator"ga aylanishi; individual o'quv trayektoriyasini loyihalash imkoniyati; motivatsion-refleksiv monitoring vositalarining (masalan, elektron portfolio, o'z-o'zini baholash varaqalari) joriy etilishi.

²⁶Garrison D.R. Self-directed learning: Toward a comprehensive model // Adult Education Quarterly. 1997. Vol. 48, No. 1. P. 18-33.

²⁷Carretero S., Vuorikari R., Punie Y. DigComp 2.1: The Digital Competence Framework for Citizens. Luxembourg, 2017.

²⁸Zimmerman B.J. Attaining self-regulation: A social cognitive perspective // Handbook of Self-Regulation, 2000. P. 13-39.

MUSTAQIL TA'LIM OLIH KOMPETENSIYASI: TARKIBIY KOMPONENTLAR



1-rasm. Talabalarning mustaqil ta'lim olish kompetensiyasi tarkibiy komponentlari modeli

MUHOKAMA

Ishlab chiqilgan to'rt komponentli model Garrison va Zimmerman nazariyalari bilan uyg'unlashadi, biroq ulardan texnologik komponentning alohida ajratilishi bilan farqlanadi, bu esa raqamli ta'lim muhitining o'ziga xos talabidir. An'anaviy modellarda texnologik ko'nikma alohida ko'rsatilmagan, chunki bu modellar asosan yuz-yuzga yoki qog'oz asosidagi ta'lim sharoiti uchun ishlab chiqilgan edi.

Nodavlat OTMlarning kichik guruhlarda ishlash, bozor ehtiyojiga yo'naltirilgan o'quv dasturlari va individual yondashuvga ko'proq imkoniyat beruvchi moslashuvchan tuzilishi motivatsion va reflektiv komponentlarning rivojlanishiga ijobiy ta'sir ko'rsatishi mumkin. Ayni paytda ba'zi nodavlat OTMlarda raqamli infratuzilma va malakali pedagog kadrlar tanqisligi texnologik komponent rivojlanishini sekinlashtirishi mumkin, bu ushbu muassasalar uchun alohida diqqat talab qiladigan cheklovdir.

Tadqiqotning cheklovi shundaki, taklif etilgan model hozircha faqat nazariy tahlil asosida shakllantirilgan; uning amaliy samaradorligini tasdiqlash uchun kelgusida nodavlat OTM talabalari ishtirokida empirik tadqiqot (so'rovnoma, pedagogik eksperiment) o'tkazilishi zarur.

XULOSA

Raqamli ta'lim muhitida talabalarning mustaqil ta'lim olish kompetensiyasi to'rt komponentli (motivatsion, kognitiv, reflektiv, texnologik) va to'rt bosqichli (moslashuv, qaram, interaktiv, mustaqil) tuzilmaga ega ekanligi asoslandi. Nodavlat OTMlar uchun quyidagi amaliy tavsiyalar taklif etiladi: o'qituvchilar uchun tyutorlik funksiyasini kuchaytiruvchi metodik ko'rsatmalar ishlab chiqish; LMS tizimlarini individual o'quv trayektoriyasini qo'llab-quvvatlovchi vositalar bilan boyitish; talabalarning o'z-o'zini baholashi uchun elektron portfolio amaliyotini joriy etish. Keyingi tadqiqotlar taklif etilgan modelning empirik tekshiruviga bag'ishlanishi maqsadga muvofiqdir.

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RAQAMLI TA'LIM MUHITIDA TALABALARNING MUSTAQIL TA'LIM OLISHIDA SUN'IY INTELEKTNING O'RNI

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Annotatsiya: Mazkur maqolada raqamli ta'lim muhitida talabalarning mustaqil ta'lim olish jarayonini tashkil etish va takomillashtirishda sun'iy intellekt texnologiyalarining o'rni yoritilgan. Bugungi kunda sun'iy intellekt ta'lim jarayonining mazmuni, shakli va metodlarini o'zgartiruvchi zamonaviy vositalardan biriga aylanmoqda. Maqolada sun'iy intellektning talabalarga individual ta'lim trayektoriyasini shakllantirish, o'quv materiallarini izlash va tahlil qilish, bilimlarni mustahkamlash, topshiriqlarni bajarish, o'z-o'zini nazorat qilish hamda refleksiv baholash imkoniyatlarini kengaytirishi tahlil qilinadi. Shuningdek, sun'iy intellektdan foydalanishda akademik halollik, tanqidiy fikrlash, axborotning ishonchligini tekshirish va texnologiyaga haddan tashqari bog'lanib qolish kabi muammolarga ham e'tibor qaratilgan.

Kalit so'zlar: raqamli ta'lim muhiti, sun'iy intellekt, mustaqil ta'lim, talaba, raqamli kompetensiya, individual ta'lim, tanqidiy fikrlash, refleksiya, ta'lim texnologiyalari.

Аннотация: В данной статье освещается роль технологий искусственного интеллекта в организации и совершенствовании процесса самостоятельного обучения студентов в цифровой образовательной среде. В настоящее время искусственный интеллект становится одним из современных инструментов, изменяющих содержание, формы и методы образовательного процесса. В статье анализируются возможности искусственного интеллекта по расширению возможностей студентов в формировании индивидуальной образовательной траектории, поиске и анализе учебных материалов, закреплении знаний, выполнении заданий, осуществлении самоконтроля и рефлексивного оценивания. Кроме того, уделяется внимание таким проблемам использования искусственного интеллекта, как соблюдение академической честности, развитие критического мышления, проверка достоверности информации и предотвращение чрезмерной зависимости от технологий.

Ключевые слова: искусственный интеллект, цифровая образовательная среда, самостоятельное обучение, студенты, индивидуальная образовательная траектория, цифровые технологии, критическое мышление, академическая честность, самоконтроль, рефлексивное оценивание, образовательные технологии, цифровая компетентность.

Abstract: This article highlights the role of artificial intelligence technologies in organizing and improving students' independent learning in a digital educational environment. Today, artificial intelligence is becoming one of the modern tools that is transforming the content, forms, and methods of the educational process. The article analyzes the ways in which artificial intelligence can expand students' opportunities to develop individual learning pathways, search for and analyze educational materials, consolidate knowledge, complete assignments, engage in self-

monitoring, and conduct reflective assessment. In addition, attention is given to such challenges associated with the use of artificial intelligence as maintaining academic integrity, developing critical thinking, verifying the reliability of information, and preventing excessive dependence on technology.

Keywords: artificial intelligence, digital educational environment, independent learning, students, individual learning pathways, digital technologies, critical thinking, academic integrity, self-monitoring, reflective assessment, educational technologies, digital competence.

KIRISH

Zamonaviy jamiyatda raqamlashtirish jarayonlarining jadal rivojlanishi ta'lim tizimiga ham sezilarli ta'sir ko'rsatmoqda. Raqamli texnologiyalarning ta'lim jarayoniga keng joriy etilishi natijasida talabaniq bilim olishi faqat auditoriya mashg'ulotlari bilan cheklanib qolmasdan, mustaqil izlanish, elektron resurslardan foydalanish, masofaviy ta'lim va interaktiv ta'lim platformalari orqali davom etmoqda. Shu nuqtayi nazardan, talabalarning mustaqil ta'lim olish kompetensiyasini rivojlantirish oliy ta'limning muhim vazifalaridan biri hisoblanadi.

Mustaqil ta'lim talabaniq o'z bilim va ko'nikmalarini mustaqil ravishda rivojlantirishi, maqsad qo'yishi, zarur axborotni izlab topishi, uni tahlil qilishi, o'zlashtirishi va natijalarini baholashini nazarda tutadi. Raqamli ta'lim muhiti esa ushbu jarayon uchun keng imkoniyatlar yaratadi. Ayniqsa, so'nggi yillarda sun'iy intellekt texnologiyalarining ta'limga kirib kelishi mustaqil ta'limni tashkil etishning yangi imkoniyatlarini yuzaga keltirmoqda.

Sun'iy intellekt talabaniq individual ehtiyojlari, bilim darajasi va o'quv maqsadlariga mos ravishda ta'limiy yordam ko'rsatishi mumkin. Biroq undan samarali foydalanish nafaqat texnik imkoniyatlarni, balki pedagogik va metodik yondashuvlarni ham talab etadi.

ASOSIY QISM.

Sun'iy intellekt — insonning bilish, tahlil qilish, muammoni hal etish, tilni tushunish va qaror qabul qilish kabi faoliyatlarini ma'lum darajada modellashtirishga imkon beruvchi texnologiyalar majmuasidir. Ta'lim sohasida sun'iy intellektdan foydalanish elektron ta'lim resurslari, intellektual tutorlar, avtomatlashtirilgan baholash tizimlari, individual tavsiyalar va generativ AI vositalari orqali amalga oshirilmogda.

Raqamli ta'lim muhitida sun'iy intellektning talabalarning mustaqil ta'lim olishidagi birinchi muhim vazifasi — individual ta'limni qo'llab-quvvatlashdir. An'anaviy ta'limda barcha talabalar uchun bir xil topshiriq va o'quv material berilishi mumkin. Sun'iy intellekt esa talabaniq bilim darajasi va ehtiyojlarini hisobga olgan holda murakkablik darajasi turlicha bo'lgan topshiriqlar, savollar va tushuntirishlarni taklif qilishi mumkin. Bu esa talabaniq o'ziga mos ta'lim trayektoriyasini shakllantirishga yordam beradi.

Ikkinchi muhim jihat — axborotni izlash va qayta ishlash imkoniyatlarining kengayishi. Talaba mustaqil ta'lim jarayonida katta hajmdagi ma'lumotlar bilan ishlaydi. Sun'iy intellekt texnologiyalari muayyan mavzu bo'yicha ma'lumotlarni tizimlashtirish, asosiy tushunchalarni aniqlash, murakkab materiallarni soddalashtirish va savollarga izoh berishda yordamchi vosita bo'la oladi. Natijada talabaniq vaqtini samarali tashkil etish va o'quv materiallarini o'zlashtirish imkoniyati ortadi.

Uchinchi jihat — o'z-o'zini nazorat qilish va baholash. Mustaqil ta'lim samaradorligi talabaniq o'z bilimini muntazam nazorat qilib borishiga bog'liq. Sun'iy intellekt asosidagi tizimlar test savollarini shakllantirish, javoblarni tahlil qilish, xatolarni aniqlash va qo'shimcha tushuntirishlar berish orqali talabaniq o'zlashtirish darajasini baholashga ko'maklashadi. Bunda talaba o'zining kuchli va zaif tomonlarini aniqlab, keyingi o'quv faoliyatini rejalashtirishi mumkin.

To'rtinchi jihat — refleksiv faoliyatni rivojlantirish. Mustaqil ta'limda talaba "Men nimani bilaman?", "Qaysi mavzuni yaxshi o'zlashtirdim?", "Qaysi jihatlarni yana o'rganishim kerak?" kabi savollarga javob topishi muhim. Sun'iy intellekt bilan muloqot qilish jarayonida talaba o'z fikrlarini izohlash, savollar berish, javoblarni taqqoslash va xulosalar chiqarish imkoniyatiga ega bo'ladi. Shu orqali refleksiv baholash ko'nikmalari rivojlanadi.

Beshinchi jihat — vaqtni samarali boshqarish. Talabaniq mustaqil ta'lim jarayonida o'quv rejasini tuzishi, vazifalarni ustuvorlik darajasiga ko'ra belgilashi va belgilangan muddatlarga rioya

qilishi muhim. Sun'iy intellekt asosidagi vositalar o'quv rejasini shakllantirish, mavzu bo'yicha bosqichma-bosqich topshiriqlarni belgilash va o'quv faoliyatini rejalashtirishda yordam berishi mumkin. Shu bilan birga, sun'iy intellektdan foydalanishning ayrim xavf va cheklavlari ham mavjud. Eng avvalo, talabaning tayyor javoblarga haddan tashqari tayanishi uning mustaqil fikrlash qobiliyatining susayishiga olib kelishi mumkin. Shuning uchun sun'iy intellekt talabaning o'rniga fikrlaydigan vosita emas, balki uning fikrlash faoliyatini qo'llab-quvvatlovchi pedagogik yordamchi sifatida qaralishi lozim. Bundan tashqari, sun'iy intellekt tomonidan taqdim etilgan ma'lumotlar har doim ham to'liq va xatosiz bo'lmazligi mumkin. Shu sababli talaba olingan ma'lumotlarni ilmiy manbalar bilan taqqoslashi, faktlarni tekshirishi va tanqidiy baholashi zarur. Bu jarayon talabalarda axborot savodxonligi va tanqidiy fikrlash kompetensiyasini rivojlantirishga xizmat qiladi. Sun'iy intellektdan foydalanish jarayonida akademik halollik tamoyillariga rioya qilish ham alohida ahamiyatga ega. Talaba AI yordamida yaratilgan materialni o'zining mustaqil ishi sifatida taqdim etmasligi, undan foydalanish chegaralarini anglab yetishi va yakuniy fikr hamda xulosalarni mustaqil shakllantirishi kerak. O'qituvchi esa talabaga sun'iy intellektdan mas'uliyatli, maqsadli va pedagogik jihatdan to'g'ri foydalanish madaniyatini shakllantirishda yo'l-yo'riq berishi lozim. Shunday qilib, raqamli ta'lim muhitida sun'iy intellekt talabaning mustaqil ta'lim olish faoliyatini tashkil etishning zamonaviy vositasi sifatida namoyon bo'ladi. Uning samaradorligi texnologiyaning o'ziga emas, balki undan qanday metodik maqsadda foydalanilishiga bog'liq. Sun'iy intellekt pedagogni to'liq almashtirish emas, balki talaba va o'qituvchining ta'limiy faoliyatini qo'llab-quvvatlashga xizmat qilishi kerak.

XULOSA

Xulosa qilib aytganda, raqamli ta'lim muhitida talabalarining mustaqil ta'lim olish jarayonida sun'iy intellektdan foydalanish ta'lim samaradorligini oshirish uchun katta imkoniyatlarga ega. U individual ta'limni tashkil etish, axborotni izlash va tahlil qilish, bilimlarni mustahkamlash, o'z-o'zini nazorat qilish, refleksiv baholash hamda o'quv faoliyatini rejalashtirishda muhim yordamchi vosita bo'lib xizmat qilishi mumkin. Biroq sun'iy intellektdan foydalanish jarayonida talabaning mustaqil fikrlashi, ijodkorligi, tanqidiy yondashuvi va akademik halolligi ustuvor bo'lishi lozim. Shu sababli oliy ta'limda sun'iy intellekt texnologiyalaridan foydalanish bilan bir qatorda talabalarda raqamli kompetentlik, axborot savodxonligi, tanqidiy fikrlash va o'z-o'zini rivojlantirish ko'nikmalarini shakllantirish muhimdir. Demak, sun'iy intellektni raqamli ta'lim muhitida to'g'ri tashkil etilgan metodik tizim asosida qo'llash talabalarining mustaqil ta'lim olish kompetensiyasini rivojlantirishning samarali mexanizmlaridan biri bo'lishi mumkin. Kelgusida ushbu yo'nalishda sun'iy intellekt asosida talabalarining individual ta'lim trayektoriyasini aniqlash, mustaqil faoliyatini monitoring qilish va natijalarni refleksiv baholashga yo'naltirilgan pedagogik modellarni ishlab chiqish dolzarb ilmiy vazifalardan biri hisoblanadi.

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SUN'IY INTELLEKT TEXNOLOGIYALARI VOSITASIDA TALABALARNING BILIM KOMPETENSIYASINI OSHIRISH: METODIK YONDASHUV

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Annotatsiya: *Sun'iy intellekt (SI) texnologiyalarining jadal rivojlanishi oliy ta'limda talabalarining bilim kompetensiyasini rivojlantirish, o'quv jarayonini shaxsiylashtirish va ta'lim samaradorligini oshirish uchun yangi imkoniyatlar yaratmoqda. Ushbu tadqiqotning maqsadi SI texnologiyalarini ta'lim jarayoniga integratsiya qilish asosida talabalarining bilim kompetensiyasini oshirishga qaratilgan metodik yondashuvni ishlab chiqish va uning samaradorligini baholashdan iborat. Tadqiqotda shaxsiylashtirilgan va adaptiv ta'lim tamoyillariga asoslangan kvazi-eksperimental dizayn qo'llanildi. Tajriba guruhida adaptiv ta'lim platformalari, avtomatlashtirilgan baholash, intellektual qayta aloqa va ta'lim analitikasi vositalaridan foydalanildi. Ma'lumotlar diagnostik testlar, so'rovnomalar va kuzatish orqali to'planib, statistik usullar yordamida tahlil qilindi. Natijalar SI asosidagi metodik yondashuv talabalarining akademik natijalari, o'quv motivatsiyasi va bilim kompetensiyasini yaxshilashini ko'rsatdi. Tadqiqot natijasida adaptiv ta'lim, ta'lim analitikasi va pedagogik qo'llab-quvvatlashni o'zaro integratsiyalovchi metodik model taklif etildi. Mazkur model oliy ta'limda SI texnologiyalaridan samarali foydalanish va individual ta'lim trayektoriyalarini shakllantirish uchun amaliy asos yaratadi.*

Kalit so'zlar: *sun'iy intellekt texnologiyalari, bilim kompetensiyasi, adaptiv ta'lim, ta'lim analitikasi, oliy ta'lim.*

Annotatsiya: *The rapid development of artificial intelligence (AI) technologies is creating new opportunities in higher education to develop students' knowledge competence, personalize the learning process, and improve educational effectiveness. This study aims to develop and evaluate a methodological approach for enhancing students' knowledge competence through the integration of AI technologies into the educational process. A quasi-experimental design based on personalized and adaptive learning principles was employed. The experimental group used adaptive learning platforms, automated assessment, intelligent feedback, and learning analytics tools. Data were collected through diagnostic tests, questionnaires, and observations and analyzed using statistical methods. The results demonstrated that the AI-supported methodological approach improved students' academic performance, learning motivation, and knowledge competence. Based on the findings, a methodological model integrating adaptive learning, learning analytics, and pedagogical support was proposed. The model provides a practical foundation for the effective use of AI technologies in higher education and the development of individualized learning pathways.*

Keywords: *artificial intelligence technologies, knowledge competence, adaptive learning, learning analytics, higher education.*

Аннотация: *Стремительное развитие технологий искусственного интеллекта (ИИ) открывает новые возможности для развития компетентности знаний студентов, персонализации учебного процесса и повышения эффективности высшего образования. Цель данного исследования заключается в разработке и оценке методического подхода к развитию компетентности знаний студентов посредством интеграции технологий ИИ в образовательный процесс. В исследовании применён квазиэкспериментальный дизайн, основанный на принципах персонализированного и адаптивного обучения. В экспериментальной группе использовались адаптивные образовательные платформы, автоматизированное оценивание, интеллектуальная обратная связь и инструменты аналитики обучения. Данные были собраны с помощью диагностических тестов, анкетирования и наблюдения и проанализированы статистическими методами. Результаты показали, что методический подход с использованием ИИ способствует повышению академической успеваемости, учебной мотивации и*

компетентности знаний студентов. На основе полученных результатов предложена методическая модель, объединяющая адаптивное обучение, аналитику обучения и педагогическую поддержку. Модель создаёт практическую основу для эффективного применения технологий ИИ и формирования индивидуальных образовательных траекторий в высшем образовании.

Ключевые слова: технологии искусственного интеллекта, компетентность знаний, адаптивное обучение, аналитика обучения, высшее образование.

KIRISH

So‘nggi yillarda raqamli texnologiyalarning jadal rivojlanishi ta‘lim tizimini sezilarli darajada o‘zgartirdi. Ayniqsa, **sun‘iy intellekt (SI)** adaptiv ta‘lim muhitini yaratish, ta‘lim ma‘lumotlarini tahlil qilish va shaxsiylashtirilgan o‘qitishni tashkil etish imkoniyatlari orqali oliy ta‘limning muhim innovatsion vositasiga aylanmoqda.

SI asosidagi ta‘lim tizimlari talabalarining o‘quv faoliyatini tahlil qilish, bilimlardagi bo‘shliqlarni aniqlash va individual ta‘lim trayektoriyalarini shakllantirish imkonini beradi [4]. Bu esa **bilim kompetensiyasi, tahliliy fikrlash va muammolarni hal qilish ko‘nikmalarini** rivojlantirishga xizmat qiladi. Biroq an‘anaviy ta‘lim yondashuvlari talabalarining individual imkoniyatlari va o‘zlashtirish sur‘atlarini har doim ham yetarlicha hisobga olmaydi.

Adaptiv ta‘lim, intellektual o‘qitish tizimlari va ta‘lim analitikasi o‘quv jarayonini real vaqt rejimida kuzatish hamda pedagogik strategiyalarni moslashtirish imkonini beradi [9]. Shunga qaramay, mavjud tadqiqotlarda SI texnologiyalarining texnik imkoniyatlari keng o‘rganilgan bo‘lsa-da, **talabalarining bilim kompetensiyasini rivojlantirishga qaratilgan metodik integratsiyasi** yetarlicha tadqiq etilmagan.

Shu sababli, ushbu tadqiqotning maqsadi oliy ta‘limda **SI texnologiyalari vositasida talabalarining bilim kompetensiyasini oshirish metodikasini ishlab chiqish va uning samaradorligini tajriba-sinov asosida baholashdan** iborat.

ADABIYOTLAR SHARHI

Sun‘iy intellekt (SI) texnologiyalarining ta‘limga integratsiyasi adaptiv o‘qitish, shaxsiylashtirilgan ta‘lim va ma‘lumotlarga asoslangan pedagogik qarorlarni rivojlantirishning muhim yo‘nalishiga aylandi [4]. Dastlabki tadqiqotlarda **intellektual o‘qitish tizimlari (ITS)** talabalarining o‘zlashtirish darajasiga mos individual tavsiyalar va qayta aloqa berish vositasi sifatida o‘rganilgan [11].

Keyingi tadqiqotlarda **adaptiv ta‘lim tizimlari, mashinaviy o‘qitish, ta‘lim analitikasi va educational data mining** imkoniyatlariga alohida e‘tibor qaratildi [1,7,9]. Ushbu texnologiyalar talabalarining o‘quv faoliyatini tahlil qilish, bilimlardagi bo‘shliqlarni aniqlash, akademik natijalarni prognozlash va individual ta‘lim mazmunini shakllantirish imkonini beradi. Chen, Chen va Lin SI asosidagi tizimlarning shaxsiylashtirilgan ta‘lim va adaptiv qayta aloqa orqali o‘quv samaradorligini oshirishini ta‘kidlaydi [2]. Luckin esa SI texnologiyalarining bilim va ko‘nikmalarni rivojlantirishdagi imkoniyatlarini ko‘rsatadi [6].

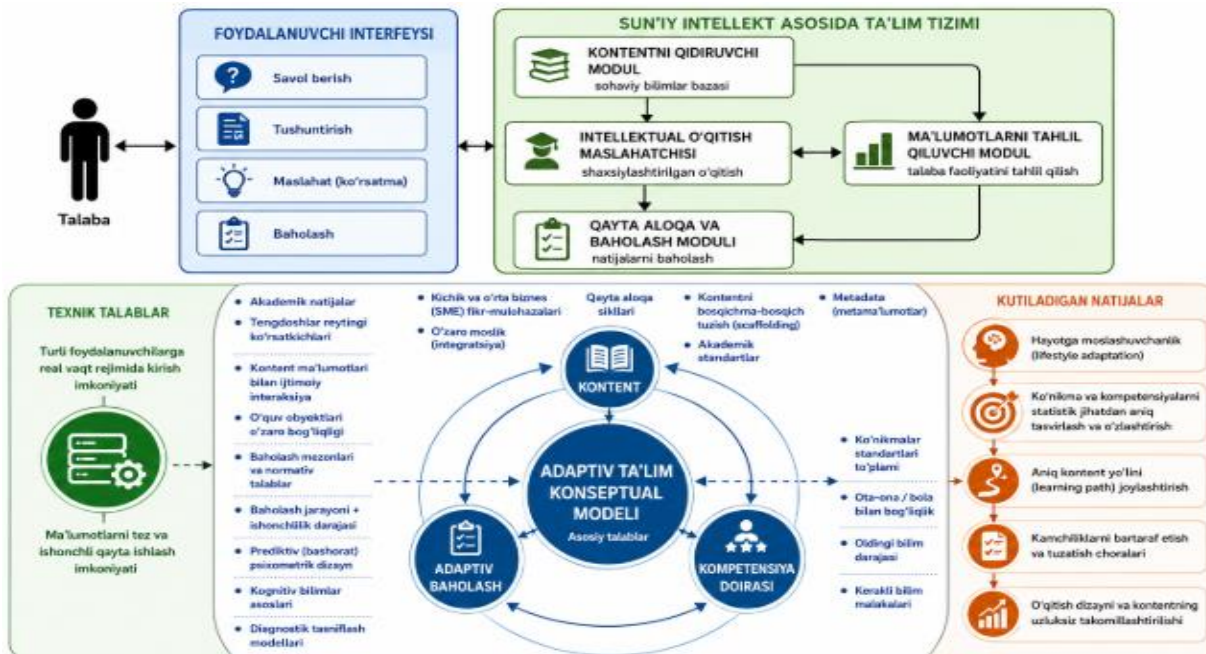
Oliy ta‘limga oid tadqiqotlarda **adaptiv ta‘lim, avtomatlashtirilgan baholash, intellektual o‘qitish tizimlari va ta‘lim analitikasi** SI qo‘llanilishining asosiy yo‘nalishlari sifatida ajratilgan [12]. Shu bilan birga, ma‘lumotlar maxfiyligi, algoritmik tarafkashlik va shaffoflik kabi etik muammolar ham mavjud [8]. Shu sababli SI o‘qituvchini almashtiruvchi emas, balki uning pedagogik faoliyatini qo‘llab-quvvatlovchi vosita sifatida qo‘llanilishi lozim [14].

Mavjud tadqiqotlarda SI texnologiyalarining imkoniyatlari keng yoritilgan bo‘lsa-da, **talabalarining bilim kompetensiyasini rivojlantirishga yo‘naltirilgan yaxlit metodik yondashuvlar yetarlicha ishlab chiqilmagan**. Mazkur tadqiqot ushbu bo‘shliqni SI texnologiyalarini zamonaviy pedagogik strategiyalar bilan integratsiyalovchi metodik yondashuvni ishlab chiqish orqali to‘ldirishga qaratilgan.

Konseptual asos

Tadqiqotning konseptual asosi sun'iy intellekt, shaxsiylashtirilgan va adaptiv ta'lim hamda ta'lim analitikasi integratsiyasiga asoslanib, talabalarning bilim kompetensiyasini rivojlantirishga yo'naltirilgan.

Model to'rtta asosiy komponentni qamrab oladi: diagnostik baholash, SI asosidagi adaptiv ta'lim, ta'lim analitikasi va pedagogik qo'llab-quvvatlash. Ularning o'zaro integratsiyasi individual ta'lim trayektoriyasini shakllantirish, o'quv jarayonini ma'lumotlar asosida boshqarish va bilim kompetensiyasini izchil rivojlantirish imkonini beradi.



1-rasm. Sun'iy intellekt asosida talabalarning bilim kompetensiyasini rivojlantirishning adaptiv konseptual modeli

Konseptual modelning tuzilishi

Taklif etilgan konseptual model SI texnologiyalari orqali talabalarning bilim kompetensiyasini rivojlantirishga xizmat qiluvchi to'rtta o'zaro bog'liq komponentdan iborat:

1. Diagnostik baholash — talabalarning boshlang'ich bilimlari, o'quv ehtiyojlari va tayyorgarlik darajasini aniqlash hamda individual ta'lim trayektoriyasini belgilash.
2. SI asosidagi adaptiv ta'lim — talabaning o'zlashtirish sur'ati va imkoniyatlariga mos topshiriqlar, o'quv materiallari va avtomatlashtirilgan qayta aloqani taqdim etish.
3. Ta'lim analitikasi — o'quv faoliyati va akademik natijalarni muntazam tahlil qilish, mavjud qiyinchiliklarni aniqlash va pedagogik qarorlarni ma'lumotlar asosida qabul qilish.
4. Pedagogik qo'llab-quvvatlash — o'qituvchi tomonidan yo'naltirish, reflektiv ta'lim va formativ baholash orqali bilim o'zlashtirish jarayonini qo'llab-quvvatlash.

Modelni amalga oshirish jarayoni

Jarayon diagnostik baholash → SI asosidagi adaptiv ta'lim → ta'lim analitikasi → pedagogik qo'llab-quvvatlash ketma-ketligida amalga oshiriladi. Ushbu komponentlarning integratsiyasi talabalarning individual xususiyatlariga mos ta'limni tashkil etish va bilim kompetensiyasini izchil rivojlantirish imkonini beradi.

Tadqiqot gipotezasi

Shaxsiylashtirilgan va adaptiv ta'lim tamoyillariga asoslanib, tadqiqotda SI texnologiyalaridan foydalanish talabalarning bilim kompetensiyasiga ijobiy ta'sir ko'rsatadi, degan gipoteza ilgari suriladi. SI asosidagi tizimlarning o'quv faoliyatini tahlil qilishi, individual resurs va topshiriqlarni tavsiya etishi bilimlarni samaraliroq o'zlashtirishga xizmat qilishi nazarda tutiladi.

TADQIQOT GIPOTEZALARI

SI asosidagi ta'limning bilim kompetensiyasiga ta'sirini baholash uchun quyidagi gipotezalar ilgari suriladi:

H1: SI asosidagi adaptiv ta'lim tizimlaridan foydalanish talabalarning **bilim kompetensiyasiga ijobiy ta'sir ko'rsatadi**.

H2: Ta'lim analitikasi vositalari orqali o'quv faoliyatini monitoring va tahlil qilish talabalarning **bilim kompetensiyasini sezilarli darajada oshiradi**.

H3: SI asosidagi ta'lim texnologiyalarini pedagogik qo'llab-quvvatlash bilan integratsiyalash talabalarning **bilim kompetensiyasini samarali rivojlantiradi**.

Ushbu gipotezalar **adaptiv ta'lim, ta'lim analitikasi va pedagogik qo'llab-quvvatlashning** bilim kompetensiyasiga ta'sirini empirik jihatdan tekshirish uchun nazariy asos bo'lib xizmat qiladi.

TADQIQOT MODEL

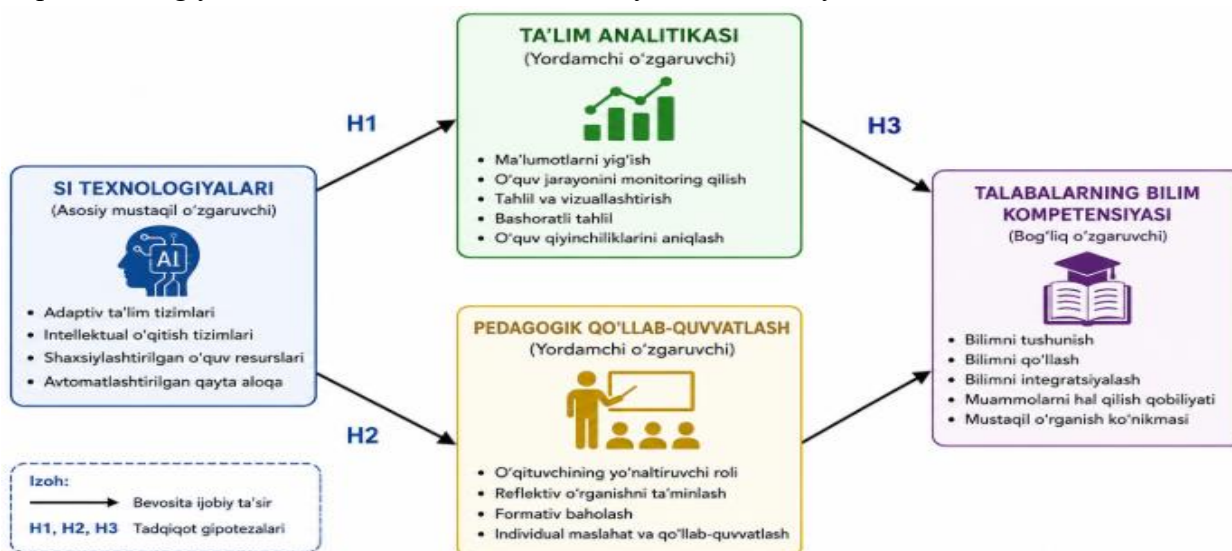
Tadqiqot modeli SI texnologiyalarining talabalarning **bilim kompetensiyasini rivojlantirishga ta'sirini** aniqlashga qaratilgan. Modelda **SI asosidagi adaptiv ta'lim, ta'lim analitikasi va pedagogik qo'llab-quvvatlash** asosiy ta'sir etuvchi omillar sifatida belgilanadi.

SI vositalari talabalarning o'quv faoliyatini tahlil qilib, individual ta'lim mazmuni va avtomatlashtirilgan qayta aloqani taqdim etadi. **Ta'lim analitikasi** o'zlashtirish dinamikasini monitoring qilish va pedagogik qarorlarni ma'lumotlar asosida takomillashtirishga xizmat qiladi. **Pedagogik qo'llab-quvvatlash** esa o'qituvchining yo'naltirishi, formativ baholash va reflektiv faoliyat orqali SI imkoniyatlarini ta'lim maqsadlariga muvofiqlashtiradi.

Modelning natijaviy o'zgaruvchisi — **bilim kompetensiyasi**, ya'ni talabaning akademik bilimlarni tushunish, qo'llash va integratsiyalash qobiliyatidir. Model ushbu uch omilning integratsiyasi bilim kompetensiyasini rivojlantirishga ijobiy ta'sir ko'rsatishini nazarda tutadi.

Tadqiqot modeli

Taklif etilgan model **SI texnologiyalari, ta'lim analitikasi va pedagogik qo'llab-quvvatlashning** o'zaro integratsiyasi orqali talabalarning bilim kompetensiyasini rivojlantirish mexanizmini ifodalaydi. Adaptiv ta'lim va intellektual o'qitish tizimlari individual o'quv jarayonini tashkil etsa, ta'lim analitikasi natijalarni monitoring qiladi, pedagogik qo'llab-quvvatlash esa o'qituvchining yo'naltiruvchi va baholovchi faoliyatini ta'minlaydi.



2-rasm. Sun'iy intellekt texnologiyalari vositasida talabalarning bilim kompetensiyasini rivojlantirish tadqiqot modeli

XULOSA

Tadqiqot natijalari SI asosidagi **adaptiv ta'lim, ta'lim analitikasi va pedagogik qo'llab-quvvatlashni** uyg'unlashtirish talabalarning bilim kompetensiyasini rivojlantirish uchun samarali ta'lim muhitini yaratishini ko'rsatadi. SI vositalari o'quv faoliyatini tahlil qilish, bilim bo'shliqlarini aniqlash va individual ta'lim resurslarini taqdim etish imkonini bersa, o'qituvchi ushbu jarayonni pedagogik jihatdan boshqaradi.

Oliy ta'lim muassasalarida SI asosidagi adaptiv platformalarni joriy etish, **ta'lim analitikasidan muntazam foydalanish va pedagoglarning SI bilan ishlash kompetensiyalarini rivojlantirish** maqsadga muvofiq. Kelgusida model samaradorligini kattaroq tanlanma va turli ta'lim yo'nalishlarida empirik tekshirish tadqiqot natijalarining ishonchligini yanada mustahkamlashi mumkin.

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COMPREHENSIVE FRAMEWORK FOR THE DEVELOPMENT OF ARTIFICIAL INTELLIGENCE LITERACY AND COMPETENCE IN THE EDUCATIONAL PROCESS

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Abstract— Artificial intelligence (AI) education has become increasingly important in higher education, yet existing approaches to AI literacy primarily emphasize technical knowledge while giving limited attention to pedagogical and competency-based perspectives. This study aims to clarify the concepts of AI literacy and AI competence and to propose a comprehensive framework for AI education that integrates confidence, self-reflection, and responsible AI use. The framework was developed through a collaborative design process involving 20 AI educators from five higher education institutions. Using iterative discussions and curriculum design principles, the study identified five core dimensions of AI competence: **Technology, Impact, Ethics, Collaboration, and Self-Reflection**. The proposed framework combines foundational AI knowledge with pedagogical processes and practical competency development to support effective AI integration in higher education. Experimental results indicate that students who learned using the proposed framework achieved higher levels of AI literacy, ethical reasoning, prompt competency, self-reflection, and AI confidence than those in the control group. These findings demonstrate the potential of the framework to support competency-based AI education and provide a practical foundation for curriculum design and future research in higher education.

Keywords: AI literacy, AI competence, machine learning, data literacy

Annotatsiya — Sun'iy intellekt (SI) ta'limi oliy ta'lim tizimida tobora muhim ahamiyat kasb etmoqda. Biroq SI savodxonligini shakllantirishga qaratilgan mavjud yondashuvlar asosan texnik bilimlarga urg'u berib, pedagogik va kompetensiyaviy jihatlariga yetarlicha e'tibor qaratmaydi. Ushbu tadqiqotning maqsadi SI savodxonligi va SI kompetensiyasi tushunchalarini aniqlashtirish hamda ishonch, o'z-o'zini refleksiya qilish va SI dan mas'uliyatli foydalanishni integratsiyalovchi SI ta'limining kompleks modelini taklif etishdan iborat.

Mazkur model beshta oliy ta'lim muassasasidan 20 nafar SI o'qituvchisi ishtirok etgan hamkorlikdagi loyihalash jarayoni asosida ishlab chiqildi. Takroriy muhokamalar va o'quv dasturini loyihalash tamoyillaridan foydalanish orqali tadqiqotda SI kompetensiyasining beshta asosiy o'lchovi aniqlandi: Texnologiya (Technology), Ta'sir (Impact), Etika (Ethics), Hamkorlik (Collaboration) va O'z-o'zini refleksiya qilish (Self-Reflection).

Taklif etilgan model oliy ta'limda SI ni samarali integratsiya qilishni qo'llab-quvvatlash maqsadida SI bo'yicha fundamental bilimlarni pedagogik jarayonlar va amaliy kompetensiyalarni rivojlantirish bilan uyg'unlashtiradi. Eksperimental natijalar taklif etilgan model asosida ta'lim olgan talabalar nazorat guruhidagi talabalarga nisbatan SI savodxonligi, axloqiy mulohaza yuritish, prompt kompetensiyasi, o'z-o'zini refleksiya qilish va SI ga bo'lgan ishonch bo'yicha yuqoriroq natijalarga erishganini ko'rsatdi.

Ushbu natijalar taklif etilgan modelning kompetensiyaga asoslangan SI ta'limini qo'llab-quvvatlash salohiyatiga ega ekanligini ko'rsatadi hamda oliy ta'limda o'quv dasturlarini ishlab chiqish va kelgusidagi tadqiqotlar uchun amaliy asos yaratadi.

Kalit so'zlar: SI savodxonligi, SI kompetensiyasi, mashinaviy o'qitish, ma'lumotlar savodxonligi.

Аннотация — Образование в области искусственного интеллекта (ИИ) приобретает всё большее значение в системе высшего образования. Однако существующие подходы к формированию грамотности в области ИИ преимущественно ориентированы на технические знания, уделяя недостаточное внимание педагогическим и компетентностным аспектам. Цель данного исследования заключается в уточнении понятий грамотности в

области ИИ и компетентности в области ИИ, а также в разработке комплексной модели обучения ИИ, интегрирующей уверенность, саморефлексию и ответственное использование ИИ.

Модель была разработана в рамках совместного проектирования с участием 20 преподавателей в области ИИ из пяти высших учебных заведений. На основе итеративных обсуждений и принципов проектирования учебных программ были определены пять ключевых компонентов компетентности в области ИИ: Технологии (Technology), Влияние (Impact), Этика (Ethics), Сотрудничество (Collaboration) и Саморефлексия (Self-Reflection).

Предлагаемая модель объединяет фундаментальные знания в области ИИ с педагогическими процессами и развитием практических компетенций, способствуя эффективной интеграции ИИ в высшее образование. Результаты эксперимента показали, что студенты, обучавшиеся на основе предложенной модели, продемонстрировали более высокий уровень грамотности в области ИИ, этического мышления, компетентности в области промптинга, саморефлексии и уверенности в использовании ИИ по сравнению со студентами контрольной группы.

Полученные результаты свидетельствуют о потенциале предложенной модели для развития компетентностно-ориентированного образования в области ИИ и создают практическую основу для проектирования учебных программ и проведения дальнейших исследований в сфере высшего образования.

Ключевые слова: грамотность в области искусственного интеллекта, компетентность в области искусственного интеллекта, машинное обучение, грамотность в области данных.

INTRODUCTION

Artificial intelligence (AI) is transforming education and society through technologies such as computer vision, speech recognition, and natural language processing [8]. Consequently, AI literacy and competence have become key educational priorities, reinforced by global initiatives and UNESCO recommendations [8,15].

Although existing AI education frameworks address technical knowledge [4,6,13], they often provide limited attention to diverse learners and emerging generative AI technologies [5]. This study therefore extends AI literacy and competence by integrating confidence and self-reflection into a comprehensive framework. Developed collaboratively with higher education instructors, the framework combines pedagogical principles and competency development to support responsible and effective AI use in higher education.

Literature Review

This study is grounded in the concepts of AI literacy and AI competence, together with process-oriented and praxis-oriented curriculum design. Existing studies have proposed various AI education frameworks; however, most primarily emphasize technical knowledge while paying limited attention to pedagogical processes, reflective learning, and competence development. This study addresses these gaps by integrating AI literacy, AI competence, and learner-centered curriculum approaches into a comprehensive framework for higher education.

Artificial Intelligence Literacy and Competence

AI literacy refers to the ability to understand, evaluate, and responsibly use AI technologies [11,13]. It encompasses technical knowledge, ethical awareness, collaboration, and responsible engagement [5,14]. AI competence extends beyond conceptual understanding to the confident application of AI for real-world problem-solving and decision-making [20]. Thus, AI literacy emphasizes understanding, whereas AI competence focuses on practical application and performance [4].

Process- and Praxis-Oriented Curriculum Design in AI Education

Content- and product-oriented approaches emphasize knowledge and measurable outcomes but may not fully address the interdisciplinary nature of AI [3,6]. In contrast, process- and praxis-oriented approaches promote interaction, reflection, collaboration, and authentic problem-solving [7,8].

Frameworks such as Five Big Ideas in AI and the AI4Future Framework for Higher Education provide foundations for curriculum development [11]. They integrate core AI domains with teaching, learning, assessment, and management, informing the comprehensive AI education framework proposed in this study.

Figure1. Conceptual Model of the AI4Future Framework for Higher Education

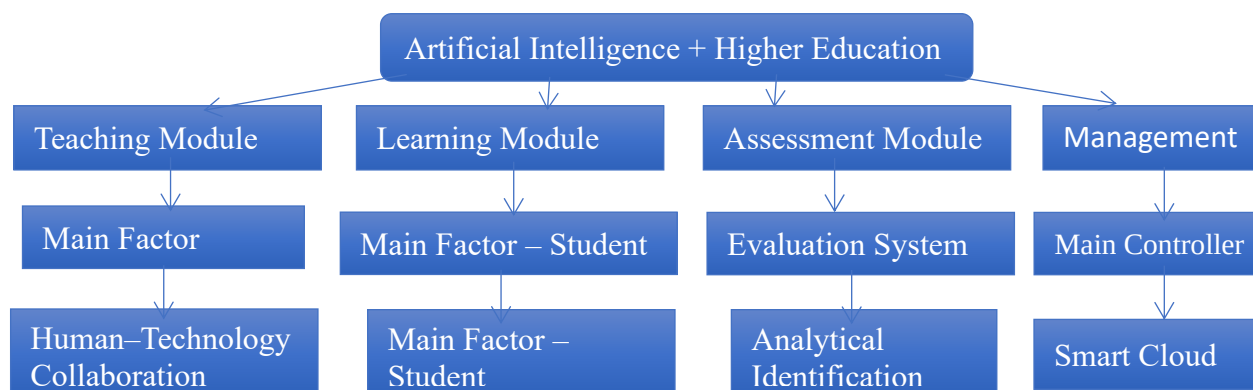


Figure2. AI-Supported Academic Assistance Platform

The presented interface illustrates an AI-assisted educational platform designed to support higher education teaching, research, and academic supervision processes. The platform functions as a digital academic assistant, integrating artificial intelligence tools to facilitate knowledge acquisition, problem-solving, assessment, and research guidance.

Structural and Functional Architecture

The proposed platform is a modular AI-supported learning environment integrating lectures, assessments, AI Chat, file creation, and user management[10,11]. Its core component, AI Chat, provides real-time academic support through natural language interaction, enabling personalized learning, adaptive feedback, and research guidance.

The platform combines content-, product-, process-, and praxis-oriented curriculum approaches. Lectures deliver structured knowledge, quizzes assess learning outcomes, AI Chat supports inquiry-based learning, and project modules promote authentic problem-solving. This integrated environment supports AI literacy, competence, and professional readiness.

Comprehensive Framework for AI Literacy and Competence

The framework integrates curriculum design, pedagogy, competency development, and AI technologies through four components[16,20]:

Conceptual Foundation: AI fundamentals, technologies, ethics, and applications.

Teaching–Learning–Assessment Integration: Integrated instruction, assessment, and AI-supported feedback.

Competency Development: AI literacy, practical competence, ethical awareness, and professional readiness.

Digital Implementation: Personalized learning, adaptive feedback, and interactive AI support.

Developmental Progression

The framework guides students from AI fundamentals (AI, Big Data, and Machine Learning) to advanced competencies in technology, ethics, critical thinking, and social impact. Progression from beginner to advanced levels supports systematic knowledge development, practical problem-solving, AI competence, and professional readiness across diverse learner backgrounds.

AI Competence Framework

AI competence is conceptualized as a multidimensional construct comprising five interconnected dimensions: **technology, impact, ethics, collaboration, and self-reflection** [1,12]. These dimensions represent learners' ability to understand and apply AI technologies, evaluate their societal impact, use AI ethically, collaborate effectively with AI systems, and continuously improve their knowledge through reflective learning. Together, they provide a comprehensive framework for assessing AI competence in higher education.

Participants

Twenty AI educators from five higher education institutions in Uzbekistan participated in this study. All participants had experience in teaching AI-related courses and represented diverse academic disciplines, providing broad perspectives for framework development.

Research Design

This study employed a collaborative design methodology to develop an AI literacy and competence framework. Following an initial workshop on AI education, participants engaged in five iterative co-design cycles to analyze, refine, and validate the framework. Feedback from each cycle was incorporated into subsequent revisions, resulting in a contextually relevant and evidence-informed conceptual model.

Data Analysis

The framework was evaluated through collaborative expert review and digital learning analytics. Participant feedback and platform-based learning data were used to refine the framework and ensure its reliability, validity, and practical applicability in higher education.

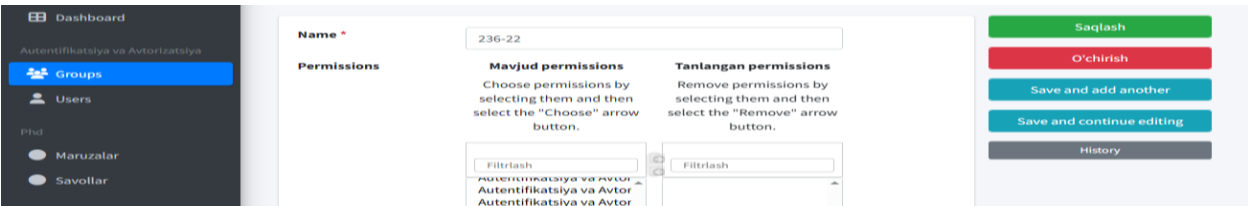


Figure3. Administrative Control Interface within the AI-Supported Educational Platform

Administrative and Governance Module

The administrative interface provides role-based access control for managing users, learning resources, assessments, and AI services. It supports secure authorization, learning monitoring, data privacy, and academic integrity. Its modular architecture enables scalable implementation across higher education institutions.

Research Quality and Ethics

The framework was developed collaboratively with experienced instructors from multiple institutions and disciplines. An iterative design process and participant feedback strengthened its practical relevance and credibility. The study followed institutional ethical guidelines, including informed consent and confidentiality.

Results and Discussion

The analysis identified five core dimensions of AI competence: **Technology, Impact, Ethics, Collaboration, and Self-Reflection**. Together, they integrate technical knowledge, ethical awareness, practical application, and continuous learning, providing a comprehensive foundation for developing AI literacy and competence in higher education.

Table 1. Comprehensive Framework for AI Competence Development

Technology	Impact	Ethics	Collaboration	Self-Reflection
Basic components Perception Applications	Future of work Social good Risks	Fairness and bias. Trust and transparency, Accountability,	Prompt engineering, Strategic questioning, AI-human	Cognitive engagement, Affective engagement, Continuous self-

		Social benefit, Privacy and security	interaction, Critical evaluation of outputs	assessment, Lifelong learning orientation
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AI Competence Framework

The proposed framework conceptualizes AI competence through five interconnected dimensions: **Technology**, **Impact**, **Ethics**, **Collaboration**, and **Self-Reflection**. Together, these dimensions support the development of AI literacy, ethical awareness, practical AI skills, and lifelong learning in higher education.

EXPERIMENTAL RESULTS

The experimental results demonstrated that students using the proposed framework outperformed the control group across all assessed dimensions of AI competence. Improvements were observed in **AI literacy (78 vs. 65)**, **ethical reasoning (82 vs. 68)**, **prompt competency (88 vs. 60)**, **self-reflection (85 vs. 66)**, and **AI confidence (80 vs. 69)**. The greatest improvement was found in prompt competency, highlighting the effectiveness of structured human–AI interaction activities[22]. Overall, the findings confirm that the proposed framework enhances students' conceptual understanding, practical AI skills, ethical reasoning, and confidence in using AI technologies.

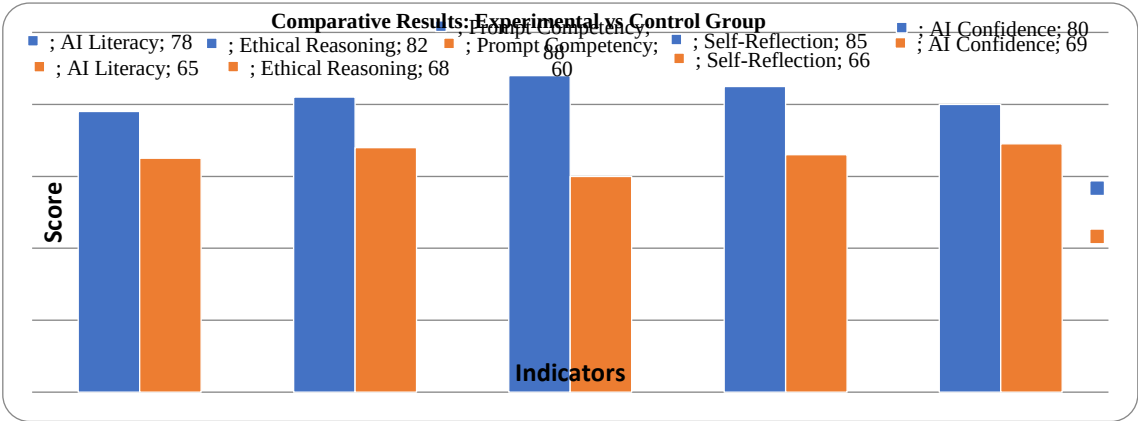


Figure 4. Comparative Results: Experimental vs Control Group

Table 2. Comparative Analysis of AI Competence Indicators in Experimental and Control Groups

Indicator	Experimental Group	Control Group
AI Literacy	78	65
Ethical Reasoning	82	68
Prompt Competency	88	60
Self-Reflection	85	66
AI Confidence	80	69

General Analysis

The experimental group outperformed the control group across all dimensions, particularly in prompt competency and self-reflection. Overall, the findings support the framework’s effectiveness in developing AI literacy and competence in higher education.

Future Research

Future studies should validate the framework with larger and longitudinal samples and examine its applicability across disciplines, institutions, and educational contexts.

Conclusion

This study proposed an AI competence framework comprising Technology, Impact, Ethics, Collaboration, and Self-Reflection. Integrating these dimensions enhances students’ AI competence, confidence, ethical awareness, and effective AI use in higher education.

Limitations

The framework requires validation with larger and more diverse samples and across different institutional and cultural contexts. The influence of educators' AI expertise on implementation and learning outcomes also requires further investigation.

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DEVELOPMENT AND VALIDATION OF AN ARTIFICIAL INTELLIGENCE-SUPPORTED MODEL FOR ENHANCING ANALYTICAL THINKING SKILLS AMONG UNIVERSITY STUDENTS

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Abstract. *The integration of artificial intelligence (AI) into higher education has created new opportunities for enhancing students' analytical thinking skills, which are essential for critical evaluation, problem-solving, and evidence-based decision-making. This study aims to develop and validate an AI-supported model designed to improve analytical thinking among university students. A mixed-methods research approach was employed, including model design, expert validation, and*

pedagogical experimentation involving control and experimental groups. The model's effectiveness was assessed through statistical analyses based on group mean values, effectiveness indicators, sample variance, standard error, confidence intervals, and knowledge assessment measures. The reliability and significance of the results were further examined using the chi-square (χ^2) criterion.

The findings indicate that students exposed to the AI-supported model demonstrated higher levels of analytical thinking than those in the control group. The experimental group achieved improved learning-quality indicators and higher average performance scores. Statistical results showed that the calculated χ^2 value exceeded the critical value, confirming significant differences between the groups. In addition, confidence interval and standard error analyses verified the reliability of the findings. The study concludes that the proposed AI-supported model is both pedagogically effective and statistically validated, providing a practical framework for strengthening analytical thinking skills and improving educational outcomes in higher education.

Keywords: Artificial Intelligence, Analytical Thinking Skills, Higher Education, Model Validation, Pedagogical Experiment.

Annotatsiya: Sun'iy intellektning (SI) oliy ta'limga integratsiyasi talabalarning tahliliy fikrlash ko'nikmalarini rivojlantirish uchun yangi imkoniyatlar yaratmoqda. Ushbu ko'nikmalar axborotni tanqidiy baholash, muammolarni hal qilish va dalillarga asoslangan qarorlar qabul qilishda muhim ahamiyatga ega. Tadqiqotning maqsadi universitet talabalarining tahliliy fikrlashini rivojlantirishga qaratilgan SI asosidagi modelni ishlab chiqish va validatsiya qilishdan iborat. Tadqiqotda modelni ishlab chiqish, ekspert baholash hamda tajriba va nazorat guruhlari ishtirokidagi pedagogik tajribani qamrab olgan aralash metodli yondashuv qo'llanildi. Model samaradorligi guruhlarining o'rtacha qiymatlari, samaradorlik ko'rsatkichlari, tanlanma dispersiyasi, standart xatolik, ishonch intervallari va bilimlarni baholash natijalari asosida statistik tahlil qilindi. Natijalarning ishonchligi va statistik ahamiyati xi-kvadrat (χ^2) mezonida yordamida qo'shimcha tekshirildi.

Natijalar SI asosidagi model bo'yicha ta'lim olgan talabalar nazorat guruhiga nisbatan yuqoriroq tahliliy fikrlash ko'rsatkichlariga erishganini ko'rsatdi. Tajriba guruhida ta'lim sifati ko'rsatkichlari va o'rtacha o'zlashtirish natijalari yuqori bo'ldi. Hisoblangan χ^2 qiymatining kritik qiymatdan yuqori bo'lishi guruhlar o'rtasidagi farqlarning statistik ahamiyatga ega ekanini tasdiqladi. Shuningdek, ishonch intervallari va standart xatolik tahlili natijalarning ishonchligini ko'rsatdi. Tadqiqot taklif etilgan modelning pedagogik samaradorligi va statistik asoslanganligini tasdiqlab, oliy ta'limda tahliliy fikrlash ko'nikmalarini rivojlantirish uchun amaliy asos yaratadi.

Kalit so'zlar: sun'iy intellekt, tahliliy fikrlash ko'nikmalari, oliy ta'lim, model validatsiyasi, pedagogik tajriba.

Аннотация; Интеграция искусственного интеллекта (ИИ) в высшее образование открывает новые возможности для развития аналитического мышления студентов, необходимого для критической оценки информации, решения проблем и принятия решений на основе фактических данных. Цель данного исследования — разработать и валидировать модель обучения с поддержкой ИИ, направленную на развитие аналитического мышления студентов. В исследовании применялся смешанный методологический подход, включающий разработку модели, экспертную оценку и педагогический эксперимент с участием экспериментальной и контрольной групп. Эффективность модели оценивалась на основе средних значений, показателей эффективности, выборочной дисперсии, стандартной ошибки, доверительных интервалов и результатов оценки знаний. Надёжность и статистическая значимость результатов дополнительно проверялись с использованием критерия хи-квадрат (χ^2).

Результаты показали, что студенты, обучавшиеся с использованием предложенной модели, продемонстрировали более высокий уровень аналитического мышления по сравнению с контрольной группой. В экспериментальной группе также были зафиксированы более высокие показатели качества обучения и средние результаты успеваемости. Расчётное

значение χ^2 превысило критическое значение, подтвердив статистически значимые различия между группами. Анализ доверительных интервалов и стандартной ошибки дополнительно подтвердил надёжность полученных результатов. В целом результаты свидетельствуют о педагогической эффективности и статистической обоснованности предложенной модели и создают практическую основу для развития аналитического мышления студентов в высшем образовании.

Ключевые слова: искусственный интеллект, аналитическое мышление, высшее образование, валидация модели, педагогический эксперимент.

I. INTRODUCTION

Artificial intelligence (AI) has become an important component of higher education, transforming how students access information, receive feedback, solve problems, and engage with learning activities. AI-powered technologies provide opportunities for personalized learning, immediate academic support, and interaction with diverse educational resources. These capabilities have increased interest in using AI not only as a technological tool but also as a means of supporting students' cognitive development.

Among higher-order cognitive skills, analytical thinking is particularly important for academic and professional development. It enables students to examine information systematically, identify relationships, evaluate evidence, formulate reasoned conclusions, and solve complex problems. AI-supported learning environments can facilitate these processes through data analysis, structured problem-solving, adaptive feedback, and reflective learning activities.

However, the growing availability of AI technologies does not automatically lead to improved analytical thinking. Their educational effectiveness depends on how they are integrated into teaching and learning processes. Despite the increasing use of AI in universities, there remains a need for pedagogically grounded models that connect AI-supported activities with specific cognitive outcomes and provide empirical evidence of their effectiveness.

Therefore, this study develops and validates an AI-supported model for enhancing analytical thinking skills among university students. The model integrates structured AI-assisted learning activities with pedagogical strategies designed to promote analytical reasoning and improve learning quality. Its effectiveness is examined through pedagogical experimentation and statistical analysis by comparing outcomes between experimental and control groups.

II. RELATED WORK

The application of Artificial Intelligence (AI) in higher education has received increasing attention for its potential to improve learning outcomes and support higher-order cognitive skills. Holmes, Bialik, and Fadel (2019) emphasized that AI can provide adaptive and personalized learning environments when integrated within pedagogically grounded frameworks [12]. Similarly, Luckin et al. (2016) highlighted the role of intelligent tutoring and data-driven feedback in supporting reasoning, engagement, and deeper learning.

A systematic review by Zawacki-Richter et al. (2019) identified personalized learning, automated assessment, and learning analytics as major applications of AI in higher education, while noting limited attention to higher-order thinking development. More recent studies have focused on generative AI. Kasneci et al. (2023) showed that tools such as ChatGPT can support learning and problem-solving when accompanied by critical evaluation, while Chan and Hu (2023) reported benefits for analytical and reflective thinking through personalized feedback.

Further research suggests that AI-supported learning can strengthen critical thinking and problem-solving when combined with appropriate instructional design. Zhai et al. (2024) emphasized active analytical engagement, while Mollick and Mollick (2024) described generative AI as a cognitive partner for exploring alternatives and evaluating evidence. Ninghardjanti et al. (2025) similarly reported positive effects when AI was integrated with reflective and structured learning activities. Trikoili, Tsamis, and Papageorgiou (2025) further demonstrated the potential of AI-assisted assessment for evaluating higher-order thinking and supporting feedback.

Collectively, these studies demonstrate the educational potential of AI but also indicate the need for more structured pedagogical approaches to developing analytical thinking in higher education.

III. METHODOLOGY

Development and Implementation of the AI-Supported Model

The proposed AI-supported model was designed to enhance students' analytical thinking through active learning, problem-solving, and reflective analysis. It integrates student-centered pedagogy with AI-assisted technologies to support information evaluation, evidence-based reasoning, and complex problem-solving[12].

The model incorporates SWOT analysis, case studies, problem-based learning, and AI-supported feedback. SWOT analysis promotes systematic evaluation and informed decision-making, while case studies engage students in interpreting real-world situations, comparing alternatives, and justifying solutions. Problem-based learning further supports collaborative analysis and evidence-based decision-making.

AI tools provide personalized recommendations, adaptive feedback, and learning support, facilitating independent and reflective learning. The model was implemented with the experimental group, and its effectiveness was evaluated through analytical thinking and learning outcomes. Statistical validation included mean values, effectiveness coefficients, variance, confidence intervals, and the chi-square (χ^2) criterion.

Figure 1. Structural Framework of the AI-Supported Analytical Thinking Development Model Based on the Case Study Method

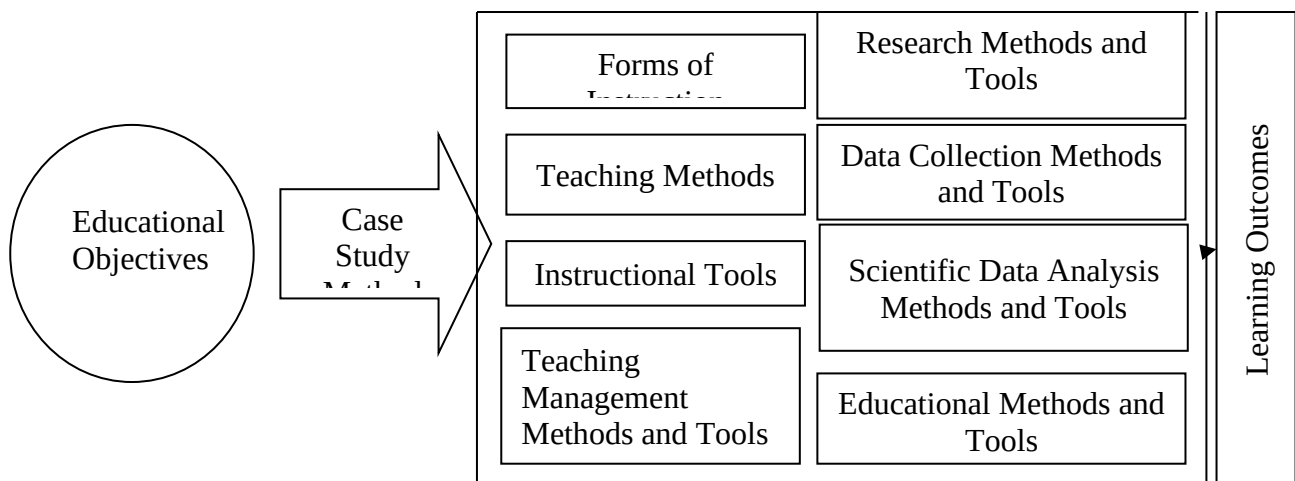
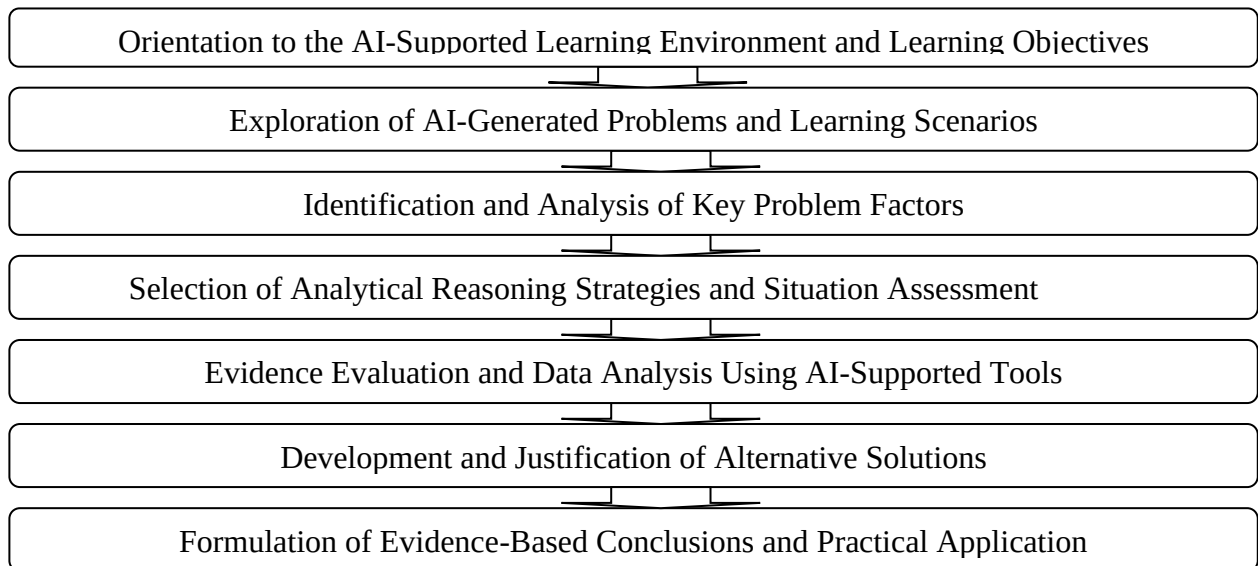


Figure 2. Process Framework for Developing Analytical Thinking Skills through an AI-Supported Learning Model



AI-Supported Learning Activities

The proposed model guides students from problem identification to evidence-based conclusions and practical application (Figure 2). Problem-solving, synectic, and reflective activities promote information synthesis, comparison of alternatives, and reasoned decision-making. AI tools provide personalized guidance and adaptive feedback to support higher-order analytical thinking.

Pedagogical Experiment

The experiment involved 353 undergraduate students from Turan University, Asian University of Technology, and Karshi State University, assigned to experimental and control groups under comparable conditions [10,11].

Baseline assessments examined analytical reasoning, evidence evaluation, problem-solving, decision-making, and attitudes toward AI-supported learning. The experimental group used AI-assisted problem-solving, case studies, SWOT analysis, and reflective tasks, while the control group received conventional instruction.

Effectiveness was assessed by comparing group outcomes using mean values, effectiveness coefficients, variance, standard error, confidence intervals, and Pearson's chi-square (χ^2) test. Table 2 further indicates differences across student groups, with creative-specialty students showing stronger performance in creativity, interest, and complex problem-solving.

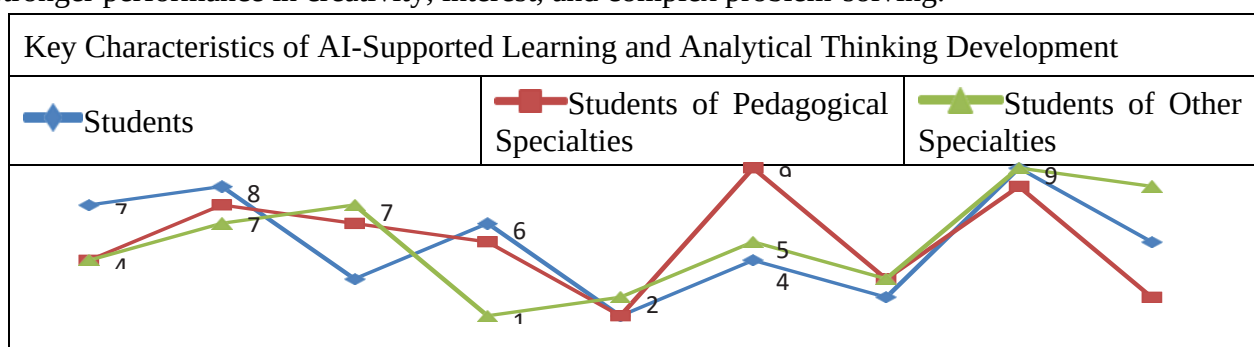


Figure 3. Students' Attitudes Toward AI-Supported Learning and Analytical Thinking Development

To evaluate the reliability and effectiveness of the proposed model, data from the three experimental stages were analyzed by comparing the experimental and control groups. Pearson's chi-square (χ^2) test was used to assess statistical significance, while mean values, effectiveness coefficients, variance, standard error, and confidence intervals were calculated to verify the stability and reliability of the results. $\bar{X} = \frac{1}{m} \sum_{i=1}^{n=3} n_i x_i$ $\bar{Y} = \frac{1}{n} \sum_{i=1}^{n=3} n_i y_i$ The formula was used to calculate the mean performance values of the experimental and control groups.

n – the number of students in the experimental group;

m – the number of students in the control group;

$\bar{X}$ – the mean analytical thinking score of the experimental group;

$\bar{Y}$ – the mean analytical thinking score of the control group. $n_i(x_i - \bar{x})$

The effectiveness coefficient was calculated based on the ratio of the mean achievement values $\eta = \frac{\bar{X}}{\bar{Y}}$

Sample Variance $D_n = \sum_{i=1}^{n=3} \frac{n_i(x_i - \bar{x})^2}{n-1}$, $D_m = \sum_{i=1}^{n=3} \frac{n_i(x_i - \bar{x})^2}{m-1}$, using the following formulas

Standard deviation $\tau_n = \sqrt{D_n}$, $\tau_m = \sqrt{D_m}$; measures of variation $\delta_n = \frac{\tau_n}{\bar{X}}$; $\delta_m = \frac{\tau_m}{\bar{Y}}$; were calculated using the following formulas.

Confidence intervals $\Delta_m = t_\gamma \cdot \frac{D_m}{\sqrt{m}}$; $\Delta_n = t_\gamma \cdot \frac{D_n}{\sqrt{n}}$;

The confidence interval was calculated for each indicator $\bar{X} - t_\gamma \cdot \frac{D_m}{\sqrt{m}} \leq \alpha_x \leq \bar{X} + t_\gamma \cdot \frac{D_m}{\sqrt{m}}$;
 $\bar{Y} - t_\gamma \cdot \frac{n}{\sqrt{n}} \leq \alpha_y \leq \bar{Y} + t_\gamma \cdot \frac{n}{\sqrt{n}}$;

The use of the χ^2 (chi-square) test in the present study necessitated testing the hypothesis that the population data derived from the educational process conform to a normal distribution.

For the purpose of comparing learning outcomes measured at the initial and final assessment stages of the experimental study, the mean achievement scores of the experimental and control groups

were determined. Here, $X = \frac{\sum x_i m_j}{N}$ represents the achievement score corresponding to the accepted performance levels (5 = high, 4 = medium, and 3 = low), m_j denotes the frequency of each score, and N indicates the total number of students involved in the experiment.

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Annotatsiya. Ushbu maqolada mobil ilovalar yordamida nemis tilini mustaqil o'rganishni tashkil etish masalasi IMRAD tuzilmasi asosida tadqiq etilgan. Maqolada mobil ta'lim (m-learning) tushunchasi, uning chet tili o'rganishdagi didaktik imkoniyatlari hamda Duolingo, Babbel, Busuu va Deutsche Welle'ning "Nicos Weg" kabi nemis tilini o'rgatuvchi mashhur mobil ilovalarning funksional imkoniyatlari qiyosiy tahlil qilingan. Tadqiqot uchun nemis tilini boshlang'ich (A1-A2) darajada o'rganayotgan 60 nafar respondent (talaba va kattalar) ishtirokida so'rovnoma va pedagogik kuzatuv o'tkazilgan bo'lib, ular 10 hafta davomida tanlangan mobil ilovalardan foydalangan holda mustaqil ta'lim olishgan. Natijalar shuni ko'rsatdiki, mobil ilovalar orqali muntazam (kuniga 15-20 daqiqa) shug'ullangan respondentlarning lug'at boyligi 10 hafta ichida o'rtacha 240 ta yangi so'zga oshgan, shuningdek ularning o'z-o'zini nazorat qilish va o'rganishga bo'lgan motivatsiyasi sezilarli darajada yuqori bo'lgan. Shu bilan birga, og'zaki nutq va grammatik tuzilmalarni chuqur o'zlashtirish borasida mobil ilovalarning imkoniyatlari cheklanganligi ham aniqlangan. Maqola yakunida mobil ilovalarni an'anaviy til o'qitish usullari bilan uyg'unlashtirish bo'yicha amaliy tavsiyalar berilgan.

Kalit so'zlar: mobil ta'lim, nemis tili, mustaqil ta'lim, mobil ilova, chet tilini o'rganish, m-learning, til ko'nikmalari.

Annotation. This article investigates the organization of independent German language learning through mobile applications within the IMRAD framework. The article examines the concept of mobile learning (m-learning), its didactic potential for foreign language acquisition, and comparatively analyzes the functional capabilities of popular German-learning mobile applications such as Duolingo, Babbel, Busuu, and Deutsche Welle's "Nicos Weg." For the study, a survey and pedagogical observation were conducted with 60 respondents (students and adults) learning German at the beginner level (A1-A2), who engaged in independent learning using selected mobile

applications over a 10-week period. The results show that respondents who studied regularly (15-20 minutes daily) through mobile applications increased their vocabulary by an average of 240 new words over 10 weeks, and their self-regulation and motivation for learning were notably higher. At the same time, the applications' capabilities for developing deep mastery of spoken language and grammatical structures were found to be limited. The article concludes with practical recommendations for integrating mobile applications with traditional language teaching methods.

Key words: mobile learning, German language, independent learning, mobile application, foreign language acquisition, m-learning, language skills.

Аннотация. В данной статье в рамках структуры IMRAD исследуется организация самостоятельного изучения немецкого языка с помощью мобильных приложений. В статье рассматривается понятие мобильного обучения (m-learning), его дидактический потенциал в изучении иностранного языка, а также проведён сравнительный анализ функциональных возможностей популярных мобильных приложений для изучения немецкого языка, таких как Duolingo, Babbel, Busuu и "Nicos Weg" от Deutsche Welle. Для исследования были проведены опрос и педагогическое наблюдение с участием 60 респондентов (студентов и взрослых), изучающих немецкий язык на начальном уровне (A1-A2), которые в течение 10 недель самостоятельно обучались с использованием выбранных мобильных приложений. Результаты показывают, что респонденты, регулярно занимавшиеся (15-20 минут ежедневно) с помощью мобильных приложений, увеличили свой словарный запас в среднем на 240 новых слов за 10 недель, а их самоконтроль и мотивация к обучению были заметно выше. Вместе с тем было установлено, что возможности мобильных приложений в развитии устной речи и глубокого освоения грамматических структур ограничены. В заключение статьи даны практические рекомендации по интеграции мобильных приложений с традиционными методами обучения языку.

Ключевые слова: мобильное обучение, немецкий язык, самостоятельное обучение, мобильное приложение, изучение иностранного языка, m-learning, языковые навыки.

KIRISH

Zamonaviy raqamli texnologiyalarning rivojlanishi chet tillarini o'rganish usullarida tub o'zgarishlarni keltirib chiqardi. Mobil qurilmalarning keng tarqalishi va internetga kirish imkoniyatlarining oshishi bilan mobil ta'lim (mobile learning, m-learning) chet tilini mustaqil o'rganishning muhim vositasiga aylandi. Nemis tili — dunyoda eng ko'p o'rganiladigan tillardan biri bo'lib, uni o'rganish uchun Duolingo, Babbel, Busuu, Memrise kabi mobil ilovalar millionlab foydalanuvchilar tomonidan qo'llanilmoqda.

Mobil ilovalarning afzalligi ular vaqt va joydan qat'i nazar, foydalanuvchiga o'ziga qulay tezlikda o'rganish imkonini berishida namoyon bo'ladi. Biroq bunday mustaqil o'rganish usulining haqiqiy pedagogik samaradorligi, xususan tilning turli ko'nikmalari (lug'at, grammatika, og'zaki nutq, tinglab tushunish) bo'yicha, hali yetarlicha ilmiy asoslangan emas.

Tadqiqotning maqsadi — mobil ilovalar orqali nemis tilini mustaqil o'rganishning didaktik imkoniyatlari va cheklovlarini empirik tarzda baholash hamda bunday o'rganish usulini samarali tashkil etish bo'yicha tavsiyalar ishlab chiqishdan iborat. Tadqiqot vazifalari: 1) mobil ta'lim tushunchasi va uning chet tili o'rganishdagi nazariy asoslarini yoritish; 2) nemis tilini o'rgatuvchi yetakchi mobil ilovalarning funksional imkoniyatlarini tavsiflash; 3) respondentlar ishtirokida pedagogik kuzatuv o'tkazish; 4) natijalar asosida amaliy tavsiyalar shakllantirish.

MATERIAL VA METODLAR

Tadqiqot uchun nemis tilini boshlang'ich (A1-A2) darajada o'rganayotgan 60 nafar respondent (35 nafar oliy ta'lim talabasi va 25 nafar kattalar toifasidagi mustaqil o'rganuvchi) tanlab olindi. Respondentlar tasodifiy tarzda uch guruhga bo'lindi: birinchi guruh Duolingo ilovasidan,

ikkinchi guruh Babel ilovasidan, uchinchi guruh esa Deutsche Welle'ning "Nicos Weg" ilovasidan foydalangan holda 10 hafta davomida kuniga o'rtacha 15-20 daqiqa mustaqil shug'ullangan.

Tadqiqot metodologiyasi quyidagi tarkibiy qismlardan iborat bo'ldi:

1) dastlabki til testi — respondentlarning boshlang'ich lug'at va grammatika bilimini aniqlash uchun;

2) 10 haftalik kuzatuv — ilovadagi statistik ma'lumotlar (o'rganilgan so'zlar soni, bajarilgan mashqlar, davomiylilik) orqali;

3) yakuniy til testi — lug'at boyligi, grammatika va tinglab tushunish ko'nikmalarini qayta baholash uchun;

4) so'rovnoma — respondentlarning sub'ektiv baholari, motivatsiyasi va qiynalgan jihatlarini o'rganish uchun.

Qo'shimcha ravishda, respondentlarning bir qismi (15 nafar) bilan chuqurlashtirilgan intervyu o'tkazilib, ular og'zaki nutq va grammatik tuzilmalarni o'zlashtirishdagi qiyinchiliklari haqida batafsil fikr-mulohaza berishgan.

NATIJALAR

10 haftalik tadqiqot davomida barcha uch guruh respondentlarining lug'at boyligi sezilarli darajada oshdi: Duolingo guruhida o'rtacha 265 ta, Babel guruhida o'rtacha 230 ta va "Nicos Weg" guruhida o'rtacha 225 ta yangi so'z o'zlashtirildi (umumiy o'rtacha ko'rsatkich — 240 ta so'z). Duolingo guruhining nisbatan yuqori natijasi ushbu ilovaning o'yinlashtirilgan (gamification) tuzilishi — ball to'plash, kunlik seriyalar (streaks) va boshqa motivatsion elementlar — bilan bog'liq ekanligi aniqlandi.

Grammatika bo'yicha yakuniy test natijalari lug'at ko'rsatkichlariga qaraganda kamroq o'sish ko'rsatdi: barcha guruhlarda o'rtacha o'sish 15-22 foiz oralig'ida bo'ldi, bu esa mobil ilovalarning qisqa, bo'lakli mashqlar formati murakkab grammatik qoidalarni chuqur tushuntirish uchun yetarli emasligini ko'rsatadi. "Nicos Weg" ilovasi video-dialoglarga asoslangan tuzilmasi tufayli tinglab tushunish ko'nikmasini rivojlantirishda boshqa ikki ilovaga nisbatan biroz yaxshiroq natija (o'sish 28%) ko'rsatdi.

So'rovnoma va intervyu natijalari shuni ko'rsatdiki, respondentlarning 78 foizi mobil ilovalar orqali o'rganishni "qiziqarli" va "motivatsion" deb baholadi, biroq 64 foizi og'zaki nutq amaliyoti (real suhbat) yetishmasligidan shikoyat qildi. Respondentlarning aksariyati (71%) mobil ilovalarni faqat qo'shimcha vosita sifatida, an'anaviy til kursi yoki til sherigi bilan muloqot amaliyoti bilan birgalikda qo'llash zarurligini ta'kidladi.

MUHOKAMA

Olingan natijalar mobil ilovalarning lug'at boyligini oshirish va o'rganishga bo'lgan motivatsiyani kuchaytirishda samarali vosita ekanligini tasdiqlaydi, bu xulosa xalqaro tadqiqotlarda ham keng tan olingan. Ayniqsa, o'yinlashtirish elementlarining (gamification) o'rganish davomiyligi va motivatsiyaga ijobiy ta'siri alohida ta'kidlash lozim.

Biroq grammatika va og'zaki nutq ko'nikmalarini chuqur rivojlantirishdagi cheklovlar mobil ilovalarning tabiatidan kelib chiqadi — ular odatda qisqa, takrorlanuvchi mashqlar formatiga asoslangan bo'lib, bu format murakkab grammatik tushunchalarni tizimli tushuntirish yoki jonli muloqot amaliyotini to'liq almashtira olmaydi. Bu natija "aralash ta'lim" (blended learning) yondashuvining, ya'ni mobil ilovalarni an'anaviy dars mashg'ulotlari, til sherigi bilan muloqot yoki onlayn suhbat klublari bilan birgalikda qo'llashning, chet tilini o'rganishda eng samarali strategiya ekanligini ko'rsatadi.

Ta'lim muassasalari va til o'quv markazlari uchun bu natijalar shuni anglatadiki, mobil ilovalarni rasmiy o'quv dasturiga qo'shimcha (uyga vazifa yoki mustaqil ish) sifatida integratsiya qilish, shu bilan birga auditoriya mashg'ulotlarida og'zaki nutq amaliyotiga alohida vaqt ajratish tavsiya etiladi.

XULOSA

O'tkazilgan tadqiqot natijasida quyidagi xulosalarga kelindi:

1. Mobil ilovalar orqali muntazam mashg'ulot nemis tilini o'rganuvchilarning lug'at boyligini sezilarli darajada (10 haftada o'rtacha 240 ta so'z) oshiradi.
2. O'yinlashtirish elementlariga ega ilovalar (masalan, Duolingo) o'rganishga bo'lgan motivatsiya va davomiylikni oshirishda alohida samaradorlik ko'rsatadi.
3. Mobil ilovalarning grammatikani chuqur o'zlashtirish va og'zaki nutq ko'nikmalarini rivojlantirishdagi imkoniyatlari cheklangan bo'lib, bu ularning tabiiy formatidan kelib chiqadi.
4. Video-dialogga asoslangan ilovalar ("Nicos Weg" kabi) tinglab tushunish ko'nikmasini rivojlantirishda nisbatan yuqori samaradorlik ko'rsatadi.
5. Nemis tilini samarali o'rganish uchun mobil ilovalarni an'anaviy til o'qitish usullari va jonli muloqot amaliyoti bilan uyg'unlashtiruvchi "aralash ta'lim" (blended learning) yondashuvi eng maqbul strategiya hisoblanadi.

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RAQAMLI IQTISODIYOT SHAROITIDA KORXONALARNING INNOVATSION RIVOJLANISHI

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Annotatsiya: Ushbu maqolada raqamli iqtisodiyot sharoitida korxonalarning innovatsion rivojlanishining nazariy va amaliy jihatlarini tadqiq etilgan. Zamonaviy iqtisodiyotda raqamli texnologiyalar, avtomatlashtirish, sun'iy intellekt, elektron tijorat, katta ma'lumotlar va raqamli boshqaruv tizimlaridan foydalanish korxonalar faoliyatining samaradorligini oshirishning muhim omiliga aylanmoqda. Maqolada innovatsiyaning iqtisodiy mohiyati, korxonalarning innovatsion faolligiga ta'sir etuvchi omillar, raqamli transformatsiyaning ishlab chiqarish va xizmat ko'rsatish sohalaridagi o'rni hamda O'zbekistonda raqamli iqtisodiyotni rivojlantirish bo'yicha amalga oshirilayotgan islohotlar tahlil qilingan.

Kalit so'zlar: raqamli iqtisodiyot, innovatsiya, innovatsion rivojlanish, raqamli transformatsiya, korxona, raqamli texnologiyalar, sun'iy intellekt, elektron tijorat, startup, avtomatlashtirish, raqobatbardoshlik, innovatsion salohiyat.

Аннотация. В данной статье исследуются теоретические и практические аспекты инновационного развития предприятий в условиях цифровой экономики. В современной экономике использование цифровых технологий, автоматизации, искусственного интеллекта, электронной коммерции, больших данных и цифровых систем управления становится важным фактором повышения эффективности деятельности предприятий. В статье проанализирована экономическая сущность инноваций, факторы, влияющие на инновационную активность предприятий, роль цифровой трансформации в производственной сфере и сфере услуг, а также проводимые в Узбекистане реформы по развитию цифровой экономики.

Ключевые слова: цифровая экономика, инновации, инновационное развитие, цифровая трансформация, предприятие, цифровые технологии, искусственный интеллект, электронная коммерция, стартап, автоматизация, конкурентоспособность, инновационный потенциал.

Annotation

This article examines the theoretical and practical aspects of the innovative development of enterprises in the context of the digital economy. In the modern economy, the use of digital technologies, automation, artificial intelligence, e-commerce, big data, and digital management systems has become an important factor in increasing the efficiency of enterprises. The article analyzes the economic essence of innovation, the factors influencing the innovative activity of enterprises, the role of digital transformation in the manufacturing and service sectors, as well as the reforms being implemented in Uzbekistan to develop the digital economy.

Keywords: digital economy, innovation, innovative development, digital transformation, enterprise, digital technologies, artificial intelligence, e-commerce, startup, automation, competitiveness, innovative potential.

KIRISH

Hozirgi kunda jahon iqtisodiyotida yuz berayotgan globallashtirish, raqamlashtirish va texnologik o'zgarishlar korxonalar faoliyatiga qo'yiladigan talablarni tubdan o'zgartirmoqda. Bozor iqtisodiyoti sharoitida korxonaning uzoq muddatli faoliyati faqat ishlab chiqarish hajmining ortishi yoki mavjud resurslardan foydalanish bilan belgilanmaydi. Korxona yangi texnologiyalarni o'zlashtirishi, iste'molchilar ehtiyojining o'zgarishiga tez moslashishi, mahsulot va xizmatlar sifatini muntazam takomillashtirishi hamda raqobatdoshlardan ustun bo'lishga intilishi lozim.

Innovatsiyalar iqtisodiy taraqqiyotning muhim omillaridan biri sifatida ishlab chiqarish samaradorligini oshirish, yangi mahsulotlar yaratish, mehnat unumdorligini ko'paytirish va yangi bozorlarni egallash imkonini beradi. Ayniqsa, raqamli texnologiyalarning rivojlanishi innovatsion jarayonlarni yanada jadallashtirmoqda.

Raqamli iqtisodiyot sharoitida ma'lumotlar, texnologiyalar va bilimlar korxonaning muhim strategik resurslariga aylanmoqda. Korxonalar mijozlar to'g'risidagi ma'lumotlarni tahlil qilish, ishlab chiqarish jarayonlarini avtomatlashtirish, elektron savdo kanallaridan foydalanish va masofaviy xizmatlarni rivojlantirish orqali yangi iqtisodiy imkoniyatlarga ega bo'lmoqda.

Shu sababli raqamli iqtisodiyot sharoitida korxonalarning innovatsion rivojlanishini ta'minlash, mavjud imkoniyatlardan samarali foydalanish va innovatsion faoliyatga to'sqinlik qilayotgan muammolarni aniqlash dolzarb masalalardan biri hisoblanadi.

MATERIYALLAR VA USULLAR.

Maqolada raqamli iqtisodiyot sharoitida korxonalarning innovatsion rivojlanish xususiyatlarini o'rganish va innovatsion faoliyatni takomillashtirish bo'yicha ilmiy-amaliy takliflar ishlab chiqishdan iborat.

Maqolada umumilmiy va maxsus iqtisodiy tadqiqot usullaridan foydalanildi. Jumladan:

tizimli tahlil;

statistik tahlil;

taqqoslash usuli;

dinamik qatorlar tahlili;

induksiya va deduksiya;

umumlashtirish;

sabab-oqibat aloqalarini aniqlash usullari.

Tadqiqot jarayonida innovatsion faoliyatning asosiy yo'nalishlari, korxonalarda raqamli texnologiyalarni qo'llash imkoniyatlari, innovatsion rivojlanishga ta'sir etuvchi ichki va tashqi omillar hamda mavjud muammolar tahlil qilindi.

MUHOKAMA VA NATIJALAR

Innovatsiya — bu iqtisodiy yoki ijtimoiy qiymat yaratishga xizmat qiladigan yangi yoki takomillashtirilgan mahsulot, xizmat, texnologiya, jarayon, boshqaruv usuli yoki biznes modelining amaliyotga joriy etilishidir.

Innovatsiyani ixtirodan farqlash muhim. Ixtiro yangi g'oyaning yoki texnik yechimning yaratilishini anglatadi, innovatsiya ushbu yangilikning amaliyotga tatbiq etilib, iqtisodiy yoki ijtimoiy natija berishini anglatadi.

Korxonalarda innovatsiyalar quyidagi asosiy shakllarda namoyon bo'ladi:

mahsulot innovatsiyasi — yangi mahsulot yaratish yoki mavjud mahsulot xususiyatlarini sezilarli yaxshilash;

jarayon innovatsiyasi — ishlab chiqarish yoki xizmat ko'rsatish jarayonlarini takomillashtirish;

tashkiliy innovatsiya — boshqaruv va mehnatni tashkil etishning yangi shakllarini joriy qilish;

marketing innovatsiyasi — mahsulotni targ'ib qilish, sotish va mijozlar bilan aloqa qilishning yangi usullaridan foydalanish;

raqamli innovatsiya — raqamli texnologiyalar asosida yangi mahsulot, xizmat yoki biznes jarayonlarini yaratish.

Innovatsiyalarni mazkur shakllarga ajratish korxonalarga o'zining rivojlanish strategiyasini aniq belgilash imkonini beradi.

Raqamli transformatsiyaning korxonalar faoliyatidagi o'rni

Raqamli transformatsiya korxonaning mavjud faoliyatini oddiygina kompyuterlashtirishdan ko'ra kengroq tushunchadir. U biznes jarayonlarini ma'lumotlar, raqamli platformalar va zamonaviy texnologiyalar asosida qayta tashkil etishni anglatadi.

Masalan, ishlab chiqarish korxonasida raqamli texnologiyalar yordamida xomashyo harakati, ishlab chiqarish hajmi, mahsulot sifati va ombor zaxiralari real vaqt rejimida nazorat qilinishi mumkin.

Raqamli iqtisodiyot sharoitida ishlab chiqarish jarayonlarini avtomatlashtirish korxonaning raqobatbardoshligini oshirishning muhim yo'nalishlaridan biridir.

Avtomatlashtirilgan ishlab chiqarish tizimlari yordamida takrorlanuvchi jarayonlar tezroq va aniqroq bajariladi. Bu esa ishlab chiqarishdagi xatolarni kamaytirish, mahsulot sifatini oshirish va resurslardan samarali foydalanish imkonini beradi.

Sun'iy intellekt texnologiyalari esa korxonalar faoliyatida yanada keng imkoniyatlarni yaratmoqda. Jumladan, sun'iy intellekt yordamida:

- talabni prognoz qilish;
- mijozlar xatti-harakatini tahlil qilish;
- ishlab chiqarishdagi nosozliklarni oldindan aniqlash;
- logistika jarayonlarini optimallashtirish;
- mahsulot sifatini nazorat qilish;
- moliyaviy xavflarni baholash;
- mijozlarga avtomatlashtirilgan xizmat ko'rsatish mumkin.

Kelajakda sun'iy intellekt korxonalarning strategik boshqaruv tizimining ajralmas qismiga aylanishi mumkin.

Raqamli iqtisodiyot korxonalarga an'anaviy savdo kanallaridan tashqari yangi bozor imkoniyatlarini ham yaratmoqda. Elektron tijorat orqali korxonalar geografik jihatdan uzoq bo'lgan iste'molchilarga ham mahsulot va xizmatlarini taklif qilish imkoniyatiga ega.

Raqamli marketing esa mijozlar ehtiyojini aniqroq o'rganish imkonini beradi. Ijtimoiy tarmoqlar, qidiruv tizimlari, mobil ilovalar va elektron pochta marketingi orqali korxona o'z mahsulotini nisbatan kam xarajat bilan keng auditoriyaga yetkazishi mumkin.

Bu, ayniqsa, kichik biznes subyektlari uchun muhim. Chunki kichik korxonalar yirik kompaniyalarga qaraganda marketing uchun kamroq moliyaviy resursga ega bo'lishi mumkin. Raqamli marketing esa ularga bozorning muayyan segmentlariga aniq yo'naltirilgan reklama olib borish imkonini beradi.

Startaplar innovatsion iqtisodiyotning muhim tarkibiy qismlaridan biridir. Ularning asosiy xususiyati yangi g'oya yoki texnologiyaga asoslangan biznes modelini qisqa muddatda sinovdan o'tkazish va bozorga olib chiqishga intilishidir.

Innovatsion rivojlanish faqat texnologiya sotib olish bilan cheklanmaydi. Korxonada innovatsion boshqaruv madaniyatini shakllantirish ham muhim.

Innovatsion boshqaruv quyidagi tamoyillarga asoslanishi lozim:

1. yangiliklarga ochiqlik;
2. xodimlarning tashabbuslarini qo'llab-quvvatlash;
3. tajriba va yangi g'oyalarni sinovdan o'tkazish;
4. ilmiy-tadqiqot ishlariga investitsiya kiritish;
5. raqamli ma'lumotlardan foydalanish;
6. uzoq muddatli strategik rejalashtirish;
7. innovatsion loyihalar samaradorligini baholash.

Korxona rahbariyati innovatsiyani qo'shimcha xarajat sifatida emas, balki kelajakdagi iqtisodiy ustunlikni yaratadigan investitsiya sifatida baholashi kerak.

Innovatsion rivojlanishdagi muammolar

O'zbekistonda innovatsion va raqamli rivojlanish uchun keng imkoniyatlar mavjud bo'lsa-da, ayrim muammolar ham saqlanib qolmoqda.

Birinchidan, ayrim korxonalarda zamonaviy texnologiyalarni sotib olish uchun moliyaviy resurslarning yetishmasligi kuzatiladi.

Ikkinchidan, raqamli texnologiyalar bilan ishlaydigan malakali mutaxassislar yetishmovchiligi ayrim korxonalar uchun muammo bo'lib qolmoqda.

Uchinchidan, ilmiy ishlanmalarni tijoratlashtirish mexanizmlari yanada takomillashtirilishi zarur.

To'rtinchidan, kichik biznes subyektlarining raqamli texnologiyalarga kirish imkoniyatlari yirik korxonalarga nisbatan cheklangan bo'lishi mumkin.

Beshinchidan, raqamli transformatsiya bilan bir qatorda kiberxavfsizlik, ma'lumotlarni himoya qilish va raqamli xavflarni boshqarish masalalariga ham yetarlicha e'tibor qaratish zarur.

XULOSA

Xulosa qilib aytganda, raqamli iqtisodiyot sharoitida korxonalarining innovatsion rivojlanishi mamlakat iqtisodiy taraqqiyotining muhim shartlaridan biri hisoblanadi. Innovatsiyalar korxonalarga ishlab chiqarish xarajatlarini kamaytirish, mehnat unumdorligini oshirish, mahsulot sifatini yaxshilash, yangi bozorlarni egallash va raqobatbardoshlikni mustahkamlash imkonini beradi.

Shunday qilib, raqamli iqtisodiyot va innovatsiyalar O'zbekiston korxonalarining yangi iqtisodiy rivojlanish bosqichiga o'tishida muhim strategik vosita bo'lib xizmat qiladi. Innovatsion faoliyatni tizimli ravishda qo'llab-quvvatlash, ilm-fan va ishlab chiqarish integratsiyasini kuchaytirish hamda raqamli texnologiyalardan samarali foydalanish mamlakat iqtisodiyotining uzoq muddatli raqobatbardoshligini ta'minlashga xizmat qiladi.

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МЕТОДОЛОГИЯ ПОДГОТОВКИ БУДУЩЕГО УЧИТЕЛЯ К ИСПОЛЬЗОВАНИЮ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА В ШКОЛЕ

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Аннотация. Работа посвящена усовершенствованию процесса подготовки педагога к использованию искусственного интеллекта. На основе обзора отечественных и зарубежных работ и документов, опубликованных в этой сфере делается вывод о недостаточной разработанности способов подготовки специалистов, знающих тонкости работы с искусственным интеллектом. Разработана методология подготовки, объединяющая принципы, правила, подходов и методов, с помощью которых организуется, практическая или познавательная деятельность обучаемых и объясняющая, почему именно они применяются и как ведут к результату.

Ключевые слова: искусственный интеллект, подготовка, методология, субъект-субъектное отношение, взаимодействие субъектов.

Abstract. *The study is devoted to the enhancement of the process of preparing educators for the use of artificial intelligence. Based on a review of domestic and international research and policy documents published in this field, it is concluded that methods of training specialists with a deep understanding of the intricacies of working with artificial intelligence remain insufficiently developed. A methodology of preparation has been developed, integrating principles, rules, approaches, and methods through which learners' practical and cognitive activities are organized. This methodology also explains why these specific elements are applied and how they lead to the intended outcomes.*

Keywords: *artificial intelligence, training, methodology, subject–subject relations, interaction of subjects.*

Annotatsiya. *Ушбу иш ўқитувчиларни сунъий интеллектдан фойдаланишга ўқитиш жараёнини такомиллаштиришга бағишланган. Ушбу соҳада нашр этилган маҳаллий ва халқаро тадқиқотлар ва ҳужжатларни кўриб чиқиш асосида сунъий интеллект билан ишлашнинг нозик жиҳатларини тушунадиган мутахассисларни тайёрлаш усуллари етарлича ишлаб чиқилмаган деган хулосага келинган. Талабаларнинг амалий ва когнитив фаолиятини ташиқил қилиш учун қўлланиладиган тамойиллар, қоидалар, ёндашувлар ва усулларни бирлаштирган, бу усуллар нима учун қўлланилишини ва улар қандай натижаларга олиб келишини тушунтирувчи ўқув методологияси ишлаб чиқилган.*

Kalit so‘zlar: *сунъий интеллект, ўқитиш, методология, субъект-субъект муносабатлари, субъектларнинг ўзаро таъсири.*

ВВЕДЕНИЕ

Актуальность темы. В современности, имеет место перерождение педагогики из практической профессии в глубоко теоретическую дисциплину. Нынешняя молодежь все меньше и меньше готова довольствоваться приобретением неких абстрактных знаний, сухими объяснениями об определенном устройстве мира. Их можно получить всего за несколько минут, пользуясь современными средствами интернета.

Нынешняя молодежь хочет активного исследования и установления собственной системы отношений с действительностью. Хотят сознательно формировать модели взаимоотношений между собой.

Педагог, являясь заложником существующих систем, больше чем кто-либо другой ставит вопросы о профессиональном выживании в быстро меняющихся условиях, о новых способах взаимодействия с обучаемыми и с предметом обучения. Ему, педагогу, все сложнее отвечать на главный профессиональный вопрос: зачем?

Отсутствие практических ответов на этот вопрос, созидательного осмысления педагогической действительности, влечет за собой формирование отношения к обучаемому как к объекту процесса, которое, в свою очередь, приводит к возникновению парадоксальной для педагогики формулы: Они мешают нам их обучить.

Понятно, что такая модель не способствуют установлению особо теплых отношений между обучаемыми и педагогами.

Куда двигаться педагогической системе?

Консерватизм и авторитаризм традиционной школы в современной педагогической системе «школа-вуз» стал явным препятствием развитию человека в условиях необходимости творческого подхода к решению проблем, выдвигаемых обществом [3]. В настоящее время наблюдается хаотичный рост инноваций, попытки управления которыми не носят системного характера. Происходит развитие многообразия форм и методов непрерывного образования, причем каждый из них является способом решения только конкретных задач. Все это привело к отставанию образования от реальной жизни, обострению противоречий между непрерывно возрастающим объемом изменения структуры знаний, необходимых человеку, и ограниченными возможностями овладения ими в традиционных образовательных системах.

С другой стороны, в современности информация стала производственной силой. Информация очень разнообразна и может быстро устаревать. Невозможно предсказать, что же понадобится в скором будущем каждому человеку.

С третьей стороны, как указано в [2]: “Несмотря на то, что современность мрачна и нестабильна, мы все вступили в эпоху массового цифрования и искусственного интеллекта. Быстрое развитие искусственного интеллекта уже влияет на поведение и самоидентификацию населения, особенно молодежи. Цифровые технологии быстро меняют глобальный рынок труда.”

Изменения, происходящие в мире и в том числе Казахстане, ставят перед человечеством задачу: “каковы будут последствия развития искусственного интеллекта, его использования?”.

По этому поводу, в разделе 4 документа [1] сказано “Ключевым ориентиром системы образования на ближайшие семь лет станет создание в организациях образования условий для того, чтобы не только поднимать уровень образованности человека, но и создать атмосферу, которая будет способствовать формированию высоконравственной и всесторонне развитой личности, обладающей ключевыми компетенциями выпускника, способного реализовать творческий потенциал в динамичных социально-экономических условиях, как в собственных жизненных интересах, так и в интересах казахстанского общества. Новые траектории развития образования на 2023 – 2029 годы будут основываться на модели педагогической поддержки обучающегося, где педагог выступает фасилитатором образовательного процесса, позволяя ребенку самостоятельно познавать мир, раскрывать собственный потенциал и приобретать знания с учетом личных интересов и потребностей”.

То есть, “необходимо подготовить специалистов, знающих тонкости работы с искусственным интеллектом. Иначе быть не может. Мы должны действовать смело. В противном случае последствия отставания будут очень серьезными” [3].

Проблеме подготовки специалистов для работы с искусственным интеллектом посвящены множества работ в мире и Казахстане. Например, в [4,6] Влияние высоких технологий на трансформации в сфере образования и инновационного развития в образовании и педагогике. В работах [5,10,11,12] рассмотрены разные аспекты использования искусственного интеллекта в образовании. Работы [7,8,9] посвящены вопросы подготовки будущего педагога к использованию элементов искусственного интеллекта.

Социальная и педагогическая значимость и недостаточная разработанность, способов подготовки специалистов, знающих тонкости работы с искусственным интеллектом, показывает актуальности разработки методологии подготовки будущих педагогов к использованию искусственного интеллекта.

Здесь под методологией понимается система принципов, правил, подходов и методов, с помощью которых организуется научная, практическая или познавательная деятельность обучающихся; общая стратегия, философия и логика, которая объединяет эти методы и объясняет, почему именно они применяются и как ведут к результату.

Цель исследования: выявление, обоснование методологических основ подготовки будущих учителей к использованию искусственного интеллекта в школе.

МАТЕРИАЛЫ И МЕТОДЫ

1.1. Сущность подготовки будущего учителя к использованию искусственного интеллекта в школе

Подготовка будущего учителя к использованию искусственного интеллекта в школе - это процесс, состоящий из следующих этапов:

1 этап. Основные компетенции:

- Формируются знания и умения в своей предметной области.

- Педагог осваивает традиционные методы обучения. Здесь важно знать, что без предметных компетенций ИИ будет не инструментом, а просто игрушкой.

2 этап. Цифровая грамотность:

- Овладение базовыми навыками ИКТ (работа с платформами, онлайн ресурсами).
- Понимание принципов цифровой безопасности. Это мост между компетентностью и ИИ: учитель учится работать в цифровой среде.

3 этап. Интеграция ИИ в компетенцию: Учитель начинает использовать ИИ для развития своей компетенции:

- создание задач,
- адаптивные тесты,
- анализ успеваемости учащихся.

Искусственный интеллект становится усилителем уже существующих знаний.

4 этап. Методическая подготовка :

- разработка сценариев применения ИИ в обучении.
- формирование умений создавать благоприятную атмосферу самообучения:
- поддержка мотивации,
- индивидуальные траектории,
- безопасная обратная связь.

5 этап. Рефлексия и критическое мышление:

- Учитель учит себя и учащихся проверять ответы ИИ.
- Формируется компетентность сознательного использования ИИ.

Таким образом, компетентность и готовность использовать ИИ объединяются в единую педагогическую позицию, становится частью профессионального совершенствования учителя.

На основе многолетнего опыта наших коллег заявляем: на сегодняшний день именно переход от обучения к подготовке будущих учителей к использованию искусственного интеллекта в школе, являясь наиболее адекватным воплощением человеческого подхода, его переводом на язык практики, подготовка будущих учителей к использованию искусственного интеллекта в школе, дает ответы на многообразные вопросы, которые ставит современная педагогика; предлагает адекватные, оперативные и профессиональные решения тех проблем, которые стоят перед современной педагогической системой. Да и не только педагогика, а весь современный мир.

1. Подготовка будущих учителей к использованию искусственного интеллекта в школе представляет собою субъект-субъектное отношение между всеми участниками педагогического процесса как взаимодействие. Один из главных признаков подготовки будущих учителей к использованию искусственного интеллекта в школе – субъектность: все без исключения участники процесса являются субъектами.

С точки зрения подготовки будущих учителей к использованию искусственного интеллекта в школе, главным залогом успеха педагогического процесса является субъективная заинтересованность во взаимодействии будущих учителей. В частности, принцип подготовке будущих учителей к использованию искусственного интеллекта в школе таков: для того, чтобы было воспринято содержание, необходимо не бороться с субъектными проявлениями заинтересованности, а опираться на них.

Субъектно-субъектные отношения – это не индивидуальный подход к будущему учителю. Индивидуальный подход является примером объектно-субъектной модели. В индивидуальном подходе субъектом педагогического процесса является педагог, а будущий учитель – объектом приложения этой субъектности. Ведь при всем том, что педагог видит в будущем учителе человека и уважает его, корректируя в зависимости от свойств его субъектности, способы ведения процесса и взаимоотношения; все решения - как об изучаемом

материале, так и о способе изучения этого материала, по-прежнему находятся в его руках. Педагог всеми силами помогает будущему учителю позаниматься, старается сделать для него процесс более комфортным, однако это вовсе не означает, что он позволяет себе активно влиять на процесс, созидать его, выбирать субъективно близкие будущему учителю аспекты знаний.

Даже самое активное вовлечение познавателя в процесс познания не обещает его превращения в субъект. И системы, в которых создаются условия для выражения будущими учителями своих пожеланий, остаются субъектно-объектными. Субъектно-субъектные отношения предполагают активное взаимодействие между всеми субъектами процесса познания, их совершенное субъектное равенство.

Субъектно-субъектные отношения не ставят педагога в зависимость от прихотей будущего учителя, как и вообще не умаляют его профессионального статуса. Подготовка будущих учителей к использованию искусственного интеллекта в школе не отменяет процесс получения знаний, поэтому роль педагога остается такой же центральной. Более того, субъектность педагога является не менее важной, чем субъектность любого другого субъекта процесса. Это не пожелание, а требование, поскольку субъектность педагога – важнейший инструмент процесса.

Таким образом, подготовка будущих учителей к использованию искусственного интеллекта в школе использует субъектно-субъектное взаимодействие как главный способ познания. Иными словами, подготовка будущих учителей к использованию искусственного интеллекта в школе – наиболее адекватное практическое воплощение человеческого подхода, его перевод в действие.

2. Подготовка будущих учителей к использованию искусственного интеллекта в школе основывается на субъективном интересе познавателя и педагога.

Если нет субъективного интереса – нет и процесса подготовки будущих учителей к использованию искусственного интеллекта в школе. Во главу угла ставится убежденность в том, что процесс должен быть интересен. Если субъекту (педагогу) не интересно, приходится использовать средства, чуждые в подготовке будущих учителей к использованию искусственного интеллекта в школе. То есть искать манипулятивные способы воздействия на познавателя, которые призваны заставить его позаниматься, несмотря на отсутствие интереса. А это уже само по себе превращает его в объект и разрушает процесс.

Только в том случае, когда будущему учителю и педагогу интересно, педагог может позволить себе быть человеческим. Значит наличие интереса одинаково важно и для будущего учителя и для педагога. Педагогу необходимо научиться ловить и удерживать этот интерес.

3. Субъективность интереса в подготовке будущих учителей к использованию искусственного интеллекта в школе влечет за собой взаимодействия субъектов педагогического процесса с множеством его факторов.

Здесь, в первую очередь, подразумевается субъективное отношение субъекта ко всему, что происходит.

Действительно, процесс обучения в подготовке будущих учителей к использованию искусственного интеллекта в школе происходит постольку, поскольку субъект обнаруживает и развивает связи между самим собой и познаваемым, а также исследуемым материалом. Вне связи с субъектностью нет познания. Взаимодействие человека с самим собой, с другими субъектами, со знанием, с окружающим миром, обеспечивает его вовлеченность с одной стороны, и понимание им процесса – с другой. Именно в субъективном отношении берет свое начало та самая внутренняя мотивация.

Чистого знания не существует. Оно может быть только субъектным, вписанным в структуру внутреннего мира человека.

4. Необходимым условием для возникновения и развития процесса подготовки будущих учителей к использованию искусственного интеллекта в школе является выбор субъекта. Выбор сегодня – едва ли не самый главный фактор существования, без которого

просто не обойтись, не выжить. Что человек выбирает, как, по какому принципу – это отнюдь не простые вопросы. Именно способности выбирать необходимо научиться любому человеку в наши дни.

Подготовка будущих учителей к использованию искусственного интеллекта в школе базируется на наличии постоянного выбора познавателя на протяжении всего процесса познания. Какой аспект материала меня, больше интересует? Как я взаимодействую с предметом? Какой способ познания и исследования мне ближе? Наконец, каково мое отношение к происходящему?

Посредством выбора в различных его формах, будущий учитель исследует происходящее с ним и со всей группой так же, как исследует и любой познавательный материал. В подготовке будущих учителей к использованию искусственного интеллекта в школе выбор закладывается в структуру педагогического процесса, становится самостоятельной его категорией, его средством.

5. Основными методами подготовки будущих учителей к использованию искусственного интеллекта в школе являются познания и исследование. Будущий учитель на протяжении всего процесса познания ведет многоплановое исследование при помощи различных инструментов. Принципиальным моментом является тот факт, что исследование происходит на разных уровнях – не только интеллектуальном, но и прикладном, жизненном и т. д. подготовка будущих учителей к использованию искусственного интеллекта в школе опирается на непосредственные открытия, происходящие индивидуально, в паре, группе и т. п. Большая часть открытий должна происходить «здесь и сейчас».

6. Подготовка будущих учителей к использованию искусственного интеллекта в школе – среда созидательная и призвана отражать и созидать мировоззрение будущего учителя, реагировать на изменения, происходящие в обществе. Будучи созидательной средой, она обладает собственным оригинальным инструментарием, системой приемов и техник. Существуют и объективные законы, знание и способность пользоваться которыми делает из познавателя настоящего человека – интеллектуального полисубъекта.

Роль подготовки будущих учителей к использованию искусственного интеллекта в школе прослеживается во всех сферах жизнедеятельности человека: он опосредует успешность как познавательной, так и профессиональной деятельности, им определяется адекватность поведения и эффективность взаимоотношений с окружающими.

При этом интеллектуальный полисубъект рассматривается в качестве интегрального фактора целостного субъективного развития. В этой связи объективной потребностью, продиктованной реалиями настоящего и перспективными запросами, является становление интеллектуальной способности познавателя, который призван осуществлять интеллектуальную способность подрастающего поколения. Одной из приоритетных задач становится формирование интеллектуальной субъективности познавателя, выступающей проекцией интеллектуальной способности субъекта на педагогическую область деятельности.

Тем самым, подготовка будущих учителей к использованию искусственного интеллекта в школе влечет за собой существенное изменение модели процесса познания, осуществляемого в педагогических системах. Инновационность субъективистического подхода сопряжена с кризисом в понимании человечности в условиях информационного общества, интернационализации и глобализации педагогических систем и ведет к трансформации основополагающей цели, констатирующей институт педагогики - созидания субъекта, субъекта как носителя педагогических ценностей общества.

1.2. РОЛЬ ПЕДАГОГА В ПОДГОТОВКЕ БУДУЩИХ УЧИТЕЛЕЙ К ИСПОЛЬЗОВАНИЮ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА В ШКОЛЕ.

Цели созидательных программ по эпистемам предполагают не только возможность будущим учителям самостоятельно работать и мыслить, но и не допускать со стороны

педагога безразличного отношения к свободному времяпрепровождению будущих учителей в школе.

На начальных этапах созидательного процесса будущие учителя должны иметь возможность достичь большего на занятиях (помощь учителя), чем при самостоятельной работе. К примеру, вовлечение их в процесс определения вопроса и выбора задания влияет на степень их активности и процесса познания, так как наблюдается определенный контроль направления. Процесс обсуждения вопросов должен сопровождаться как с помощью педагога и других будущих учителей, так и индивидуально. Педагог, к примеру, могут помочь в следующей классификации предлагаемых будущим учителям вопросов: интересно знать, хочу знать, важно для понимания основной темы познания. Данная система классификации в дальнейшем служит опорой, которой будущие учителя могут воспользоваться, выбрав соответствующие вопросы для исследования. Так, педагоги должны анализировать все вопросы, убирая неподходящие с тем, чтобы оставшиеся в итоге вопросы соответствовали целям познания.

По мере достижения успеха, будущим учителям больше не требуется такая трепетная поддержка, и они, наконец, могут работать индивидуально. Для того, чтобы продвигать данный метод познания, педагоги должны оказывать серьезную поддержку, которая будет постепенно сокращаться. Только когда поддержка будет сведена к нулю, педагог может сказать, что добился планируемого результата. Педагог, который видит себя только в качестве “координатора”, не заслуживает права называться педагогом.

Углубление в познании эпистем зависит от способности будущих учителей, насколько хорошо новые знания усвоены и взаимодействуют с предварительными знаниями. Педагоги должны постоянно оценивать будущих учителей так, чтобы развивать потенциал и определять дальнейшие шаги в процессе познания.

В созидательном процессе педагогу необходимо:

- создавать атмосферу доверия между педагогом и будущим учителем, самими будущими учителями, вовлекать их всех в познавательную деятельность;
- выслушивать мнение каждого будущего учителя и признавать важность использования уже имеющихся знаний, способностей для их развития;
- стимулировать и развивать познавательных способностей будущих учителей с помощью тщательно подобранных заданий и видов деятельности;
- создавать у будущих учителей уверенности, ответственности, активности и направлять на самоанализ, рефлексия и инновационную деятельность;
- моделировать проблемы и примеры стратегий их решения путем, который понятен будущим учителям;
- организовывать, управлять и планировать индивидуальную, парную, групповую (фронтальную и в малых группах) и коллективную (пары сменного состава) формы деятельности, эффективно использовать материалы, ресурсы и дополнительные материалы для проведения запланированных занятий, согласно установленным целям;
- использовать простой, понятный язык для объяснения будущих учителей идей, для инструктажа, в использовании подсказок, в разъяснении значений слов и похвале познавателей
- поддерживать познания будущих учителей посредством оценивания их результатов;
- поощрять исследовательскую деятельность и активное познание, основанные на исследованиях будущих учителей;
- развивать способности критического мышления будущих учителей;
- создавать условия, поддерживающие будущих учителей в самооценивании и саморазвитии, ведущие к индивидуальной траектории развития;
- составлять открытые задания с учетом индивидуальных особенностей и потребностей будущих учителей;

- наблюдать за будущими учителями и предоставлять обратную связь. На занятии можно использовать различные задания для созидании атмосферы сотрудничества, благоприятной образовательной среды, укрепления межсубъектных отношений, повышения самооценки будущих учителей, ситуации успеха, и т.д.

Развитие познавателей как субъектов саморегулируемого и самостоятельного познания.

Для того, чтобы будущие учителя смогли непрерывно трансформироваться и были способными решать задачи в контексте непрерывно меняющегося мира, необходимо, чтобы они узнали, как действовать и развивать метапредметные способности самостоятельного познания. Развитие саморегулируемых и метакогнитивных способностей познавателей является ключевыми показателями их успешности в будущей профессиональной деятельности. Поэтому при технологии созидания необходимо особое внимание уделять способностям самоорганизации.

Самоорганизация относится к процессу «саморегулирования», в котором будущие учителя развивают способности понимать, контролировать и отслеживать их опыт познания через процессы метапознания. Обеспечение того, что они понимали критерии, по которым их работу будут оценивать и развивать способностей, самостоятельного оценивания своего прогресса в соответствии с установленными критериями являются важными аспектами в развитии саморегулируемых познавателей. XXI век требует развития независимых саморегулируемых интеллектуальных полисубъектов и следовательно перед педагогами стоит задача рассмотреть, как они могут добиться этого в индивидуальном познании, а также оказания поддержки им в достижении этой цели.

Самоорганизация будущих учителей при конструктивном обучении осуществляется посредством использования алгоритма, полученного посредством конкретизации обобщенного алгоритма решения задачи, описанного в параграфе “Интеллект”, преобразует процесс созидания интеллектуального полисубъекта в активный процесс конструирования математических структур.

Данный алгоритм показывает, что при созидательном процессе используются кроме предположений о наличии и характере причинно-следственных связей между тремя переменными в виде ближайших зон развития, используются закономерности, которые включают их в качестве собственных компонентов, и, вытекающие из теории формирования понятия и умственной действия П.Я. Гальперина. Явления, процессы, происходящие в процессе созидания, объясняются с помощью этих закономерностей. Поэтому в процессе созидания строго контролируется, что указанные законы имеют обязательную силу.

В инфологической школе жизни интеллектуальная полисубъектность рассматривается как единственная зависимая переменная, а осуществление процесса созидания – как воздействие. Здесь созидательная технология – согласованная система средств, способов, необходимых и достаточных для определения актуальной зоны развития и качественного уровня знаний и способностей, технологий созидания посредством вовлечения будущих учителей в познавательный процесс, с последующей адаптацией его к новым ситуациям – как единственное воздействие. В технологии созидания ориентировочная основа не меняется, а дополняется в соответствии с последовательностью тем программы, совокупность процедур, необходимых для развития мышления, порядок и количество заданий, время формирования. Тем самым, развитие мышления каждого будущего учителя осуществляется по единой траектории.

Процесс созидания, реализованный в соответствии с приведенным алгоритмом, превращает таких действий, как: осознания своих возможностей, целей, силу, способностей; свободного определения своего поведения; активизации своих механизмов регулирования; критического анализа своих индивидуальных особенностей, из необходимости в потребность.

Однако, в действительности этого может и не случится, если будущий учитель не хочет познания. То есть необходимо его мотивировать.

Мотивация познавателей. Неудача будущего учителя в познании часто является следствием неудачной попытки или отказом педагога мотивировать его, а череда неудач может отвлечь от предмета даже способных будущих учителей

Подходы к мотивации будущих учителей часто классифицируются как внешние или внутренние, хотя, возможно, следует их рассматривать, как континуум, а не строгую дихотомию. Подходы к содействию внешней мотивации (на основе факторов, которые являются внешними по отношению к будущему учителю) основаны на принципах бихевиоризма, и опираются на использование обратной связи (в том числе похвалы или упрёка), чтобы обеспечить положительное подкрепление желательных моделей поведения и отрицательного подкрепления нежелательных. Педагоги часто используют внешний подход для определения и поощрения хорошей работы, и, в то же время, наказывать тех, кто работает не в полную меру своих возможностей. Однако частое использование внешней мотивации обязательно снижает внутреннюю мотивацию. Ремотивация будущего учителя при угасании его внутренней мотивации является сложной задачей.

Внутренняя мотивация должна рассматриваться, как более доброжелательная и успешная, чем внешняя мотивация, так как в результате и признак внутренней мотивации - познаватели хотят участвовать и добиваться прогресса во взаимодействии в процессе познания, то есть появляется интерес к предмету.

Для этого необходимо, как можно шире, практиковать коллективное и минигрупповое познание, когда будущий учитель, работая в парах сменного и малых группах состава, сначала самостоятельно без помощи партнера изучают и усваивают материал, затем делятся со своим партнером, а после меняют партнеров.

Как создать атмосферу подлинной увлечённости во взаимодействии в процессе познания?

Для этого существует два способа:

1. способ “метод двух вопросов”, суть которого заключается в следующем:

а). Как бы ты оценил мой результат?

В случае невысокой оценки ставится второй вопрос?

б). Как бы ты улучшил мой результат?

Этот способ “связывает” педагога и будущих учителей, создает богатую обратную связь с их стороны и положительную среду познания. Наблюдая за ним во время его ответа на вопросы, и используя при этом положительные сигналы телодвижения, можно плодотворно управлять его поведением, сделать познание настолько активным, побуждающим и целенаправленным насколько это возможно. Важным моментом в приведенном способе вовлечения к взаимодействию является недопущение отрицательной оценки суждений партнера.

2. Способ “метод возвышения будущего учителя”. Этот коллективный способ с участием оптимиста, пессимиста и реалиста, являясь обобщением метода двух вопросов, предназначен для определения оптимистом - какие факты использованы познавателем, чтобы можно было сказать, что он добился успеха; пессимистом – чего не хватает в работе, ее слабое и проблемное места; предложения реалистом - ресурсов, позволяющих улучшение достижения будущего учителя, эффективность его работы.

Ведение метода возвышения будущего учителя:

1. Будущий учитель презентует свою работу.

2. Он оценивает свою работу.

3. Оптимист, пессимист и реалист высказывают свои мнения и оценивают работу.

4. Будущий учитель выражает согласие или несогласие с оценками.

5. В случае согласия педагог делает заключительные выводы.

Замечание: В случае не соответствия оценок участников коллективного оценивания, педагог ставит вопрос “Почему?”. Участник должен обосновать свое высказывание. Для того, чтобы оценки были объективными педагог заранее предупреждает о том, что “у автора необоснованной оценки его заключительная оценка будет снижена.”

Таким образом, методы двух вопросов и возвышение будущего учителя делают интеллектуала полисубъектом.

1.3. ПРАВИЛА ПОДГОТОВКИ БУДУЩИХ УЧИТЕЛЕЙ К ИСПОЛЬЗОВАНИЮ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА В ШКОЛЕ.

Правила изучения контента созидательного познания.

1. Усвоить язык контента (ключевые слова). Составить словарь, каждое новое понятие многократно проговорить.

2. Понять структуру, логику контента, использовать системный подход. К каждой теме составить таблицы, матрицы, алгоритмы, опорные схемы и конспекты.

3. Усваивать не только информацию, но и метод ее изучения как основу способов профессиональной деятельности. Организовывать для себя публичное выступление, участвовать в групповой работе, усваивая правила и технологию взаимодействия.

4. Оценивать собственный результат после каждого самостоятельного и группового занятия. Оценивать усвоенную информацию и метод, которым овладели, а также степень интереса.

5. Относиться к познавательной деятельности эмоционально. Положительные эмоции повышают эффективность деятельности. В познавательной деятельности приобретает ценности, которые радует человека как всякое приобретение.

Правила взаимодействия.

- Показать будущим учителям, что вы имеется в виду, а не просто сказать им. Беседовать с ними, а не отпускать им замечания.

- Провоцировать их на совершение ошибок - чему они научились в результате?

- Поддерживать, но не «делать» за них, позволить будущим учителям взять свое развитие под собственный контроль.

- Просить их ссылаться на материалы для подкрепления критического мышления.

- Всегда предлагать баланс сил (все, что выполнено правильно) и вопросы для рассмотрения (все, что выполнено неправильно). Устанавливать конкретные, измеримые, достижимые, реалистичные и ограниченные во времени и четко указывать на то, что они могут сделать, чтобы положительным образом проработать и выбрать вопросы для рассмотрения. Убедится, что контролируется прогресс каждого будущего учителя.

- Хвалить за их действия и попытки: каждый реагирует на похвалу!

- Слушать и сопереживать: некоторые посчитают такие изменения в практике тревожными, таким следует помочь и поддержать.

- Содействовать энтузиазму. Важно «продавать» им новые инициативы, пропагандировать положительное влияние, которое будет оказано на познание.

- Давать время будущим учителям на чтение, решение, оценку: создайте атмосферу доверия, концентрируя внимание на мелких аспектах практики.

- Построить доверительные отношения с теми, которыми вы работаете, будьте открыты и честны. Старайтесь поддерживать, а не оценивать их.

- Поддерживать контакт с ними, используя встречи лицом к лицу, электронные письма, видеочат, письма. Положительно реагировать на способы, при помощи которых будущие учителя оценивают вашу поддержку, независимо от того, составлены ли они в письменном виде или же устным виде.

- Увязывать стратегии с контекстом, предлагая проведение ситуационного исследования или сценарии, которые вы сами разработали или же которые основаны на анонимных жизненных ситуациях.

- Задавать вопросы, которые заставят будущих учителей думать, способствуют развитию способности мышления, например, Кто? Что? Где? Почему? Как? Когда?

Правила групповой работы (тренинг)

Овладение технологией групповой работы позволит приобрести способность обсуждения проблем с небольшой группой людей, с которыми человек сталкивается ежедневно.

1. Все члены группы одинаково активны.
2. Каждый высказывается тезисно. О чем? Что?
3. Никто не выступает оценочно (все равны).
4. Вопросы задаются на понимание («Правильно ли я вас понял...»).
5. Высказывания записываются и обобщаются по плану:
 - 1) почему это актуально?
 - 2) что должно быть иначе?
 - 3) как этого достичь?

Правила публичного выступления

От способности выступать перед аудиторией в определенной степени зависит авторитет каждого человека. Этой способностью нельзя овладеть в течение короткого времени. Способность публичного выступления развивается длительное время и не всегда успешно. Будучи познавателем, полезно организовывать для себя тренинги, используя следующий алгоритм осознания своего действия.

- Формулирование позиции (в какой роли выступаю?).
- Актуализация (почему думаю, что это всем интересно и что меня будут слушать?).
- Тезисное представление новой информации (о чем?/что?).
- Способ общения - сочетание вербальных и невербальных средств.
- Рефлексия собственного действия («И в заключение...»).

Правила письменного ответа на вопрос.

Выполнение письменного ответа (реферат, эссе, курсовая или дипломная работа) - это тренинг в оформлении собственных мыслей по законам логики.

Алгоритм изложения содержания ответа на письменный вопрос.

1. Смысл первичного ключевого слова.
2. Смысл следующих ключевых слов.
3. Главное ключевое слово как система с элементами и связями.
4. Актуальность заявленной проблемы - роль, значение, важность (для чего?).
5. Из чего состоит система - составные части, связи и отношения (что содержит?).
6. Использование на практике - способы, методы, механизмы (как можно использовать?).
7. Результат анализа (или обсуждения) проблемы.

- Поддерживайте здоровые профессиональные связи с другими педагогами. Планируйте возможности встречи и обсуждения своей практики и практики познавателей, с которыми вы работаете. Какой «хорошей практикой» вы можете поделиться и чему вы можете научиться у других?

- Предлагайте познавателям выбирать пути, которые они могут использовать в группе, не позволяйте им сосредоточить свое внимание лишь на одной. Позвольте им принять решение относительно путей, которую бы они хотели использовать, опираясь на потребности и способности познавателей, с которыми им предстоит работать (по возможности).

ЗАКЛЮЧЕНИЕ

Использование ИИ в педагогической профессиональной деятельности - это перспективное направление, открывающее новые возможности для улучшения качества образования и развития учащихся. Однако успешная интеграция ИИ в образовательный процесс требует не только понимания его потенциала, но и знания его ограничений и трудностей.

Во-первых, мы должны быть осторожны с вопросами академической честности. Возможность использования искусственного интеллекта для совершения академического мошенничества поднимает важную этическую проблему. Разработка эффективных мер контроля за использованием ИИ в учебных целях и внедрение строгой политики обеспечения академической честности является неотъемлемой частью успешной работы с этой технологией.

Во-вторых, важно помнить о несовершенстве ИИ. ИИ, как и любая другая технология, не лишен недостатков и может совершать ошибки. Поэтому важно, чтобы учителя обладали не только знаниями о возможностях ИИ, но и способностью критически мыслить, анализировать результаты и принимать взвешенные решения на основе данных.

Несмотря на эти трудности, не следует забывать, что ИИ является мощным инструментом, способным значительно улучшить образовательный процесс. Педагогу необходимо работать над применением ИИ в образовательном процессе, способствующем развитию знаний, способностей и ценностей учащихся. Это включает в себя индивидуализацию обучения, повышение заинтересованности и учебной активности, а также создание благоприятной образовательной среды, в которой каждый учащийся может получить доступ к своим потенциальным возможностям.

Таким образом, интеграция ИИ в образовательный процесс является важным шагом, требующим, помимо технических знаний, понимания этических и педагогических аспектов. Для качественного образования должна быть задействована работа с соблюдением принципов академической честности и с учетом интересов педагогов и учащихся.

Эти вопросы требуют специальной методики подготовки будущего учителя информатики к использованию искусственного интеллекта в школе.

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RAQAMLI TA'LIM SHAROITIDA RUS TILINI O'QITISH SAMARADORLIGINI OSHIRISH

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Filologiya va tillarni o'qitish: rus tili yo'nalishi talabasi

Annotatsiya: *Ushbu maqolada raqamli ta'lim muhitida rus tilini o'qitish samaradorligini oshirishning zamonaviy pedagogik va metodik imkoniyatlari tahlil qilinadi. Bugungi kunda ta'lim jarayonining raqamlashtirilishi xorijiy va rus tilini o'rganishning an'anaviy usullarini yangi texnologiyalar bilan uyg'unlashtirishni talab qilmoqda. Raqamli platformalar, multimedia vositalari, interaktiv topshiriqlar, elektron lug'atlar, sun'iy intellekt asosidagi dasturlar va masofaviy ta'lim texnologiyalaridan foydalanish o'quvchilarning tilga bo'lgan qiziqishini oshirish, mustaqil ta'lim olish imkoniyatlarini kengaytirish hamda kommunikativ kompetensiyasini rivojlantirishga xizmat qiladi. Maqolada raqamli vositalardan foydalanishning afzalliklari bilan bir qatorda, pedagogik nazorat, axborot xavfsizligi, raqamli savodxonlik va texnologiyaga haddan tashqari bog'lanib qolish kabi muammolar ham ko'rib chiqiladi. Shuningdek, rus tili darslarini raqamli muhitda samarali tashkil etish bo'yicha amaliy metodik tavsiyalar ishlab chiqiladi.*

Kalit so'zlar: *raqamli ta'lim, rus tili, zamonaviy pedagogika, innovatsion texnologiyalar, interaktiv metodlar, raqamli kompetensiya, kommunikativ kompetensiya, sun'iy intellekt, multimedia, elektron ta'lim.*

Аннотация: *В данной статье анализируются современные педагогические и методические возможности повышения эффективности обучения русскому языку в цифровой образовательной среде. В настоящее время цифровизация образовательного процесса требует сочетания традиционных методов изучения иностранных и русского языков с новыми технологиями. Использование цифровых платформ, мультимедийных средств, интерактивных заданий, электронных словарей, программ на основе искусственного интеллекта и технологий дистанционного обучения способствует повышению интереса учащихся к языку, расширению возможностей самостоятельного обучения и развитию*

коммуникативной компетенции. В статье наряду с преимуществами использования цифровых средств рассматриваются такие проблемы, как педагогический контроль, информационная безопасность, цифровая грамотность и чрезмерная зависимость от технологий. Также разработаны практические методические рекомендации по эффективной организации уроков русского языка в цифровой среде.

Ключевые слова: цифровое образование, русский язык, современная педагогика, инновационные технологии, интерактивные методы, цифровая компетентность, коммуникативная компетентность, искусственный интеллект, мультимедиа, электронное обучение.

Abstract: This article analyzes modern pedagogical and methodological opportunities for improving the effectiveness of teaching the Russian language in a digital educational environment. Nowadays, the digitalization of the educational process requires the integration of traditional methods of learning foreign and Russian languages with new technologies. The use of digital platforms, multimedia tools, interactive tasks, electronic dictionaries, artificial intelligence-based programs, and distance learning technologies contributes to increasing students' interest in the language, expanding opportunities for independent learning, and developing communicative competence. Along with the advantages of using digital tools, the article also examines such challenges as pedagogical control, information security, digital literacy, and excessive dependence on technology. In addition, practical methodological recommendations for effectively organizing Russian language lessons in a digital environment are developed.

Keywords: digital education, Russian language, modern pedagogy, innovative technologies, interactive methods, digital competence, communicative competence, artificial intelligence, multimedia, e-learning.

KIRISH

XXI asr ta'lim tizimida tub o'zgarishlar davri sifatida namoyon bo'lmoqda. Raqamli texnologiyalarning kundalik hayotning barcha sohalariga jadal kirib kelishi ta'lim jarayoniga ham yangi talablarni qo'ymoqda. Endilikda ta'lim oluvchiga faqat tayyor bilimni yetkazishning o'zi yetarli emas. Zamonaviy ta'limning asosiy vazifalaridan biri o'quvchini axborotni izlash, tahlil qilish, undan to'g'ri foydalanish, mustaqil fikrlash va o'z bilimni amaliyotda qo'llashga o'rgatishdan iborat.

Til ta'limi, xususan, rus tilini o'qitish jarayonida raqamli texnologiyalarning ahamiyati yanada yuqori. Chunki tilni o'rganish faqat grammatik qoidalarni yodlash bilan cheklanmaydi. Samarali til ta'limi tinglab tushunish, o'qish, yozish va og'zaki nutq ko'nikmalarining birgalikda rivojlanishini talab qiladi. Raqamli vositalar esa ushbu ko'nikmalarni bir vaqtning o'zida shakllantirish uchun keng imkoniyat yaratadi.

Raqamli ta'limning rus tili darslaridagi imkoniyatlari

Raqamli ta'lim rus tilini o'rganuvchi uchun an'anaviy dars chegaralarini kengaytiradi. Oddiy dars jarayonida o'quvchi ma'lum vaqt va makon bilan chegaralangan bo'lsa, raqamli ta'lim unga istalgan vaqtda bilim olish, topshiriqlarni qayta bajarish va o'z xatolarini tahlil qilish imkonini beradi.

Ayniqsa, multimedia vositalari rus tilini o'qitishda katta ahamiyatga ega. Video, audio, animatsiya va interaktiv materiallar orqali o'quvchi rus tilining tabiiy qo'llanish holatlarini kuzatishi mumkin. Elektron lug'atlar ham til o'rganish jarayonining muhim vositalaridan biridir. Interaktiv test va mashqlar esa o'quvchiga o'z bilimni tezkor tekshirish imkonini beradi.

Rus tilini o'qitishda sun'iy intellektdan foydalanish

So'nggi yillarda sun'iy intellekt texnologiyalarining rivojlanishi til ta'limiga ham yangi imkoniyatlar olib kirdi. Sun'iy intellekt asosidagi vositalardan rus tilini o'rgatishda matn yaratish, grammatik xatolarni aniqlash, lug'at boyligini oshirish, suhbat mashqlarini tashkil etish va yozma nutqni takomillashtirish maqsadida foydalanish mumkin.

Sun'iy intellektdan foydalanishda eng muhim masala — texnologiyani o'qituvchining o'rnini bosuvchi vosita emas, balki ta'limni qo'llab-quvvatlovchi yordamchi sifatida ko'rishdir. Chunki til

o'rganish jarayonida insoniy muloqot, o'qituvchining pedagogik yondashuvi, motivatsiyasi va individual nazorati muhim ahamiyatga ega.

Kommunikativ kompetensiyani rivojlantirishda raqamli vositalarning o'rni

Rus tilini o'qitishning asosiy maqsadlaridan biri o'quvchining real kommunikativ vaziyatlarda tildan foydalana olish qobiliyatini shakllantirishdir. Shu nuqtayi nazardan, raqamli texnologiyalar katta imkoniyatlarga ega.

Onlayn muloqot, audio va videokonferensiyalar, virtual dialoglar hamda rolli topshiriqlar orqali o'quvchilar rus tilida fikr almashish imkoniyatiga ega bo'ladilar. "Do'konda", "Universitetda", "Mehmonxonada", "Shifokor qabulida" kabi real hayotga yaqin vaziyatlar asosida dialoglar tashkil etish o'quvchilarning amaliy nutqini rivojlantiradi.

Raqamli ta'limda individual yondashuv

An'anaviy ta'limda bir guruhdagi barcha o'quvchilarga bir xil topshiriq berilishi odatiy hol. Biroq o'quvchilarning bilim darajasi, qiziqishi va o'zlashtirish tezligi turlicha bo'ladi. Raqamli ta'lim esa individual yondashuvni amalga oshirish uchun qulay sharoit yaratadi.

Bilimi yuqori bo'lgan o'quvchiga murakkabroq matn va ijodiy topshiriqlar berish, qiynalayotgan o'quvchiga esa qo'shimcha tushuntirish va sodda mashqlar taqdim etish mumkin. Bu usul o'quvchining o'z imkoniyatiga mos sur'atda rivojlanishiga yordam beradi.

Raqamli ta'limning mavjud muammolari

Raqamli texnologiyalarning afzalliklari ko'p bo'lsa-da, ularni ta'lim jarayoniga nazoratsiz va metodik maqsadsiz joriy etish kutilgan natijani bermasligi mumkin.

Birinchi muammo — o'quvchining texnologiyaga haddan tashqari bog'lanib qolishidir. Ikkinchi muammo — raqamli savodxonlik darajasining turlicha bo'lishidir. Uchinchi muammo — axborotning ishonchliligidir. To'rtinchi muammo — sun'iy intellektidan noto'g'ri foydalanish. Shuning uchun o'quvchida mustaqil fikrlash, axborotni tanqidiy baholash va texnologiyadan mas'uliyatli foydalanish ko'nikmalarini shakllantirish zarur.

Rus tili darslarini raqamli muhitda samarali tashkil etish bo'yicha tavsiyalar

Raqamli texnologiyalardan foydalanishning samarasi texnologiyaning o'ziga emas, undan qanday foydalanilishiga bog'liq. Shu sababli rus tili o'qituvchisi har bir raqamli vositani aniq pedagogik maqsad asosida tanlashi kerak.

Darsning boshlang'ich bosqichida qisqa video yoki interaktiv savollardan foydalanib, o'quvchilarning mavzuga qiziqishini oshirish mumkin. Yangi mavzuni tushuntirishda elektron taqdimot, audio va vizual materiallardan foydalanish maqsadga muvofiq. Mustahkamlash bosqichida interaktiv testlar va amaliy mashqlar, yakuniy bosqichda esa ijodiy topshiriqlar hamda kommunikativ vaziyatlardan foydalanish yaxshi natija beradi.

Eng muhimi, raqamli texnologiya darsning maqsadiga xizmat qilishi kerak. Texnologiya va an'anaviy pedagogik metodlarning oqilona uyg'unligi eng samarali natijani beradi.

XULOSA

Xulosa qilib aytganda, raqamli ta'lim rus tilini o'qitish jarayonini zamonaviylashtirish, ta'lim oluvchilarning faolligini oshirish va ularning kommunikativ kompetensiyasini rivojlantirish uchun katta imkoniyat yaratadi. Multimedia vositalari, elektron lug'atlar, interaktiv topshiriqlar, onlayn muloqot platformalari va sun'iy intellektga asoslangan texnologiyalar rus tilini o'rganish jarayonini yanada qiziqarli, moslashuvchan va individual yo'naltirilgan holga keltirishi mumkin.

Biroq raqamlashtirishning o'zi ta'lim sifatining kafolati emas. Uning samaradorligi, avvalo, o'qituvchining metodik mahorati, raqamli kompetensiyasi, o'quvchining faolligi va tanlangan texnologiyaning pedagogik maqsadga mosligiga bog'liq.

Bugungi ta'lim tizimida eng maqbul yondashuv — an'anaviy pedagogik tajriba va zamonaviy raqamli imkoniyatlarni qarama-qarshi qo'yish emas, balki ularni yagona ta'lim strategiyasi doirasida uyg'unlashtirishdir.

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RAQAMLASHTIRISH JARAYONLARINING HUDUDIIY MEHNAT BOZORI DINAMIKASIGA TA'SIRINI FAZOVIIY EKONOMETRIK TAHLILI.

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Annotatsiya: Ushbu ilmiy maqolada raqamli iqtisodiyot omillarining hududiy mehnat bozori ko'rsatkichlariga ta'sir darajasi Fazoviy Durbin modeli (SDM) yordamida chuqur o'rganilgan. 2011–2025-yillardagi hududiy ma'lumotlar asosida olib borilgan ekonometrik tahlillar mintaqalardagi internet qamrovi, AKT investitsiyalari va raqamli ko'nikmalar nafaqat o'z hududida, balki qo'shni hududlarda ham bandlik o'sishiga ijobiy ta'sir ko'rsatishini (spillover effektini) isbotlagan. Shuningdek, tadqiqotda inson kapitalining raqamli kompetensiyalari asosiy drayver ekanligi aniqlanib, 2030-yilgacha bo'lgan hududiy bandlik dinamikasi prognoz qilingan.

Kalit so'zlar: Raqamli iqtisodiyot, hududiy bandlik, fazoviy avtokorrelyatsiya, Fazoviy Durbin modeli, AKT investitsiyalari, inson kapitali, ekonometrik prognoz.

Abstract: This research paper investigates the impact of digital economy factors on regional labor market performance using the Spatial Durbin Model (SDM). Based on regional panel data for 2011–2025, the econometric analysis demonstrates that internet coverage, ICT investments, and digital skills exert a significant positive spillover effect on employment growth across neighboring regions as well. Furthermore, the study identifies digital human capital as a primary growth driver and provides medium-term forecasts for regional employment dynamics up to 2030.

Keywords: Digital economy, regional employment, spatial autocorrelation, Spatial Durbin Model, ICT investments, human capital, econometric forecast.

Аннотация: В данной научной статье с использованием пространственной модели Дурбина (SDM) подробно исследовано влияние факторов цифровой экономики на показатели регионального рынка труда. На основе региональных панельных данных за 2011–2025 годы эконометрический анализ доказал, что интернет-покрытие, инвестиции в ИКТ и цифровые навыки оказывают значительный положительный эффект перелива (spillover) на рост занятости в соседних регионах. Кроме того, в исследовании определено цифровое человеческий капитал в качестве ключевого драйвера роста и построены среднесрочные прогнозы динамики региональной занятости до 2030 года.

KIRISH

Jahon iqtisodiyotining raqamli transformatsiyasi mehnat bozori arxitekturasini tubdan o'zgartirib, bandlik tuzilmasi, kasbiy malaka talablari va hududiy mehnat taqsimotida mutlaqo yangi qonuniyatlarni yuzaga keltirmoqda. Axborot-kommunikatsiya texnologiyalari (AKT) va raqamli infratuzilmaning rivojlanishi bir tomondan an'anaviy ish o'rinlarining qisqarishiga olib kelsa, ikkinchi tomondan masofaviy bandlik, IT-outsourcing va frilansing kabi innovatsion faoliyat turlari orqali yangi raqobatbardosh ish o'rinlarini yaratmoqda. Mamlakat miqyosida raqamli iqtisodiyotga o'tish jarayonlari jadal kechayotgan bir paytda, hududlar o'rtasidagi raqamli tafovut (digital divide) mehnat bozoridagi hududiy assimetriyani kuchaytirib yuborishi yoki aksincha, iqtisodiy qutblanishni yumshatib, inklyuziv o'sishni ta'minlashi mumkinligi ochiq ilmiy muammo bo'lib qolmoqda.

Hududiy mehnat bozoriga oid aksariyat empirik tadqiqotlar panel ma'lumotlarning an'anaviy modellariga tayanadi. Ushbu yondashuvning asosiy kamchiligi hududlarni bir-biridan ajratilgan, mustaqil va yopiq tizim sifatida qabul qilishidir. Aslida, bitta mintaqadagi raqamli infratuzilmaning rivojlanishi nafaqat shu hududning o'zidagi bandlikka, balki hududlararo mehnat migratsiyasi, kapital oqimi va texnologik diffuziya orqali qo'shni mintaqalar mehnat bozoriga ham bevosita ta'sir ko'rsatadi. Mintaqaviy klasterlarda yoki yirik hududiy markazlarda yaratilgan raqamli ekotizim qo'shni viloyatlar aholisini onlayn xizmatlar tarmog'iga jalb qilishi aniq. Ushbu fazoviy bog'liqlikni e'tiborsiz qoldirish ekonometrik baholashlarda siljish (bias) va amaliyotga mos kelmaydigan xulosalarga olib keladi.

Mazkur tadqiqotning maqsadi raqamlashtirish jarayonlari (internet qamrovi, AKT sohasi investitsiyalari va raqamli xizmatlar) ning hududiy mehnat bozori dinamikasiga ta'sirini Fazoviy Durbin modeli (Spatial Durbin Model - SDM) vositasida baholashdan iborat.

ADABIYOTLAR TAHLILI. So'nggi yillarda raqamli iqtisodiyotning jadal rivojlanishi va uning mehnat bozori dinamikasiga ta'sirini ekonometrik modellashtirish ko'plab olimlarning tadqiqotlarida muhim o'rin egallagan.

Dastlab, D. Autor va G. Dorn (2013), shuningdek D. Acemoglu va P. Restrepo (2019) o'zlarining empirik ishlarida texnologik o'zgarishlar va raqamli infratuzilmaning bandlikka ta'sirini panel va instrumental o'zgaruvchilar (IV) yordamida baholashgan.

Mehnat bozori va iqtisodiy ko'rsatkichlarda fazoviy bog'liqlikni ilmiy asoslagan L. Anselin (2010) fazoviy tahlil va og'irliklar matritsasi nazariyasini ishlab chiqqan. J. P. Elhorst (2014) esa panel ma'lumotlar uchun Fazoviy Durbin modeli (SDM) va bevosita hamda bilvosita (spillover) effektlarni hisoblash metodikasini qat'iy ekonometrik darajaga ko'targan. R. Florax va S. Rey (2010) hududiy modellarda fazoviy bog'liqlik e'tibordan chetda qolsa, natijalar noxolis (biased) bo'lishini isbotlagan.

Aksariyat tadqiqotlar raqamlashtirish ta'sirini an'anaviy panel modellar yordamida o'rgangan. Biroq, Elhorst va Anselin uslubiyatiga tayangan holda, raqamlashtirish jarayonlarining hududiy mehnat bozoriga ta'sirini Fazoviy Durbin modeli (SDM) orqali, hududlararo toshish effektlarini hisobga olgan holda baholash yetarlicha yoritilmagan. Mazkur tadqiqot aynan shu ekonometrik bo'shliqni to'ldiradi.

METODOLOGIYA. Tadqiqotda raqamlashtirish jarayonlarining hududiy mehnat bozori dinamikasiga ta'sirini baholash va hududlararo o'zaro bog'liqlikni (spillover effects) aniqlash uchun zamonaviy fazoviy ekonometrik usullar tanlandi. An'anaviy panel modellar (Fixed/Random Effects) hududlarni izolyatsiyalangan holda baholagani bois, fazoviy avtokorrelyatsiyani hisobga oluvchi Fazoviy Durbin modeli qo'llanildi.

MUHOKAMA VA NATIJALAR. Tahlil uchun O'zbekiston Respublikasining 14 ta hududi (viloyatlar, Toshkent shahri va Qoraqalpog'iston Respublikasi) bo'yicha 2011–2025-yillarni qamrab oluvchi 15 yillik panel ma'lumotlar bazasi shakllantirildi. Barcha ko'rsatkichlarning o'lchov birliklaridagi tafovutlarni kamaytirish hamda elastiklik koeffitsiyentlarini olish maqsadida ular natural logarifm shakliga o'tkazildi:

Bog'liq o'zgaruvchi sifatida hududiy bandlik darajasi (iqtisodiy faol aholi bandligining ulushi, Y %).

Erkli o'zgaruvchilar sifatida qo'yidagi ko'rsatkichlarni olamiz:

$\ln X_1$ – keng polosali va mobil internet qamrovi (100 kishi to‘g‘ri keluvchi abonentlar soni);

$\ln X_2$ – AKT va raqamli xizmatlar sohasi investitsiyalari hajmi;

$\ln X_3$ – raqamli ko‘nikmalar va IT ta‘lim dasturlari bilan qamrab olinganlar ulushi.

Nazorat o‘zgaruvchisi sifatida esa aholi jon boshiga to‘g‘ri keluvchi YaHM (hududiy iqtisodiy rivojlanish darajasi, C).

Hududlararo geografik bog‘liqlikni shakllantirish uchun 14×14 o‘lchamli Fazoviy og‘irliklar matritsasi W ni tuzildi. Matritsa elementlari hududlarning o‘zaro chegaradoshligiga asoslangan bo‘lib, quyidagicha belgilanadi:

$$\omega_{ij} = \begin{cases} 1, & \text{agar } i \text{ va } j \text{ o'zaro chegaradosh bo'lsa} \\ 0, & \text{aks holda} \end{cases}$$

Olingan matritsa qatorlar bo‘yicha normallashtirildi.

Modelning nazariy ko‘rinishi quyidagi tenglama orqali ifodalanadi:

$$\ln Y_{it} = \rho \sum_{j=1}^N \omega_{ij} \ln Y_{jt} + \beta \ln X_{it} + \sum_{j=1}^N \omega_{ij} \ln X_{jt} \theta + \mu_i + \lambda_t + \varepsilon_{it}$$

bu yerda:

$\ln Y_{it}$ – i -hududdagi t -yildagi bandlik ko‘rsatkichi;

ρ – fazoviy avtokorrelyatsiya koeffitsiyenti (hududlararo ta‘sir darajasi);

ω_{ij} – fazoviy og‘irliklar matritsasining elementlari;

β – bevosita ta‘sir koeffitsiyentlari;

θ – bilvosita (spillover) ta‘sir koeffitsiyentlari;

μ_i va λ_t – hududiy va vaqtinchalik xususiy ta‘sirlar (fixed effects);

ε_{it} – tasodifiy xatoliklar hadi.

Ekonometrik modellashtrishni boshlashdan oldin Moranning I testi yordamida hududiy bandlik va raqamli infratuzilma ko‘rsatkichlarida fazoviy bog‘liqlik mavjudligi tekshirildi. Natijalar ($p < 0.01$) barcha o‘zgaruvchilar bo‘yicha ijobiy va statistik ahamiyatli fazoviy avtokorrelyatsiya mavjudligini ko‘rsatdi. Bu shuni anglatadiki, bitta hududdagi raqamli transformatsiya jarayonlari qo‘shni hududlar mehnat bozoriga ham sezilarli darajada ta‘sir ko‘rsatadi.

Shuningdek, Lagrange Multiplier (LM) va Likelihood Ratio (LR) testlari natijalariga ko‘ra, oddiy panelli modellar va oddiy fazoviy modellar (SAR, SEM) bilan solishtirganda, Fazoviy Durbin modeli (SDM) eng maqbul spetsifikatsiya ekanligi isbotlandi.

Model natijalariga ko‘ra, hududiy bandlikka eng yuqori ijobiy ta‘sir ko‘rsatuvchi omil bu raqamli ko‘nikmalar va IT ta‘lim dasturlari bilan qamrab olinganlar ulushi bo‘lib, uning umumiy effekti 0,645 ni tashkil etdi. Bu shuni bildiradiki, raqamli savodxonlik 1% ga oshganda, hududiy bandlik darajasi o‘rtacha 0,645% ga o‘sadi. Bu holat zamonaviy mehnat bozorida jismoniy infratuzilmadan ko‘ra inson kapitalining raqamli kompetensiyalari ustuvor ahamiyat kasb etishini tasdiqlaydi.

Keng polosali internet qamrovining bevosita effekti 0,342 ga teng bo‘lsa, bilvosita (spillover) effekti 0,148 ni tashkil qildi. Fazoviy avtokorrelyatsiya koeffitsiyenti ($\rho = 0,412$, $p < 0,000$) ijobiy va yuqori darajada ahamiyatli chiqdi. Bu empirik dalil shuni ko‘rsatadiki, yirik iqtisodiy va raqamli markazlarda (masalan, Toshkent shahri yoki Samarqand viloyatining markaziy tumanlarida) internet infratuzilmasi va raqamli xizmatlarning rivojlanishi faqat shu hudud bilan cheklanib qolmay, balki migratsiya, masofaviy bandlik va logistika zanjirlari orqali qo‘shni hududlar bandligiga ham ijobiy turtki beradi.

AKT va raqamli xizmatlar sohasiga yo‘naltirilgan investitsiyalar bandlikka sezilarli ijobiy

ta'sir ko'rsatib (umumiy effekt 0,397), hududlarda zamonaviy ish o'rinlarini yaratishda moliyaviy resurslarning o'rnini yaqqol ko'rsatib berdi.

Prognoz tahlillari shuni ko'rsatadiki, agar hududlarda raqamli infratuzilmani rivojlantirish va aholini raqamli o'qitish sur'atlari izchil davom ettirilsa, 2030-yilga borib hududiy bandlik darajasi o'rtacha 78,9% ga yetishi kutilmoqda.

Xulosa

Tadqiqotda raqamlashtirishning hududiy mehnat bozoriga ta'siri 2011–2025-yillar ma'lumotlari asosida Fazoviy Durbin modeli (SDM) yordamida baholandi. Ekonometrik tahlil natijalari raqamli infratuzilmaning rivojlanishi nafaqat o'z hududida, balki qo'shni hududlarda ham bandlikni oshiruvchi sezilarli fazoviy spillover effektiga egaligini isbotladi ($\rho = 0,412$). Shuningdek, raqamli ko'nikmalar bandlikka eng yuqori ijobiy ta'sir ko'rsatuvchi asosiy drayver ekanligi aniqlanib, 2030-yilga borib hududiy bandlik darajasi 78,9% ga yetishi prognoz qilindi.

Hududlarda bandlikni ta'minlash uchun ilg'or markazlar atrofida qo'shni hududlarni qamrab oluvchi "raqamli bandlik klasterlari"ni shakllantirish, raqamli ko'nikmalarni o'rgatish jarayonini mahalliy iqtisodiyot va xizmatlar sohasi ehtiyojlariga moslashtirish hamda AKT infratuzilmasiga yo'naltiriladigan mablag'larni hududiy tafovutlarni qisqartirish va periferik hududlarda masofaviy bandlikni kengaytirishga ustuvor ravishda yo'naltirish maqsadga muvofiqdir.

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SUN'IY INTELLEKT VA YUQORI TEXNOLOGIYALAR ASRIDA FAN VA KIBERXAVFSIZLIK MUAMMOLARI

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ANNOTATSIYA: Mazkur maqolada sun'iy intellekt va yuqori texnologiyalarning jadal rivojlanishi sharoitida fan va ta'lim tizimida yuzaga kelayotgan kiberxavfsizlik muammolari tadqiq etilgan. Tadqiqotda sun'iy intellekt texnologiyalarining ilmiy tadqiqotlar samaradorligini oshirish, katta hajmdagi ma'lumotlarni qayta ishlash, ilmiy jarayonlarni avtomatlashtirish va innovatsion faoliyatni rivojlantirishdagi imkoniyatlari tahlil qilingan. Shu bilan birga, sun'iy intellektdan foydalanish natijasida yuzaga keladigan fishing, deepfake, ma'lumotlarning sizib chiqishi, avtomatlashtirilgan kiberhujumlar, ijtimoiy muhandislik va intellektual mulk xavflari ko'rib chiqilgan. Tadqiqot natijasida fan va ta'lim tizimida sun'iy intellektdan xavfsiz va mas'uliyatli foydalanishni ta'minlashga qaratilgan takliflar ishlab chiqilgan. Shuningdek, sun'iy intellekt, fan va kiberxavfsizlikning o'zaro bog'liqligini ifodalovchi konseptual yondashuv taklif etilgan. Olingan natijalar raqamli transformatsiya sharoitida ilmiy axborotni himoya qilish va kiberxavfsizlik madaniyatini rivojlantirish uchun amaliy ahamiyatga ega.

Kalit so'zlar: sun'iy intellekt, yuqori texnologiyalar, fan, ilmiy tadqiqot, kiberxavfsizlik, axborot xavfsizligi, raqamli transformatsiya, kiberhujum, deepfake, katta ma'lumotlar, intellektual mulk, raqamli savodxonlik.

Аннотация: В статье исследуются проблемы кибербезопасности, возникающие в сфере науки и образования в условиях стремительного развития искусственного интеллекта и высоких технологий. Проанализированы возможности применения технологий искусственного интеллекта для повышения эффективности научных исследований, обработки больших объемов данных, автоматизации научных процессов и развития инновационной деятельности. Наряду с этим рассмотрены основные риски, связанные с использованием искусственного интеллекта, включая фишинг, технологии deepfake, утечку данных, автоматизированные кибератаки, социальную инженерию и угрозы интеллектуальной собственности. На основе результатов исследования разработаны предложения по обеспечению безопасного и ответственного использования искусственного интеллекта в системе науки и образования. Также предложен концептуальный подход, отражающий взаимосвязь искусственного интеллекта, науки и кибербезопасности. Полученные результаты имеют практическое значение для защиты научной информации и повышения культуры кибербезопасности в условиях цифровой трансформации.

Ключевые слова: искусственный интеллект, высокие технологии, наука, научные исследования, кибербезопасность, информационная безопасность, цифровая трансформация, кибератаки, deepfake, большие данные, интеллектуальная собственность, цифровая грамотность.

Abstract: This article examines cybersecurity challenges emerging in science and education amid the rapid development of artificial intelligence and advanced technologies. The study analyzes the potential of artificial intelligence technologies to improve the efficiency of scientific research, process large volumes of data, automate research activities, and promote innovation. At the same time, the article considers major risks associated with the use of artificial intelligence, including phishing, deepfake technologies, data leakage, automated cyberattacks, social engineering, and threats to intellectual property. Based on the research findings, recommendations are developed to ensure the secure and responsible use of artificial intelligence in science and education. A conceptual approach reflecting the interrelationship between artificial intelligence, science, and cybersecurity is also proposed. The findings have practical significance for protecting scientific information and strengthening cybersecurity awareness in the context of digital transformation.

Keywords: artificial intelligence, advanced technologies, science, scientific research, cybersecurity, information security, digital transformation, cyberattacks, deepfake, big data, intellectual property, digital literacy.

XXI asrda raqamli texnologiyalarning jadal rivojlanishi jamiyat hayotining barcha sohalarida tub o'zgarishlarni yuzaga keltirmoqda. Ayniqsa, sun'iy intellekt (SI), katta ma'lumotlar (Big Data), bulutli texnologiyalar, Internet of Things (IoT), blokcheyn, robototexnika va boshqa yuqori texnologiyalarning rivojlanishi fan va ta'lim tizimining mazmuni hamda faoliyat mexanizmlarini yangicha shakllantirmoqda. Sun'iy intellekt ilmiy tadqiqotlarda katta hajmdagi ma'lumotlarni qayta ishlash, murakkab jarayonlarni modellash, ilmiy natijalarni prognozlash va yangi ilmiy gipotezalarni shakllantirish imkoniyatlarini kengaytirmoqda.

Bugungi kunda ilmiy faoliyatning raqamlashtirilishi natijasida tadqiqot jarayonida katta hajmdagi raqamli ma'lumotlar shakllanmoqda. Bunday sharoitda ilmiy axborotning ishonchliligi, maxfiyligi, yaxlitligi va mavjudligini ta'minlash muhim ahamiyat kasb etadi. Shu bilan birga, sun'iy intellekt texnologiyalarining rivojlanishi kiberjinoyatchilik uchun ham yangi imkoniyatlarni yaratmoqda. Xususan, sun'iy intellekt yordamida fishing hujumlarini avtomatlashtirish, zararli dasturlarni yaratish, deepfake materiallarini ishlab chiqish, shaxsiy ma'lumotlarni o'g'irlash va axborot tizimlariga hujumlarni yanada takomillashtirish mumkin.

Fan va ta'lim tizimi kiberhujumlar uchun alohida qiziqish uyg'otuvchi sohalardan biri hisoblanadi. Chunki oliy ta'lim muassasalari va ilmiy tashkilotlarda talabalar, professor-o'qituvchilar va tadqiqotchilarning shaxsiy ma'lumotlari, ilmiy loyihalar, intellektual mulk obyektlari, moliyaviy ma'lumotlar va ilmiy tadqiqot natijalari kabi muhim axborotlar jamlanadi.

MATERIALLAR VA USULLAR

Tadqiqotda sun'iy intellekt, raqamli transformatsiya, axborot xavfsizligi va kiberxavfsizlik sohalariga oid ilmiy adabiyotlar, xalqaro tashkilotlarning hisobotlari, me'yoriy-huquqiy hujjatlar va ilmiy-tadqiqot materiallaridan foydalanildi.

Tadqiqotning nazariy asosini sun'iy intellekt, raqamli iqtisodiyot, axborot xavfsizligi va texnologik innovatsiyalar bo'yicha mavjud ilmiy yondashuvlar tashkil etadi. Tadqiqot davomida UNESCO, OECD, NIST, ISO/IEC va boshqa xalqaro tashkilotlarning tegishli materiallari tahlil qilindi.

Tadqiqotda tizimli yondashuv, qiyosiy tahlil, statistik tahlil, kontent-tahlil, ekspert baholash, induksiya va deduksiya usullaridan foydalanildi.

NATIJALAR VA MUHOKAMA

Tadqiqot natijalari sun'iy intellektning fan rivojiga sezilarli ijobiy ta'sir ko'rsatishi bilan bir qatorda, undan foydalanish jarayonida yangi kiberxavfsizlik xavflari shakllanayotganini ko'rsatadi.

Sun'iy intellektning ilmiy faoliyatga ta'sirini shartli ravishda quyidagi asosiy yo'nalishlarga ajratish mumkin.

1-jadval. Sun'iy intellektning fan rivojiga asosiy ta'sir yo'nalishlari

№	Yo'nalish	Asosiy imkoniyat	Ehtimoliy xavf
1	Ma'lumotlarni tahlil qilish	Katta hajmdagi ma'lumotlarni tez qayta ishlash	Noto'g'ri algoritmik xulosa
2	Ilmiy prognozlash	Kelajakdagi tendensiyalarni aniqlash	Prognoz xatoligi
3	Ilmiy matnlarni qayta ishlash	Ma'lumotlarni tez umumlashtirish	Soxta yoki noto'g'ri axborot
4	Tajribalarni avtomatlashtirish	Vaqt va resurslarni tejash	Texnik nosozlik
5	Dasturlash	Kod yozish va optimallashtirish	Zaif yoki zararli kod
6	Ta'lim	Individual o'qitish imkoniyati	Akademik halollik muammosi

7	Ilmiy hamkorlik	Axborot almashinuvini tezlashtirish	Ma'lumotlar sizib chiqishi
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Jadvaldan ko'rinib turibdiki, sun'iy intellektning fan uchun yaratadigan imkoniyatlari bilan bir qatorda texnologik, axborot va etik xavflar ham mavjud. Shuning uchun AI texnologiyalaridan foydalanish jarayonida inson nazoratini saqlab qolish muhim.

Kiberxavfsizlik nuqtayi nazaridan eng muhim xavflar quyidagi yo'nalishlarda namoyon bo'ladi.

2-jadval. Fan va ta'lim tizimida asosiy kiberxavfsizlik xavflari

№	Kiberxavf turi	Xavf manbai	Potensial oqibat
1	Fishing	Soxta elektron xabarlar	Login va parollarning o'g'irlanishi
2	Deepfake	AI asosidagi media yaratish	Soxta axborot va firibgarlik
3	Zararli dasturlar	Kiberjinoyatchilar	Tizimlarning ishdan chiqishi
4	Ma'lumotlar sizib chiqishi	Zaif himoya	Maxfiy axborot yo'qolishi
5	Ijtimoiy muhandislik	Inson omili	Ruxsatsiz kirish
6	AI-generated hujumlar	Generativ AI	Avtomatlashtirilgan kiberhujum
7	Intellektual mulk xavfi	Ruxsatsiz foydalanish	Ilmiy natijalar yo'qolishi

Tadqiqot natijalariga ko'ra, kiberxavfsizlikdagi eng zaif bo'g'inlardan biri inson omili hisoblanadi. Hatto zamonaviy texnik himoya vositalari mavjud bo'lgan sharoitda ham foydalanuvchining phishing havolasini ochishi, zaif paroldan foydalanishi yoki maxfiy ma'lumotni himoyalangan AI platformasiga kiritishi xavfsizlik tizimining buzilishiga olib kelishi mumkin.

Shu sababli kiberxavfsizlikni faqat texnik masala sifatida emas, balki tashkiliy, huquqiy, iqtisodiy va ta'limiy mexanizmlarni o'z ichiga oluvchi kompleks tizim sifatida ko'rib chiqish zarur.

3-jadval. "AI-Science-Cybersecurity" modelining asosiy komponentlari

Komponent	Mazmuni	Kutilayotgan natija
AI	Sun'iy intellekt texnologiyalaridan foydalanish	Ilmiy samaradorlikni oshirish
Science	Ilmiy tadqiqotlar va innovatsiyalar	Yangi bilim va texnologiyalar
Cybersecurity	Axborot va raqamli infratuzilmani himoyalash	Xavfsiz ilmiy muhit
Human control	Inson nazorati	Algoritmik xatolarni kamaytirish
Ethics	Etik va akademik tamoyillar	Mas'uliyatli AI
Governance	Tashkiliy boshqaruv	Barqaror raqamli tizim

Taklif etilayotgan modelning asosiy g'oyasi shundan iboratki, fan rivojida sun'iy intellektdan foydalanish kiberxavfsizlik mexanizmlari bilan parallel ravishda amalga oshirilishi kerak. Ya'ni, yangi AI texnologiyasi joriy etilganda uning samaradorligi bilan bir qatorda xavfsizlik darajasi ham baholanishi lozim.

Kiberxavfsizlik risklarini boshqarishning taklif etilayotgan modeli quyidagi ketma-ketlikka asoslanadi:

aniqlash → baholash → himoyalash → monitoring → javob berish → tiklash.

Birinchi bosqichda muhim raqamli aktivlar va axborot resurslari aniqlanadi. Ikkinchi bosqichda ularning zaifligi va ehtimoliy xavflari baholanadi. Uchinchi bosqichda texnik va tashkiliy himoya vositalari joriy etiladi. To'rtinchi bosqichda doimiy monitoring amalga oshiriladi.

Kiberhujum aniqlangan taqdirda tezkor javob mexanizmlari ishga tushiriladi. Yakuniy bosqichda esa tizimlar tiklanadi va kelgusidagi xavflarni kamaytirish choralari aniqlik kiritiladi.

4-jadval. Fan va ta'lim tizimida kiberxavfsizlikni takomillashtirish choralari

№	Chora-tadbir	Amalga oshirish mexanizmi	Natija
1	Kiberxavfsizlik treninglari	Doimiy o'quv kurslari	Xodimlar va talabalar savodxonligi oshadi
2	Ko'p bosqichli autentifikatsiya	MFA texnologiyasi	Ruxsatsiz kirish kamayadi
3	Ma'lumotlarni shifrlash	Kriptografik himoya	Maxfiylik ta'minlanadi
4	Zaxira nusxalari	Backup tizimi	Ma'lumotlarni tiklash imkoniyati oshadi
5	AI siyosati	Ichki reglament	AI'dan mas'uliyatli foydalanish ta'minlanadi
6	Xavfsizlik auditi	Muntazam monitoring	Zaifliklar oldindan aniqlanadi
7	Akademik halollik	AI'dan foydalanish qoidalari	Ilmiy ishonchlilik oshadi

Tadqiqot natijalari shuni ko'rsatadiki, sun'iy intellektni fan va ta'lim tizimiga joriy etish samaradorligini faqat texnologik ko'rsatkichlar orqali baholash yetarli emas. Texnologiyaning xavfsizligi, ishonchligi, shaffofligi va etik jihatlari ham baholanishi kerak.

Ayniqsa, generativ sun'iy intellektdan foydalanishda uchta tamoyil muhim: inson nazorati, ma'lumotlar xavfsizligi va akademik halollik. Ushbu tamoyillarni ta'minlash orqali AI texnologiyalarining fan rivojiga ijobiy ta'sirini kuchaytirish va salbiy oqibatlarini kamaytirish mumkin.

XULOSA

Tadqiqot natijalari sun'iy intellekt va yuqori texnologiyalar zamonaviy fan rivojining muhim omiliga aylanganini ko'rsatdi. Sun'iy intellekt ilmiy ma'lumotlarni qayta ishlash, prognozlash, modellashtirish, tajribalarni avtomatlashtirish va ilmiy axborotni tahlil qilish imkoniyatlarini sezilarli darajada kengaytirmoqda. Biroq raqamli texnologiyalarning rivojlanishi kiberxavfsizlik sohasida yangi xavflarni ham shakllantirmoqda. Xususan, fishing, deepfake, ma'lumotlarning sizib chiqishi, avtomatlashtirilgan kiberhujumlar, ijtimoiy muhandislik va intellektual mulkning himoyasizligi fan va ta'lim tizimi uchun dolzarb muammolardan hisoblanadi.

Tadqiqot davomida kiberxavfsizlikni baholash uchun risk ko'rsatkichi, raqamli tayyorgarlik indeksi va kiberxavfsizlik indeksidan foydalanish taklif qilindi. Shuningdek, sun'iy intellekt, fan va kiberxavfsizlikning o'zaro bog'liqligini ifodalovchi "AI-Science-Cybersecurity" modeli ishlab chiqildi. Mazkur modelga muvofiq, sun'iy intellektni ilmiy faoliyatga joriy etishda texnologik samaradorlik bilan bir qatorda axborot xavfsizligi, inson nazorati, etik me'yorlar va akademik halollik ham ta'minlanishi kerak. Umuman olganda, sun'iy intellekt davrida kiberxavfsizlik faqat texnik muammo emas, balki fan, ta'lim, iqtisodiyot va jamiyatning barqaror rivojlanishiga ta'sir ko'rsatuvchi strategik omildir. Kelajakdagi ilmiy-texnologik taraqqiyot "innovatsiya + xavfsizlik + mas'uliyat" tamoyiliga asoslanishi lozim.

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TA'LIM JARAYONIDA SUN'IY INTELLEKT TEXNOLOGIYALARIDAN FOYDALANISHNING PEDAGOGIK IMKONIYATLARI

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Annotatsiya: Maqolada zamonaviy ta'lim jarayonida sun'iy intellekt texnologiyalaridan foydalanishning pedagogik imkoniyatlari va istiqbollari tadqiq etilgan. Raqamli texnologiyalarning jadal rivojlanishi natijasida sun'iy intellekt ta'lim mazmuni, o'qitish metodlari, baholash mexanizmlari va o'qituvchi hamda ta'lim oluvchi o'rtasidagi munosabatlarning yangi shakllarini vujudga keltirmoqda. Tadqiqotda sun'iy intellekt texnologiyalarining ta'limni individuallashtirish, mustaqil ta'limni qo'llab-quvvatlash, o'quv kontentini shakllantirish, tezkor fikr-mulohaza berish, ta'lim natijalarini tahlil qilish va o'qituvchining kasbiy faoliyatini optimallashtirishdagi imkoniyatlari yoritilgan. Shu bilan birga, generativ sun'iy intellektdan foydalanishda akademik halollik, ma'lumotlarning ishonchligi, shaxsiy ma'lumotlarni himoya qilish, algoritmik xato va tanqidiy fikrlash bilan bog'liq xavflar tahlil qilingan.

Kalit so'zlar: sun'iy intellekt, generativ sun'iy intellekt, raqamli ta'lim, pedagogik texnologiya, individual ta'lim, ta'lim analitikasi, raqamli kompetensiya, AI savodxonligi, akademik halollik, mustaqil ta'lim.

Annotatsiya: V statye issleduyutsya pedagogicheskiye vozmozhnosti i perspektivi ispolzovaniya texnologiy iskusstvennogo intellekta v sovremennom obrazovatelnom protsesse. Rassmatrivayutsya vozmozhnosti iskusstvennogo intellekta v personalizatsii obucheniya, podderjke samostoyatelnoy raboti studentov, sozdaniy uchebnogo kontenta, predostavlenii operativnoy obratnoy svyazi, analize rezultatov obucheniya i optimizatsii professionalnoy deyatelnosti prepodavately. Osoboye vnimaniye udelyayetsya problemam akademicheskoy chestnosti, dostovernosti informatsii, zashite personalnix dannix i neobxodimosti soxraneniya chelovecheskogo kontrolya pri ispolzovanii generativnogo iskusstvennogo intellekta.

Klyuchevye slova: iskusstvenniy intellekt, generativniy iskusstvenniy intellekt, sifrovoye obrazovaniye, pedagogicheskiye texnologii, personalizatsiya obucheniya, sifrovaya kompetentnost, akademicheskaya chestnost.

Abstract

The article examines the pedagogical opportunities and prospects of using artificial intelligence technologies in modern education. Particular attention is paid to the potential of artificial intelligence for personalized learning, independent learning, educational content development, rapid feedback, learning analytics, and optimization of teachers' professional

activities. The study also analyzes challenges related to academic integrity, information reliability, personal data protection, algorithmic bias, and the preservation of human agency.

Keywords: *artificial intelligence, generative AI, digital education, educational technology, personalized learning, AI literacy, digital competence, academic integrity.*

XXI asrda raqamli texnologiyalarning jadal rivojlanishi ta'lim tizimi oldiga yangi vazifalarni qo'yimoqda. Bugungi kunda ta'lim jarayonida elektron ta'lim resurslari, masofaviy ta'lim platformalari, virtual laboratoriyalar, raqamli baholash tizimlari va sun'iy intellekt texnologiyalaridan foydalanish imkoniyatlari kengayib bormoqda.

Sun'iy intellekt (Artificial Intelligence — AI) insonning ayrim intellektual faoliyat turlarini kompyuter tizimlari yordamida amalga oshirishga imkon beruvchi texnologiyalar majmuasi sifatida ta'lim sohasiga ham jadal kirib kelmoqda. Ayniqsa, generativ sun'iy intellekt texnologiyalarining ommalashishi ta'limda matn, tasvir, dasturiy kod, test va boshqa o'quv materiallarini avtomatik shakllantirish imkoniyatlarini kengaytirdi.

YUNESKOning 2023 yilda e'lon qilingan generativ AI bo'yicha tavsiyalarida ta'limda sun'iy intellektdan insonga yo'naltirilgan, xavfsiz, adolatli va mas'uliyatli tarzda foydalanish zarurligi ta'kidlangan [1]. Shu nuqtai nazardan, mazkur maqolaning maqsadi ta'lim jarayonida sun'iy intellekt texnologiyalaridan foydalanishning pedagogik imkoniyatlarini tahlil qilish hamda ulardan samarali va mas'uliyatli foydalanish modeli bo'yicha takliflar ishlab chiqishdan iborat.

Tadqiqot nazariy va tahliliy xarakterga ega bo'lib, unda sun'iy intellekt va ta'lim texnologiyalariga bag'ishlangan ilmiy adabiyotlar, xalqaro tashkilotlarning metodik hujjatlari hamda so'nggi yillardagi tizimli adabiyot sharhlari tahlil qilindi.

Tadqiqotda quyidagi metodlardan foydalanildi:

- ilmiy adabiyotlarni tahlil qilish;
- qiyosiy tahlil;
- tizimlashtirish;
- umumlashtirish;
- pedagogik modellashtirish;
- muammoli-mantiqiy tahlil.

Tadqiqotning konseptual asosini insonga yo'naltirilgan ta'lim, shaxsga yo'naltirilgan o'qitish, raqamli pedagogika va akademik halollik tamoyillari tashkil etadi. YUNESKOning o'qituvchilar uchun AI kompetensiyalari modeli 15 ta kompetensiyani beshta asosiy yo'nalishga ajratadi: insonga yo'naltirilgan tafakkur, AI etikasi, AI asoslari va qo'llanilishi, AI pedagogikasi hamda kasbiy rivojlanish [2]. Bu yondashuv sun'iy intellektdan ta'limda foydalanishda texnologiyaning o'zi emas, balki undan foydalanuvchi pedagogning kompetentligi hal qiluvchi ahamiyatga ega ekanini ko'rsatadi.

Ta'limda sun'iy intellektdan foydalanish ikki asosiy yo'nalishda namoyon bo'ladi. Birinchisi - AI yordamida ta'lim olish. Bunda sun'iy intellekt talabaga bilim olish, savollarga javob topish, tushunchalarni izohlash, mashqlarni bajarish va o'z bilimlarini tekshirishda yordam beradi. Ikkinchisi - AI haqida ta'lim berish. Bunda talabalar sun'iy intellektning ishlash prinsiplari, imkoniyatlari, cheklovlari, axloqiy jihatlari va jamiyatdagi ta'sirini o'rganadilar.

Bu ikki yo'nalishni bir-biridan ajratish muhim. Chunki talabaning AI vositasidan foydalanishi uning sun'iy intellekt savodxonligiga ega ekanini avtomatik ravishda anglatmaydi.

YUNESKOning talabalar uchun AI kompetensiyalari modeli 12 ta kompetensiyani to'rt yo'nalishga ajratadi: insonga yo'naltirilgan tafakkur, AI etikasi, AI texnologiyalari va qo'llanilishi hamda AI tizimlarini loyihalash [3].

Demak, zamonaviy ta'limning vazifasi talabani faqat AI vositalaridan foydalanishga o'rgatish emas, balki unda AI natijalarini tahlil qilish, tekshirish, baholash va mas'uliyat bilan qo'llash qobiliyatini shakllantirishdan iborat.

Ta'limni individuallashtirish imkoniyatlari: an'anaviy ta'lim jarayonida bir guruhdagi talabalarning bilim darajasi, qiziqishlari va o'zlashtirish tezligi bir-biridan farq qilishi mumkin. O'qituvchi esa vaqt va resurslarning cheklanganligi sababli har bir talaba uchun alohida ta'lim trayektoriyasini doimo ham ta'minlay olmaydi.

Sun'iy intellekt ushbu muammoni qisman bartaraf etish imkonini beradi.

AI asosidagi ta'lim tizimi:

- talabaning bilim darajasini tahlil qilishi;
- xatolarini aniqlashi;
- qiyinchilik tug'dirayotgan mavzularni belgilashi;
- qo'shimcha mashqlar tavsiya qilishi;
- murakkablik darajasi turlicha bo'lgan topshiriqlar berishi;
- individual fikr-mulohaza taqdim etishi mumkin.

Tizimli adabiyot tahlilida AI ta'lim tadqiqotlarida adaptiv ta'lim va individuallashtirilgan tyutorlik muhim yo'nalishlardan biri ekani ko'rsatilgan [4]. Biroq individuallashtirishni to'liq avtomatlashtirish maqsadga muvofiq emas. Talabaning psixologik holati, ijtimoiy ehtiyojlari va individual xususiyatlarini pedagogik nuqtai nazardan baholashda inson omili muhimligicha qoladi.

Generativ sun'iy intellekt texnologiyalari ta'lim kontentini shakllantirishda o'qituvchi uchun katta imkoniyatlar yaratadi.

Masalan, o'qituvchi ma'lum bir mavzu asosida AI yordamida:

- ma'ruza rejasini;
- nazorat savollarini;
- test topshiriqlarini;
- amaliy mashg'ulot ssenariylarini;
- keyslarni;
- muhokama uchun savollarni;
- turli murakkablik darajasidagi topshiriqlarni;
- o'quv matnining qisqacha mazmunini

tayyorlashi mumkin.

Bu o'qituvchining vaqtini tejaydi va ijodiy-pedagogik faoliyatga ko'proq vaqt ajratish imkonini beradi. Biroq AI tomonidan tayyorlangan materialni to'g'ridan-to'g'ri dars jarayoniga kiritish to'g'ri emas. O'qituvchi materialning ilmiy aniqligini, ta'lim maqsadiga muvofiqligini, yosh va bilim darajasiga mosligini, mantiqiy izchilligini va axloqiy va madaniy jihatlarini tekshirishi zarur.

YUNESKO generativ AI vositalaridan ta'limda foydalanishda ularni ta'lim dasturini loyihalash, o'qitish, o'rganish va tadqiqot jarayonlarida ijodiy qo'llash imkoniyatlari bilan bir qatorda, etik va siyosiy xavflarni ham hisobga olishni tavsiya etadi [1-3]. Sun'iy intellekt texnologiyalarining ta'limdagi eng muhim jihatlaridan biri - ular o'qituvchining ayrim texnik va takroriy vazifalarini yengillashtirishi mumkin.

Oliy ta'limda mustaqil ta'lim talabaning kasbiy va intellektual rivojlanishida muhim ahamiyatga ega. AI texnologiyalari mustaqil ta'lim jarayonida virtual maslahatchi vazifasini bajarishi mumkin. Talaba o'zi tushunmagan mavzuni boshqa usulda izohlashni so'rashi, misollar talab qilishi, o'z javobini tekshirishi yoki mavzu bo'yicha qo'shimcha savollar shakllantirishi mumkin.

Masalan: Talaba: "Mavzuni sodda tushuntiring."

AI: mavzuning soddalashtirilgan izohini beradi.

Talaba: "Amaliyotdan misol keltiring."

AI: misollar keltiradi.

Talaba: "Mening javobimdagi kamchiliklarni ko'rsating."

AI: ehtimoliy xatolarni ko'rsatadi.

Bu jarayon talabani passiv bilim oluvchidan faol ta'lim ishtirokchisiga aylantirishi mumkin.

Biroq talabaning AI bergan javobni tekshirmasdan qabul qilishi salbiy natijaga olib kelishi ehtimoli bor. Shuning uchun ta'limda "AI javob berdi — demak, u to'g'ri" tamoyili emas, balki:

"AI javob berdi → talaba tekshirdi → tahlil qildi → o'z xulosasini shakllantirdi" tamoyili ustuvor bo'lishi kerak.

Generativ sun'iy intellektning ta'limda keng qo'llanilishi akademik halollik masalasini yanada dolzarblashtirmoqda. Agar talaba mustaqil bajarishi kerak bo'lgan ishni to'liq AI yordamida tayyorlasa, o'qituvchi uning haqiqiy bilimi va mustaqil fikrlash qobiliyatini baholashda qiyinchilikka duch keladi. Shu sababli an'anaviy baholash shakllarini qayta ko'rib chiqish zarur.

Masalan, yozma ish bilan bir qatorda:

- og'zaki himoya;
- amaliy topshiriq;
- keys tahlili;
- individual savol-javob;
- loyiha himoyasi;
- refleksiya;
- foydalanilgan AI vositalari haqida deklaratsiya kabi usullardan foydalanish mumkin.

Bunda AIdan foydalanishni to'liq taqiqlashdan ko'ra, uning qanday maqsadda va qanday chegaralarda qo'llanilishini belgilash pedagogik jihatdan samaraliroq bo'lishi mumkin.

AI texnologiyalarining imkoniyatlari bilan bir qatorda bir nechta jiddiy muammolar ham mavjud. Generativ AI ba'zan mavjud bo'lmagan manbalar, noto'g'ri faktlar yoki asossiz xulosalarni ishonchli uslubda taqdim qilishi mumkin. Shuning uchun ilmiy-ta'limiy faoliyatda AI natijalarini birlamchi va ishonchli manbalar bilan tekshirish zarur. Talabalarning shaxsiy ma'lumotlari, baholari, tibbiy yoki boshqa maxfiy ma'lumotlarini ochiq AI platformalariga nazoratsiz kiritish xavfli bo'lishi mumkin. YUNESKOning generativ AI bo'yicha tavsiyalarida ham ma'lumotlar maxfiyligini himoya qilish alohida masala sifatida ko'rsatilgan [1-3].

Agar talaba har bir vazifani AI orqali tayyor javob olish bilan hal qilishga o'rgansa, uning mustaqil fikrlash va muammoni hal qilish ko'nikmalari rivojlanishi sekinlashishi mumkin. Demak, AI ta'lim oluvchining fikrlashini almashtirmasligi, balki uni rag'batlantirishi lozim. Yuqoridagi tahlillar asosida ta'limda sun'iy intellektidan foydalanishning quyidagi modeli taklif etiladi.

AI asosida pedagogik jarayon modeli

T/r	Bosqich nomi	O'qituvchi faoliyati	AI faoliyati	Kutiladigan natija
1	Maqsad	Ta'lim maqsadini belgilaydi	—	Aniq pedagogik maqsad
2	Rejalashtirish	Dars strukturasi belgilaydi	Variantlar taklif qiladi	Optimal dars rejasi
3	Kontent	Material mazmunini belgilaydi	Dastlabki kontent yaratadi	O'quv resursi
4	Individuallashtirish	Talaba ehtiyojini baholaydi	Turli darajadagi topshiriqlar beradi	Shaxsiy ta'lim
5	Amaliyot	Vazifani tashkil etadi	Qo'shimcha misol va feedback beradi	Faol o'rganish
6	Nazorat	Baholash mezonini belgilaydi	Test va tahlilda yordam beradi	Tezkor nazorat
7	Tekshirish	Yakuniy qaror qabul qiladi	Ma'lumotni tizimlaydi	Adolatli baholash

T/r	Bosqich nomi	O'qituvchi faoliyati	AI faoliyati	Kutiladigan natija
8	Refleksiya	Natijani tahlil qiladi	Tavsiyalar beradi	Ta'lim sifatini oshirish

Tadqiqot natijalaridan kelib chiqib, oliy ta'lim muassasalari uchun quyidagi takliflarni ilgari surish mumkin:

1. O'qituvchilar uchun AI savodxonligi kurslarini tashkil etish.
2. Talabalarda AI savodxonligini shakllantirish.
3. AIdan foydalanish bo'yicha ichki qoidalar ishlab chiqish.
4. Baholash tizimini modernizatsiya qilish.
5. Ilmiy tadqiqotlarda AI natijalarini verifikatsiya qilish.
6. Inson omilini saqlab qolish.

Ta'limda AI'ning asosiy vazifasi insonning o'rnini bosish emas, balki uning intellektual va pedagogik imkoniyatlarini kengaytirishdan iborat bo'lishi kerak. Sun'iy intellekt texnologiyalarining ta'limdagi o'rnini baholashda texnologik determinizmdan saqlanish muhim. YA'ni yangi texnologiya paydo bo'lgani uchun ta'lim avtomatik ravishda sifatli bo'lib qolmaydi.

Pedagogik natija texnologiyaning o'ziga emas, balki texnologiya + metodika + o'qituvchi kompetensiyasi + ta'lim oluvchi faolligi + baholash tizimining o'zaro uyg'unligiga bog'liq. Tizimli tadqiqotlar AI ta'limida amaliy va loyihaga asoslangan yondashuvlar talabalarning AI savodxonligi, muammoni hal qilish qobiliyati va AI'ning ijtimoiy-axloqiy ta'sirini anglashini qo'llab-quvvatlashi mumkinligini ko'rsatadi [5].

Shuningdek, insonga yo'naltirilgan ta'lim analitikasi bo'yicha tadqiqotlar AI tizimlarini joriy etishda inson nazorati, xavfsizlik, ishonchlik va ishonch masalalarini hisobga olish zarurligini ko'rsatmoqda[6].

Demak, kelajak ta'limida "AI o'qituvchini almashtiradi" degan yondashuvdan ko'ra, "AI vositalaridan foydalanuvchi kompetent o'qituvchi" konsepsiyasi muhimroq ahamiyat kasb etadi. Tadqiqot natijalari sun'iy intellekt texnologiyalari ta'lim jarayonini takomillashtirish uchun sezilarli pedagogik imkoniyatlarga ega ekanini ko'rsatdi.

Birinchidan, AI texnologiyalari ta'limni individuallashtirish va talabalarning shaxsiy ta'lim trayektoriyalarini shakllantirish imkonini kengaytiradi.

Ikkinchidan, generativ sun'iy intellekt o'qituvchilarga o'quv kontenti, testlar, amaliy topshiriqlar va ta'limiy keyslarni tayyorlashda yordam beradi.

Uchinchidan, AI talabalarning mustaqil ta'limi, tezkor fikr-mulohaza olishi va o'quv materiallarini o'zlashtirish jarayonini qo'llab-quvvatlashi mumkin.

To'rtinchidan, sun'iy intellektidan foydalanish o'qituvchidan yangi raqamli va AI kompetensiyalarini talab qiladi. YUNESKO tomonidan ishlab chiqilgan o'qituvchilar uchun AI kompetensiyalari modeli ham insonga yo'naltirilgan yondashuv va AI etikasini markaziy o'ringa qo'yadi.

Beshinchidan, AI texnologiyalaridan foydalanishda akademik halollik, axborot ishonchligi, shaxsiy ma'lumotlarni himoya qilish va tanqidiy fikrlash masalalari alohida e'tibor talab qiladi.

Shu asosda quyidagi xulosaga kelish mumkin: ta'limda sun'iy intellektning samaradorligi uning texnik imkoniyatlaridan ko'ra, pedagogik maqsadga muvofiq va mas'uliyatli qo'llanilishiga ko'proq bog'liq. Shuning uchun oliy ta'lim muassasalarida AI texnologiyalarini joriy etish bilan bir vaqtda o'qituvchilarning AI kompetensiyalarini rivojlantirish, talabalarda AI savodxonligini shakllantirish, akademik halollik standartlarini yangilash va inson nazoratiga asoslangan ta'lim modellarini ishlab chiqish maqsadga muvofiq.

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SUN'IY INTELLEKT VOSITALARINING CHET TILLARINI MUSTAQIL O'ZLASHTIRISHDAGI O'RNI VA AHAMIYATI

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Annotatsiya: Ushbu maqolada chet tillarini mustaqil o'rganishda sun'iy intellekt (SI) texnologiyalarining o'рни tahlil qilingan. SI yordamida ta'limni shaxsiylashtirish, o'z-o'zini nazorat qilish va vaqtni to'g'ri taqsimlash imkoniyatlari yoritilgan. Zamonaviy ilovalarning (Duolingo, Grammarly va boshqalar) nutqni rivojlantirishdagi ahamiyati ko'rsatilib, jonli muloqotning o'rnini bosolmaslik kabi cheklovlar va gibrid ta'lim zarurati asoslangan.

Kalit so'zlar: sun'iy intellekt, mustaqil ta'lim, chet tillari, o'z-o'zini nazorat qilish, taym-menejment, gibrid model.

Аннотация: В статье анализируется роль искусственного интеллекта (ИИ) в самостоятельном изучении иностранных языков. Рассматриваются возможности персонализации обучения, самоконтроля и тайм-менеджмента. Показана значимость современных ИИ-приложений в развитии речи, а также обоснованы ограничения ИИ, такие как нехватка живого общения и эмоций, что подчеркивает необходимость использования гибридной модели образования.

Ключевые слова: искусственный интеллект, самостоятельное обучение, иностранные языки, самоконтроль, тайм-менеджмент, гибридная модель.

Abstract: This article analyzes the role of artificial intelligence (AI) in the independent study of foreign languages. It explores the possibilities of personalizing the learning process, self-monitoring, and effective time management. The significance of modern AI applications in language development is highlighted, while acknowledging limitations such as the lack of human emotion and live communication, thereby justifying the need for a hybrid learning model.

Keywords: artificial intelligence, independent learning, foreign languages, self-monitoring, time management, hybrid model.

KIRISH

Bugungi kunda rus, turk yoki boshqa tillarni mustaqil o'rganish avvalgidan ancha osonlashdi. Bunga sun'iy intellekt (SI) texnologiyalarining ta'limga kirib kelishi katta yordam bermogda. Eski, hamma uchun bir xil bo'lgan qolipli usullar o'rniga, endi har bir o'quvchining o'ziga moslashadigan tizimlar paydo bo'ldi. SI dasturlari xatolarimizni darhol ko'rsatib beradi, o'yin elementlari orqali darslarni qiziqarli qiladi va o'qishga bo'lgan ishtiyoqimizni, ya'ni motivatsiyamizni oshiradi.

MATERIALLAR VA USULLAR

Oliy ta'limda o'qiyotganda yoki o'z ustingizda mustaqil ishlayotganda tilni o'rganish katta mas'uliyat talab qiladi. Darslikni shunchaki o'qib chiqishning o'zi yetarli emas, inson o'zini o'zi boshqara olishi kerak. Masalan, rus tilini chuqur o'rganib, L. Ulitskaya yoki Dina Rubina kabi yozuvchilarning asarlarini asl tilida o'qishni va ulardagi yashirin ma'nolarni tahlil qilishni maqsad qilgan bo'lsangiz, bunga juda ko'p e'tibor va tizimli tayyorgarlik kerak bo'ladi. Yoki turk tilidan C1 darajadagi sertifikatni olish uchun murakkab insholar yozishni mashq qilayotgan bo'lsangiz ham xatolaringizni doimiy tekshirib, so'z boyligingizni oshirib borishingiz zarur. Bunday katta maqsadlarga erishishda sun'iy intellekt shunchaki ma'lumot beruvchi vosita emas, balki sizning shaxsiy yordamchingizga aylanadi.

SI dasturlarining eng yaxshi tomoni shundaki, ular darslarni aynan sizning darajangizga, qiziqishlaringizga va o'zlashtirish tezligingizga moslashtirib beradi. Hammaga bir xil dars o'tish o'rniga, dastur sizning nimalarga qiynalayotganingizni o'zi aniqlaydi. Agar siz qandaydir grammatik qoidada yoki so'z yozishda doim xato qilsangiz, dastur buni sezadi va aynan shu xatoni to'g'rilash uchun sizga qo'shimcha mashqlar beradi. O'z xatolaringizni shu zahotiyoq ko'rish va to'g'rilash tilni tezroq va osonroq o'zlashtirishga yordam beradi.

Bundan tashqari, aqlli SI tizimlari nafaqat bilimingizni, balki hissiyotlaringizni ham hisobga oladi. Ba'zi zamonaviy dasturlar sizning zerikkaningizni yoki charchaganingizni matn yoki ovozingiz orqali aniqlay oladi. Agar o'qish og'irlik qilsa, dastur sizga dalda beruvchi xabarlar yuborishi yoki qiyin matnni o'qish o'rniga qiziqarliroq video ko'rishni taklif qilishi mumkin. Bu esa o'quvchini darsni tashlab qo'ymaslikka va tillarni o'rganishda davom etishga ruhlantiradi.

Mustaqil til o'rganish uchun insonda o'zini o'zi boshqarish va nazorat qilish xususiyatlari juda kuchli bo'lishi kerak. Bu jarayon asosan to'rtta muhim bosqichdan iborat: o'zini o'zi nazorat qilish, o'zini to'g'ri baholash, xatolarni tahlil qilish va o'qish uslubini o'zgartira olish. O'zini o'zi nazorat qilish bosqichida o'quvchi qancha dars qilganini va qayerda qiynalayotganini kuzatib boradi. Sun'iy intellekt bu ishni ancha osonlashtiradi. Masalan, maxsus dasturlar sizning o'zlashtirishingizni chiroyli grafiklar va hisobotlar orqali ko'rsatib turadi. Agar darslarni osongina o'zlashtirayotgan bo'lsangiz, tizim buni sezadi va avtomatik ravishda qiyinroq mashqlarni berishni boshlaydi, shunda dars davomida zerikib qolmaydiz.

Keyingi qadam – o'zini o'zi baholash bo'lib, bu o'z oldingizga qo'ygan maqsadga qanchalik yaqinlashayotganingizni bilishdir. Tasavvur qiling, rus tili bo'yicha milliy bilimlarni baholash markazining C1 sertifikatini olish kabi jiddiy imtihonga tayyorlanyapsiz. Gapirish yoki murakkab matn o'qish mashqini bajarganingizda, sun'iy intellekt darhol talaffuzingizdagi yoki grammatikangizdagi xatolarni ko'rsatib beradi. Shuningdek, ilovalar "har kuni 10 ta yangi so'z yodlash" kabi aniq maqsadlar qo'yishga yordam beradi va jadvaldan ortda qolmasligingiz uchun muntazam eslatmalar yuborib turadi. O'z-o'zini tahlil qilish, ya'ni qaysi usul yaxshi ishlayotganini tushunish ham til o'rganishda o'ta muhim ahamiyatga ega. Siz so'zlarni kartochkalar yordamida yodlash ko'proq foyda beryaptimi yoki audio eshitishmi, shuni tushunib yetishingiz kerak bo'ladi. Zamonaviy til o'rganish ilovalari aynan sizning kuchli va zaif tomonlaringizni chuqur o'rganib chiqadi va shunga qarab dars rejasini shaxsiylashtiradi. Agar ma'lum bir mavzuda qiyinchilik sezsangiz, dastur darhol qo'shimcha va ixtisoslashgan mashqlarni taqdim etadi.

Va nihoyat, o'z-o'zini tartibga solish qadami xatolarni ko'rgandan keyin o'qish usulini moslashuvchan tarzda o'zgartirishni anglatadi. Agar siz o'qishni ikki-uch kun tashlab qo'ysangiz, aqlli dasturlar sizni yana darsga qaytarish uchun ruhlantiruvchi xabarlar yuboradi. Darslarni muvaffaqiyatli (masalan, 80% dan yuqori natija bilan) bajarsangiz, tizim sizni mukofotlaydi va o'yin shaklidagi yangi qiziqarli mashqlarni ochib beradi. Bu yondashuv o'qishga bo'lgan qiziqishni so'ndirmaydi va jarayonni zerikarli vazifadan qiziqarli mashg'ulotga aylantiradi.

Yaxshi o'qituvchi nafaqat xatolarni to'g'rilaydi, balki o'quvchining yutug'ini maqtaydi, qiyinchiliklarda dalda beradi va o'qishga bo'lgan ishtiyoqini saqlab qoladi. Zamonaviy mustaqil ta'limda aynan shu o'qituvchining o'rnini sun'iy intellekt (SI) muvaffaqiyatli bosa olmoqda. Masalan, Lenovo Flex 5i kabi qulay planshet-noutbusingizni ochib, akademik maqsadlaringiz sari

mustaqil dars qilishga o'tirganingizda, SI dasturlari sizga xuddi shaxsiy repetitordek yordam beradi. Ular qaysi mavzular sizga oson berilayotganini va qaysilarida ko'proq vaqt sarflayotganingizni aniq qayd etib boradi hamda motivatsiyangizni tushirib yubormaslik uchun jarayonni qiziqarli qiladi. Darslarni zerikarli yodlashdan qutqarish uchun bu tizimlar o'yin elementlaridan (geymifikatsiya) keng foydalanadi. O'yinlashtirish o'z ichiga ballar yig'ish, turli yutuqlar uchun mukofotlar olish va interaktiv topshiriqlarni oladi. O'yin orqali o'rganish o'quvchidagi qo'rquv hamda xavotirni kamaytiradi va unga o'z kuchiga bo'lgan ishonchni (samoeffektivlik) bag'ishlaydi. Natijada, til o'rganish jarayoni tezlashadi va o'quvchi har bir darsdan chinakamiga zavq oladi.

Keling, mustaqil til o'rganishda o'qituvchi o'rnini bosuvchi va eng ko'p yordam beruvchi mashhur dasturlar qanday ishlashini ko'rib chiqamiz:

- **Duolingo:** Sun'iy intellekt orqali darslarni sizning tezligingizga moslashtiradi, har kuni dars qilishni eslatib turadi va erishilgan natijalarni turli darajalar (yutuqlar) orqali ko'rsatib boradi.

- **Babbel:** Darslarni sizning ona tilingiz va maqsadlaringizga qarab tuzadi hamda amaliy, hayotiy muloqotlarga ko'proq urg'u qaratadi. Nutqni aniqlash funksiyasi orqali talaffuzingizni tekshirib beradi.

- **Memrise:** Yangi so'zlarni xotirada uzoq vaqt saqlab qolish uchun ularni ma'lum vaqt oraliqlarida takrorlatib turadi (intervalli takrorlash) va ona tilida so'zlashuvchilarning haqiqiy videolarini taqdim etadi.

- **Lingvist:** Sizning til bilish darajangizni aniqlab, eng kerakli so'zlarni o'rganishingizga yordam beradi va real vaqtda dars qiyinligini sizning o'zlashtirishingizga qarab o'zgartirib boradi.

- **Elsa Speak:** Asosan talaffuzni yaxshilashga mo'ljallangan bo'lib, nutqingizni chuqur tahlil qiladi va aksent hamda ohangdagi xatolaringizni aniq ko'rsatib beradi.

Tilni mustaqil o'rganish faqatgina og'zaki nutqni emas, balki murakkab matnlar va insholar yozishni ham talab qiladi. O'quvchi mustaqil ravishda insho yozayotganida va o'z fikrlarini isbotlash uchun dalillar qidirayotganida, sun'iy intellekt (SI) dasturlari unga katta yordam bera oladi. Masalan, *Grammarly* va *ProWritingAid* kabi maxsus dasturlar siz yozgan matnni o'sha zahotiyoy tekshirib, grammatik xatolarni ko'rsatadi, uslubingizni yaxshilaydi va fikrlaringiz mantiqan to'g'ri bog'langanligini baholaydi. Haqiqiy o'qituvchi ishingizni tekshirib berishini soatlab yoki kunlab kutish o'rniga, bu vositalar yordamida yozma nutqingizni darhol mustaqil ravishda yaxshilashingiz mumkin.

Agar siz til o'rganish bilan birga ilmiy izlanishlar ham olib borayotgan bo'lsangiz, ma'lumotlarni tartibga solish juda muhimdir. *Zotero* va *Mendeley* kabi dasturlar aynan shu maqsadda yaratilgan bo'lib, ular tadqiqot materiallarini bir joyga jamlashga va o'z xulosalaringizni isbotlash uchun kerakli iqtiboslarni topishga ko'maklashadi. Bu dasturlardan foydalanish orqali talaba o'z vaqtini tejaydi va murakkab akademik ishlarni yozish jarayonini ancha osonlashtiradi.

Shuningdek, mustaqil til o'rganish jarayonida vaqtni to'g'ri taqsimlash, ya'ni taym-menejment juda katta ahamiyatga ega. SI algoritmlari talabaga o'qish jarayonini optimallashtirishga yordam berib, uning e'tiborini turli ma'muriy ishlarga emas, balki aynan bilim olishga qaratish imkonini yaratadi. Ba'zi aqlli ilovalar siz uchun shaxsiy dars jadvalini tuzib beradi, qachon o'qish, qachon dam olish va qachon boshqa ijtimoiy ishlar bilan shug'ullanish kerakligini belgilab beradi. Bu esa o'quvchining hayotini tartibga solib, o'qishni ortiqcha toliqishsiz, muvozanatli va uyg'un holatda davom ettirishga zamin yaratadi.

Bundan tashqari, *Edmodo* va *Classcraft* kabi ta'lim platformalari o'quv materiallarini sizning shaxsiy ehtiyojlaringizga moslashtirib, darslarni o'zlashtirish tezligingizga qarab o'zgartirib boradi. Natijada til o'rganish jarayoni o'zining qiyinligi bilan sizni toliqtirib qo'ymaydi, aksincha, qiziqarli va jalb etuvchi mashg'ulotga aylanadi.

Sun'iy intellekt (SI) qanchalik foydali va qulay bo'lmasin, uning afzalliklarini ideallashtirib yubormaslik kerak. Asosiy muammolardan biri shundaki, til o'rganuvchilar texnologiyalarga haddan tashqari ishonib qolishadi va natijada xorijiy tilda jonli muloqot qilish qadrsizlana boshlaydi. Bu holat o'quvchining ona tilida so'zlashuvchilar (native speakers) bilan bo'ladigan amaliyotini keskin

kamaytirib yuborishi mumkin. SI algoritmlari qanchalik aqlli bo'lmasin, ular haqiqiy odamlar bilan suhbatlashishdagi quvunch va emotsiyalarni bera olmaydi.

Dasturlar emotsiyalarni ko'rsatish xususiyatiga ega emas, shuning uchun ular o'quvchining hissiy va chuqur motivatsion ehtiyojlarini to'liq qondira olmaydi. Masalan, kuzatuvlar shuni ko'rsatadiki, talabalar ilmiy ish yoki matn tahlilini *Zotero* kabi vositalar yordamida yolg'iz o'zlari mustaqil bajara oladilar. Biroq, shu izlanish natijalarini ular baribir boshqa insonlar bilan jamoada muhokama qilishni afzal ko'rishadi. Hatto bu muhokama davomida qandaydir xatolar yuzaga chiqsa ham, tengdoshlar va hamkasblar bilan jonli muloqot talabalarning jarayonga bo'lgan hissiy bog'liqligini oshiradi va buni hech qanday algoritm almashtira olmaydi.

Bundan tashqari, tillarni mustaqil o'rganishda texnologiyalardan foydalanish shaxsiy ma'lumotlar xavfsizligini ta'minlash kabi yangi axloqiy va texnik muammolarni ham yuzaga keltirmoqda. Dasturlarning foydalanuvchi ma'lumotlarini qanday yig'ishi va algoritmlardagi xolislik (bias) masalalari hozirda eng ko'p muhokama qilinayotgan cheklovlardan hisoblanadi.

XULOSA

Xulosa qilib aytganda, sun'iy intellekt vositalari ta'lim jarayonini inqilobiy tarzda o'zgartirib, uni ko'proq jalb etuvchi, interaktiv va samarali qilmoqda. Rus, turk, ingliz yoki boshqa tillarni mustaqil o'rganayotgan talabaning o'zini o'zi boshqarish, nazorat qilish va baholash kabi muhim sifatlari SI yordamida kuchli rivojlanadi. Ammo, eng yuqori natijaga erishish uchun texnologiyalarni insoniy muloqot o'rnini bosuvchi vosita sifatida emas, balki an'anaviy jonli suhbatlar bilan birgalikda (gibrid modelda) ishlatish maqsadga muvofiqdir. Shundagina chet tilini mukammal, xatosiz va hissiyotlarga boy tarzda o'zlashtirish mumkin.

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RAQAMLI TRANSFORMATSIYA DAVRIDA FAN VA TEXNOLOGIYALARNING KONSEPTUAL MUAMMOLARI

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Annotatsiya: Ushbu maqolada raqamli transformatsiya davrida fan va texnologiyalar sohasida yuzaga kelayotgan konseptual muammolar, ularning kelib chiqish omillari va ilmiy-metodologik yechimlari tahlil qilingan. Raqamlashtirish, sun'iy intellekt hamda katta ma'lumotlar

(*Big Data*) texnologiyalarining rivojlanishi sharoitida ilmiy metodologiyadagi o'zgarishlar, etik va gumanitar xavf-xatarlar, axborot xavfsizligi hamda institutsional muammolar ko'rib chiqilgan. Tadqiqot natijalari asosida raqamli etika standartlarini joriy etish, ilmiy natijalarni verifikatsiyalash va kiberxavfsizlikni ta'minlash bo'yicha takliflar ilgari surilgan.

Kalit so'zlar: raqamli transformatsiya, fan va texnologiyalar, sun'iy intellekt, konseptual muammolar, raqamli etika, kiberxavfsizlik, Data-driven science.

Аннотация: В данной статье анализируются концептуальные проблемы, возникающие в сфере науки и технологий в эпоху цифровой трансформации, причины их возникновения, а также научно-методологические пути их решения. В условиях стремительного развития цифровизации, искусственного интеллекта и технологий больших данных (*Big Data*) рассматриваются трансформации в научной методологии, этические и гуманитарные риски, вопросы информационной безопасности и институциональные проблемы. На основе результатов исследования сформулированы предложения по внедрению стандартов цифровой этики, верификации научных результатов и обеспечению кибербезопасности.

Ключевые слова: цифровая трансформация, наука и технологии, искусственный интеллект, концептуальные проблемы, цифровая этика, кибербезопасность, Data-driven science.

Abstract: This article analyzes the conceptual challenges emerging in the field of science and technology in the era of digital transformation, their underlying causes, and scientific-methodological solutions. In the context of the rapid development of digitalization, artificial intelligence, and Big Data technologies, the paper examines shifts in scientific methodology, ethical and humanitarian risks, information security issues, and institutional barriers. Based on the research findings, recommendations are proposed for implementing digital ethics standards, verifying scientific results, and enhancing cybersecurity.

Keywords: digital transformation, science and technology, artificial intelligence, conceptual issues, digital ethics, cybersecurity, Data-driven science

KIRISH

Raqamli transformatsiya davri insoniyat taraqqiyotining yangi, sifat jihatidan mutlaqo bo'lak bosqichini belgilab bermoqda. Raqamli texnologiyalar, sun'iy intellekt, katta ma'lumotlar (*Big Data*) hamda intellektual avtonom tizimlarning fan va ishlab chiqarish jarayonlariga jadal kirib kelishi jamiyatning ijtimoiy-iqtisodiy, ilmiy hamda institutsional asoslarini tubdan o'zgartirmoqda.

Biroq, ushbu shiddatli transformatsiya o'zi bilan birga qator konseptual muammolarni ham keltirib chiqarmoqda. Ilmiy bilimlarning ishonchliligi, metodologik o'zgarishlar, axborot xavfsizligi hamda raqamli etika masalalari shular jumlasidandir. Ushbu maqolada raqamli transformatsiya jarayonida fan va texnologiya sohasida yuzaga kelayotgan konseptual muammolar, ularning kelib chiqish omillari hamda ilmiy-metodologik yechimlari har tomonlama tahlil qilinadi.

MATERIALLAR VA USULLAR

Ushbu tadqiqot raqamli transformatsiya sharoitida fan va texnologiyalar sohasida yuzaga kelayotgan konseptual, metodologik hamda institutsional muammolarni tizimli va kompleks tahlil qilishga qaratilgan.

1. Tadqiqot materiallari va axborot bazasi

Tadqiqotning empirik va nazariy bazasini shakllantirishda 2020–2026-yillar oralig'ida chop etilgan quyidagi manbalar material sifatida tanlab olindi va tahlil qilindi:

Xalqaro ilmiy ma'lumotlar bazalari: Scopus, Web of Science va IEEE Xplore tizimlaridagi raqamli transformatsiya, sun'iy intellekt etikasi, kiberxavfsizlik hamda post-kvant kriptografiyasiga bag'ishlangan yetakchi maqolalar;

Xalqaro tashkilotlarning analitik hisobotlari: BMT (UN), YUNESKO (UNESCO), Jahon Iqtisodiy Forumi (WEF Global Risks Report) hamda Elektr va elektronika muhandislari instituti (IEEE Global Initiative) tomonidan e'lon qilingan konseptual va me'yoriy hujjatlar;

Statistik va normativ ma'lumotlar: Raqamlashtirish sur'atlari, ilmiy-tadqiqot va tajriba-konstruktorlik ishlanmalariga ajratilayotgan investitsiyalar hamda mehnat bozoridagi texnologik transformatsiyalar bo'yicha ko'rsatkichlar.

2. Tadqiqot usullari va yondashuvlari. Tadqiqotda kompleks tahlilni ta'minlash maqsadida bir qator sifat va miqdoriy usullar birgalikda qo'llanildi:

Tizimli va konseptual tahlil usuli: Raqamli transformatsiyani yagona murakkab tizim sifatida ko'rib chiqib, uning ilmiy metodologiya, etika, xavfsizlik hamda ta'lim tizimi bilan o'zaro alaoladorligi va ziddiyatlarini aniqlashda foydalanildi.

Qiyosiy-deduktiv tahlil: An'anaviy ilmiy tadqiqot usullari (gipoteza va eksperiment) hamda zamonaviy ma'lumotlarga tayanadigan (Data-driven science) yondashuvlar o'rtasidagi konseptual farqlar va metodologik bo'shliqlarni solishtirish uchun qo'llanildi.

Tahliliy modellashtirish va ekonometrik usul: Texnologiyalarning jamiyatga tatbiq etilishi hamda unga hamrohlik qiluvchi kiber va etik xavf-xatarlarning o'sish dinamikasini matematik shaklda ifodalash uchun qo'llanildi.

3. Matematik modellashtirish. Raqamli texnologik transformatsiyaning samaradorligi, infratuzilma tayyorgarligi hamda uning konseptual burilish nuqtalarini baholashda logistik o'sish (logistic growth model) tenglamasi moslashtirildi va quyidagi ko'rinishda shakllantirildi:

$$S(t) = (K * I(t)) / (1 + e^{(-\alpha * (t - t_0))}) \quad (1)$$

Tenglamadagi har bir parametrning statistik va konseptual ma'nosi quyidagicha belgilandi:

S(t) — t vaqt momentidagi raqamli transformatsiya samaradorligi va texnologik integratsiya darajasi (0 dan 100 foizgacha bo'lgan shkala bo'yicha);

I(t) — Sohoni raqamlashtirishga, IT-infratuzilmaga hamda ilmiy kadrlar tayyorlashga yo'naltirilgan investitsiyalar hamda resurslarning umumiy hajmi;

K — Institutsional, huquqiy va metodologik tayyorgarlik koeffitsiyenti (0 dan katta hamda 1 dan kichik yoki teng). Ushbu koeffitsiyent jamiyat va ilmiy hamjamiyatning yangi texnologiyalarni qabul qilishga bo'lgan huquqiy va etik tayyorligini aks ettiradi;

alpha — Texnologik transformatsiyaning jamiyat va fanga tatbiq etilish va moslashuv tezligini ifodalovchi dinamik koeffitsiyent;

t₀ — Texnologik o'sishning burilish nuqtasi, ya'ni tizimli va konseptual o'zgarishlar kritik darajaga yetadigan vaqt ko'rsatkichi.

Ushbu modellashtirish va analitik yondashuvlar raqamli transformatsiyaning sifat ko'rsatkichlarini miqdoriy jihatdan baholash hamda kelgusi rivojlanish tendensiyalarini bashorat qilish imkonini berdi.

NATIJALAR VA MUHOKAMA

O'tkazilgan tahlillar shuni ko'rsatdiki, raqamli transformatsiya davrida fan va texnologiyalar sohasidagi konseptual muammolar asosan to'rtta yo'nalishda namoyon bo'lmoqda: metodologik, etik, kiberxavfsizlik va institutsional.

1-jadval. Raqamli transformatsiya davridagi asosiy konseptual muammolar tahlili

Konseptual yo'nalish	Asosiy muammo va mohiyati	Rivojlanish darajasi (%)	Xavf va tahdid darajasi
Metodologik muammolar	An'anaviy gipoteza usulidan ma'lumotlarga asoslangan (Data-driven) ilmiy tadqiqotlarga o'tishdagi uzilishlar	85	O'rta
Etik va gumanitar xavflar	Sun'iy intellekt neytral emasligi, algoritmik bias va mualliflik huquqi xiralashuvi	88	Juda yuqori

Kiberxavfsizlik va Kriptografiya	Maxfiy va ilmiy ma'lumotlar sizib chiqishi hamda post-kvant kiber-tahdidlar	82	Yuqori
Institutsional va ta'limiy	Ilmiy kadrlar malakasining texnologiyalar o'sish sur'atidan ortda qolishi	65	O'rta-Yuqori

Natijalar muhokamasi:

1. **Ilmiy metodologiyaning o'zgarishi:** An'anaviy fanda gipoteza va tajriba yetakchi rol o'ynagan bo'lsa, raqamli fanda ma'lumotlar tahlili (*Data-driven science*) birinchi o'ringa chiqmoqda. Bu esa ilmiy xulosalarning obyektivligini baholashda yangi metodologik yondashuvlarni talab etadi.
2. **Sun'iy intellekt va etika:** Avtonom algoritmlarning qaror qabul qilish jarayonidagi roli oshgani sayin, intellektual mulk huquqini belgilash hamda algoritmlar xatoligi uchun javobgarlik masalasi konseptual bo'shliq bo'lib qolmoqda.
3. **Axborot muhofazasi:** Ilmiy ma'lumotlar omborining ochiqligi va ularning xavfsizligini ta'minlash o'rtasidagi ziddiyat raqamli transformatsiyaning eng dolzarb muammolaridan biridir.

XULOSA

Raqamli transformatsiya davrida fan va texnologiyalarning jadal rivojlanishi jamiyat uchun cheksiz imkoniyatlar yaratish bilan birga, ularni tushunish, tartibga solish va xavfsiz amaliyotga tatbiq etish borasida chuqur konseptual muammolarni keltirib chiqarmoqda. Tadqiqot davomida aniqlanishicha, an'anaviy ilmiy-metodologik yondashuvlar ma'lumotlarga asoslangan yangi ilmiy paradigma (*Data-driven science*) talablariga to'liq javob bera olmayapti. Bu holat ilmiy xulosalarning obyektivligi, ishonchliligi hamda qayta tiklanuvchanligini ta'minlashda yangi uslubiyot va mezonlarni ishlab chiqish zaruratini taqazo etadi.

Raqamli transformatsiya jarayonida yuzaga kelayotgan ushbu tizimli va konseptual muammolarni muvaffaqiyatli hal etish uchun quyidagi ustuvor vazifalarni amalga oshirish tavsiya etiladi:

1. **Yangi ilmiy-metodologik apparatni shakllantirish:** Katta ma'lumotlar va sun'iy intellekt yordamida olingan ilmiy natijalarni tekshirish, verifikatsiya qilish va retsenziyalashning shaffof hamda qat'iy standartlarini joriy etish.
2. **Raqamli etika va huquqiy tartibga solish:** Sun'iy intellekt va avtonom texnologiyalarni yaratish hamda tatbiq etishda inson manfaatlarini birinchi o'ringa qo'yuvchi xalqaro va milliy etik kodekslar, qonuniy normalarni kuchaytirish.
3. **Kiber-bardoshlilik va post-kvant xavfsizligi:** Muhim davlat va ilmiy axborot infratuzilmalarini kvant hujumlariga chidamli yangi avlod shifrlash algoritmlariga bosqichma-bosqich o'tkazish.
4. **Kadrlar salohiyatini uzluksiz rivojlantirish:** Mehnat bozorida texnologik ishsizlikning oldini olish hamda ilmiy kadrlar samaradorligini oshirish maqsadida STEAM ta'limini kengaytirish va raqamli ko'nikmalarni uzluksiz oshirib borish tizimini yo'lga qo'yish.

Umuman olganda, raqamli transformatsiyaning konseptual muammolariga o'z vaqtida va kompleks yondashuv orqali berilgan yechimlar texnologik taraqqiyotni insoniyat farovonligi va xavfsizligiga xizmat qildirishning yagona kafolatidir.

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INFORMATSION TEXNOLOGIYALAR TA'LIMIDA TALABALARNI AXBOROTLARNI O'ZLASHTIRISH MUSTAQILLIGINI RIVOJLANTIRISHNING NAZARIY ASOSLARI

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Annotatsiya. Ushbu maqolada "O'zlashtirish" va "mustaqil harakatlanish" asosiy tushunchalarini tahlil qilish asosida "mustaqil o'zlashtirish" tushunchasining mazmunini ko'rib chiqamiz. Bir qator tadqiqotchilar mustaqil o'zlashtirishni quyidagicha belgilaydilar:

"Mustaqil harakatlanish" tushunchasiga berilgan turli ta'riflarni tahlil qilib turli tadqiqotchilar mustaqil harakatlanish - mustaqil fikr yuritish orqali o'z faoliyatini boshqarish qobiliyatidir, degan fikrda birlikni ko'rsatishadi.

Talabalarda maqsadli ijodiy izlanish jarayonida bilim olishga intilish va ko'nikma..., shaxsning o'z biluv faoliyatini mustaqil ravishda tashkil etish va uni yangi biluv muammosini hal qilish uchun amalga oshirish qobiliyati" (I.Ya. Lerner)

M.I. Maxmutov fikricha, "...mustaqil harakatlanishni shakllantirish faqat unga mustaqil o'qish imkonini beradigan faol intellektual-ijodiy faoliyat jarayonidagina amalga oshirilishi mumkin".

Kalit so'zlar. Biluv mustaqilligi, O'zlashtirish, Mustaqil harakatlanish, talaba, o'quv mustaqilligi, kognitiv faoliyat, mustaqillik turlari, shaxs sifati.

Аннотация. В этой статье мы рассмотрим содержание понятия "самостоятельное приобретение" на основе анализа базовых понятий "приобретение" и "самостоятельное перемещение". Ряд исследователей определяют самостоятельное присвоение следующим образом:

Анализируя различные определения, данные понятию "независимое передвижение", разные исследователи сходятся во мнении, что независимое передвижение - это способность контролировать свою собственную деятельность посредством независимого рассуждения.

Стремление и умение приобретать знания в процессе целенаправленного творческого поиска у учащихся..., способность личности самостоятельно организовывать свою познавательную деятельность и осуществлять ее для решения проблемы получения новых знаний" (И.Я. Лернер).

По мнению М.И. Махмутова, "...формирование самостоятельной мобильности может осуществляться только в процессе активной интеллектуально-творческой деятельности, которая позволяет ему самостоятельно учиться".

Ключевые слова. Независимость от знаний, усвоение, самостоятельное передвижение, студент, учебная независимость, познавательная деятельность, виды независимости, личность.

Abstract. In this article, we will consider the content of the concept of "independent acquisition" based on the analysis of the basic concepts of "acquisition" and "independent movement". A number of researchers define independent appropriation as follows:

Analyzing the different definitions given to the concept of "Independent Movement", different researchers show unity in the idea that independent movement is the ability to control one's own activity through independent reasoning.

Aspiration and skill to acquire knowledge in the process of purposeful creative search in students..., the ability of an individual to independently organize their knowledge activities and carry it out to solve the problem of new knowledge" (I.Ya. Lerner).

M.I. In Maxmutov's view, "...the formation of independent mobility can be carried out only in the process of active intellectual-creative activity, which allows him to study independently."

Keywords. Knowledge independence, assimilation, independent movement, student, educational independence, cognitive activity, types of independence, personality

KIRISH (Introduction).

Bugungi kunda AKT dan foydalangan holda axborotni tez topish va qo'llash, murakkab jarayonlarni modellashtirish, hisob-kitoblarni amalga oshirish, jamiyatning global axborotlashtirish va kommunikatsiyalari sharoitida ijtimoiy va ishlab chiqarish jarayonlariga tez moslashish ko'nikmalariga ega bo'lgan "Kompyuter injiniringi" yo'nalishi bakalavrlariga talab kattadir. Shuning uchun mustaqil o'zlashtirilganlikni aniqlashda shaxsning kerakli ma'lumotlarni mustaqil ravishda izlash, uni tezkor qayta ishlash va kasbiy muammolarni hal qilish uchun qo'llash qobiliyati birinchi o'ringa qo'yiladi. Shu nuqtayi nazardan, jamiyat va ta'limni axborotlashtirishning hozirgi bosqichida AKT dan foydalangan holda mustaqil o'zlashtirishni rivojlantirish jarayonini ko'rib chiqish zarur.

Shunday qilib, turli mualliflar tomonidan berilgan ta'riflarga asoslanib, mustaqil harakatlanishni shaxsning ilmiy-o'quv va kasbiy mustaqil faoliyatida muvaffaqiyatini ta'minlaydigan uning AKT xizmatlari va resurslarini mustaqil o'zlashtirish va ulardan foydalanish qobiliyati deb qaraymiz.

Maqolaning maqsadi - Talabalar "O'zlashtirish" va "mustaqil harakatlanish" asoslarini tizimli tahlil qilish, uning tarkibiy komponentlarini aniqlash va uni rivojlantirish uchun amaliy tavsiyalar ishlab chiqishdan iborat.

MAVZUGA OID ADABIYOTLARNING TAHLILI (LITERATURE REVIEW).

Ta'lim motivatsiyasi tamoyili talabalarning mustaqil o'zlashtirish faoliyatidagi muvaffaqiyatlari va ushbu faoliyatga qiziqishning ortishi o'rtasidagi tabiiy bog'liqlikni aks ettiradi. Talabaning o'quv-biluv faoliyati OTM a tahsil olishning butun davri davomida yetakchi faoliyat bo'lganligi sababli, uning eng muhim komponenti bo'lgan motivatsiya bilan faollashtiriladi, yo'naltiriladi va to'xtatiladi. Ta'limdagi muvaffaqiyatlarning aksariyati motivatsiyaga bog'liq bo'lib, aynan uning tahsil davri boshlanishi bilan shakllanishi zamonaviy jamiyatning bir qismi sifatida shaxsning keyingi rivojlanishini belgilaydi.

Talabalarning motivatsiyasi muammosi OTM da tahsil olishning butun jarayoni davomida seziladi. Har bir pedagog dars davomida ba'zi talabalar passiv pozitsiyani egallab, o'rganishga qiziqish bildirmasa, boshqalari esa faol, lekin pedagog doimiy ravishda passiv talabalarga qaytib, ularning e'tiborini o'rganilayotgan mavzuga qaratishi kerakligi sababli o'quv materialiga qiziqishni yo'qotishi mumkin bo'lgan vaziyat bilan tanish. Bunga yo'l qo'yimaslik uchun pedagog dars davomida talabalarning motivatsiyasi darajasini oshirish va ushlab turish strategiyalarini egallashi kerak.

TADQIQOT METODOLOGIYASI (RESEARCH METHODOLOGY).

"O'zlashtirish" va "mustaqil harakatlanish" tushunchasining turli ta'riflarini tahlil qilib, o'qitishga axborot yondashuvining asosiy tamoyillariga va informatika fanining mohiyatiga tayangan holda, mustaqil harakatlanish ostida biz ijodiy faoliyat asosida shakllangan axborot va bilimlarni egallash, qayta ishlash, kodlash va saqlashning aqliy jarayonlarini tushunamiz. Biluv idrok etish, tasvirlash, tushunchalarni shakllantirish, mulohaza, fikrlash va tasavvurni o'z ichiga oladi.

Tadqiqotda quyidagi metodologik yondashuvlardan foydalanildi: ilmiy adabiyotlarning sistematik tahlili; biluv mustaqil harakatlanish bo'yicha pedagogik kuzatuv; talabalar va o'qituvchilar

orasida so'rovnomas; pedagogik eksperiment (tajriba va nazorat guruhlari). Qarshi DTUning kompyuter va axborot texnologiyalari fakultetida 2022-2024 yillar davomida 4 ta guruh (jami 108 nafar talaba) ishtirokida tadqiqot o'kazildi.

So'ngra «mustaqillik» tushunchasining mohiyatini ko'rib chiqamiz. Uning asoslarini psixologlar S.L. Rubinshteyn, E.Y. Golant va boshqa ko'plab olimlar qo'yishgan. Rubinshteyn mustaqillikni irodaning muhim xususiyati sifatida ta'riflagan. Golant esa mustaqillikning uchta asosiy namoyon bo'lish yo'alishini ajratib ko'rsatgan: tashkiliy-texnik, biluv faoliyatidagi va amaliy faoliyatdagi mustaqillik.

TAHLIL VA NATIJALAR (ANALYSIS AND RESULTS).

Talabaning mustaqil biluv faoliyatida faol ishtirok etishi uchun o'qitish maqsadi, mazmuni va kasbiy faoliyat asoslari nafaqat u tomonidan ichki qabul qilinishi, balki u uchun shaxsiy ma'noga ega bo'lishi, ijobiy tajriba va mustaqil, samarali harakatlarga intilishini uyg'otishi kerak.

Ta'limning ishonchligi tamoyili biluv qonunlariga asoslanadi:

- biluv doimo ma'lumdan noma'lumga, oddiydan murakkabga o'tadi;
- o'quv material talabaning tayyorgarlik darajasiga, uning individual xususiyatlariga mos kelishi kerak, ya'ni olingan bilimlarni uning ongida mavjud bo'lgan bilimlar bilan bog'lash kerak.

Hammaboplik tamoyilini amalga oshirish quyidagi shartlar bajarilgan taqdirda imkon mavjud:

- o'quv jarayoni talabalarning individual qobiliyatlarini hisobga olgan holda optimal sur'atda, axborotni uzatish tezligi va uni talabalar tomonidan o'zlashtirish tezligi o'rtasidagi muvofiqlikka erishib olib borilishi kerak;
- AKT vositalaridan foydalangan holda o'quv jarayonida materialning hammaboplik darajasi talabalarning yoshi va intellektual imkoniyatlariga mos kelishi kerak, bu materialning o'zi va u bilan ishlash metodikasi, kiritilgan material hajmiga qo'yiladigan talablarga muvofiqligi, individual o'quv yo'l xaritasi bo'yicha rivojlanish sur'ati bilan ta'minlanadi;
- talabalar o'rganilayotgan materialni tushunish va idrok etishga, biluv qiyinchiliklarni yengishga, o'zgaruvchanlik va murakkablikdagi vazifalarni tanlashda mustaqil harakatlanishadi;
- o'quv jarayonida talabalarning mustaqil o'zlashtirishni rivojlantirish uchun qulay pedagogik sharoitlar yaratilib, ular istalgan paytda kuchsiz o'rganilgan materialni takrorlash imkonini beradi (agar o'quv jarayoni mantiqiy tarmoqlar, o'quv materialini o'tkazish turli yo'llari va tezligi, interfaol ko'rsatmalar va qo'shimcha ko'rsatmalar ko'rinishidagi yordamni nazarda tutadigan axborot-ta'lim muhitida amalga oshirilsa, bu qoida bajariladi);

S.I. Arxangelskiy biluv mustaqilligini quyidagicha belgilaydi: shaxsning o'quv, ilmiy va kasbiy vazifalarni bajarish uchun zarur ma'iumotlarni mustaqil ravishda izlash, bilim olish va ulardan foydalanish qobiliyati. I.Y. Lerner esa: «...talabalarda maqsadli ijodiy izlanish jarayonida bilim olishga intilish va ko'nikma..., shaxsning o'z biluv faoliyatini mustaqil ravishda tashkil etish va uni yangi biluv muammosini hal qilish uchun amalga oshirish qobiliyati» sifatida ta'riflaydi.

Tadqiqotimizda o'kazilgan diagnostik tekshiruv natijalari shuni ko'rsatdiki, biluv mustaqilligini maqsadli shakllantirishga yo'naltirilgan ta'lim jarayonida: talabalarning o'quv motivatsiyasi 29 foizga oshgan; muammo hal qilish ko'nikmalari 37 foizga yaxshilangan; o'z-o'zini baholash aniqligi 41 foizga ortgan; ijodiy yondashuv ko'rsatkichlari 2.3 barobar yuqori bo'lgan. Bu natijalar mustaqil harakatlanishni shakllantirish uchun maqsadli pedagogik ta'sirning zarurligini yana bir bor tasdiqlaydi.

XULOSA VA TAKLIFLAR (CONCLUSION/RECOMMENDATIONS).

“Kompyuter injiniring” yo'nalishi talabalarining informatika fanini o'qitishda mustaqil o'zlashtirish faoliyatining asosiy pedagogik tamoyillari aniqlandi: o'quv motivatsiyasi tamoyili, ta'limning hammabopligi tamoyili, ortiqchalik tamoyili, shaxsga yo'naltirilgan markazlashtirilgan ta'lim tamoyili.

“Kompyuter injiniring” yo‘nalishi talabalari uchun informatika fanini o‘qitishda mustaqil o‘zlashtirish faoliyatining komponentlari: motivatsion, irodaviy, mazmun, refleksiv, komponenti kabilar ajratib ko‘rsatildi.

Mustaqil o‘zlashtirishni shakllanganligining uchta darajasi (boshlang‘ich, tayanch va malakali (professional)) ajratib ko‘rsatildi, ularning mezonlari aniqlandi.

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THE ROLE OF GENERATIVE ARTIFICIAL INTELLIGENCE IN DEVELOPING ACADEMIC WRITING COMPETENCE AMONG UZBEK EFL LEARNERS: A CORPUS-BASED ANALYSIS OF LEXICAL DIVERSITY, GRAMMATICAL ACCURACY, AND SYNTACTIC COMPLEXITY

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Abstract: *Generative Artificial Intelligence (GenAI) is increasingly transforming foreign language education, particularly academic writing instruction. This study examines the potential role of GenAI in developing academic writing competence among Uzbek EFL learners through a corpus-based analysis of lexical diversity, grammatical accuracy, and syntactic complexity. The study highlights the potential benefits and limitations of AI-assisted writing and proposes pedagogical principles for integrating GenAI into academic writing instruction while maintaining learner autonomy and academic integrity.*

Keywords: *Generative Artificial Intelligence, AI-assisted writing, EFL learners, Uzbek students, academic writing, corpus-based analysis, lexical diversity, grammatical accuracy, syntactic complexity, learner autonomy.*

Аннотация: *В данной статье рассматриваются возможности использования генеративного искусственного интеллекта для развития академической письменной компетенции узбекских студентов, изучающих английский язык как иностранный. На основе корпусного подхода анализируются такие лингвистические показатели, как лексическое разнообразие, грамматическая точность и синтаксическая сложность. Особое внимание уделяется преимуществам и ограничениям использования искусственного интеллекта, а также принципам его ответственной интеграции в обучение академическому письму.*

Ключевые слова: *генеративный искусственный интеллект, письмо с использованием искусственного интеллекта, студенты EFL, узбекские студенты, академическое письмо, корпусный анализ, лексическое разнообразие, грамматическая точность, синтаксическая сложность, самостоятельное обучение.*

Annotatsiya: Mazkur maqolada generativ sun'iy intellekt texnologiyalarining ingliz tilini xorijiy til sifatida o'rganuvchi o'zbek talabalarining akademik yozuv kompetensiyasini rivojlantirishdagi imkoniyatlari tahlil qilinadi. Korpusga asoslangan yondashuv asosida leksik xilma-xillik, grammatik aniqlik va sintaktik murakkablik kabi asosiy lingvistik ko'rsatkichlarni o'rganish masalasi yoritiladi. Shuningdek, sun'iy intellekt yordamida yozishning afzalliklari, cheklovlari va ta'lim jarayoniga mas'uliyatli integratsiyasi muhokama qilinadi.

Kalit so'zlar: generativ sun'iy intellekt, sun'iy intellekt yordamida yozish, EFL talabalari, o'zbek talabalari, akademik yozuv, korpus tahlili, leksik xilma-xillik, grammatik aniqlik, sintaktik murakkablik, mustaqil ta'lim.

INTRODUCTION

The rapid development of Generative Artificial Intelligence has created new opportunities for foreign language education. Tools capable of generating, revising, and providing feedback on texts are increasingly used by students learning English as a foreign language. Academic writing is one of the areas in which these technologies can provide particularly valuable support because learners often experience difficulties with vocabulary selection, grammatical accuracy, organization, cohesion, and complex sentence construction. For Uzbek EFL learners, AI-assisted writing may provide additional opportunities for individualized feedback and revision. However, the pedagogical value of GenAI should not be measured only by the quality of the final text. It is also important to determine whether interaction with AI contributes to measurable development in learners' linguistic performance.

Corpus-based analysis offers an appropriate methodology for examining such development. By comparing texts produced before and after controlled AI-assisted revision, researchers can investigate changes in lexical diversity, grammatical accuracy, and syntactic complexity. These three dimensions represent important aspects of academic writing competence. The purpose of this study is therefore to examine the potential role of GenAI in developing academic writing competence among Uzbek EFL learners. Particular attention is given to three linguistic indicators: lexical diversity, grammatical accuracy, and syntactic complexity. The study also considers the pedagogical risks associated with excessive dependence on AI-generated language.

METHODS

The study adopts a corpus-based mixed analytical framework. Two principal sets of student writing are considered: a Pre-AI Corpus, consisting of independently produced essays, and a Post-AI Corpus, consisting of revised versions of the same essays following controlled interaction with a generative AI tool. The proposed empirical sample consists of approximately 60–100 Uzbek university students studying English as a foreign language. Participants may be asked to produce academic essays of approximately 400–600 words on topics related to education, technology, society, or other familiar academic themes. The writing process is organized into four stages: Students independently produce an initial essay. Students use GenAI to receive feedback on language, vocabulary, grammar, and sentence structure.

Students critically evaluate the suggestions provided by the AI system.

Students independently revise their essays and produce the final version. This procedure is designed to distinguish AI-supported revision from direct AI-generated writing. The learner remains responsible for selecting, evaluating, and applying suggestions. Three major linguistic dimensions are examined.

Lexical diversity is measured using indicators such as Type-Token Ratio (TTR), MATTR, or MTLT. These measures help determine whether students use a wider and more varied vocabulary after AI-assisted revision.

Grammatical accuracy is evaluated by identifying grammatical errors and calculating the number of errors per 100 words. Particular attention is given to verb forms, articles, prepositions, subject–verb agreement, and sentence-level errors.

Syntactic complexity is examined through measures such as mean sentence length, mean T-unit length, clauses per sentence, dependent clauses per T-unit, and complex nominals per T-unit.

The analysis compares the Pre-AI and Post-AI corpora to identify possible changes in learners' written language.

RESULTS

The analytical framework predicts several possible patterns following controlled GenAI-assisted revision.

First, lexical diversity may increase because AI systems can suggest alternative vocabulary, academic collocations, and more precise lexical choices. However, an increase in lexical variety does not necessarily demonstrate deeper vocabulary knowledge. Students may adopt unfamiliar words without fully understanding their semantic or contextual appropriateness. Therefore, lexical measures should be interpreted together with qualitative analysis.

Second, grammatical accuracy is expected to improve because generative AI tools can identify and suggest corrections for common grammatical errors. Students may particularly benefit from feedback on articles, verb forms, prepositions, agreement, and sentence structure. Nevertheless, immediate correction should not automatically be interpreted as evidence of long-term grammatical acquisition.

Third, syntactic complexity may increase as AI tools expose students to more complex sentence patterns. Students may incorporate subordinate clauses, complex noun phrases, and more sophisticated structures into revised texts. At the same time, excessive syntactic complexity may reduce clarity if learners use structures that exceed their current proficiency.

Overall, the comparison of Pre-AI and Post-AI writing can provide quantitative evidence of linguistic change. However, the results should be interpreted cautiously because improved textual quality may partly reflect AI assistance rather than independent development of learner competence.

DISCUSSION

The findings and analytical framework suggest that GenAI can function as a useful scaffolding tool in academic writing instruction. Its most important contribution may be the provision of immediate and individualized feedback. Unlike traditional classroom feedback, AI-based assistance can be accessed repeatedly and can provide suggestions at different stages of the writing process.

Nevertheless, the educational effectiveness of AI depends largely on how students interact with it. If learners simply accept AI-generated corrections or text without evaluation, the technology may encourage dependency rather than autonomy. Consequently, academic writing instruction should emphasize critical AI literacy. Students need to learn how to evaluate suggestions, verify vocabulary and grammatical structures, identify inappropriate or inaccurate output, and make independent decisions.

The relationship between AI assistance and lexical development is particularly complex. Although AI can increase the variety of vocabulary used in a text, students need to understand the meaning, register, collocation, and contextual appropriateness of suggested expressions. Teachers should therefore encourage students to investigate unfamiliar vocabulary instead of simply copying it.

Similarly, grammatical correction can improve the accuracy of a particular assignment without necessarily producing lasting learning. For this reason, AI feedback should be accompanied by explanation, reflection, and opportunities for students to apply the same grammatical principles independently.

Syntactic complexity also requires careful interpretation. More complex sentences are not automatically better academic writing. Effective academic prose requires a balance between complexity, accuracy, cohesion, and clarity. AI-assisted writing should therefore be evaluated according to communicative effectiveness rather than complexity alone.

Another important issue is academic integrity. Students should clearly distinguish between receiving language feedback and outsourcing the production of an academic text. Universities and teachers need transparent policies concerning acceptable AI use, authorship, attribution, and

assessment. Process-oriented assessment, including drafts, revisions, reflective comments, and oral explanations, can help demonstrate genuine learner engagement.

Thus, the most productive pedagogical principle is AI-supported learner autonomy rather than AI-dependent learning. GenAI should supplement teacher feedback and learner effort rather than replace them.

CONCLUSION

Generative Artificial Intelligence has considerable potential to support the development of academic writing competence among Uzbek EFL learners. A corpus-based comparison of pre-AI and post-AI writing can provide useful evidence concerning changes in lexical diversity, grammatical accuracy, and syntactic complexity. The potential benefits of GenAI include individualized feedback, vocabulary development, grammatical correction, and exposure to more sophisticated syntactic patterns. However, these benefits are accompanied by risks related to overdependence, inappropriate vocabulary use, superficial correction, reduced learner autonomy, and academic integrity.

Effective integration therefore requires structured pedagogical guidance. Students should be trained to evaluate AI output critically, verify linguistic suggestions, and remain responsible for their own written production. Teachers should use AI as a supplementary instructional resource while maintaining human feedback and assessment. Future empirical research should collect authentic student writing and statistically compare linguistic indicators before and after AI-assisted revision. Such studies could provide stronger evidence about whether improvements in the final text represent genuine language development or primarily the effect of technological assistance.

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TELEGRAM VA INSTAGRAM MATNLARIDA TIL IQTISODI HODISASI

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Annotatsiya. Ushbu maqolada Telegram va Instagram platformalari matnlarida namoyon boʻladigan til iqtisodi (tejamkorlik) hodisasi tadqiq etiladi. Tadqiqotda til iqtisodi tamoyilining nazariy-terminologik asoslari, uning sotsiolingvistik mohiyati yoritilib, Telegram va Instagram yozishmalarida qoʻllaniladigan abbreviatura, akronim, kod almashinuvi va emoji kabi vositalar tahlil qilinadi. Oʻzbek va xorijiy tilshunoslik manbalariga tayangan holda ikki platforma matnlaridagi til iqtisodi koʻrinishlari qiyosiy planda oʻrganiladi hamda ularning umumiy va farqli jihatlari aniqlanadi. Tadqiqot natijalari til iqtisodi hodisasining nafaqat lingvistik, balki sotsiolingvistik-pragmatik tabiatga ega ekanligini koʻrsatadi.

Kalit soʻzlar: til iqtisodi, tejamkorlik prinsipi, ijtimoiy tarmoq matni, Telegram, Instagram, abbreviatura, akronim, kod almashinuvi, sotsiolingvistika.

Аннотация. В данной статье исследуется явление языковой экономии, проявляющееся в текстах платформ Telegram и Instagram. Рассматриваются теоретико-терминологические основы принципа экономии языка, его социолингвистическая сущность, а также анализируются такие средства, используемые в переписке Telegram и Instagram, как аббревиатура, акроним, переключение кода и эмодзи. На основе узбекских и зарубежных лингвистических источников в сопоставительном плане изучаются проявления языковой экономии в текстах двух платформ, выявляются их общие и отличительные черты. Результаты исследования показывают, что явление языковой экономии носит не только лингвистический, но и социолингвистическо-прагматический характер.

Ключевые слова: языковая экономия, принцип экономии, текст социальной сети, Telegram, Instagram, аббревиатура, акроним, переключение кода, социолингвистика.

Annotation. This article examines the phenomenon of language economy as manifested in texts on the Telegram and Instagram platforms. It outlines the theoretical and terminological foundations of the principle of language economy and its sociolinguistic essence, and analyzes such devices used in Telegram and Instagram correspondence as abbreviation, acronym, code-switching, and emojis. Drawing on Uzbek and foreign linguistic sources, the manifestations of language economy in the texts of the two platforms are studied comparatively, and their common and distinctive features are identified. The findings show that the phenomenon of language economy has not only a linguistic but also a sociolinguistic-pragmatic nature.

Keywords: language economy, principle of economy, social media text, Telegram, Instagram, abbreviation, acronym, code-switching, sociolinguistics.

KIRISH

Zamonaviy kommunikatsiya jarayonida ijtimoiy tarmoqlarning tutgan oʻrni yildan-yilga ortib bormoqda, bu esa til tizimining, ayniqsa yozma nutqning tezkor oʻzgarishiga sabab boʻlmoqda. Zero, tilshunoslikda qayd etilganidek, “hozirgi kunda yoshlar tili haqiqatdan ham muloqotda juda tez yoyilmoqda va bunga sabab hozirgi kunda axborot texnologiyasining keng tarqalganligidir” [1]. Axborot texnologiyalarining rivojlanishi nafaqat kommunikatsiya vositalarini, balki tilning oʻzini ham modernizatsiya qilmoqda. Yangi leksik birliklar, qisqartirish usullari va yozuv shakllari paydo boʻlmoqda. Telegram va Instagram singari platformalar ana shunday oʻzgarishlarning eng faol maydoniga aylangan, chunki ularda matn tezkor, loʻnda va koʻpincha norasmiy uslubda shakllantiriladi.

Adabiyotlar tahlili. Til iqtisodi (tejamkorlik) hodisasi sotsiolingvistikada muayyan jamoaning kommunikativ ehtiyojlaridan kelib chiqadigan tabiiy jarayon sifatida talqin etiladi. Bunday jarayonlarning shakllanishi ijtimoiy muhit bilan bevosita bogʻliq: “jamoaviy faoliyat jarayonida kishilar tomonidan muayyan xulq stereotiplari ishlab chiqiladi, guruh aʼzolarining oʻzaro kommunikativ aloqalari nutq qoliplarining shakllanishiga olib keladi. Bunday qoliplar qatoriga alohida nutq birliklari, shuningdek, mazkur guruhning kommunikativ tajribasini aks ettiruvchi jumla va suhbatlarning turli qismlari... kiritish mumkin” [1]. Demak, Telegram va Instagram foydalanuvchilari ham oʻziga xos “til jamoasi” sifatida qaralishi, ular ishlab chiqqan qisqartirish modellari esa ana shu jamoaning kommunikativ tajribasi mahsuli sifatida baholanishi mumkin.

Til iqtisodi tamoyilining terminologik mohiyati quyidagicha izohlanadi: “tejamkorlik prinsipi – asosida voqe boʻlgan hosila maʼnolar konnotativlik, emotsional-ekspressivlik, modallik jihatidan neytral boʻlib, ular faqat nomlash vazifasini bajaradi” [1]. Ushbu taʼrifdan koʻrinadiki, til iqtisodi vositalari, birinchi navbatda, nominativ (nomlash) funksiyaga xizmat qiladi, yaʼni ular emotsional boʻyoqdan koʻra, informatsiyani minimal til vositalari bilan tez va aniq yetkazishga yoʻnaltirilgan. Biroq ijtimoiy tarmoq matnlari tahlili shuni koʻrsatadiki, bu vositalar nafaqat nominativ, balki ekspressiv-pragmatik vazifani ham bajarishi mumkin.

Oʻzbek tilshunosligida internet diskursining sintaktik xususiyatlari alohida tadqiq etilgan boʻlib, “internet diskursi sintaksisida nutqiy taʼsirchanlikni taʼminlash maqsadida abbreviatura, akronim, inversiya, parsellyatsiya va ellipsis usullari keng qoʻllanilayotgani kuzatilayotganligi taʼkidlanadi. Darhaqiqat yuqorida usullar ichida abbreviatura, akronim ham matn taʼsirchanligini,

ham yozish tejamkorlikni ta'minlaydi. Yozish tejamkorligi kishidan kam energiya, vaqt unumdorligi uchun xizmat qiladi. Masalan, *sh* o'rniga *w*, *kerak* - *kk*, *mumkin* - *mn* kabi" [2]. Bu til iqtisodi hodisasining ikki tomonlama tabiatini ham ta'sirchanlik (ekspressivlik), ham tejamkorlik (funksionallik) vazifasini bajarishini aniq isbotlaydi. "*Sh*" tovushi o'rniga lotincha "*w*" harfining qo'llanilishi, "*kerak*" so'zining "*kk*", "*mumkin*" so'zining "*mn*" shaklida yozilishi Telegram yozishmalarida kuzatiladigan eng ommabop qisqartirish modellaridan hisoblanadi. Shu tarzda, "*salom*" o'rniga "*slm*", "*rahmat*" o'rniga "*rmt*", "*tushunarli*" o'rniga "*tsh*" kabi qisqartmalarning keng qo'llanilishi ham yuqoridagi qonuniyatning davomi sifatida izohlanishi mumkin.

Abbreviaturalarning bunday faol qo'llanilishi ijtimoiy-madaniy jarayon bilan ham bog'liq: "ijtimoiy tarmoqlar va norasmiy yozishmalarda qo'llaniluvchi abbreviaturalar so'zlashuvchining jamiyatda raqamli madaniyat rivojlanayotganini ko'rsatib, tezkor aloqa va chatlarda foydalanilishi" [3] bilan izohlanadi. Bu fikr abbreviaturalarni faqat lisoniy hodisa sifatida emas, balki jamiyatning raqamli madaniyatga integratsiyalashuv darajasini aks ettiruvchi ijtimoiy belgi sifatida ham talqin qilish imkonini beradi.

Telegram platformasining o'zi ham til iqtisodi va o'zlashma so'zlar nuqtai nazaridan qiziqarli material beradi: "masalan, telegram so'zini olsak, yangi o'zlashma so'z sifatida o'zlashgan bu so'z o'zbek tilidagi muqobiliga ega emas va uni hamma birdek tushunadi" [3]. Ba'zi hollarda til iqtisodi milliy til ekvivalentini izlash zaruratini ham bartaraf etadi. Xalqaro terminlar, platforma nomlari o'z shaklida, hech qanday tarjimasiz qabul qilinadi, chunki bu shakl allaqachon universal tushunarli belgiga aylangan.

Xorijiy tilshunoslikda Instagram matnlari alohida tadqiqot obyekti sifatida o'rganilgan. Xususan, ijtimoiy tarmoqlar lingvistikasiga bag'ishlangan maxsus sonda ta'kidlanishicha: "semantika va ifoda iqtisodi (economy of expression) tushunchalarini ochib berish orqali Schaefer Instagram foydalanuvchilarining leksik tanlovlarini ikki bosqichli yondashuv asosida birinchidan, Instagramdan misollar to'plab korpus yaratish, ikkinchidan, shunday kontent joylashtiruvchi foydalanuvchilar bilan yarim tuzilmalashgan intervyu o'tkazish orqali tadqiq etadi"[4]. Bu tadqiqot metodologik jihatdan muhim ahamiyatga ega. U korpus tahlili bilan sotsiolingvistik intervyuni uyg'unlashtirish orqali til iqtisodi vositalarining nafaqat matnda, balki foydalanuvchi ongida qanday motivatsiyalanganini ham ochib beradi. Bu yondashuv o'zbek tilidagi Instagram matnlarini tadqiq qilishda ham metodologik namuna bo'lib xizmat qilishi mumkin.

Instagram va shu kabi platformalarning texnik cheklovlari til iqtisodini kuchaytiruvchi obyektiv omil sifatida qayd etiladi. "... belgilar soni cheklangan sharoitda va tezkor xabar almashinuvida abbreviaturalar, akronimlar hamda emojilar keng tarqalib, muloqotni soddalashtirmoqda"[5]. Bu kuzatuv o'zbekcha Instagram izohlarida ham kuzatiladi. Masalan, foydalanuvchilar "zo'r" o'rniga emoji (👍, 🔥), "kulyapman" o'rniga "😂" belgisidan foydalanishi til va noverbal-grafik vositalarning uyg'unlashuvi natijasida yuzaga kelgan yangi tejamkorlik shaklidir.

XULOSA

O'tkazilgan tahlil shuni ko'rsatadiki, Telegram va Instagram matnlarida til iqtisodi hodisasi umumiy (abbreviatura, akronim, kod almashinuvi) ega bo'lsa-da, platformaga xos farqlar ham mavjud. Telegram matnlarida asosan matn hajmini qisqartirishga yo'naltirilgan leksik-grafik qisqartmalar ustuvor bo'lsa, Instagram matnlarida bunga qo'shimcha ravishda emoji va vizual belgilar orqali ifoda iqtisodi muhim rol o'ynaydi. Har ikki platformada ham til iqtisodi tamoyili nafaqat vaqt va energiya tejash, balki ijtimoiy-madaniy identifikatsiya vositasi sifatida ham namoyon bo'ladi. Xulosa qilib aytish mumkinki, Telegram va Instagram matnlaridagi til iqtisodi hodisasi zamonaviy o'zbek tilshunosligida tizimli o'rganilishi zarur bo'lgan dolzarb yo'nalish bo'lib, u nafaqat sof lingvistik, balki sotsiolingvistik va pragmatik tabiatga ham ega murakkab hodisadir.

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RAQAMLI TA'LIM MUHITIDA BO'LAJAK O'QITUVCHINING DEONTOLOGIK KOMPETENTLIGINI RIVOJLANTIRISH: MUAMMO VA YECHIMLAR

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Annotatsiya. Mazkur maqolada raqamli ta'lim muhiti sharoitida bo'lajak o'qituvchilarning kasbiy deontologik kompetentligini rivojlantirishning nazariy-metodologik asoslari tadqiq etilgan. Tadqiqot jarayonida hali empirik tajriba-sinovlar o'tkazilmaganligi sababli, mavzu nazariy-tahliliy yondashuvlar, tizimli tahlil, qiyosiy-pedagogik yondashuv va ilmiy modellashirish metodlari asosida yoritilgan. Shuningdek, eksperimental-sinov ishlarini tashkil etish uchun Toshkent davlat pedagogika universiteti, Buxoro davlat pedagogika instituti hamda Navoiy davlat pedagogika instituti tayanch baza sifatida belgilangan holda tayyorgarlik jarayonlari tahlil qilingan. Maqolada bo'lajak pedagoglarning virtual muhitdagi axloqiy mas'uliyati, tarmoq etikasi va kasbiy burch masalalariga e'tibor qaratilib, mavjud bo'shliqlarni bartaraf etish bo'yicha ilmiy-metodik yechimlar taklif etilgan.

Kalit so'zlar: raqamli ta'lim muhiti, bo'lajak o'qituvchi, pedagogik deontologiya, deontologik kompetentlik, kasbiy odob, virtual etika, tizimli yondashuv.

Аннотация. В данной статье исследованы теоретико-методологические основы развития профессионально-деонтологической компетентности будущих учителей в условиях цифровой образовательной среды. Поскольку на данном этапе эмпирико-экспериментальные исследования еще не проводились, тема освещена на основе теоретико-аналитических подходов, системного анализа, сравнительно-педагогического метода и научного моделирования. В качестве базовых площадок для организации экспериментальной работы определены Ташкентский государственный педагогический университет, Бухарский государственный педагогический институт и Навоийский государственный педагогический институт. В статье уделено внимание вопросам нравственной ответственности будущих педагогов в виртуальной среде, сетевой этике и профессиональному долгу, а также предложены научно-методические решения по устранению существующих пробелов.

Ключевые слова: цифровая образовательная среда, будущий учитель, педагогическая деонтология, деонтологическая компетентность, профессиональная этика, виртуальная этика, системный подход.

Annotation. This article examines the theoretical and methodological foundations of developing the professional and deontological competence of future teachers within a digital educational environment. Since empirical experimental tests have not yet been conducted at this stage, the topic is covered based on theoretical and analytical approaches, systematic analysis, comparative pedagogical methods, and scientific modeling. Tashkent State Pedagogical University, Bukhara State Pedagogical Institute, and Navoi State Pedagogical Institute have been designated as base institutions for organizing future experimental work. The article highlights the issues of moral responsibility, network ethics, and professional duty of future educators in a virtual environment, and proposes scientific and methodological solutions to address existing gaps.

Keywords: digital educational environment, future teacher, pedagogical deontology, deontological competence, professional ethics, virtual ethics, systemic approach.

KIRISH

Bugungi kunda jahon ta'lim tizimida kechayotgan tub o'zgarishlar, axborotlashgan jamiyat va raqamli iqtisodiyotning jadal rivojlanishi pedagogik kadrlar tayyorlash tizimi oldiga yangi, yanada mas'uliyatli vazifalarni qo'yimoqda. Jamiyatimizda kechayotgan demokratik o'zgarishlar va shaxs manfaatlarini ustuvor deb biluvchi ta'lim siyosati bo'lajak o'qituvchilardan nafaqat chuqur kasbiy bilim, puxta metodik tayyorgarlik va zamonaviy raqamli texnologiyalarni mukammal egallashni, balki yuksak kasbiy odob, axloqiy mas'uliyat va deontologik madaniyatga ega bo'lishni talab qiladi.

Raqamli ta'lim muhiti o'zining ochiqligi, tezkorligi, chegarasiz axborot almashinuvi va virtual muloqot shakllari bilan ajralib turadi. Bunday muhitda pedagogik faoliyat olib boruvchi o'qituvchi o'quvchilar bilan muloqot qilishda an'anaviy me'yorlar bilan bir qatorda, virtual etika, axborot xavfsizligi, shaxsiy ma'lumotlar daxlsizligi va kasbiy burch masalalariga alohida e'tibor qaratishi zarur²⁹. Biroq, zamonaviy oliy pedagogik ta'lim jarayonida talabalarning raqamli savodxonligini oshirishga katta e'tibor qaratilayotgan bo'lsa-da, ularning kasbiy deontologik kompetentligini raqamli muhit talablaridan kelib chiqqan holda rivojlantirish masalasi hali yetarlicha ilmiy-nazariy jihatdan tadqiq etilmagan.

Pedagogik deontologiya (yunoncha deon – zaruriyat, logos – ta'limot) o'qituvchining o'z kasbiy burchiga sadoqati, kasbiy burchini bajarishdagi mas'uliyati, o'quvchilar va jamoatchilik bilan bo'ladigan munosabatlaridagi axloqiy tamoyillarni o'rganadi³⁰. Raqamli muhitning kirib kelishi bu tushunchaga yangi mazmun bag'ishlab, uni "raqamli deontologik kompetentlik" darajasiga ko'tarishni taqozo etmoqda. Mazkur kompetensiya bo'lajak o'qituvchining internet tarmog'ida pedagogik odobni saqlashi, virtual ta'lim platformalarida o'quvchilar bilan axloqiy me'yorlar asosida muloqot qilishi hamda kasbiy faoliyatida yuzaga keladigan raqamli muammolarni deontologik nuqtai nazardan hal etish layoqatini belgilaydi³¹.

Shu bois, raqamli ta'lim muhitida bo'lajak o'qituvchining deontologik kompetentligini rivojlantirishning nazariy asoslarini ishlab chiqish, mavjud muammolarni aniqlash va ularning ilmiy yechimlarini topish bugungi kunning eng dolzarb pedagogik vazifalaridan biridir.

MATERIALLAR VA USULLAR

Ushbu ilmiy izlanish jarayonida muammoning nazariy qirralarini ochib berish hamda obyektiv xulosalarga kelish maqsadida zamonaviy pedagogik tadqiqot metodologiyasiga tayanildi. Tadqiqotning axborot-manba bazasini ilmiy-pedagogik adabiyotlar, oliy ta'lim tizimiga oid me'yoriy hujjatlar, davlat ta'lim standartlari hamda raqamli ta'lim muhitining o'ziga xos xususiyatlarini yorituvchi ilmiy-uslubiy maqolalar tashkil etdi.

Tadqiqotni amalga oshirishda foydalanilgan ilmiy yondashuvlar va usullarning qisqacha tavsifi quyidagi jadvalda jamlandi:

1-jadval

T/r	Ilmiy yondashuv va usullar	Tadqiqotdagi vazifasi va qo'llanish doirasi
1.	Tizimli yondashuv	Raqamli ta'lim muhitida deontologik kompetensiyani rivojlantirishni yaxlit, o'zaro uzviy bog'liq jarayon sifatida tadqiq etish.

²⁹ O'zbekiston Respublikasining "Ta'lim to'g'risida"gi Qonuni. (2020-yil 23-sentyabr, O'RQ-637-son). — URL: <https://lex.uz/docs/5013007> (elektron manba).

³⁰ Volkov B.S. Pedagogicheskaya psixologiya i professionalnaya etika. — M.: Pedagogika, 2021. — 288 s.

³¹ Raqamli O'zbekiston — 2030 strategiyasi va uni amalga oshirish chora-tadbirlari to'g'risida. — URL: <https://gov.uz/uz/digital> (elektron manba).

T/r	Ilmiy yondashuv va usullar	Tadqiqotdagi vazifasi va qo'llanish doirasi
2.	Qiyosiy-pedagogik tahlil	An'anaviy ta'lim sharoiti va raqamli muhitdagi kasbiy odob me'yorlarini solishtirib, o'ziga xos farqlarni aniqlash.
3.	Ilmiy modellashtirish	Bo'lajak o'qituvchilarning kasbiy-axloqiy tayyorgarligini takomillashtirishning nazariy modellarini ishlab chiqish.
4.	Diagnostik kuzatuv va sintez	Virtual muhitda yuzaga keladigan pedagogik ehtiyojlar hamda muammolarni nazariy jihatdan umumlashtirish.

1-jadval Tadqiqotda foydalanilgan ilmiy yondashuvlar va usullarning tavsifi.

Tadqiqot jarayonida qo'llanilgan ilmiy yondashuvlar va usullarning har biri o'ziga xos vazifalarni bajarib, muammoni har tomonlama ochib berishga xizmat qiladi. Xususan, tizimli yondashuv metodologik asos sifatida tanlanar ekan, bu raqamli ta'lim muhitini shunchaki texnik vositalar, kompyuterlar yoki platformalar majmui sifatida tor doirada tushunmaslik zarurligini belgilaydi³². Mazkur yondashuv raqamli muhitni bo'lajak o'qituvchining shaxsiy va kasbiy kamolotini, dunyoqarashini hamda ma'naviy-axloqiy qiyofasini ta'minlovchi yaxlit, murakkab ijtimoiy-pedagogik tizim sifatida ko'rib chiqish imkonini beradi. U talabalarda deontologik madaniyatni shakllantirish jarayonining barcha tarkibiy qismlarini — ya'ni kasbiy maqom, ta'lim mazmuni, o'qitish shakllari va kutilayotgan natijalarni bir-biridan uzmaganda yagona zanjir sifatida o'rganishni taqozo etadi. Bu esa bo'lajak pedagogning kelgusidagi kasbiy faoliyatida tizimli tafakkurni rivojlantirishga zamin yaratadi.

Metodologik tahlil ko'lamini yanada kengaytirish va real holatni baholash maqsadida qiyosiy-pedagogik tahlil usuliga murojaat qilindi³³. Mazkur usul o'tgan davrlardagi an'anaviy pedagogik munosabatlar va yuzma-yuz muloqot shakllari bilan bugungi kundagi raqamli makon va masofaviy ta'lim talablarini o'zaro qiyoslashga xizmat qiladi. Bu usul orqali zamonaviy ta'lim jarayonida yuzaga kelayotgan tub transformatsiyalar, ya'ni real sinfxonadagi an'anaviy muomala madaniyatidan internet tarmoqlari va ijtimoiy tarmoqlardagi virtual kasbiy odob qoidalariga o'tish jarayonidagi mavjud bo'shliqlar, ziddiyatlar hamda muammolar chuqur tahlil qilinadi. Qiyosiy tahlil an'anaviy tajribaning eng yaxshi jihatlarini raqamli muhitga moslashtirish imkoniyatlarini ko'rsatib beradi.

Tadqiqot davomida mavhum nazariy g'oyalarni aniq amaliy mexanizmlarga aylantirishda ilmiy modellashtirish muhim o'rin tutdi³⁴. Bo'lajak pedagoglarning raqamli muhitdagi deontologik kompetensiyasini rivojlantirish jarayonini shunchaki tasavvur qilish qiyin bo'lgani sababli, uning nazariy modellarini barpo etish zaruriyati tug'iladi. Modellashtirish usuli orqali bo'lajak o'qituvchilarning kasbiy mas'uliyatini oshirishga, ularning virtual muhitdagi axloqiy me'yorlarga ongli yondashuvini shakllantirishga qaratilgan nazariy konstruksiyalar ishlab chiqiladi. Bu esa nazariyani amaliyot bilan bog'lashda muhim ilmiy vosita bo'lib xizmat qiladi.

Shuningdek, tadqiqotning axborot bazasini boyitishda diagnostik kuzatuv va sintez usullari muhim ahamiyat kasb etdi. Mavjud ilmiy adabiyotlar, xorijiy va mahalliy tadqiqot natijalarini tahlil qilish hamda ularni yagona xulosaga keltirish (sintez qilish) orqali mavzuning bugungi kundagi holati baholandi. Shu bilan birga, raqamli muhitda uchraydigan axloqiy muammolarni nazariy kuzatishlar

³² Pedagogik deontologiya va raqamli ta'lim muhiti: muammo va yechimlar. — URL: <https://pedagog.uz/articles/digital-deontology> (elektron manba).

³³ Modern Education and Digital Ethics in Higher Education Systems. — URL: <https://www.sciencedirect.com/science/article/pii/S0959630620300000> (elektron manba).

³⁴ O'zbekiston Respublikasi Oliy ta'lim, fan va innovatsiyalar vazirligi rasmiy veb-sayti. — URL: <https://uzbmb.uz> / <https://edu.uz> (elektron manba).

asosida o'rganish kelgusida qilinadigan amaliy ishlar uchun mustahkam poydevor hozirlaydi. Ushbu usullarning uyg'un holda qo'llanilishi tadqiqotning ilmiy obyektivligini to'la ta'minlaydi.

NATIJALAR VA MUHOKAMA

Tadqiqotning ushbu bosqichida hali yakuniy empirik natijalar olinmagan bo'lsa-da, olib borilgan nazariy izlanishlar, dastlabki ilmiy kuzatuvlar va metodologik yondashuvlar asosida keng qamrovli muhokama jarayonlari tashkil etildi. Raqamli ta'lim muhiti sharoitida bo'lajak o'qituvchilarning deontologik kompetentligini rivojlantirish zarurati zamonaviy oliy pedagogik ta'lim tizimining bugungi holatini tanqidiy tahlil qilishni taqozo etadi.

Dissertatsiya ishining ilmiy ko'lamidan kelib chiqqan holda, eksperimental-sinov ishlarini tashkil etish uchun asosiy baza sifatida Respublikamizning nufuzli oliy ta'lim muassasalari — Toshkent davlat pedagogika universiteti, Buxoro davlat pedagogika instituti hamda Navoiy davlat pedagogika instituti tanlab olindi. Ushbu institutlar bazasida talabalarning raqamli muhitdagi kasbiy-axloqiy madaniyatini o'rganish, ularning virtual makondagi pedagogik odobga munosabatini aniqlash hamda deontologik kompetensiyasini rivojlantirishga qaratilgan tayyorgarlik jarayonlari rejalashtirildi³⁵.

Olib borilayotgan tahlillar bevosita muallifning doktorantlik dissertatsiyasi mavzusi doirasiga qaratilgan bo'lib, raqamli muhitda bo'lajak o'qituvchilar duch keladigan qiyinchiliklarni oldindan baholash imkonini berdi. Muhokama jarayonida aniqlanishicha, talabalarni raqamli texnologiyalardan foydalanishga o'rgatishda ko'pincha texnik ko'nikmalarga ustuvorlik berilib, ularning virtual muhitdagi axloqiy mas'uliyati, mualliflik huquqi, tarmoq etikasi va kasbiy burch masalalari yetarlicha qamrab olinmayotganligi ma'lum bo'ldi. Bu holat bo'lajak pedagoglarning kasbiy shakllanishida ma'lum bir bo'shliqlarni yuzaga keltirmoqda.

Shu munosabat bilan, tanlab olingan tayanch institutlar (Toshkent, Buxoro, Navoiy) misolida nazariy tahlillarni amaliyotga tatbiq etish yuzasidan quyidagi ilmiy-metodik yechimlar muhokama qilindi:

- Oliy ta'lim muassasalarining o'quv jarayoniga bo'lajak o'qituvchilarning raqamli deontologik madaniyatini oshirishga qaratilgan maxsus modullar va topshiriqlarni integratsiyalash³⁶;
- Virtual muhitda yuzaga kelishi mumkin bo'lgan ziddiyatli pedagogik vaziyatlarni hal etishga qaratilgan keys-stadi (case-study) va simulyatsion topshiriqlarni ishlab chiqish;
- Talabalarning pedagogik amaliyoti davrida raqamli vositalardan foydalanish madaniyatini monitoring qilib borishning samarali mexanizmlarini loyihalashtirish.

Garchi amaliy natijalar bosqichi hali to'liq yakunlanmagan bo'lsa-da, belgilangan hududiy oliy ta'lim muassasalari negizida olib borilayotgan tayyorgarlik va nazariy tahlillar bo'lajak o'qituvchilarning raqamli muhitdagi deontologik kompetensiyasini tizimli ravishda rivojlantirishga xizmat qiluvchi puxta ilmiy-metodologik poydevor yaratadi.

XULOSA

Mazkur ilmiy maqola doirasida olib borilgan nazariy-metodologik tahlillar shuni ko'rsatadiki, raqamli ta'lim muhitining jadal rivojlanishi bo'lajak o'qituvchilarning kasbiy tayyorgarligiga mutlaqo yangi talablarni qo'ymoqda. Bugungi kunda pedagog kadrni faqatgina axborot-kommunikatsiya texnologiyalari yoki raqamli platformalardan foydalanishni biladigan mutaxassis sifatida emas, balki virtual makonda yuksak axloqiy mas'uliyat, tarmoq etikasi va kasbiy burch tamoyillariga qat'iy amal qiladigan shaxs sifatida shakllantirish dolzarb ahamiyat kasb etadi. Olib borilgan o'rganishlar shuni tasdiqladiki, an'anaviy pedagogik deontologiya tushunchasini raqamli

³⁵ O'zbekiston Respublikasining "Ta'lim to'g'risida"gi Qonuni. (2020-yil 23-sentyabr, O'RQ-637-son). — URL: <https://lex.uz/docs/5013007> (elektron manba).

³⁶ Pedagogik deontologiya va raqamli ta'lim muhiti: muammo va yechimlar. — URL: <https://pedagog.uz/articles/digital-deontology> (elektron manba).

muhit talablaridan kelib chiqqan holda "raqamli deontologik kompetentlik" sifatida boyitish va uni ta'lim jarayoniga integratsiya qilish zarur.

Tadqiqotning nazariy va tashkiliy bosqichida Toshkent davlat pedagogika universiteti, Buxoro davlat pedagogika instituti hamda Navoiy davlat pedagogika instituti bazasiga tayanilgan holda olib borilgan yondashuvlar kelgusidagi amaliy-eksperimental ishlar uchun puxta poydevor hozirlaydi. Hali yakuniy empirik natijalar olinmagan bo'lsa-da, mavjud nazariy muammolarni oldindan baholash va ularning ilmiy yechimlarini loyihalashtirish bo'lajak pedagoglarning kasbiy shakllanishidagi mavjud bo'shliqlarni bartaraf etish imkonini beradi.

Umuman olganda, oliy ta'lim muassasalarining o'quv jarayoniga maxsus deontologik modullarni kiritish, keys-stadi va simulyatsion topshiriqlar orqali talabalarda virtual muhitdagi ziddiyatli vaziyatlarni axloqiy me'yorlar asosida hal etish ko'nikmalarini rivojlantirish kelgusidagi ilmiy izlanishlarning ustuvor yo'nalishi bo'lib qoladi. Bu esa o'z navbatida, raqamli jamiyatda ta'lim sifatini oshirishga va barkamol avlodni tarbiyalashda yuksak ma'naviy-axloqiy fazilatlariga ega pedagog kadrlarni tayyorlashga xizmat qiladi.

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RAQAMLI TEXNOLOGIYALAR YORDAMIDA TALABALARNING ISHLAB CHIQUARISH AMALYOTINI BOSHQARISH.

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Annotatsiya. Ushbu maqolada oliy ta'lim muassasalarida tahsil olayotgan bo'lajak mutaxassislarining, xususan 1-, 2-, 3- va 4-boshlang'ich sinf o'qituvchilarining ishlab chiqarish va pedagogik amaliyotini raqamli muhitda samarali tashkil etish lozimligi, amaliyot monitoringini olib borish va baholash muammolari tadqiq etiladi. Amaliyot jarayonini raqamlashtirishning konseptual modeli taklif etilgan bo'lib, unda real ta'limiy muammolarni aniqlash lozimligi, ularga mos raqamli didaktik resurslarni loyihalash hamda talabalarning kasbiy ko'nikmalarini elektron portfolio va avtomatlashtirilgan rubrikalar vositasida baholash mexanizmlari ilmiy jihatdan asoslab berilgan.

Kalit so'zlar: ishlab chiqarish amaliyoti, raqamlashtirish, pedagogik mexanizm, e-portfolio, avtomatlashtirilgan monitoring, kasbiy kompetentlik, raqamli didaktika.

Аннотация. В данной статье исследуется необходимость эффективной организации в цифровой среде производственной и педагогической практики будущих специалистов, обучающихся в высших образовательных учреждениях, в частности студентов, готовящихся к профессиональной деятельности в качестве учителей начальных классов 1–4-х классов, а также рассматриваются проблемы проведения мониторинга и оценки результатов практики. Предложена концептуальная модель цифровизации процесса практики, в рамках которой научно обоснованы механизмы выявления реальных образовательных проблем, проектирования соответствующих им цифровых дидактических ресурсов, а также оценки профессиональных навыков студентов посредством электронного портфолио и автоматизированных рубрик.

Ключевые слова: производственная практика, цифровизация, педагогический механизм, e-portfolio, автоматизированный мониторинг, профессиональная компетентность, цифровая дидактика.

Annotation. This article examines the need for the effective organization of industrial and pedagogical practice in a digital environment for future specialists studying at higher education institutions, particularly students preparing for professional activities as teachers of grades 1–4, as well as the challenges of monitoring and evaluating the practice outcomes. A conceptual model for the digitalization of the practice process is proposed, within which the mechanisms for identifying real educational problems, designing appropriate digital didactic resources, and assessing students' professional skills through e-portfolios and automated rubrics are scientifically substantiated.

Keywords: industrial practice, digitalization, pedagogical mechanism, e-portfolio, automated monitoring, professional competence, digital didactics.

KIRISH

Zamonaviy oliy ta'lim tizimining asosiy vazifasi nafaqat nazariy bilimga ega bo'lgan, balki mehnat bozoridagi tezkor texnologik va metodik o'zgarishlarga moslasha oladigan raqobatbardosh kadrlar tayyorlashdan iboratdir. Ushbu jarayonda talabalarning nazariy bilimlarini amaliy ko'nikmalar bilan integratsiyalashning asosiy ko'prigi - bu ishlab chiqarish (pedagogik) amaliyotidir. Ayni paytda oliy ta'lim muassasalarida amaliyot jarayonini tashkil etishda bir qator tizimli muammolar saqlanib qolmoqda. Xususan: Hujjatlar aylanishining an'anaviy (qog'oz) shaklda olib borilishi; OTM ilmiy rahbari hamda amaliyot bazasi (maktab/korxona) metodisti o'rtasida tezkor aks-aloqaning yetarli emasligi; Talabalarning amaliy faoliyatini va yaratgan metodik ishlanmalarini xolis hamda shaffof baholash mezonlarining mukammal emasligi. Muallif va ilmiy rahbar Suropov Baxodir Maydonovich tomonidan olib borilgan izlanishlar natijasida, ishlab chiqarish amaliyotini boshqarishda zamonaviy raqamli texnologiyalar va elektron platformalardan foydalanish - ta'lim sifatini nazorat qilish va talabalarda mustaqil tadqiqotchilik hamda raqamli-metodik kompetentlikni shakllantirishning obyektiv zarurati hisoblanadi, degan ilmiy g'oya ilgari surildi.

TAHLIL VA NATIJALAR.

Ta'lim jarayonlarini raqamlashtirish, elektron ta'lim muhitini loyihalash va amaliyotni texnologik boshqarish masalalari bir qancha mahalliy va xalqaro olimlarning izlanishlarida o'z aksini topgan. Ilmiy rahbar Suropov Baxodir Maydonovich ta'kidlaganidek, ushbu tadqiqotlarni o'rganishda

ta'lim sohasini raqamlashtirishni shunchaki moddiy-texnik ta'minotni yangilash deb emas, balki uni bo'lajak boshlang'ich sinf o'qituvchilarining axborot-metodik ko'nikmalarini kompleks rivojlantiruvchi pedagogik tizim sifatida tadqiq etish lozimligi alohidayodda tutilishi zarur. O'zbekistonlik olim AA Abduqodirov va MG Davronovlar (2021) ham o'z izlanishlarida raqamli vositalarning metodik tayyorgarlikka ta'sirini yuqori baholaydilar. Tadqiqotchi JE Usmonov (2022) esa elektron platformalar orqali olib boriladigan monitoring amaliyotchi talaba va mas'ul ustozlar o'rtasidagi vaqtinchalik uzilishlarni bartaraf etishini isbotlagan. Xalqaro tajribada (Mayer M., Bennett S., 2020) esa elektron portfolio (*e-portfolio*) talabalarda o'z-o'zini tahlil qilish ko'nikmasini rivojlantirishning asosiy omili sifatida e'tirof etiladi. Bo'lajak boshlang'ich ta'lim o'qituvchilarining (1–4-sinflar kesimida) ishlab chiqarish amaliyotini samarali boshqarish uchun quyidagi 4 bosqichli pedagogik mexanizm taklif etiladi: Diagnostik-tahliliy bosqich: Amaliyotchi talaba boshlang'ich sinf o'qituvchilarining o'zlashtirish va diqqat ko'rsatkichlarini raqamli so'rovnomalar va testlar orqali tahlil qilib, mavjud pedagogik muammoni aniqlaydi. Loyihalash va modellash bosqichi: Aniqlangan muammoni bartaraf etish uchun talaba boshlang'ich sinf fanlari bo'yicha interaktiv taqdimotlar, multimediali topsiriqlar va avtomatlashtirilgan testlar yaratadi. Amaliy-tajriba bosqichi: Yaratilgan raqamli kontent maktab darslarida sinovdan o'tkaziladi. OTM ilmiy rahbari platforma orqali dars xaritasini va dars fragmentlarini masofadan baholab boradi. Monitoring va baholash bosqichi: Talabalarning amaliy faoliyati *e-portfolio* va oldindan belgilangan avtomatlashtirilgan rubrikalar (mezonlar) orqali obyektiv baholanadi. Ishlab chiqarish amaliyotini raqamli boshqarish uchun OTMning LMS tizimida "Amaliyot-Monitoring" raqamli modulini shakllantirish tavsiya etiladi. Tizim tarkibiga quyidagi asosiy bloklar kiritilishi lozim: Tashkiliy-metodik blok: Amaliyot rejalari, yo'riqnomalar va namunaviy hujjatlar joylashtiriladi. Interaktiv e-portfolio bloki: Talabaning dars ishlanmalari, multimediali resurslari va video-dars lavhalari jamlanadi. Aks-alloqa paneli: Ilmiy rahbar Suropov Baxodir Maydonovich va maktab metodisti tomonidan real vaqt rejimida taqrizlar beriladi. Avtomatlashtirilgan baholash moduli: Talabaning har bir topshirig'i bo'yicha ballar jamlanib, uning kasbiy o'sish dinamikasini namoyon etadi.

XULOSA

Raqamli texnologiyalar yordamida bo'lajak boshlang'ich sinf o'qituvchilarining ishlab chiqarish amaliyotini boshqarish - ta'lim sifatini va nazorat tizimini yangi bosqichga olib chiqadi. Taklif etilayotgan pedagogik model talabalarni muammolarga zamonaviy va raqamli yechim topar oluvchi tadqiqotchi-mutaxassis sifatida shakllantirishga xizmat qiladi.

AMALIY TAVSIYALAR.

OTM va amaliyot bazalari o'rtasida yagona raqamli integratsiyani ta'minlovchi masofaviy amaliyot modullarini amaliyotga keng joriy etish. Amaliyotchi talabalarda boshlang'ich sinf o'qituvchilariga mos raqamli va interaktiv ta'lim resurslarini yaratish ko'nikmalarini tizimli ravishda oshirib borish.

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TA'LIM JARAYONIDA 4K MODEL VA UNING PEDAGOGIK MOHIYATI

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Annotatsiya: Mazkur tezisda boshlang'ich sinf ona tili va o'qish savodxonligi darslarida 4K modelini qo'llash imkoniyatlari hamda uning o'quvchi faoliyatiga ta'siri yoritilgan. Tadqiqotda kritik fikrlash, kreativlik, kommunikatsiya va kollaboratsiyani rivojlantirishga xizmat qiluvchi topshiriqlar amaliy mashg'ulotlar jarayonida sinab ko'rilgan. Natijalar 4K modelidan foydalanishda asosiy e'tibor metod nomiga emas, balki o'quvchini faol fikrlash va muloqotga jalb qiladigan ta'limiy vaziyatni yaratishga qaratilishi lozimligini ko'rsatadi.

Kalit so'zlar: 4K modeli, kritik fikrlash, kreativlik, kommunikatsiya, kollaboratsiya, ona tili ta'limi, boshlang'ich ta'lim, o'qish savodxonligi.

Аннотация: В данном тезисе освещены возможности применения модели 4К на уроках родного языка и грамотности чтения в начальных классах, а также ее влияние на деятельность учащихся. В исследовании в процессе практических занятий были апробированы задания, служащие развитию критического мышления, креативности, коммуникации и коллаборации. Результаты показывают, что при использовании модели 4К основное внимание следует уделять не названию метода, а созданию образовательной ситуации, которая привлекает учащегося к активному мышлению и общению.

Ключевые слова: модель 4К, критическое мышление, креативность, коммуникация, коллаборация, обучение родному языку, начальное образование, читательская грамотность.

Abstract: This paper explores the possibilities of applying the 4C model in primary school native language and reading literacy classes, as well as its impact on student engagement. The study tested tasks aimed at developing critical thinking, creativity, communication, and collaboration during practical sessions. The results indicate that when using the 4C model, the primary focus should be on creating an educational environment that engages students in active thinking and communication, rather than on the name of the method.

Keywords: 4C model, critical thinking, creativity, communication, collaboration, native language education, primary education, reading literacy.

KIRISH

Ta'lim jarayonida yuz berayotgan o'zgarishlar o'qituvchining vazifasiga ham yangicha qarashni talab qilmoqda. Bugungi o'qituvchi uchun faqat o'quv materialini tushuntirish yoki tayyor bilimni o'quvchiga yetkazishning o'zi yetarli emas. Muhimi, o'quvchining o'rgangan bilimidan foydalanishi, savol berishi, o'z fikrini bildira olishi va boshqa insonlar bilan hamkorlikda ishlay olishiga imkon beradigan sharoitni yaratishdir.

Bu masala, ayniqsa, boshlang'ich ta'limda muhim. Chunki bolaning keyingi ta'lim faoliyatida zarur bo'ladigan ko'plab ko'nikmalari aynan shu davrda shakllana boshlaydi. Ona tili darslari esa bunday ko'nikmalarni rivojlantirish uchun keng imkoniyatga ega. O'quvchi matnni o'qish, savollarga javob berish, fikrini og'zaki va yozma ifodalash, voqealar o'rtasidagi bog'liqlikni aniqlash hamda o'z munosabatini bildirish orqali nafaqat tilga oid bilimlarini, balki fikrlash va muloqot ko'nikmalarini ham rivojlantiradi.

Amaliyotda esa ayrim darslarda o'quvchining faoliyati matnni o'qish, savollarga javob berish va berilgan topshiriqni bajarish bilan chegaralanib qolishi mumkin. Bunday vaziyatda bola to'g'ri javobni topishga intiladi, ammo javobining sababini tushuntirish yoki masalaga boshqa tomondan qarash imkoniyati kamroq bo'ladi. Masalan, matndagi qahramonning nima qilgani so'raladi, lekin nima sababdan shunday yo'l tutgani, uning qarori to'g'ri yoki noto'g'riligi va o'quvchi shu vaziyatda qanday yo'l tutishi mumkinligi haqida fikrlashga yetarli e'tibor berilmasligi mumkin.

Shu jihatdan 4K modeli boshlang'ich sinf ona tili darslari uchun amaliy ahamiyatga ega yondashuvlardan biri sifatida qaralishi mumkin. 4K modeli kritik fikrlash, kreativlik, kommunikatsiya va kollaboratsiyani birgalikda rivojlantirishni nazarda tutadi. Uning muhim tomoni shundaki, mazkur ko'nikmalarni alohida mashg'ulot sifatida emas, balki odatiy dars jarayonining o'zida shakllantirish imkoniyati mavjud.

O'zbekistonda yangi avlod darsliklarining bosqichma-bosqich joriy etilishi ham o'quvchining faolligiga, mustaqil fikrlashiga va amaliy faoliyatiga e'tibor kuchayib borayotganini ko'rsatadi. Shu sababli darslikdagi topshiriqni bajarish bilan bir qatorda, o'qituvchining undan qanday foydalanishi ham muhim masalaga aylanadi.

Mazkur tadqiqotning maqsadi boshlang'ich sinf ona tili va o'qish savodxonligi darslarida 4K modelining asosiy komponentlarini amaliy topshiriqlar orqali qo'llash imkoniyatlarini ko'rsatish hamda bunday yondashuv jarayonida o'quvchilarning fikrlashi, muloqoti va hamkorlik faoliyatida kuzatiladigan o'zgarishlarni tahlil qilishdan iborat.

Adabiyotlat tahlili. 4K modeli tarkibiga kritik fikrlash (Critical thinking), kreativlik (Creativity), kommunikatsiya (Communication) va kollaboratsiya (Collaboration) kiradi. Mazkur ko'nikmalar zamonaviy ta'limda o'quvchining faqat bilimni egallashi emas, balki undan foydalanishi va turli vaziyatlarda qo'llay olishi bilan bog'liq holda qaraladi.

OECD tomonidan tayyorlangan tadqiqotlarda ham kreativlik va kritik fikrlashni ta'lim jarayonida rivojlantirish masalasiga alohida e'tibor qaratilgan. Bunda o'quvchining tayyor javobni qabul qilishi emas, balki savol qo'yishi, turli fikrlarni ko'rib chiqishi va o'z qarashini shakllantirishi muhim hisoblanadi [1].

4K komponentlarini boshlang'ich ta'lim mazmuni bilan bog'lashda ularning har biri alohida vazifani bajaradi. Kritik fikrlash o'quvchini ma'lumotni shunchaki qabul qilishdan ko'ra, uni tahlil qilishga va sabab-oqibat munosabatlarini izlashga yo'naltiradi. Kreativlik o'quvchining mavjud vaziyatga yangicha qarashi, muqobil fikr yoki yechim taklif qilishi bilan namoyon bo'ladi. Kommunikatsiya o'z fikrini aniq ifodalash va suhbatdoshni tinglash bilan bog'liq bo'lsa, kollaboratsiya umumiy maqsadga erishish uchun boshqalar bilan birgalikda faoliyat olib borishni nazarda tutadi.

4K ko'nikmalarini baholashga bag'ishlangan uslubiy ishlarda ham ushbu komponentlarni o'quvchi faoliyatida kuzatish va baholash mumkin bo'lgan aniq ko'rsatkichlar orqali ifodalashga e'tibor qaratiladi [2]. Bu boshlang'ich sinf darslarida 4Kni faqat umumiy tushuncha sifatida emas, balki o'quvchi bajarayotgan konkret faoliyat orqali ko'rish imkonini beradi.

Shu bilan birga, mavjud manbalarda 4K modelining umumiy mazmuni va ahamiyati yetarlicha yoritilgan bo'lsa-da, boshlang'ich sinf ona tili darsida har bir komponentni qanday topshiriqlar orqali shakllantirish mumkinligi masalasi amaliy jihatdan yanada aniqroq yondashuvni talab qiladi. Aynan shu sababli tadqiqotda 4Kning har bir komponenti uchun ona tili va o'qish savodxonligi darslariga mos amaliy topshiriqlar tanlandi.

Asosiy qism. Tadqiqot davomida 4-sinf ona tili va o'qish savodxonligi darslarida kuzatuv, pedagogik sinov va o'quvchilarning og'zaki hamda yozma javoblarini sifat jihatidan tahlil qilish usullaridan foydalanildi. Tajriba jarayonida 4K komponentlarini alohida nazariy tushuntirishdan ko'ra, ularni o'quvchining bevosita faoliyatiga singdirish maqsadga muvofiq deb topildi.

Buning uchun har bir ko'nikmaga mos topshiriqlar tanlandi. Kritik fikrlashni rivojlantirishda sababni aniqlash va vaziyatga munosabat bildirishni talab qiladigan savollardan foydalanildi. Masalan, 4-sinf O'qish savodxonligi darsligida berilgan "Arining qasosi" hikoyasini tahlil qilishda o'quvchilarga qahramonning xatti-harakatiga baho berish bilan cheklanmasdan, uning nima sababdan shunday yo'l tutganini tushuntirish va o'zini shu vaziyatda tasavvur qilish imkonini beradigan savollar berildi.

Bunday savollar o'quvchini matndagi tayyor ma'lumotni qayta aytishga emas, matnga tayanib o'z fikrini shakllantirishga undaydi. Masalan, "Sardor nima uchun bunday qildi?" savoliga javob berish uchun o'quvchi voqeadagi sabablarni izlaydi. "Sen uning o'rnida bo'lganingda nima qilarding?" savolida esa o'quvchi o'z tajribasi va qarashlarini vaziyat bilan bog'lashga harakat qiladi[4].

Kreativlikni rivojlantirish uchun “Yangi yakun” va “G‘ayriodatiy foydalanish” kabi topshiriqlardan foydalanildi. “Yangi yakun” topshirig‘ida o‘quvchi matn voqealarini boshqa tarzda yakunlash variantini taklif qiladi. Bunda yagona tayyor javob mavjud emas. O‘quvchi o‘z tasavvuriga tayangan holda voqeani davom ettiradi va yaratgan yakunini tushuntiradi. Ayrim topshiriqlarda esa matn mazmuniga mos illyustratsiya yaratish orqali fikrni tasviriyl shaklda ifodalash imkoniyati berildi.

Kollaboratsiyani shakllantirish maqsadida “Jamoaviy mozaika” metodidan foydalanildi. Sinf kichik guruhlarga ajratilib, umumiy topshiriqning alohida qismlari guruhlarga taqsimlandi. Masalan, bahor mavzusidagi umumiy poster ustida ishlashda har bir guruh uning ma‘lum bir qismini tayyorladi. Yakunda alohida bajarilgan ishlar birlashtirilib, yagona natija hosil qilindi.

Bu jarayonda o‘quvchi faqat o‘z topshirig‘ini bajarib qolmay, umumiy natija uchun o‘z hissasining ahamiyatini anglaydi. Guruhdagi vazifalarni taqsimlash, bir-birining fikrini tinglash va umumiy qarorga kelish kollaboratsiyaning amaliy ko‘rinishlari sifatida namoyon bo‘ldi.

Kommunikatsiyani rivojlantirishda “Intervyu” va “Fikrlar almashinuvi” topshiriqlaridan foydalanildi. O‘quvchilar bir-biriga mavzu yuzasidan savollar berib, javoblarini tingladilar. Bunda asosiy e‘tibor faqat javobning to‘g‘ri yoki noto‘g‘riligiga emas, fikrning tushunarli bayon qilinishiga va suhbatdoshning fikrini tinglashiga qaratildi[5].

Quyidagi jadvalda 4K komponentlari va ular orqali rivojlantiriladigan ko‘nikmalar umumlashtirilgan:

4K komponenti	Ta’rifi	Shakllanadigan ko‘nikma
Kritik fikrlash	Ma’lumotni tahlil qilish va sub’yektiv fikrdan xoli baholash	Sabab-oqibat bog‘liqligini topish, xatoni aniqlash
Kreativlik	Muammoga yangicha yondashuv va original g‘oyalar yaratish	Standart bo‘lmagan yechimlar, badiiy va mantiqiy ijod
Kollaboratsiya	Umumiy maqsad yo‘lida jamoada samarali ishlash	Mas’uliyatni bo‘lishish, murosaga kelish, yetakchilik
Kommunikatsiya	Fikrni aniq bayon etish va boshqalarni tinglay olish	Nutq madaniyati, sabab keltirish, faol tinglash

Tajriba jarayonida qo‘llangan metodlar va ular asosida bajarilgan topshiriqlar quyidagicha umumlashtirildi:

4K ko‘nikmasi	Metod	Amaliyot	Kuzatilgan natija
Tanqidiy fikrlash	“Nima uchun?” va “Agar... bo‘lsachi?” savollari	“Arining qasosi” (4-sinf) qahramoni harakatlarini muhokama qilish	O‘quvchi voqeani ko‘r-ko‘rona qabul qilmay, sabab-oqibatni izlaydi
Kreativlik	“Yangi yakun”, “G‘ayriodatiy foydalanish”	Matn qahramoniga muqobil yakun o‘ylab topish, illyustratsiya chizish	“Qolipdan tashqari” fikrlash ko‘nikmasi shakllanadi
Kollaboratsiya	“Jamoaviy mozaika”	Guruhlarga bo‘lib, umumiy matn yoki poster ustida ishlash	“Men” emas, “Biz” nuqtayi nazari shakllanadi

Kommunikatsiya	“Intervyu”, “Fikrlar almashinuvi”	O‘quvchilar bir-biriga mavzu yuzasidan savol beradi	Fikrni sodda va tushunarli tilda yetkazish ko‘nikmasi ortadi
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Kuzatuv jarayonida o‘quvchilarning javoblari og‘zaki va yozma shaklda qayd etib borildi. Shuningdek, bir xil mavzuni 4K asosidagi topshiriqlar bilan va bunday topshiriqlarsiz tashkil etilgan darslarda o‘quvchilarning faoliyati qiyosiy kuzatildi.

Bu kuzatuvlarda eng ko‘zga tashlangan jihatlardan biri savolning shakli bilan bog‘liq bo‘ldi. Fakti eslashga qaratilgan savolga o‘quvchi qisqa javob berishi mumkin. Fikrlashni talab qiladigan savol esa undan javobning sababini tushuntirishni yoki o‘z qarashini bildirishni talab qiladi. Shu sababli bir xil matn bilan ishlash jarayonida savolning o‘zgarishi o‘quvchi faoliyatining xarakteriga ham ta’sir qilishi kuzatildi.

Guruhli topshiriqlarda ham shunga o‘xshash holat kuzatildi. O‘quvchilar topshiriqni mustaqil bajarishdan tashqari, boshqa guruh yoki guruhdoshlarining fikrini eshitish, o‘z fikrini unga qo‘shish yoki taklif qilingan fikrga munosabat bildirishga majbur bo‘ldilar. Natijada hamkorlik darsning alohida qismi emas, topshiriqni bajarish jarayonining o‘ziga aylandi.

Shu bilan birga, 4K komponentlarini bir-biridan qat’iy ajratish har doim ham mumkin emasligi ham kuzatildi. Masalan, guruhli topshiriqni bajarishda o‘quvchi bir vaqtning o‘zida boshqalarni tinglaydi, o‘z fikrini bildiradi, umumiy qarorga keladi va muammoning yechimini izlaydi. Demak, kommunikatsiya, kollaboratsiya va kritik fikrlash ko‘pincha bir faoliyatning o‘zida namoyon bo‘ladi.

XULOSA.

Tadqiqot davomida olib borilgan kuzatuvlar ona tili darsida o‘quvchining fikrlash faolligini oshirish uchun topshiriqning o‘zi bilan birga, savolning qanday qo‘yilishi ham muhimligini ko‘rsatdi. “Kim?”, “Qachon?”, “Qayerda?” kabi savollar orqali o‘quvchi matndagi ma’lumotni eslashi mumkin. “Nima uchun?”, “Agar shunday bo‘lmaganida nima bo‘lardi?” yoki “Sen bu vaziyatda qanday yo‘l tutarding?” kabi savollar esa uni o‘z fikrini izohlashga undaydi. Kuzatuv jarayonida aynan shunday savollar berilganda o‘quvchilarning javoblari kengayib, fikrini sabab bilan tushuntirishga bo‘lgan ehtiyoj kuchaygani sezildi.

Guruhli topshiriqlarda ham o‘quvchilarning faoliyati faqat o‘z vazifasini bajarish bilan cheklanmaydi. Ular guruhdoshining fikrini tinglaydi, o‘z taklifini bildiradi, ayrim hollarda boshqa fikrga qo‘shilmaydi yoki uni to‘ldiradi. Shu jarayonning o‘zi kommunikatsiya va hamkorlik ko‘nikmalarini rivojlantirish uchun tabiiy imkoniyat yaratadi.

Olingan kuzatuvlar 4K modelidan foydalanish uchun darsga juda ko‘p yangi metodlarni kiritish shart emasligini ham ko‘rsatdi. Ba’zan odatiy topshiriqning savolini biroz o‘zgartirishning o‘zi o‘quvchi faoliyatini boshqa yo‘nalishga burishi mumkin. Masalan, “Matnda nima bo‘ldi?” degan savol o‘rniga “Nima uchun bunday bo‘ldi?” deb so‘rash, “Qahramon kim?” deyish bilan cheklanmasdan “Qahramonning qaroriga qanday munosabat bildirasan?” deb murojaat qilish o‘quvchini fikrlashga undaydi.

Shu sababli 4K modelini boshlang‘ich sinf ona tili darsiga faqat qo‘shimcha metod sifatida kiritishdan ko‘ra, darsning ayrim bosqichlariga tabiiy ravishda singdirish maqsadga muvofiq. Buning uchun har bir darsda albatta to‘rtta komponentning barchasini qo‘llash shart emas. Dars mazmuniga qarab kritik fikrlashni talab qiladigan savol, ijodiy topshiriq, guruhli faoliyat yoki fikr almashishga imkon beradigan mashqlardan foydalanish mumkin.

Amaliy jihatdan o‘qituvchilar uchun turli darajadagi savol va topshiriqlardan iborat bank yaratish foydali bo‘ladi. Bunda oddiy eslashga qaratilgan savollar bilan bir qatorda, sababni aniqlash, fikrni asoslash, muqobil yechim taklif qilish, savol berish va guruhda qaror qabul qilishga undaydigan topshiriqlar ham bo‘lishi kerak. O‘quvchi faoliyatini kuzatishda esa faqat yakuniy javobga emas, uning fikrini qanday bayon qilgani, javobini asoslay olgani, boshqalarni tinglagani va umumiy faoliyatga qo‘shgan hissiga ham e’tibor berish lozim.

Umuman, 4K modelining boshlang'ich sinf ona tili darsidagi ahamiyati darsni murakkablashtirishda emas, balki mavjud faoliyatga yangicha mazmun berishda ko'rinadi. O'quvchi matnni o'qiydi, savollarga javob beradi, guruhda ishlaydi va topshiriq bajaradi. Biroq bu jarayon qanday tashkil etilishi uning natijasini o'zgartiradi. Agar o'quvchiga fikrlash, savol berish, o'z qarashini tushuntirish va boshqalar bilan fikr almashish imkoniyati berilsa, ona tili darsi faqat bilimni o'zlashtirish vositasi bo'lib qolmaydi. U bolaning o'z fikrini shakllantirishi, uni ifodalashi va boshqa fikrlarni tushunishi uchun ham xizmat qiladi.

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ИСКУССТВЕННЫЙ ИНТЕЛЛЕКТ В ОБРАЗОВАНИИ: УЧЕБНИК ДЛЯ ПЕДАГОГИКИ ГИБРИДНОГО ИНТЕЛЛЕКТА

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Аннотация: Применение инструментария искусственного интеллекта (ИИ) в сфере образования предполагает необходимость трансформации традиционных и электронных учебников в цифровые учебники с ИИ. Представленная в данной работе модельная структура такого учебника включает модульную учебную платформу и модуль ИИ, связанные со стандартами образовательных технологий и регламентами международных организаций. Рассмотрены также вопросы, связанные с реализацией учебного процесса, связанного с освоением учебной информации обучаемыми в рамках взаимодействия с ИИ.

Ключевые слова: искусственный интеллект, образование, цифровой учебник с ИИ, модульная учебная платформа, таксономии Б.Блума, ЮНЕСКО, сценарии взаимодействия человека и ИИ.

Abstract: The use of artificial intelligence (AI) tools in the field of education implies the need to transform traditional and electronic textbooks into digital textbooks with AI. The model structure of such a textbook presented in this paper includes a modular learning platform and an AI module, which are linked to educational technology standards and the regulations of international organizations. The paper also addresses issues related to the implementation of the learning process, which involves the acquisition of educational information by students within the framework of interaction with AI.

Keywords: artificial intelligence, education, digital textbook with AI, modular learning platform, Bloom's taxonomy, UNESCO, scenarios of human-AI interaction.

Применение ИИ в различных сферах деятельности представляет одну из злободневных проблем, решаемых на данном этапе и в ближайшем будущем. Если производственная деятельность человека роботизируется в рамках «интернета вещей» (IoT), то в интеллектуальной области человек всё чаще ориентируется на цифровизацию и интеллектуализацию своей когнитивной составляющей. В конце прошлого века это были «обучающие программы» и системы интенсивного обучения, применяющие такие программы. Эффективность этого процесса была ориентирована как на технику и софт, так и на реинжиниринг образовательных технологий в рамках их реструктуризации и информатизации. Дальнейшее совершенствование учебного процесса было направлено на разработку технологий дистанционного образования и создание электронных учебников и практикумов, включая возможности виртуальной и дополненной реальности, систем автоматизированного проектирования и другого цифрового инструментария. Появились соответствующие международные образовательные стандарты, началась интеграция информационного образовательного пространства [1].

Совершенно новые возможности по развитию образовательных технологий как со стороны обучающихся, так и со стороны обучаемых сформировались на текущем этапе разработок и внедрения инструментария ИИ. Гибридный интеллект становится новой реальностью, требующей пересмотра подходов к образованию, управлению и саморазвитию. В данном исследовании мы проанализируем создание учебных изданий в рамках педагогики гибридного интеллекта.

Инновационный цифровизированный образовательный процесс выступает как интегрированная технология, состоящая из ряда учебных технологических процессов, операций и технологических переходов, а также творческих и воспитательных компонентов. Развитие информационных технологий и ИИ, а также интеграция информационных образовательных ресурсов представляет собой новый шаг в формировании компетентных специалистов для современного рынка трудовых ресурсов. Если ранее учебный процесс рассматривался как взаимодействие «обучающий ↔ обучаемый», то в рамках цифровизации возникает триада «обучающий ↔ обучаемый ↔ ИИ» (новый «треугольник образования» [2]). При этом взаимодействие с ИИ проявляется как непосредственно, так и опосредованно через учебные материалы (инновационные учебники, практикумы, презентации, тесты и др.), а также с использованием электронных методических материалов (для педагогических работников и обучающихся).

На текущей стадии формирования инновационных образовательных технологий следует вести речь о более сложных взаимодействиях между субъектами образовательного процесса, а также образовательными ресурсами. Интеграция ИИ в программно-методическую поддержку учебных курсов в рамках учебно-методических комплексов и модулей должна рассматриваться как базис компетентностного и практико-ориентированного подхода при значительной экономии временного ресурса и существенном повышении емкости получаемого багажа знаний. С другой стороны, это позволяет с новых позиций оценить персонифицированный учебный процесс, что поможет интенсифицировать формирование профессиональных компетенций, обеспечивая высокие показатели результативности обучения.

В таком формате обучающийся получает возможность постоянно поддерживать актуальность и динамичность учебника в рамках диалога с ИИ, учёта своего стиля получения знаний (генерации промптов, интерпретации ответов) и обработки информационных ресурсов. Цифровой учебник с ИИ должен быть способен давать всесторонний и чёткий ответ (возможно при взаимодействии с педагогом) на различные вопросы обучающегося. Используя цифровой учебник с ИИ, он имеет возможность получить адаптированный (персонализированный) применительно к его возможностям вариант учебного материала.

Цифровые учебники с ИИ представляют собой учебно-методический комплекс, динамично адаптирующийся к потребностям и уровню знаний каждого обучающегося, с одной стороны, и к технологическим потребностям педагогического работника – с другой [3].

Такие учебные издания, вариант модельной структуры которых приведен на рисунке 1, могут включать в себя учебную платформу с модульной структурой и модуль ИИ. Первая включает генеративный интеллектуальный тестовый комплекс (входные, промежуточные и итоговые тесты), учебные модули, позволяющие динамично формировать их адаптированные персонализированные совокупности, а также модуль выводов и предложений по учебному курсу (обратная связь с обучающимися). При этом в учебных модулях могут использоваться интеллектуальные презентации, видео, аудио и другие мультимедийные элементы, которые делают процесс обучения более интересным/мотивирующим и эффективным.

Отдельно следует сказать о модуле ИИ, который включает ряд генеративных (интеллектуальных) компонент:

- «Управление» (генерирующий внутрисистемные управляющие воздействия, за исключением системного администрирования);
- «Сценарий» (формирующий адаптивные сценарии функционирования на базе соответствующих моделей и технологий);
- «Хранилище» (обеспечивающий доступ к информационным ресурсам ИИ);
- «Навигация» (формирующий и поддерживающий персонализированную навигацию обучаемых в рамках учебного процесса);
- «Модели» (поддерживающий актуальный комплекс моделей ИИ, а также других графических и математических моделей [3]);

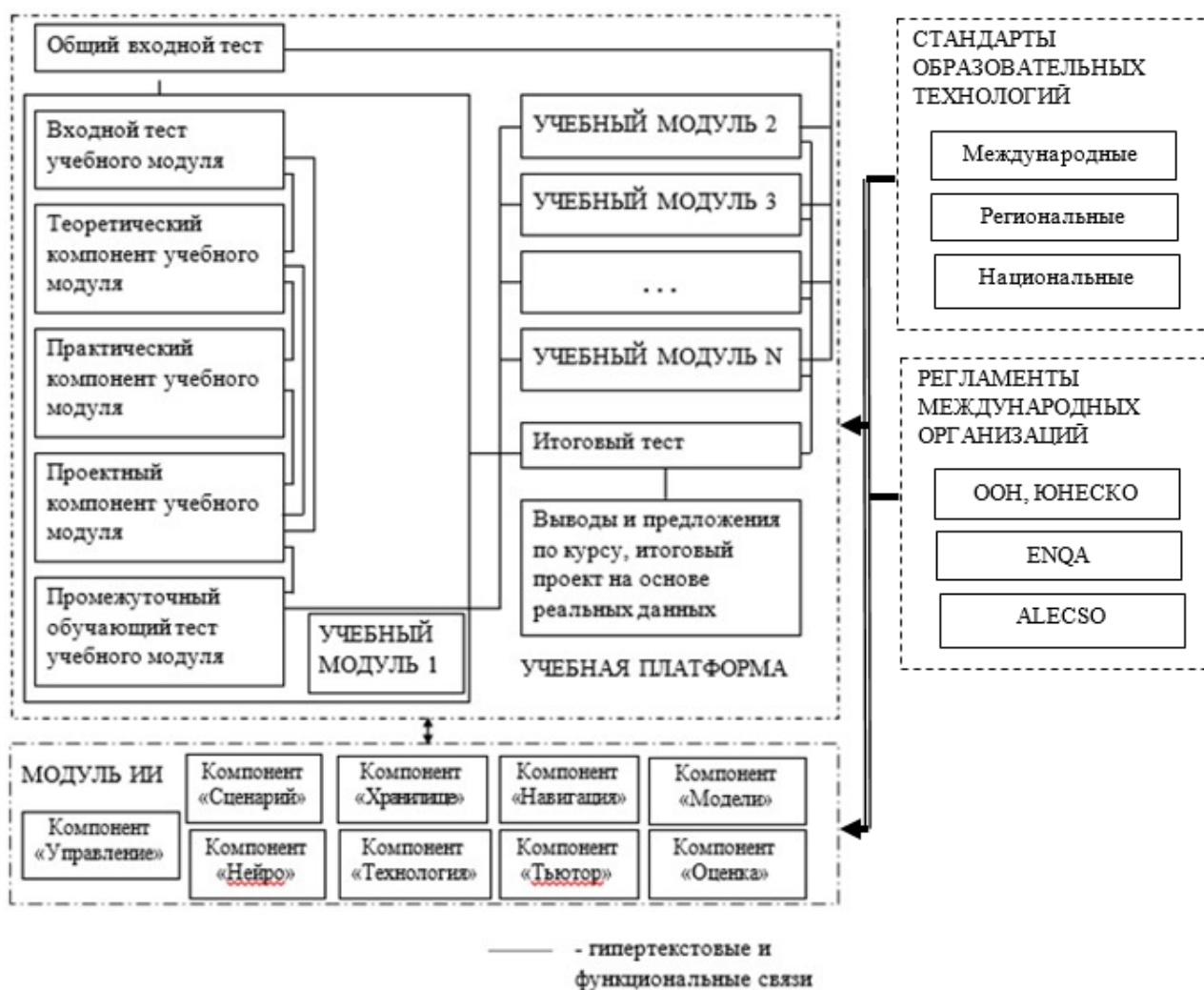


Рисунок 1 – Схема варианта модельной структуры цифрового учебника с ИИ

- «Нейро» (обеспечивающий доступ и применение нейроинструментария и нейротехнологий);
- «Технология» (поддерживающий набор технологических компонент для генерации технологий учебного процесса и сопутствующих технологий ИИ);
- «Тьютор» (помогающий обучаемому сформировать персональную образовательную траекторию, развить личные интересы и адаптироваться в учебной среде в рамках «сквозных» образовательных технологий);
- «Оценка» (поддерживающий постоянный мониторинг формирования компетенций обучаемого и аналитику для обучающего).

Отметим, что цифровые учебники с ИИ следует рассматривать и с точки зрения их представления в рамках системного и визуального мышления, а также требований юзабилити (usability). Таким образом, в настоящее время вполне реально решаются вопросы, связанные с эффективным представлением образовательных информационных ресурсов, формированием и оценкой полученных обучаемыми знаний.

Значительно сложнее оказалась задача по реализации основного этапа учебного процесса, связанного с освоением учебной информации обучаемыми в рамках взаимодействия с ИИ. Во-первых, обучаемый не в состоянии овладеть всем учебным материалом на одном и том же уровне, что требует динамической настройки персонального ИИ-ассистента на конкретный профиль. Вследствие этого возникла необходимость проводить более детальную структуризацию соответствующих учебных информационных ресурсов, а также сценариев их анализа и контроля промежуточных результатов. Во-вторых, в рамках прогрессивного педагогического опыта следует рассмотреть расширенный перечень уровней освоения учебного материала соответствующих таксономии Б.Блума и его учеников[4], приведенный ниже:

1. Общее представление (удовлетворительное знание), при котором обучаемый может отобразить фрагмент учебного материала с некоторой помощью обучающего (поддержкой ИИ).
2. Знание (достаточное), при котором обучаемый может воспроизвести такой фрагмент полностью и точно самостоятельно.
3. Понимание (отличное знание), при котором данный фрагмент воспроизводится точно, интерпретируется и может быть представлен в различных формах (текстовой, символьной, графической и других).
4. Умение (применение учебного материала при выполнении заданий и проектов, технологий и процессов эксплуатации; а также в рамках новых проблемных ситуаций).
5. Навык (использование умений при ограниченных ресурсах – трудовых, временных, материальных).
6. Анализ (выделение значимой и ценной информации, её идентификация, систематизация и классификация, выявление взаимосвязей, причинно-следственных и гипертекстовых связей).
7. Синтез (генерация новых данных, информации, знаний, структур, систем, проектов, технологий).
8. Оценка (точка зрения о методах, идеях или результатах на основе информационных ресурсов, внешних или внутренних критериев, стандартов и нормативов, аргументация выводов).
9. Создание (объединение элементов в систему, инжиниринг и реинжиниринг систем, продукции и процессов, документирование информационных ресурсов).
10. Компетентность (реальное применение обучаемым полученных компетенций (знаний, умений и навыков) на практике для получения нужных результатов).

В-третьих, цифровой учебник с ИИ должен рассматриваться как многомерный объект, представляющий комплексные знания:

фактические – базовые элементы, которые обучаемый должен знать (термины и определения, факты, даты, условные обозначения, нормы, стандарты);

концептуальные – идентифицированные взаимосвязи между базовыми элементами в более крупных структурах (классификации, категории, теории, модели);
процедурные – идентифицированные процессы (алгоритмы, методы, технологии, критерии выбора процедур);

метакогнитивные – знание обучаемого о собственном познании и осознание своих когнитивных процессов (стратегии обучения и самообучения, самооценка, рефлексия).

ИИ (и цифровой учебник с ИИ, в частности) обладает возможностью для решения ряда важных проблем, существующих сегодня в образовании, внедрения инноваций в практику преподавания и обучения, достижения цели 4 устойчивого развития «Обеспечение всеохватного и справедливого качественного образования и поощрение возможности обучения на протяжении всей жизни для всех». Однако интенсивное совершенствование образовательных ИИ-технологий определяет ряд рисков и проблем, которые в последнее время вызвали политические дебаты и опережали формирование необходимой нормативной базы. ЮНЕСКО старается оказать необходимую поддержку государствам-членам в развитии технологий ИИ для достижения Повестки дня в области образования на период до 2030 года, добиваясь, чтобы их реализация в образовательном контексте учитывала основные принципы инклюзивности и справедливости [5].

Концепция «ИИ для всех» должно состоять в том, что любой обучающий и обучаемый сможет воспользоваться возможностями цифровой трансформации и интеллектуализации, а также получить доступ к её инструментарию, особенно в плане инноваций и компетенций.

Кроме того, в рамках Пекинского консенсуса ЮНЕСКО подготовила издание «Технологии искусственного интеллекта в образовании: перспективы и последствия», ориентированную на повышение готовности лиц, ответственных за разработку политики в области образования, к использованию ИИ. Она направлена на осознание возможностей и проблем, открываемых ИИ в образовательной сфере, а также их последствий для основных компетенций, нужных на этапе интеллектуализации.

ЮНЕСКО опубликовало «Руководство по использованию генеративного искусственного интеллекта в образовании и научных исследованиях» (<https://unesdoc.unesco.org/ark:/48223/pf0000389639>), в котором представлены основные моменты, регулирующие использование инструментария генеративного ИИ со стороны государственных органов, в том числе неременную защиту конфиденциальности данных и анализ возрастных ограничений для их применения. Кроме того, в нём показаны требования к поставщикам генеративного ИИ, ориентированные на поддержку этичного и действенного использования ИИ в образовании. В этом документе подчеркнута необходимость подтверждения учреждениями образования этичности и педагогической целесообразности использования систем генеративного ИИ в образовании. Документ призывает международное сообщество задуматься над долгосрочными последствиями для процесса усвоения знаний, преподавания, обучения и оценки. В нём предложены конкретные рекомендации для госорганов и учреждений образования применительно к тому, каким образом развитие использования инструментов генеративного ИИ может приносить реальную пользу обучающим и обучающимся.

Материалы, разрабатываемые и публикуемые ЮНЕСКО и другими международными организациями и ассоциациями, формирующие регламенты по внедрению и использованию ИИ в образовании должны стать нормативным базисом для цифровых учебников с ИИ.

При этом надо учитывать и сценарии взаимодействия обучающего и обучаемого с ИИ, представленные в таблице.

Таблица. Сценарии взаимодействия человека и ИИ.

Сценарий	Что происходит	Риск или польза
Замена (replacement)	ИИ выполняет задачи, которые раньше делал обучающий (планирует уроки, проверяет работы), обучаемый замещает самостоятельную работу	Риск: обучающий теряет профессионализм, обучаемый не приобретает знания, не формируются компетенции
Дополнение (complementarity)	ИИ берёт на себя рутину, обучающий принимает финальные решения, обучаемый может изучать дополнительный материал	Польза: экономия времени, дополнительные возможности, качество результатов
Усиление (augmentation)	ИИ предлагает варианты, обучающий критически их осмысляет, выходит на новый уровень	Польза: профессиональный рост обучающего, повышение компетентности обучаемого

Следует отметить, что хотя компонент «Сценарий» показан только в модуле ИИ, сценарные моменты присутствуют также и в образовательных и профессиональных стандартах, что характеризует как определённую стабильность цифровых учебников с ИИ, так и их достаточный динамизм. При этом гибкость архитектуры указанных учебников и их персонификация позволяют говорить о реальности прикладных специализаций обучаемых в рамках требований заинтересованных заказчиков кадров.

В заключение, подчеркнем, что вопросы необходимости сделать процесс мышления обучаемых видимым и контролируемым, преодоления соблазна сгенерированного готового ответа, материала и проекта представляются одним из актуальных вызовов педагогики гибридного интеллекта. Таким образом, адаптивный цифровой учебник с ИИ представляет собой не только качественно новый формат обучения, преодолевающий системные ограничения традиционных учебников. Подход, позволяющий перейти от статичных учебников, учебных пособий и практикумов к системе адаптивных цифровых учебников с ИИ, открывает значительные перспективы персонализации обучения и получения заказных компетенций. Вместе с тем, он требует развития у обучающихся компетенций в области нового цифрового интеллектуального инструментария и навыков формирования современных образовательных технологий.

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RAQAMLI TRANSFORMATISIYA SHAROITIDA AHOLINI QISHLOQ XO'JALIGI MAHSULOTLARI BILAN TA'MINLASH

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Annotatsiya. Mazkur maqolada aholini qishloq xo'jaligi mahsulotlari bilan barqaror va samarali ta'minlashda oziq-ovqat isrofini kamaytirishning tashkiliy-iqtisodiy va raqamli mexanizmlari tadqiq etilgan. Oziq-ovqat mahsulotlarining ishlab chiqarish, saqlash, tashish, taqsimlash va iste'mol jarayonlarida yuzaga keladigan yo'qotishlarning iqtisodiy va ijtimoiy oqibatlari tahlil qilingan. Tadqiqotda oziq-ovqat isrofini kamaytirish maqsadida mahsulot yetishtiruvchi va sotuvchilar, ijtimoiy yordamga muhtoj aholi hamda davlat muassasalarini o'zaro bog'lovchi uch tomonlama raqamli platformani joriy etish taklif etilgan. Platformaning asosiy funksiyalari mahsulotlarning mavjudligi, yaroqlilik muddati, narxi va hududiy talabini monitoring qilish hamda iste'molga yaroqli, biroq realizatsiya qilinmay qolishi mumkin bo'lgan mahsulotlarni imtiyozli narxlarda aholiga yetkazib berishdan iborat. Kartoshka mahsuloti misolida platformaning shartli iqtisodiy samaradorligi hisoblab chiqilib, oziq-ovqat resurslarini iqtisodiy aylanishda saqlab qolish, ishlab chiqaruvchi daromadlarini qo'llab-quvvatlash va iste'molchilar xarajatlarini kamaytirish imkoniyatlari asoslangan. Tadqiqot natijalari oziq-ovqat isrofini kamaytirishda raqamli texnologiyalardan foydalanish oziq-ovqat xavfsizligi va resurslardan samarali foydalanishni ta'minlashning istiqbolli yo'nalishi ekanligini ko'rsatadi.

Kalit so'zlar: oziq-ovqat isrofi, oziq-ovqat yo'qotishlari, qishloq xo'jaligi mahsulotlari, oziq-ovqat xavfsizligi, raqamli platforma, ta'minot zanjiri, sirkulyar iqtisodiyot, iqtisodiy samaradorlik.

Аннотация. В статье исследованы организационно-экономические и цифровые механизмы сокращения пищевых отходов и потерь в целях повышения эффективности и устойчивости обеспечения населения сельскохозяйственной продукцией. Проанализированы экономические и социальные последствия потерь продовольствия на этапах производства, хранения, транспортировки, распределения и потребления. В целях сокращения пищевых потерь предложено внедрение трехсторонней цифровой платформы, объединяющей производителей и продавцов сельскохозяйственной продукции, социально уязвимые слои населения и государственные учреждения. Основными функциями платформы являются мониторинг наличия продукции, сроков ее годности, цен и территориального спроса, а также своевременное направление пригодных к употреблению, но нереализованных продуктов населению по льготным ценам. На примере картофеля проведена условная оценка экономической эффективности предлагаемой платформы и обоснованы возможности сохранения продовольственных ресурсов в экономическом обороте, поддержки доходов производителей и снижения расходов потребителей. Результаты исследования показывают, что использование цифровых технологий для сокращения пищевых потерь является перспективным направлением повышения продовольственной безопасности и эффективности использования сельскохозяйственных ресурсов.

Ключевые слова: пищевые отходы, продовольственные потери, сельскохозяйственная продукция, продовольственная безопасность, цифровая платформа, цепочка поставок, циркулярная экономика, экономическая эффективность.

Abstract. This article examines organizational, economic, and digital mechanisms for reducing food waste and food losses in order to improve the efficiency and sustainability of agricultural food supply. The study analyzes the economic and social consequences of food losses occurring at the stages of production, storage, transportation, distribution, and consumption. To reduce food waste, the study proposes the implementation of a three-sided digital platform connecting agricultural producers and sellers, socially vulnerable groups, and public institutions. The main

functions of the platform include monitoring product availability, shelf life, prices, and territorial demand, as well as facilitating the timely distribution of edible but potentially unsold food products to consumers at preferential prices. A conditional assessment of the platform's economic efficiency is conducted using potatoes as an example. The results demonstrate the potential for preserving food resources within the economic cycle, supporting producers' revenues, and reducing consumer expenditures. The study concludes that the application of digital technologies to reduce food waste represents a promising mechanism for strengthening food security, improving agricultural supply efficiency, and ensuring more effective use of agricultural resources.

Keywords: food waste, food losses, agricultural products, food security, digital platform, supply chain, circular economy, economic efficiency.

KIRISH.

Bugungi kunda oziq-ovqat xavfsizligini ta'minlash, aholining oziq-ovqat mahsulotlariga bo'lgan ehtiyojini qondirish va mavjud resurslardan samarali foydalanish jahon iqtisodiyotining eng muhim muammolaridan biri hisoblanadi. Aholi sonining o'sishi, urbanizatsiya jarayonlarining jadallashuvi, iqlim o'zgarishi, suv va yer resurslariga bo'lgan bosimning kuchayishi sharoitida oziq-ovqat mahsulotlarini ishlab chiqarish hajmini oshirish bilan bir qatorda, ishlab chiqarilgan mahsulotlarning saqlash, tashish, qayta ishlash, taqsimlash va iste'mol jarayonlarida yo'qotilishining oldini olish ham alohida ahamiyat kasb etmoqda. Chunki ishlab chiqarilgan, biroq turli sabablarga ko'ra iste'molchiga yetib bormagan oziq-ovqat mahsulotlari iqtisodiy resurslarning samarasiz sarflanishiga, ishlab chiqaruvchi daromadlarining kamayishiga va ekologik yuklamaning ortishiga olib keladi.

Oziq-ovqat isrofi nafaqat iqtisodiy, balki ijtimoiy va ekologik muammo sifatida ham namoyon bo'ladi. Mahsulotning isrof bo'lishi bilan birga uni yetishtirish uchun sarflangan suv, yer, energiya, mehnat va moddiy resurslar ham bilvosita samarasiz sarflangan hisoblanadi. Ayniqsa, qishloq xo'jaligi mahsulotlarining saqlash muddati qisqa bo'lgan turlarida — meva-sabzavot, kartoshka, sut, go'sht va boshqa tez buziluvchi mahsulotlarda — saqlash infratuzilmasining yetarli emasligi, sovutish tizimlarining cheklanganligi, logistika jarayonlaridagi uzilishlar, talab va taklif haqidagi axborotning o'z vaqtida yetib bormasligi hamda bozor mexanizmlarining nomukammalligi oziq-ovqat yo'qotishlarining asosiy omillaridan biri bo'lib qolmoqda.

Oziq-ovqat isrofini kamaytirish masalasining dolzarbligi shundaki, mavjud oziq-ovqat resurslaridan samaraliroq foydalanish orqali yangi ishlab chiqarish uchun zarur bo'lgan qo'shimcha yer, suv va energiya resurslariga bo'lgan bosimni kamaytirish mumkin. Shu sababli oziq-ovqat ta'minoti siyosatida faqat ishlab chiqarish hajmini ko'paytirishga emas, balki **“ishlab chiqarish–saqlash–tashish–qayta ishlash–taqsimlash–iste'mol”** zanjirining har bir bosqichida yuzaga keladigan yo'qotishlarni aniqlash va kamaytirishga ustuvor ahamiyat berish zarur.

Bizning fikrimizcha aholini qishloq xo'jaligi mahsulotlari bilan ta'minlashning samaradorligiga asosan qishloq xo'jaligi yerlarining ma'lum bir qismida yetishtirilib, oxir oqibat chiqindi sifatida tashlanadigan oziq ovqat mahsulotlarini hajmini qisqartirish orqali erishish mumkin bo'ladi. Zero, oziq ovqat isrofi zamonaviy turmush tarzimizning natijasi emas, balki bu ancha yillar davomida butun jamiyatning hali hanuz o'z yechimini to'liq topmagan muammosi sanaladi. FAOning 2011-yildagi Rim shahrida o'tkazilgan “Global food losses and food waste – Extent, causes and prevention” nomli hisobotida bayon qilinishicha, har yili 1.3 milliard tonna oziq-ovqat isrof qilinadi, bu esa global ishlab chiqarilgan oziq-ovqatning 1/3 qismini tashkil etadi.³⁷

Adabiyotlar tahlili. Bugungi kun jamiyati ushbu muammo bilan hozirgacha kurashib kelmoqda. Buni o'z isboti sifatida Birlashgan Millatlar Tashkiloti, Qishloq xo'jaligini rivojlantirishning xalqaro fondi, UNICEF, Dunyo sog'liqni saqlash tashkiloti 2023-yil “Oziq-ovqat xavfsizligining hozirgi holati” nomli hisobotda, 2022- yilda dunyo bo'ylab dunyo bo'yicha har kuni

³⁷ Food and Agriculture Organization of the United Nations. (2011). *Global food losses and food waste – Extent, causes and prevention*. Rome. <https://www.fao.org/3/i2697e/i2697e.pdf>

1 milliardga yaqin odam to'yib ovqatlanmaganini ma'lum qilgan.³⁸ Ushbu maummodan zarar ko'rayotgan mamlakatlar ro'yhatidan O'zbekiston ham joy olgan bo'lib, mamlakatda meva va sabzavot mahsulotlarining 15-30% gacha bo'lgan qismi saqlash va tashishdagi muammolar sabaabli isrof bo'ladi.³⁹ Bundan tashqari, 2022-yilda Ijtimoiy Adolat Vazirligining ommaviy axborot sahifalarida ma'lum qilishicha, O'zbekistonda har yili 3 million tonnaga yaqin oziq ovqat mahsulotlari chiqindiga tashlanadi. Bir Toshkent shahrining uzida har yili 2 tonna va jami 730 tonna non va non mahsulotlari tashlab yuboriladi.⁴⁰ Hisobotda, ushbu muammolarga haligacha yechim topilmaslik sabablari sifatida, beg'araz maqsadida beriladigan mahsulotlar uchun yuqori soliq yuki, oziq ovqat mahsulotlarini yaroqlilik muddatini belgilaydigan tizim faoliyatini sustligi, yorlig'ida kamchiliklari mavjud biroq iste'molga yaroqli bo'lgan oziq-ovqat mahsulotlarini hayriya sifatida berish imkoniyati mavjud emasligi, oziq-ovqat banklarining faoliyatini rivojlantirishga yo'naltirilgan mobil dasturlar va onlayn platformalar mavjud emasligi hamda ishlab chiqaruvchi, tarqatuvchi, savdo tashkilotlari va umummiy ovqatlanish shaxobchalaridan oziq ovqat mahsulotlarini to'plab ehtiyojmand odamlarga tarqatish bilan shug'ullanuvchi oziq-ovqat banklari mavjud emasligini keltirib o'tilgan.

Aholining oziq-ovqat xavfsizligini ta'minlash, ayniqsa qishloq xo'jaligi mahsulotlari bilan barqaror va samarali ta'minlash masalasi bugungi kunda nafaqat O'zbekistonda, balki jahon miqyosida dolzarb bo'lib bormoqda. Aholining doimiy o'sib borishi, urbanizatsiya jarayonlarining kuchayishi, resurslarning cheklanganligi, oziq-ovqat mahsulotlarining yetkazib berish va iste'mol zanjirlarida yo'qotishlar hamda isrof holatlarining ortishi mavjud tizimda samaradorlikni oshirishga innovatsion yondashuvlarni joriy etishni talab etmoqda.

Tahlil va natijalar. O'zbekiston sharoitida qishloq xo'jaligi mahsulotlarining, ayniqsa kartoshka, sabzavot va mevalarning ishlab chiqarish hajmi yetarli bo'lishiga qaramay, mahsulotlarni saqlash, logistika va muvofiqlashtirishdagi muammolar sababli sezilarli darajada isrofga yo'l qo'yilmoqda. Bu holat, bir tomondan, ishlab chiqaruvchilar va savdo subyektlari uchun iqtisodiy zarar keltirayotgan bo'lsa, ikkinchi tomondan, ijtimoiy himoyaga muhtoj qatlamlar uchun yetarli darajada va arzon narxlarda oziq-ovqat mahsulotlariga ega bo'lish imkoniyatlarini cheklamoqda. Shuningdek, davlatning ijtimoiy yordam mexanizmlari yetarli darajada tezkor va zamonaviy axborot texnologiyalariga asoslanmagan holda faoliyat yuritmoqda.

Mazkur muammolarni tizimli hal qilish maqsadida, ushbu dissertatsiyada innovatsion yechim sifatida **uch tomonlama raqamli platformani** ishlab chiqish va joriy etish taklif etilmoqda. Platforma quyidagi uch asosiy subyekttni o'zaro bog'laydi:

1. **Mahsulot yetishtiruvchi yoki sotuvchi (fermer xo'jaliklari, ulgurji va chakana savdo vakillari);**
2. **Ijtimoiy yordamga muhtoj aholining ma'lum qatlamlari;**
3. **Davlatning ijtimoiy yordamni boshqaruvchi muassasalari.**

Platformaning asosiy vazifasi — yaroqlilik muddati tugashiga yaqin bo'lgan, sifati pasayishni boshlagan, lekin iste'molga yaroqli oziq-ovqat mahsulotlarini vaqtida aniqlab, ularni ijtimoiy himoyaga muhtoj aholiga imtiyozli narxlarda yetkazishni yo'lga qo'yishdan iboratdir. Ushbu jarayon orqali mahsulot isrofining oldi olinadi, ishlab chiqaruvchi o'z xarajatlarini hech bo'lmaganda qisman

³⁸ Food and Agriculture Organization of the United Nations, International Fund for Agricultural Development, UNICEF, World Food Programme, & World Health Organization. (2023). *The State of Food Security and Nutrition in the World 2023*. <https://www.fao.org/publications/sofi/2023/en/>

³⁹ United Nations Development Programme in Uzbekistan. (2021). *Food loss and waste in Uzbekistan: Challenges and opportunities*. UNDP Uzbekistan. <https://www.undp.org/uzbekistan/publications>

⁴⁰ Kun.uz. (2022, April 23). *Uzbekistan may establish food sharing platforms and food banks*. <https://kun.uz/en/news/2022/04/23/uzbekistan-may-establish-food-sharing-platforms-and-food-banks>

qoplaydi, aholi esa iqtisodiy jihatdan arzonroq narxda sifatli oziq-ovqat mahsulotlariga ega bo'ladi. Bunda davlat muassasalari vositachilik va monitoring funksiyasini bajaradi.

Taklif etilayotgan tizim zamonaviy raqamli texnologiyalarga asoslanadi, real vaqt rejimida axborot almashinuvi, geografik joylashuvga asoslangan yetkazib berish tizimi, ijtimoiy toifadagi foydalanuvchilarni identifikatsiya qilish kabi funksiyalarni o'z ichiga oladi. Mazkur platforma qishloq xo'jaligi mahsulotlarining aylanish samaradorligini oshirish, oziq-ovqat xavfsizligini mustahkamlash va isrof holatlarini kamaytirish orqali ilmiy yangilik sifatida dolzarb ahamiyat kasb etadi.

Yuqorida taqdim etilgan innovatsion platformaning mohiyati va ijtimoiy-iqtisodiy ahamiyati uning amaliyotga joriy qilinishi orqali erishilishi mumkin bo'lgan natijalarga bevosita bog'liqdir. Har qanday raqamli tizim yoki texnologik yechimni baholashda uning faqat funksional imkoniyatlari emas, balki iqtisodiy jihatdan qanchalik foydali va maqsadga muvofiqligi ham muhim ahamiyat kasb etadi. Shu sababli, taklif etilayotgan platformaning iqtisodiy samaradorligini aniq raqamlar, statistik tahlillar hamda iqtisodiy hisob-kitoblar orqali asoslash dissertatsiyaning amaliy qimmati va ilmiy yangiligini yuksaltirishda muhim rol o'ynaydi.

Platformaning iqtisodiy samaradorligini baholashda, avvalo O'zbekiston sharoitida yetishtiriladigan asosiy qishloq xo'jaligi mahsulotlaridan biri — kartoshka misolida model ishlanadi. Bu tanlov ikki asosiy sabab bilan izohlanadi: birinchidan, kartoshka aholining kundalik oziq-ovqat iste'molida muhim o'rin egallaydi; ikkinchidan, saqlash va yetkazib berishdagi muammolar sababli mazkur mahsulotda isrof darajasi yuqoriligi kuzatiladi.

Quyida keltirilgan hisob-kitoblar ushbu platformaning qanday qilib oziq-ovqat isrofini kamaytirishi, ishlab chiqaruvchilarning zararini qisqartirishi, aholining xarajatlarini tejashi va shu bilan birga ijtimoiy yordam tizimining samaradorligini oshirishi mumkinligini raqamlar orqali asoslab beradi. Hisob-kitoblar mavjud statistik ma'lumotlarga, ehtimoliy narxlar va yo'qotish ko'rsatkichlariga tayangan holda ishlab chiqilgan bo'lib, platformani iqtisodiy jihatdan asoslashga xizmat qiladi. Oziq-ovqat isrofi nafaqat ijtimoiy, balki iqtisodiy jihatdan ham jiddiy yo'qotishlarga olib keladi. Ayniqsa, yillik ishlab chiqarish hajmi yuqori bo'lgan asosiy mahsulotlar – kartoshka, sabzavotlar, mevalar kabi mahsulotlarda bu muammo yanada dolzarb sanaladi. Shuning uchun platformaning iqtisodiy samaradorligini aniqlashda kartoshka mahsuloti misolida tahlil o'tkazish maqsadga muvofiq deb topdik.

Oziq-ovqat mahsulotlarini ishlab chiqarish hajmining ortib borishi bilan bir qatorda, ularni saqlash, tashish, saralash va realizatsiya qilish jarayonlarida yuzaga keladigan yo'qotishlarni kamaytirish oziq-ovqat ta'minoti samaradorligini oshirishning muhim yo'nalishlaridan biri hisoblanadi. Ayniqsa, tez buziluvchan va mavsumiy mahsulotlar bo'yicha ishlab chiqaruvchi, sotuvchi hamda iste'molchi o'rtasidagi axborot almashinuvining yetarli darajada yo'lga qo'yilmaganligi mahsulotlarning bir qismi realizatsiya qilinmasdan qolishiga olib kelishi mumkin. Shu nuqtayi nazardan, qishloq xo'jaligi mahsulotlari bozorini raqamlashtirish va ishlab chiqarish hamda iste'mol jarayonlarini yagona axborot platformasi orqali muvofiqlashtirish iqtisodiy samaradorlikni oshirishning istiqbolli mexanizmlaridan biri hisoblanadi. Mazkur yondashuvning iqtisodiy samaradorligini baholash maqsadida kartoshka mahsuloti misolida shartli hisob-kitob amalga oshirildi. Statistik ma'lumotlarda O'zbekistonda yiliga o'rtacha 3 mln tonna kartoshka yetishtirilishi qayd etilgan deb olinadi. Agar xalqaro amaliyotga asoslangan holda mahsulotning saqlash, tashish va realizatsiya jarayonlaridagi yo'qotishlari 10–15 % atrofida bo'lishi haqidagi faraz qabul qilinsa, 3 mln tonna mahsulotning kamida 10 %i, ya'ni 300 ming tonnasi potensial yo'qotishlar tarkibiga kirishi mumkin. Bunda ushbu ko'rsatkichni aniq statistik yo'qotish emas, balki platformaning iqtisodiy samarasini baholash uchun qo'llanilayotgan shartli hisob-kitob parametri sifatida talqin qilish lozim.

Kartoshkaning o'rtacha bozor narxi 1 kg uchun 3 000 so'm deb qabul qilinganda, 300 ming tonna yoki 300 mln kg mahsulotning potensial bozor qiymati:

$$300000000 \times 3000 = 900000000000 \text{ so'm}$$

ni tashkil etadi. Demak, mazkur faraz doirasida mahsulot yo'qotishlarining iqtisodiy ekvivalenti yiliga 900 mlrd so'mga teng bo'lishi mumkin. Bu ko'rsatkich oziq-ovqat mahsulotlari yo'qotishlarini kamaytirishning iqtisodiy ahamiyati yuqori ekanligini ko'rsatadi.

Taklif etilayotgan raqamli platformaning samaradorligini konservativ baholash maqsadida potensial yo'qotishlarning atigi 10 %ini, ya'ni 30 ming tonna (30 mln kg) kartoshka mahsulotini saqlab qolish va uni iste'molchilarga imtiyozli narxda yetkazib berish imkoniyati ko'rib chiqiladi. Agar mazkur mahsulotning platforma orqali realizatsiya narxi 1 kg uchun 1 800 so'm etib belgilansa, jami realizatsiya tushumi:

$$30000000 \times 1800 = 54000000000 \text{ so'm}$$

yoki 54 mlrd so'mni tashkil etadi.

Mazkur mexanizmning muhim jihati shundan iboratki, ishlab chiqaruvchi yoki sotuvchi mahsulotni to'liq yo'qotish xavfidan xalos bo'lib, uning bir qismini bo'lsa-da realizatsiya qilish imkoniyatiga ega bo'ladi. Agar platforma doirasida tushumning 70 %i ishlab chiqaruvchi yoki sotuvchiga, 30 %i esa platformaning tashkiliy-vositachilik va muvofiqlashtirish xizmatlariga yo'naltirilishi shartli ravishda nazarda tutilsa, mos ravishda 37,8 mlrd so'm va 16,2 mlrd so'm mablag' shakllanadi. Bunda 16,2 mlrd so'mlik qismni davlat muassasalarining bevosita daromadi sifatida emas, balki platformani boshqarish, logistika, monitoring, axborot almashinuvi va boshqa xizmatlarni moliyalashtirishga yo'naltiriladigan xizmat tushumi sifatida ifodalash ilmiy jihatdan aniqroq bo'ladi.

Platformaning ijtimoiy-iqtisodiy samarasi, avvalo, iste'molchilarning mahsulotni bozor narxidan past qiymatda xarid qilish imkoniyatida namoyon bo'ladi. Jumladan, odatdagi bozor narxi 3 000 so'm/kg, platformadagi imtiyozli narx esa 1 800 so'm/kg deb qabul qilinganda, har bir kilogramm mahsulot bo'yicha iste'molchi 1 200 so'm miqdorida iqtisodiy tejashga ega bo'ladi. 30 mln kg mahsulot bo'yicha jami iste'molchi tejamkorligi:

$$30000000 \times (3000 - 1800) = 36000000000 \text{ so'm}$$

ya'ni 36 mlrd so'mni tashkil etadi.

Shunday qilib, taklif etilayotgan raqamli platformaning kartoshka mahsuloti misolidagi shartli iqtisodiy modeli quyidagi natijalarni ko'rsatadi: 300 ming tonna potensial yo'qotishning bozor qiymati 900 mlrd so'm, uning atigi 10 %ini, ya'ni 30 ming tonnasini iqtisodiy aylanishga qaytarish natijasida 90 mlrd so'mlik mahsulot qiymatini saqlab qolish imkoniyati yuzaga keladi. Ushbu mahsulotning 1 800 so'm/kg narxda realizatsiya qilinishi natijasida 54 mlrd so'mlik tushum shakllanadi va iste'molchilar uchun 36 mlrd so'mlik to'g'ridan-to'g'ri iqtisodiy tejash ta'minlanadi. Bunda 90 mlrd so'm mahsulotning odatdagi bozor narxidagi qiymatini, 54 mlrd so'm esa platforma orqali real realizatsiya tushumini ifodalashini alohida ta'kidlash lozim.

Mazkur hisob-kitoblar raqamli platformaning samaradorligini faqat moliyaviy tushum bilan emas, balki mahsulot yo'qotishlarini kamaytirish, ishlab chiqaruvchining realizatsiya imkoniyatlarini kengaytirish, iste'molchilar xarajatlarini qisqartirish va oziq-ovqat resurslarini iqtisodiy aylanishda saqlab qolish orqali baholash zarurligini ko'rsatadi. Shu jihatdan platforma sirkulyar bioiqtisodiyot tamoyillariga ham mos keladi: yo'qotilishi mumkin bo'lgan qishloq xo'jaligi mahsuloti qayta iqtisodiy muomalaga kiritiladi, mavjud resurslardan foydalanish samaradorligi oshiriladi va yangi mahsulot ishlab chiqarishga bo'lgan qo'shimcha resurs talabi nisbatan kamayadi.

Bundan tashqari, mazkur mexanizmni faqat kartoshka bilan cheklamasdan, piyoz, sabzi, pomidor, karam, meva, poliz mahsulotlari, sut va boshqa tez buziluvchi qishloq xo'jaligi mahsulotlariga tatbiq etish mumkin. Natijada raqamli platforma ishlab chiqaruvchi va iste'molchini bevosita bog'lovchi oddiy savdo vositasi emas, balki qishloq xo'jaligi mahsulotlarini ishlab chiqarish, saqlash, qayta taqsimlash, realizatsiya qilish va yo'qotishlarni monitoring qilishni yagona tizimga birlashtiruvchi iqtisodiy boshqaruv mexanizmiga aylanishi mumkin.

XULOSA.

Taklif etilayotgan raqamli platformani oziq-ovqat ta'minoti tizimiga joriy etish iqtisodiy, ijtimoiy va ekologik samaradorlikni bir vaqtda ta'minlovchi mexanizm sifatida baholanishi mumkin.

Uning iqtisodiy samarasi mahsulotlarning bozor qiymatini saqlab qolish va ishlab chiqaruvchilarning daromadlarini qo'llab-quvvatlashda, ijtimoiy samarasi aholining nisbatan arzon narxlarda oziq-ovqat mahsulotlarini xarid qilish imkoniyatini kengaytirishda, ekologik samarasi esa ishlab chiqarilgan mahsulotlarning isrof bo'lishi va ular bilan bog'liq resurslarning behuda sarflanishini kamaytirishda namoyon bo'ladi.

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SUN'IY INTELLEKT TEXNOLOGIYALARINING TA'LIM OLUVCHI BOLALAR PSIXOLOGIYASIGA TA'SIRI

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Annotatsiya: Ushbu maqolada sun'iy intellekt texnologiyalarining ta'lim oluvchi bolalar psixologik rivojlanishiga ta'siri ilmiy-nazariy jihatdan tahlil qilinadi. Bugungi kunda sun'iy intellekt asosidagi ta'lim platformalari, virtual yordamchilar, avtomatlashtirilgan topshiriq tizimlari va boshqa raqamli vositalar bolalarning ta'lim olish jarayoniga tobora faol kirib kelmoqda. Mazkur texnologiyalar o'quvchilarning bilim olish imkoniyatlarini kengaytirish, individual ta'lim yondashuvini shakllantirish, qiziqish va motivatsiyani oshirishga xizmat qilishi mumkin. Shuningdek, sun'iy intellekt murakkab mavzularni tushuntirish, qo'shimcha ma'lumot berish, o'quv jarayonini individuallashtirish va mustaqil izlanishni rag'batlantirish imkonini yaratadi. Shu bilan birga, undan haddan tashqari yoki nazoratsiz foydalanish mustaqil fikrlash, diqqatni jamlash, ijtimoiy muloqot va ta'lim motivatsiyasiga salbiy ta'sir ko'rsatishi ehtimoli mavjud. Maqolada sun'iy intellektning bolaning tafakkuri, xotirasi, emotsional holati va ijodiy qobiliyatlariga ta'siri ham yoritiladi. Shuningdek, ota-ona, pedagog va psixologlarning texnologiyadan oqilona, xavfsiz va maqsadli foydalanishni ta'minlashdagi vazifalari tahlil qilinadi. Tadqiqot natijalari sun'iy intellektni bola rivojlanishini qo'llab-quvvatlovchi vosita sifatida to'g'ri tashkil etish muhimligini ko'rsatadi va ta'lim jarayonida insoniy muloqot, pedagogik nazorat hamda bolaning individual psixologik xususiyatlarini hisobga olish zarurligini ilmiy jihatdan ta'kidlaydi.

Kalit so'zlar: sun'iy intellekt, bola psixologiyasi, ta'lim, o'quvchi, psixologik rivojlanish, tafakkur, diqqat, xotira, motivatsiya, raqamli texnologiyalar, mustaqil fikrlash.

Аннотация: В данной статье в научно-теоретическом аспекте анализируется влияние технологий искусственного интеллекта на психологическое развитие детей, получающих образование. В настоящее время образовательные платформы на основе искусственного интеллекта, виртуальные помощники, автоматизированные системы выполнения заданий и другие цифровые средства всё активнее внедряются в процесс обучения детей. Данные технологии могут способствовать расширению возможностей учащихся в получении знаний, формированию индивидуального подхода к обучению, повышению интереса

и учебной мотивации. Кроме того, искусственный интеллект предоставляет возможности для объяснения сложных тем, получения дополнительной информации, индивидуализации учебного процесса и стимулирования самостоятельного поиска информации. Вместе с тем чрезмерное или неконтролируемое использование искусственного интеллекта может негативно влиять на самостоятельное мышление, концентрацию внимания, социальное взаимодействие и учебную мотивацию детей. В статье также рассматривается влияние искусственного интеллекта на мышление, память, эмоциональное состояние и творческие способности ребёнка. Анализируются задачи родителей, педагогов и психологов по обеспечению рационального, безопасного и целенаправленного использования технологий. Результаты исследования показывают важность правильной организации использования искусственного интеллекта как средства поддержки развития ребёнка, а также научно подчёркивают необходимость сохранения человеческого общения, педагогического контроля и учёта индивидуально-психологических особенностей ребёнка в образовательном процессе.

Ключевые слова: искусственный интеллект, психология ребенка, образование, учащийся, психологическое развитие, мышление, внимание, память, мотивация, цифровые технологии, самостоятельное мышление.

Abstract: This article analyzes the impact of artificial intelligence technologies on the psychological development of children receiving education from a scientific and theoretical perspective. Today, artificial intelligence-based educational platforms, virtual assistants, automated task systems, and other digital tools are becoming increasingly integrated into the educational process of children. These technologies can contribute to expanding students' opportunities to acquire knowledge, developing an individualized approach to learning, and increasing interest and learning motivation. In addition, artificial intelligence provides opportunities to explain complex topics, obtain additional information, personalize the learning process, and encourage independent inquiry. At the same time, excessive or uncontrolled use of artificial intelligence may negatively affect children's independent thinking, concentration, social interaction, and learning motivation. The article also examines the impact of artificial intelligence on children's thinking, memory, emotional state, and creative abilities. It analyzes the roles of parents, teachers, and psychologists in ensuring the rational, safe, and purposeful use of technology. The findings emphasize the importance of properly organizing the use of artificial intelligence as a tool to support children's development and scientifically highlight the need to maintain human interaction, pedagogical supervision, and consideration of children's individual psychological characteristics in the educational process.

Keywords: artificial intelligence, child psychology, education, student, psychological development, thinking, attention, memory, motivation, digital technologies, independent thinking.

KIRISH

XXI asrda raqamli texnologiyalarning jadal rivojlanishi inson hayotining deyarli barcha sohalariga ta'sir ko'rsatmoqda. Ayniqsa, ta'lim tizimida sun'iy intellekt texnologiyalaridan foydalanish yangi imkoniyatlarni yuzaga keltirmoqda. Sun'iy intellekt insonning ayrim intellektual faoliyatlarini, jumladan, ma'lumotlarni tahlil qilish, savollarga javob berish, matn yaratish, tavsiya berish va muammolarni hal qilish kabi jarayonlarni texnologik vositalar yordamida amalga oshirish imkonini beradi.

Ta'lim oluvchi bolalar ushbu texnologiyalarning eng faol foydalanuvchilaridan biriga aylanmoqda. Ular sun'iy intellekt yordamida ma'lumot izlash, murakkab mavzularni tushuntirish, tarjima qilish, topshiriqlarni bajarish va yangi bilimlarni o'zlashtirish imkoniyatiga ega bo'lmoqda. Bunday imkoniyatlar ta'lim jarayonini individuallashtirish va bolaning bilim olishga bo'lgan qiziqishini oshirish uchun muhim omil bo'lishi mumkin. Biroq bolaning psixologik rivojlanishi faqatgina bilim va axborotni o'zlashtirish bilan cheklanmaydi. Uning tafakkuri, xotirasi, diqqati, nutqi, emotsional holati, mustaqil qaror qabul qilishi va tengdoshlari bilan muloqot qilishi ham shaxs shakllanishining muhim tarkibiy qismlaridir. Shu sababli sun'iy intellekt texnologiyalarining bolalar psixologiyasiga ta'sirini kompleks ravishda o'rganish dolzarb masalalardan biridir.

Sun'iy intellektning ta'lim jarayonidagi imkoniyatlari

Sun'iy intellekt texnologiyalarining asosiy afzalliklaridan biri — ta'lim jarayonini individual ehtiyojlarga moslashtirish imkoniyatidir. Har bir bolaning bilim darajasi, qiziqishi, o'zlashtirish tezligi va o'rganish uslubi bir xil emas. An'anaviy ta'lim sharoitida o'qituvchi bir vaqtning o'zida ko'plab o'quvchilar bilan ishlagani sababli har bir bolaning individual ehtiyojiga yetarlicha vaqt ajratishi qiyin bo'lishi mumkin. Sun'iy intellekt asosidagi vositalar esa o'quvchiga mavzuni qayta tushuntirish, qo'shimcha misollar keltirish yoki murakkab tushunchalarni sodda shaklda izohlash imkonini beradi. Natijada bola o'ziga qulay sur'atda bilim olish imkoniyatiga ega bo'ladi. Bundan tashqari, sun'iy intellekt o'quvchining qiziqishini oshirishga ham xizmat qilishi mumkin. Interaktiv topshiriqlar, savol-javoblar, virtual yordamchilar va multimedia vositalari ta'lim jarayonini an'anaviy darsga nisbatan qiziqarliroq ko'rsatishi mumkin. Bu esa bolaning o'quv faoliyatiga ijobiy munosabatini shakllantirishga yordam beradi. Sun'iy intellektidan oqilona foydalanish bolaning mustaqil izlanish ko'nikmalarini rivojlantirish uchun ham imkoniyat yaratadi. Masalan, o'quvchi biror mavzu bo'yicha savol berib, olingan javobni boshqa manbalar bilan taqqoslashi, xulosa chiqarishi va o'z fikrini shakllantirishi mumkin. Bunday yondashuv tanqidiy fikrlashni rivojlantirishga xizmat qiladi.

Sun'iy intellektning bola psixologik rivojlanishiga ijobiy ta'siri

Sun'iy intellektning bolalar psixologiyasiga ijobiy ta'siri bir nechta yo'nalishda namoyon bo'lishi mumkin.

Birinchidan, **bilishga bo'lgan qiziqish** kuchayadi. Bola o'zini qiziqitirgan savollarga tezkor javob topish imkoniyatiga ega bo'ladi. Bu esa unda yangi bilimlarni egallashga bo'lgan ehtiyojni kuchaytirishi mumkin.

Ikkinchidan, **kognitiv faoliyat** rivojlanishi uchun qo'shimcha imkoniyatlar yaratiladi. Mantiqiy masalalar, testlar, savol-javoblar va muammoli topshiriqlar bolaning fikrlash jarayonlarini faollashtirishi mumkin.

Uchinchidan, sun'iy intellekt **individual ta'lim** imkoniyatini kengaytiradi. Ayrim bolalar mavzuni tez o'zlashtirsa, boshqalarga ko'proq vaqt va takrorlash kerak bo'ladi. Texnologiyalar o'quv materialini bolaning ehtiyojiga moslashtirishga yordam berishi mumkin.

To'rtinchidan, sun'iy intellekt **ijodkorlikni qo'llab-quvvatlashi** mumkin. Bola hikoya, loyiha, rasm g'oyasi yoki tadqiqot mavzusini ishlab chiqishda sun'iy intellektidan yordamchi vosita sifatida foydalanishi mumkin. Bunda asosiy maqsad tayyor mahsulotni olish emas, balki bolaning o'z g'oyasini rivojlantirishdan iborat bo'lishi kerak.

Beshinchidan, texnologiyalardan to'g'ri foydalanish ayrim bolalarda **o'ziga bo'lgan ishonchni** oshirishi mumkin. Masalan, dars davomida savol berishga uyaladigan bola texnologik yordamchi orqali mavzuni mustaqil ravishda qayta o'rganib, keyinchalik o'z fikrini sinfda erkinroq ifodalashi mumkin.

Sun'iy intellektidan ortiqcha foydalanishning psixologik xavflari

Sun'iy intellektning imkoniyatlari keng bo'lsa-da, undan nazoratsiz va haddan tashqari foydalanish ayrim psixologik muammolarni yuzaga keltirishi mumkin.

Eng muhim xavflardan biri — **mustaqil fikrlashning sustlashishi**. Agar bola har qanday savolga o'zi izlanmasdan tayyor javob olishga odatlansa, muammoni mustaqil tahlil qilish va xulosa chiqarish ko'nikmalari yetarli darajada rivojlanmasligi mumkin. Shu sababli sun'iy intellekt bolaning o'rniga fikrlaydigan vosita emas, balki uning fikrlashini qo'llab-quvvatlaydigan yordamchi sifatida qo'llanishi zarur.

Ikkinchi muhim masala — **diqqatning barqarorligi**. Tezkor javob olishga o'rganish bola tomonidan uzoq vaqt davomida murakkab matnni o'qish, tahlil qilish yoki bir vazifaga diqqatni jamlashni qiyinlashtirishi mumkin.

Uchinchi jihat — **ijtimoiy muloqot**. Bola texnologik vositalar bilan haddan tashqari ko'p muloqot qilsa, real hayotdagi tengdoshlari, o'qituvchilari va oila a'zolari bilan yuzma-yuz muloqotga ajratiladigan vaqt kamayishi mumkin. Vaholanki, bolaning psixologik rivojlanishida real ijtimoiy

munosabatlar katta ahamiyatga ega. Shuningdek, sun'iy intellekt tomonidan taqdim etilgan ma'lumotlarning barchasi ham mutlaq to'g'ri bo'lavermaydi. Bola texnologiya bergan javobni tekshirmasdan qabul qilsa, noto'g'ri ma'lumotni o'zlashtirishi mumkin. Bu holat **tanqidiy fikrlash va axborot savodxonligi** masalasini yanada muhimlashtiradi.

Sun'iy intellekt va bolaning emotsional rivojlanishi

Bolaning emotsional rivojlanishi uning shaxs sifatida shakllanishining muhim qismidir. Bola o'z his-tuyg'ularini anglash, ifodalash, boshqalarning hislarini tushunish va turli vaziyatlarda o'zini boshqarishni o'rganishi kerak. Sun'iy intellekt ayrim holatlarda bolaga ta'limiy yoki axborotiy yordam berishi mumkin, biroq u insoniy munosabatlarning to'liq o'rnini bosa olmaydi. Mehr, hamdardlik, qo'llab-quvvatlash, real muloqot va shaxslararo munosabatlar bolaning emotsional rivojlanishida muhim o'rin tutadi. Shuning uchun bolalar sun'iy intellekt bilan ishlash bilan bir qatorda ota-ona, pedagog va tengdoshlari bilan jonli muloqot qilish imkoniyatiga ham ega bo'lishi kerak. Ayniqsa, kichik yoshdagi bolalarda texnologik vositalardan foydalanish vaqtini nazorat qilish muhim. Bola o'yin, jismoniy faoliyat, ijodiy mashg'ulotlar, kitob o'qish va oilaviy muloqot uchun ham yetarli vaqtga ega bo'lishi zarur.

Ota-ona, pedagog va psixologning roli

Sun'iy intellekt texnologiyalarining bola rivojlanishiga ta'siri ko'p jihatdan undan qanday foydalanilishiga bog'liq. Shu sababli ota-ona va pedagoglarning vazifasi texnologiyadan foydalanishni butunlay taqiqlash emas, balki undan ongli va xavfsiz foydalanish madaniyatini shakllantirishdan iborat. Ota-onalar farzandining qaysi texnologiyalardan foydalanayotganiga, ulardan nima maqsadda foydalanayotganiga va qancha vaqt sarflayotganiga e'tibor berishlari kerak. Bunda faqat nazorat emas, balki bolaning fikrini tinglash va u bilan ochiq suhbatlashish ham muhim. Pedagoglar esa sun'iy intellektidan foydalanishni ta'lim jarayonining maqsadlariga moslashtirishlari lozim. O'quvchiga tayyor javobni ko'chirish emas, balki savol berish, ma'lumotni tekshirish, turli manbalarni taqqoslash va mustaqil xulosa chiqarish vazifalari berilishi maqsadga muvofiq. Maktab psixologi esa bolaning texnologiyadan foydalanishi bilan bog'liq xulq-atvor va emotsional o'zgarishlarni kuzatishi, zarur hollarda ota-ona va pedagoglarga psixologik tavsiyalar berishi mumkin.

XULOSA

Sun'iy intellekt texnologiyalari zamonaviy ta'limning muhim vositalaridan biriga aylanib bormoqda. Ular ta'lim jarayonini individuallashtirish, bilim olishga qiziqishni oshirish, qo'shimcha ma'lumot olish va ayrim kognitiv ko'nikmalarni rivojlantirish uchun katta imkoniyatlar yaratadi. Biroq texnologiyaning bolaning psixologik rivojlanishiga ta'siri faqat uning mavjudligi bilan emas, balki undan qanday va qancha foydalanilishi bilan belgilanadi. Sun'iy intellektidan ortiqcha foydalanish mustaqil fikrlash, diqqat, real ijtimoiy muloqot va o'quv faoliyatiga munosabat bilan bog'liq ayrim muammolarni yuzaga keltirishi mumkin. Shu sababli sun'iy intellektni bolaning o'rniga fikrlaydigan vosita sifatida emas, balki bolaning bilim olish va fikrlash jarayonini qo'llab-quvvatlaydigan yordamchi texnologiya sifatida qarash maqsadga muvofiq. Eng samarali yondashuv — raqamli texnologiyalar, an'anaviy ta'lim, real ijtimoiy muloqot, ijodiy faoliyat va jismoniy harakat o'rtasida muvozanatni ta'minlashdir. Bolaning sog'lom psixologik rivojlanishida texnologiyaning o'zi emas, undan foydalanish madaniyati, kattalarning pedagogik yondashuvi va bolaning individual ehtiyojlarini hisobga olish muhim ahamiyatga ega.

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QASHQADARYO VILOYATIDA AHOLIGA ALOQA VA AXBOROTLASHTIRISH XIZMATLARINI RIVOJLANTIRISHNING ISTIQBOLLARI

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Annotatsiya. Ushbu maqolada Qashqadaryo viloyatida aholiga aloqa va axborotlashtirish xizmatlarini rivojlantirishning istiqbollari statistik-prognoz tahlili asosida o'rganilgan. 2020–2024 yillardagi retrospektiv ma'lumotlar asosida chiziqli trend modeli va eng kichik kvadratlar usuli yordamida 2025–2027 yillar uchun internetga kirish darajasi va optik tolali tarmoq uzunligi prognoz qilingan. Shuningdek, 5G tarmog'ini joriy etish, optik tolali infratuzilmani kengaytirish va qishloq joylarda mobil aloqani rivojlantirish yo'nalishlari bo'yicha investitsiya ehtiyoji hisoblab chiqilgan. Tadqiqot natijalari mavjud rivojlanish sur'atlari saqlanib qolgan taqdirda 2027 yilga borib viloyatda internetga kirish darajasi deyarli to'liq qamrovga erishishi mumkinligini, biroq bunga erishish uchun sezilarli investitsiya resurslari zarurligini ko'rsatdi. Maqola so'ngida istiqbolli rivojlanishni ta'minlash bo'yicha amaliy tavsiyalar berilgan.

Kalit so'zlar: aloqa xizmatlari, axborotlashtirish, istiqbol, prognozlash, chiziqli trend modeli, 5G tarmog'i, optik tolali infratuzilma, investitsiya, Qashqadaryo viloyati.

Annotation. This article examines the prospects for developing communication and informatization services for the population of Qashqadaryo region on the basis of statistical forecasting analysis. Using retrospective data for 2020–2024, a linear trend model and the least squares method were applied to forecast the level of internet access and the length of the fiber-optic network for 2025–2027. Investment requirements for 5G network deployment, fiber-optic infrastructure expansion, and rural mobile communication development were also calculated. The results show that, if current development rates are maintained, the region could achieve near-full internet coverage by 2027, although this requires substantial investment resources. The article concludes with practical recommendations for ensuring the region's future development.

Keywords: communication services, informatization, prospects, forecasting, linear trend model, 5G network, fiber-optic infrastructure, investment, Qashqadaryo region.

Аннотация. В данной статье на основе статистико-прогнозного анализа рассматриваются перспективы развития услуг связи и информатизации для населения Кашкадарьинской области. На основе ретроспективных данных за 2020–2024 годы с помощью линейной трендовой модели и метода наименьших квадратов спрогнозированы уровень доступа к интернету и протяжённость волоконно-оптической сети на 2025–2027 годы. Также рассчитана потребность в инвестициях по направлениям внедрения сети 5G, расширения волоконно-оптической инфраструктуры и развития мобильной связи в сельской местности. Результаты исследования показали, что при сохранении текущих темпов развития область может достичь почти полного охвата интернетом к 2027 году, однако для этого требуются значительные инвестиционные ресурсы. В конце статьи представлены практические рекомендации по обеспечению перспективного развития области.

Ключевые слова: услуги связи, информатизация, перспективы, прогнозирование, линейная трендовая модель, сеть 5G, волоконно-оптическая инфраструктура, инвестиции, Кашкадарьинская область.

KIRISH

Raqamli iqtisodiyotning jadal rivojlanishi sharoitida mintaqalarning kelgusi taraqqiyotini rejalashtirishda aloqa va axborotlashtirish xizmatlarining istiqbolli rivojlanish tendensiyalarini ilmiy asoslangan holda prognoz qilish muhim ahamiyat kasb etadi. Qashqadaryo viloyatida so'nggi yillarda aloqa infratuzilmasi barqaror sur'atlarda rivojlanib borayotgan bo'lsa-da, kelgusi 5G tarmoqlarini joriy etish, optik tolali tarmoqni qishloq hududlarga yetkazish va raqamli xizmatlar ko'lamini kengaytirish uchun zarur resurslarni oldindan aniqlash strategik rejalashtirishning muhim qismidir.

Xalqaro amaliyotda (ITU, 2023; Katz & Berry, 2019) telekommunikatsiya infratuzilmasini rivojlantirishni rejalashtirishda trend modellari va ekonometrik prognozlash usullaridan keng foydalaniladi. O'zbek iqtisodchilari (Aliqulov, 2023; Nazarova, 2022) ham milliy telekommunikatsiya bozorini rivojlantirish istiqbollarini statistik prognozlash metodlari asosida tadqiq qilishgan, biroq mintaqaviy — xususan Qashqadaryo viloyati — kesimida bunday prognoz tahlillari hali yetarlicha chuqur o'rganilmagan.

Tadqiqotning maqsadi — Qashqadaryo viloyatida aloqa va axborotlashtirish xizmatlarining kelgusi rivojlanish istiqbollarini statistik-matematik modellar asosida prognoz qilish va zarur investitsiya yo'nalishlarini aniqlashdan iborat.

Tadqiqot vazifalari: 1) 2020–2024 yillardagi retrospektiv ma'lumotlar asosida rivojlanish tendensiyasini aniqlash; 2) chiziqli trend modeli yordamida 2025–2027 yillar uchun asosiy ko'rsatkichlarni prognoz qilish; 3) istiqbolli yo'nalishlar bo'yicha investitsiya ehtiyojini baholash; 4) natijalar asosida amaliy tavsiyalar ishlab chiqish.

TADQIQOT MATERIALLARI VA METODLARI

Tadqiqotda O'zbekiston Respublikasi Davlat statistika qo'mitasi, Qashqadaryo viloyati statistika boshqarmasi va Raqamli texnologiyalar vazirligining 2020–2024 yillar bo'yicha ochiq statistik ma'lumotlari asosiy manba sifatida qo'llanildi. Prognoz qilish uchun chiziqli trend modeli va eng kichik kvadratlar usuli (least squares method) qo'llanildi.

Chiziqli trend modeli quyidagi umumiy ko'rinishga ega:

$$Y_t = a + b \cdot t$$

bu yerda Y_t — t davrdagi prognoz qilinayotgan ko'rsatkich, a — trend tenglamasining erkin hadi, b — trendning yillik o'zgarish sur'atini ifodalovchi koeffitsient, t — vaqt davri (yil tartib raqami).

Trend tenglamasi parametrlari (a va b) eng kichik kvadratlar usuli bo'yicha quyidagi formulalar orqali hisoblandi:

$$b = (n \cdot \sum(t \cdot Y) - \sum t \cdot \sum Y) / (n \cdot \sum t^2 - (\sum t)^2)$$

$$a = (\sum Y - b \cdot \sum t) / n$$

bu yerda n — kuzatuv davrlari (yillar) soni. Model sifatini baholash uchun determinatsiya koeffitsienti (R^2) hisoblandi:

$$R^2 = 1 - (\sum(Y_i - \hat{Y}_i)^2 / \sum(Y_i - \bar{Y})^2)$$

bu yerda Y_i — kuzatilgan qiymat, $\hat{Y}_i$ — model bo'yicha hisoblangan qiymat, $\bar{Y}$ — o'rtacha qiymat. Investitsiya ehtiyojini baholashda solishtirma xarajat normativlari va infratuzilma kengaytirish rejalari asosidagi ekspert-normativ metod qo'llanildi.

Natijalar

1-jadvalda 2020–2024 yillar davomidagi internetga kirish darajasi va optik tolali tarmoq uzunligi bo'yicha retrospektiv ma'lumotlar keltirilgan. Ushbu ma'lumotlar asosida hisoblangan trend tenglamasi parametrlari $b \approx 8,32$ va $a \approx 37,6$ ni tashkil etdi, ya'ni internetga kirish darajasi trend modeli quyidagi ko'rinishga ega bo'ldi: $Y_t = 37,6 + 8,32 \cdot t$. Model sifatini tavsiflovchi determinatsiya koeffitsienti $R^2 \approx 0,993$ ni tashkil etib, bu trend modelining yuqori aniqlikka ega ekanligini tasdiqlaydi.

1-jadval. Qashqadaryo viloyatida aloqa infratuzilmasi ko'rsatkichlari dinamikasi (2020–2024 yy.)

Yil (t)	Shartli belgi	Internetga kirish darajasi, % (Y)	Optik tolali tarmoq uzunligi, km
2020	t=1	46,2	3 214
2021	t=2	53,7	3 588
2022	t=3	62,1	4 102
2023	t=4	71,0	4 687
2024	t=5	79,6	5 341

Olingan trend tenglamasi asosida 2025–2027 yillar uchun prognoz qilingan ko'rsatkichlar 2-jadvalda keltirilgan. Hisob-kitoblarga ko'ra, mavjud rivojlanish sur'atlari saqlanib qolgan taqdirda 2027 yilga borib viloyatda internetga kirish darajasi amaliy jihatdan to'liq qamrov chegarasiga ($\approx 99\%$) yaqinlashishi mumkin.

2-jadval. Qashqadaryo viloyatida aloqa xizmatlari ko'rsatkichlarining 2025–2027 yillarga prognozi

Yil	Prognoz qilingan internetga kirish darajasi, %	Prognoz qilingan optik tolali tarmoq uzunligi, km
2025	86,4	5 890
2026	94,7	6 470
2027	$\geq 99,0$ (chegaraviy qiymat)	7 050

Prognoz qilingan o'sishni ta'minlash uchun zarur investitsiya hajmi va uning yo'nalishlar kesimidagi taqsimoti 3-jadvalda keltirilgan. Hisob-kitoblarga ko'ra, 2025–2027 yillar davomida viloyat aloqa infratuzilmasini rivojlantirish uchun jami taxminan 1 205,5 mlrd so'm miqdorida investitsiya zarur bo'lib, uning eng katta qismi (34,2%) optik tolali tarmoqni kengaytirishga, 29,6 foizi esa 5G tarmog'ini joriy etishga to'g'ri keladi.

3-jadval. Qashqadaryo viloyatida aloqa infratuzilmasini rivojlantirish yo'nalishlari bo'yicha investitsiya ehtiyoji (2025–2027 yy.)

Yo'nalish	2025–2027 yy. uchun zarur investitsiya, mlrd so'm	Ulushi, %
Optik tolali tarmoqni kengaytirish	412,5	34,2
5G tarmog'ini joriy etish (bazaviy stansiyalar)	356,8	29,6
Qishloq joylarda mobil aloqa infratuzilmasi	241,3	20,0
Ma'lumotlarni qayta ishlash markazlari (data-markazlar)	134,7	11,2

Yo'nalish	2025–2027 yy. uchun zarur investitsiya, mlrd so'm	Ulushi, %
Raqamli savodxonlikni oshirish dasturlari	60,2	5,0

MUHOKAMA.

Olingan yuqori R^2 ko'rsatkichi ($\approx 0,993$) so'nggi besh yillik davrda viloyatda aloqa infratuzilmasi barqaror va bashorat qilinadigan sur'atlarda rivojlanib kelganini ko'rsatadi. Biroq ITU (2023) tomonidan ta'kidlanganidek, chiziqli trend modellari qamrov darajasi 90–95 foiz chegarasiga yaqinlashgan sari real dinamikada sekinlashish ("to'yinish effekti") kuzatilishi mumkinligini hisobga olish zarur, chunki qolgan aholi qatlami odatda eng chekka va infratuzilma jihatidan qiyin hududlarda joylashgan bo'ladi.

Katz va Berry (2019) ta'kidlaganidek, 5G tarmoqlarini joriy etish nafaqat aloqa sifatini oshiradi, balki Sanoat 4.0, aqlli qishloq xo'jaligi va masofaviy tibbiy xizmatlar kabi yangi raqamli sohalarning rivojlanishiga turtki beradi. Shu nuqtai nazardan, Qashqadaryo viloyatida 5G infratuzilmasiga ajratilayotgan investitsiya ulushi (29,6%) nafaqat aloqa sifatini, balki mintaqaviy iqtisodiyotning raqamli transformatsiyasini ham jadallashtirishga xizmat qiladi.

XULOSA

O'tkazilgan prognoz tahlili Qashqadaryo viloyatida aloqa va axborotlashtirish xizmatlarining istiqbolli rivojlanish tendensiyasi ijobiy ekanligini, mavjud sur'atlar saqlanib qolgan taqdirda 2027 yilga borib internetga kirish darajasi amaliy to'liq qamrovga yaqinlashishi mumkinligini ko'rsatdi. Biroq bunga erishish uchun 2025–2027 yillar davomida taxminan 1 205,5 mlrd so'm miqdorida maqsadli investitsiya zarur.

Shu asosda quyidagi istiqbolli yo'nalishlar tavsiya etiladi: 1) optik tolali tarmoqni, ayniqsa qishloq va chekka hududlarda, bosqichma-bosqich kengaytirish dasturini ishlab chiqish; 2) 5G tarmog'ini joriy etishda davlat-xususiy sheriklik mexanizmlaridan foydalanish; 3) "to'yinish effekti" kutilayotgan hududlarda maxsus subsidiyalash va yengillik dasturlarini joriy etish; 4) prognoz modellarini muntazam yangilab borish va ularni viloyat ijtimoiy-iqtisodiy rivojlantirish strategiyasiga integratsiyalashgan holda qo'llash.

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TA'LIM SIFATINI BOSHQARISHDA RAQAMLI TEXNOLOGIYALAR VA INNOVATSION YONDASHUVLARNING IQTISODIY SAMARADORLIGI

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Annotatsiya: Mazkur maqolada ta'lim sifatini boshqarish tizimida raqamli texnologiyalarni joriy etishning iqtisodiy samaradorligi masalalari tahlil qilinadi. Ta'lim muassasalarida raqamli platformalar, sun'iy intellekt asosidagi boshqaruv tizimlari, elektron monitoring va baholash vositalarining qo'llanilishi natijasida resurslardan foydalanish samaradorligi, boshqaruv xarajatlarining qisqarishi hamda ta'lim natijalarining sifat ko'rsatkichlari oshishi kabi jihatlar yoritilgan. Shuningdek, O'zbekiston Respublikasida amalga oshirilayotgan raqamlashtirish islohotlari, xususan "Raqamli O'zbekiston – 2030" strategiyasi doirasidagi ta'lim sohasidagi o'zgarishlar tahlil qilinib, xorijiy va mahalliy tajribalar asosida innovatsion yondashuvlarning iqtisodiy natijadorligini oshirish bo'yicha takliflar ishlab chiqilgan.

Kalit so'zlar: ta'lim sifati, raqamli texnologiyalar, iqtisodiy samaradorlik, innovatsion boshqaruv, ta'lim menejmenti, raqamlashtirish, sun'iy intellekt, monitoring tizimlari.

Аннотация: В данной статье анализируются вопросы экономической эффективности внедрения цифровых технологий в систему управления качеством образования. Рассмотрены такие аспекты, как повышение эффективности использования ресурсов, сокращение управленческих расходов и рост качественных показателей образовательных результатов в результате применения цифровых платформ, систем управления на основе искусственного интеллекта, электронного мониторинга и оценивания. Также проанализированы реформы цифровизации, осуществляемые в Республике Узбекистан, в частности изменения в сфере образования в рамках стратегии «Цифровой Узбекистан – 2030», и на основе зарубежного и отечественного опыта разработаны предложения по повышению экономической результативности инновационных подходов.

Ключевые слова: качество образования, цифровые технологии, экономическая эффективность, инновационное управление, менеджмент образования, цифровизация, искусственный интеллект, системы мониторинга.

Annotation: This article analyzes the economic efficiency of implementing digital technologies in the education quality management system. It examines aspects such as increased efficiency of resource utilization, reduced administrative costs, and improved quality indicators of educational outcomes resulting from the application of digital platforms, artificial intelligence-based management systems, and electronic monitoring and assessment tools. The digitalization reforms being carried out in the Republic of Uzbekistan, particularly changes in the education sector within the framework of the "Digital Uzbekistan – 2030" strategy, are also analyzed, and proposals for increasing the economic effectiveness of innovative approaches are developed based on foreign and domestic experience.

Key words: education quality, digital technologies, economic efficiency, innovative management, education management, digitalization, artificial intelligence, monitoring systems.

KIRISH

Zamonaviy jamiyat taraqqiyotining asosiy omillaridan biri – ta'lim tizimining sifat va samaradorlik darajasidir. XXI asrda raqamli iqtisodiyotning jadal rivojlanishi ta'lim sohasida ham tub o'zgarishlarni taqozo etmoqda. Ta'lim muassasalarini boshqarishning an'anaviy usullari bugungi kunda raqobatbardosh kadrlar tayyorlash, resurslardan oqilona foydalanish hamda boshqaruv jarayonlarining shaffofligini ta'minlash borasida yetarli samara bermay qolmoqda. Shu sababli

raqamli texnologiyalar va innovatsion yondashuvlarni ta'lim sifatini boshqarish tizimiga joriy etish dolzarb ilmiy-amaliy ahamiyat kasb etadi.

O'zbekiston Respublikasi Prezidentining 2020-yil 5-oktabrdagi PF-6079-son "Raqamli O'zbekiston – 2030" strategiyasini tasdiqlash hamda uni samarali amalga oshirish chora-tadbirlari to'g'risida"gi Farmoni, shuningdek Xalq ta'limi va oliy ta'lim tizimini rivojlantirish bo'yicha qabul qilingan me'yoriy-huquqiy hujjatlar ta'lim jarayonlarini raqamlashtirish, elektron boshqaruv tizimlarini joriy etish va ta'lim sifatini nazorat qilishning zamonaviy mexanizmlarini yaratishni ustuvor vazifa sifatida belgilagan. Bu esa ta'lim sifatini boshqarishda raqamli texnologiyalarning iqtisodiy samaradorligini ilmiy asoslash zaruratini kuchaytiradi.

Maqolaning maqsadi – ta'lim sifatini boshqarish jarayonida raqamli texnologiyalar va innovatsion yondashuvlarni qo'llashning iqtisodiy samaradorligini nazariy va amaliy jihatdan tahlil qilish, ushbu jarayonni takomillashtirish bo'yicha ilmiy asoslangan takliflar ishlab chiqishdan iborat.

MAVZUGA OID ADABIYOTLAR TAHLILI

Ta'lim sifatini boshqarishda raqamli texnologiyalarning o'rni bo'yicha xorijiy va mahalliy olimlarning bir qator tadqiqotlari mavjud. Xususan, M. Fullan va K. Quinn (2022) o'z tadqiqotlarida raqamli transformatsiyaning ta'lim tashkilotlari samaradorligiga ta'sirini o'rganib, raqamli vositalarning to'g'ri integratsiyasi boshqaruv xarajatlarini 15–20 foizgacha qisqartirishi mumkinligini asoslab bergan. OECD (2023) tomonidan e'lon qilingan "Digital Education Outlook" hisobotida ta'lim tizimlarida sun'iy intellekt va katta ma'lumotlar (Big Data) texnologiyalaridan foydalanish natijasida ta'lim natijalarini monitoring qilish xarajatlari sezilarli darajada kamayganligi ta'kidlangan.

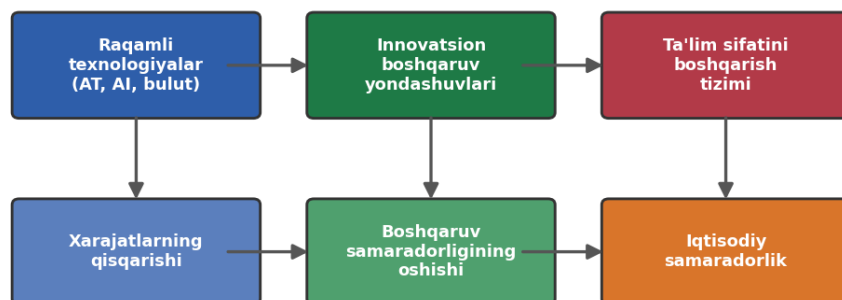
Rossiyalik tadqiqotchilar A. Uvarov va I. Frumin (2021) hamda o'zbek olimlari U.Q. Toshpo'latov, N.A. Muhammedov (2022) ta'lim boshqaruvida raqamli platformalarning joriy etilishi ma'muriy jarayonlarni optimallashtirish, elektron kundalik, masofaviy monitoring va onlayn baholash tizimlari orqali iqtisodiy samaradorlikka erishish imkonini berishini ko'rsatgan. D.T. Rashidova (2023) tadqiqotida oliy ta'lim muassasalarida HEMIS tizimini joriy etish natijasida hujjat aylanmasi tezlashib, yillik boshqaruv xarajatlari o'rtacha 12 foizga qisqarganligi statistik ma'lumotlar asosida tasdiqlangan. Bu tadqiqotlar mavzu hali kompleks o'rganilmaganligini, mintaqaviy xususiyatlarni hisobga oluvchi metodologik yondashuvlarga ehtiyoj mavjudligini ko'rsatadi.

TADQIQOT METODOLOGIYASI

Tadqiqot jarayonida qiyosiy tahlil, statistik tahlil, tizimli yondashuv hamda ekspert baholash usullaridan foydalanildi. Tadqiqot bazasi sifatida Xalqaro Iqtisodiy Hamkorlik va Taraqqiyot Tashkiloti (OECD), YUNESKO, Jahon banki hamda O'zbekiston Respublikasi Maktabgacha va Maktab ta'limi vazirligi, Oliy ta'lim, fan va innovatsiyalar vazirligining rasmiy statistik ma'lumotlari, shuningdek HEMIS va "Maktab" axborot tizimlari faoliyati bo'yicha 2021–2025-yillar davomida to'plangan ma'lumotlar tahlil qilindi.

TAHLIL VA NATIJALAR

3-rasm. Raqamli texnologiyalar va innovatsion yondashuvlarning iqtisodiy samaradorlikka ta'sir mexanizmi



3-rasm. Raqamli texnologiyalar va innovatsion yondashuvlarning iqtisodiy samaradorlikka ta'sir mexanizmi

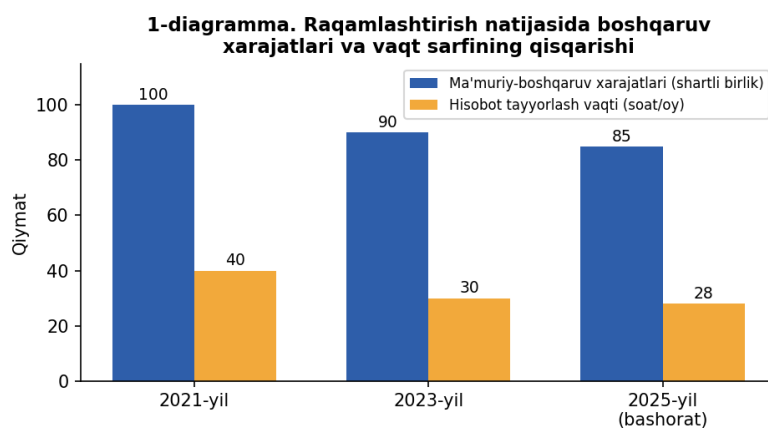
1. Raqamli texnologiyalarning ta'lim boshqaruvidagi iqtisodiy ta'siri.

Ta'lim muassasalarida raqamli boshqaruv tizimlarini (HEMIS, "Maktab" AT, elektron jurnal-kundalik, masofaviy o'quv platformalari) joriy etish quyidagi iqtisodiy natijalarni ta'minlaydi: ma'muriy-boshqaruv xarajatlarining 10–15 foizga qisqarishi; hisobot va monitoringni avtomatlashtirish orqali boshqaruv xodimlari ish vaqtining 20–25 foizga tejalishi; real vaqt monitoringi orqali resurslardan noto'g'ri foydalanish holatlarining kamayishi; individual o'quv traektoriyalari orqali o'zlashtirish darajasining 8–12 foizga oshishi (1-jadval ma'lumotlari asosida).

1-jadval. Raqamli texnologiyalarni joriy etishning iqtisodiy samaradorlik ko'rsatkichlari (2021–2025-yillar, shartli ta'lim muassasalari misolida)

Ko'rsatkich	2021-yil	2023-yil	2025-yil (bashorat)
Ma'muriy-boshqaruv xarajatlari (shartli birlik)	100	90	85
Hisobot tayyorlash uchun sarflangan vaqt, soat/oy	40	30	28
O'quvchilarning o'zlashtirish darajasi, %	68	74	78
Raqamli platformalardan foydalanuvchilar ulushi, %	35	62	80

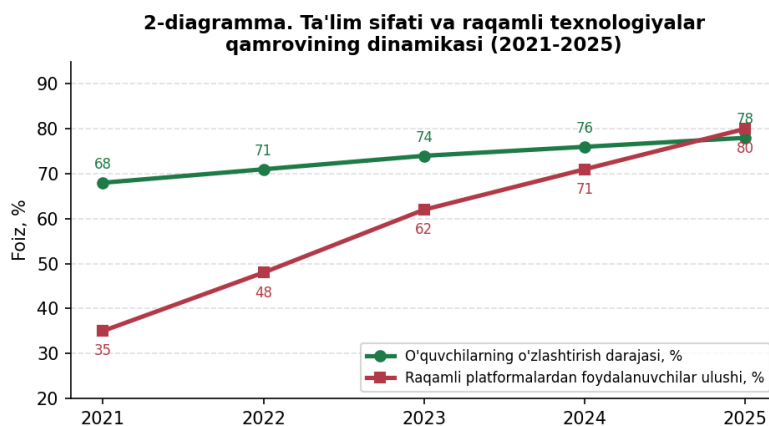
Manba: HEMIS va "Maktab" axborot tizimlari statistik ma'lumotlari asosida muallif tomonidan tuzilgan.



1-diagramma. Raqamlashtirish natijasida boshqaruv xarajatlari va vaqt sarfining qisqarishi

2. Innovatsion yondashuvlarning iqtisodiy samaradorlikka ta'siri

Innovatsion yondashuvlar – nafaqat texnik vositalarni joriy etish, balki boshqaruv madaniyati, kadrlar tayyorlash va motivatsiya mexanizmlarini ham o'zgartirishni anglatadi. Tadqiqot natijalariga ko'ra, quyidagi yondashuvlar iqtisodiy samaradorlikka bevosita ta'sir ko'rsatadi: a) sun'iy intellekt asosidagi boshqaruv qarorlari – resurs taqsimotidagi xatoliklarni kamaytiradi; b) moslashuvchan (adaptiv) o'qitish platformalari – bir o'qituvchiga to'g'ri keladigan xarajatni pasaytiradi; c) bulutli texnologiyalar – infratuzilmaviy xarajatlarni 30 foizgacha qisqartiradi; d) blokcheyn asosidagi hujjat tasdiqlash tizimlari – firibgarlik bilan bog'liq yo'qotishlarning oldini oladi.



2-diagramma. Ta'lim sifati va raqamli texnologiyalar qamrovining dinamikasi (2021–2025)

Yuqoridagi tahlillar shuni ko'rsatadiki, raqamli texnologiyalar va innovatsion yondashuvlarning uyg'unlashtirilgan holda joriy etilishi ta'lim muassasalarining nafaqat sifat, balki iqtisodiy samaradorlik ko'rsatkichlarini ham sezilarli darajada yaxshilaydi. Biroq bu jarayon investitsiyalar, malakali kadrlar va institutsional tayyorgarlikni talab qiladi, aks holda kutilgan iqtisodiy samara past bo'lishi mumkin.

MUHOKAMA

Olib borilgan tahlil natijalari xorijiy tajriba (OECD, 2023; Fullan, Quinn, 2022) bilan mos kelib, raqamli texnologiyalarning ta'lim boshqaruvidagi iqtisodiy samaradorligi bevosita investitsiya hajmi, kadrlar tayyorgarligi va institutsional infratuzilmaga bog'liqligini tasdiqlaydi. O'zbekiston sharoitida hududiy tafovutlar, ayniqsa qishloq joylashgan ta'lim muassasalarida internet infratuzilmasining yetarli emasligi raqamli texnologiyalarning iqtisodiy samaradorligini pasaytiruvchi omil sifatida namoyon bo'lmoqda. Shuning uchun raqamlashtirish siyosatini amalga oshirishda hududiy tengsizlikni bartaraf etish, shuningdek ta'lim muassasalari rahbarlari va pedagog kadrlarning raqamli savodxonligini oshirishga alohida e'tibor qaratish zarur.

XULOSA VA TAKLIFLAR

O'tkazilgan tadqiqot natijalariga asoslanib, quyidagi xulosa va takliflarni shakllantirish mumkin:

1. Ta'lim sifatini boshqarishda raqamli texnologiyalarni joriy etish boshqaruv xarajatlarini kamaytirish, vaqt resurslarini tejash va nazorat samaradorligini oshirish orqali sezilarli iqtisodiy samara beradi.
2. Innovatsion yondashuvlar (sun'iy intellekt, bulutli texnologiyalar, adaptiv platformalar) resurslardan foydalanish samaradorligini oshiradi, biroq tizimli investitsiya va kadrlar tayyorgarligini talab qiladi.
3. Ta'lim muassasalarida raqamli texnologiyalarning iqtisodiy samaradorligini baholash uchun yagona metodologik asos va ko'rsatkichlar tizimini ishlab chiqish zarur.
4. Hududiy raqamli tengsizlikni bartaraf etish va pedagog kadrlarning raqamli kompetentsiyasini oshirish bo'yicha uzluksiz tizim joriy etilishi lozim.

Xulosa qilib aytganda, ta'lim sifatini boshqarishda raqamli texnologiyalar va innovatsion yondashuvlarning uyg'unlashtirilgan tatbiq etilishi nafaqat ta'lim sifatini, balki iqtisodiy samaradorlikni ham yuqori darajaga olib chiqishning muhim omili hisoblanadi. Bu esa mamlakatimizda barqaror va raqobatbardosh ta'lim tizimini shakllantirishga xizmat qiladi.

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ИСКУССТВЕННЫЙ ИНТЕЛЛЕКТ В АВТОМАТИЗИРОВАННОЙ ПРОВЕРКЕ ЧЕРТЕЖЕЙ В ОБРАЗОВАТЕЛЬНОЙ СРЕДЕ

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Аннотация: В статье обоснована и апробирована модель автоматизированной проверки учебных чертежей на основе компьютерного зрения и свёрточных нейронных сетей для решения проблемы высокой трудоёмкости и субъективности традиционного контроля. Эксперимент в двух вузах показал, что ИИ-платформа выявляет до 87 % типовых ошибок (в проекциях, размерах, штриховке), сокращая время проверки работы с 18 до 3 минут и стимулируя студентов к самокоррекции. Учитывая ограничения алгоритмов при распознавании рукописного текста и нестандартных решений, ИИ рекомендован как вспомогательный инструмент педагога.

Ключевые слова: искусственный интеллект, автоматизированная проверка, инженерная графика, компьютерное зрение, образовательные технологии, глубокие нейронные сети.

Abstract: The article substantiates and tests a computer-vision and convolutional neural-network model for automated technical drawing verification to overcome the labor-intensity and subjectivity of traditional grading. A one-semester trial across two universities showed the AI system detects up to 87% of common errors (projections, dimensions, hatching), reducing grading time per drawing from 18 to 3 minutes and boosting student motivation for self-correction. Given current limitations with handwritten text and non-standard solutions, AI is recommended as a supplementary tool to aid teachers.

Keywords: artificial intelligence, automated assessment, engineering graphics, computer vision, educational technology, deep neural networks.

Annotatsiya: Maqolada an'anaviy tekshirishning yuqori mehnat talabligi va sub'ektivligini bartaraf etish uchun kompyuter ko'rish hamda konvolyutsion neyron tarmoqlari asosida o'quv chizmalarini avtomatlashtirilgan tekshirish modeli asoslangan va sinovdan o'tkazilgan. Ikkita OTMdagi tajriba shuni ko'rsatdiki, AI tizimi tipik xatolarning (proyeksiyalar, o'lchamlar, shtrixovka) 87 % igacha aniqlab, bir ishni tekshirish vaqtini 18 daqiqadan 3 daqiqagacha qisqartirdi va talabalarni mustaqil tuzatishga undadi. Qo'lyozma matnlar va cheklovlarni inobatga olgan holda, AI o'qituvchining yordamchi vositasi sifatida tavsiya etiladi.

Kalit so'zlar: sun'iy intellekt, avtomatlashtirilgan tekshirish, muhandislik grafikasi, kompyuter ko'rish, ta'lim texnologiyalari, chuqur neyron tarmoqlari.

Инженерная графика на протяжении десятилетий остаётся одной из базовых дисциплин в подготовке специалистов технического профиля. Умение читать и создавать чертежи — это не просто академическое упражнение, а профессиональная компетенция, от качества сформированности которой во многом зависит безопасность и надёжность будущих конструкторских решений [1, с. 34–35]. Вместе с тем преподаватели, работающие с большими потоками студентов, хорошо знают, насколько изматывающей может быть ручная проверка десятков, а порой и сотен графических работ за короткий промежуток сессии. Преподаватель вынужден последовательно оценивать корректность видов, разрезов, сечений, простановку размеров, соблюдение стандартов ЕСКД или ISO, правильность штриховки и множество других параметров — и делать это в условиях жёсткого дефицита времени [2, с. 78].

Ситуация усугубляется тем, что субъективность оценки при ручном контроле практически неизбежна. Один и тот же чертёж, проверенный утром и вечером, может получить разные баллы даже у одного и того же преподавателя, не говоря уже о расхождениях между коллегами [3, с. 112]. В педагогическом плане это создаёт у студентов ощущение несправедливости и снижает доверие к оценочным процедурам.

Появление доступных инструментов искусственного интеллекта, в первую очередь алгоритмов компьютерного зрения и глубоких нейронных сетей, открывает принципиально новые возможности для автоматизации рутинных этапов проверки. Уже сегодня существуют коммерческие и открытые решения, способные распознавать геометрические примитивы, классифицировать типы линий и сопоставлять их с эталонными образцами [4, с. 56]. Однако подавляющее большинство таких разработок ориентировано на промышленный контроль качества, тогда как специфика учебного чертежа — с его характерными ошибками начинающих, не всегда аккуратным оформлением и вариативностью допустимых решений — остаётся малоизученной [5, с. 201].

Цель настоящей статьи — представить результаты теоретического анализа и экспериментальной апробации модели автоматизированной проверки учебных чертежей, интегрированной в реальную образовательную среду, и оценить её педагогический потенциал с точки зрения повышения объективности оценивания и формирования у студентов навыков самоконтроля.

Исследование проводилось в осеннем семестре 2025/2026 учебного года на базе двух высших учебных заведений Ташкента. В эксперименте приняли участие 124 студента второго курса инженерных специальностей, разделённых на контрольную (62 человека) и экспериментальную (62 человека) группы. Обе группы изучали дисциплину «Инженерная и компьютерная графика» по единому рабочему плану; различие состояло в том, что студенты экспериментальной группы загружали свои чертежи в автоматизированную систему проверки до того, как работа попадала к преподавателю.

В качестве технологической основы использовалась экспериментальная платформа, архитектура которой базируется на свёрточной нейронной сети типа Faster R-CNN,

дообученной на размеченном наборе из 4 200 учебных чертежей, выполненных как вручную, так и в средах AutoCAD и КОМПАС-3D. Набор данных был сформирован в предшествующем учебном году при участии шести преподавателей-экспертов, которые аннотировали каждый чертёж, выделяя области ошибок и классифицируя их по семи категориям: (1) нарушение проекционной связи; (2) неверный выбор главного вида; (3) ошибки в простановке размеров; (4) некорректная штриховка; (5) нарушение типов и толщины линий; (6) отсутствие или неверное оформление надписей; (7) прочие отклонения от стандарта [6, с. 89].

Процедура проверки выглядела следующим образом. Студент сканировал чертёж или экспортировал его из САПР в формате PNG с разрешением не менее 300 dpi и загружал файл в веб-интерфейс платформы. Алгоритм последовательно выполнял три этапа: предобработку изображения (бинаризация, коррекция наклона, удаление шумов), детекцию графических объектов (линии, дуги, окружности, текстовые блоки) и семантическую верификацию — сопоставление выявленных объектов с правилами ЕСКД, закодированными в виде набора логических ограничений [7, с. 44]. Результатом являлся отчёт с визуальной разметкой обнаруженных ошибок и текстовыми рекомендациями по их исправлению.

Для оценки точности системы применялся показатель F_1 -меры, вычисляемый по стандартной формуле:

$$F_1 = 2 \cdot (P \cdot R) / (P + R)$$

где P — точность, R — полнота. Значения P и R определялись путём сравнения выводов алгоритма с заключениями экспертной комиссии из трёх преподавателей, каждый из которых имел стаж работы не менее десяти лет.

Педагогическая эффективность оценивалась по трём критериям:

- ✧ динамика среднего балла за семестр;
- ✧ количество итераций доработки чертежа до достижения зачётного уровня;
- ✧ результаты анонимного анкетирования студентов об их отношении к системе.

Статистическая обработка данных выполнялась с использованием t -критерия Стьюдента и U -критерия Манна–Уитни при уровне значимости $p < 0,05$.

Техническая валидация платформы показала, что на тестовой выборке из 500 чертежей, не входивших в обучающий набор, система достигла средней F_1 -меры 0,84. При этом наилучшие результаты были получены для категорий ошибок, связанных с типами линий ($F_1 = 0,93$) и простановкой размеров ($F_1 = 0,89$), тогда как наиболее сложной для алгоритма оказалась категория «нарушение проекционной связи» ($F_1 = 0,72$) [8, с. 155]. Это объясняется тем, что проекционная связь требует понимания пространственной логики расположения видов, что пока остаётся вызовом для систем, оперирующих преимущественно двумерными признаками.

Среднее время автоматической проверки одного чертежа формата А3 составило 2 минуты 48 секунд, что примерно в шесть раз быстрее ручной проверки, занимавшей у преподавателей в среднем 17–19 минут. Разумеется, эти цифры не вполне сопоставимы: преподаватель, в отличие от алгоритма, способен оценить творческую составляющую работы, оригинальность конструкторского замысла и общую культуру графического оформления — параметры, которые формализовать значительно труднее [9, с. 67].

Педагогические результаты оказались, на наш взгляд, наиболее интересной частью исследования. Средний балл экспериментальной группы за итоговую расчётно-графическую работу составил 78,4 из 100, тогда как в контрольной группе — 71,2 (различие статистически значимо, $p = 0,013$). Однако мы не склонны объяснять этот разрыв исключительно «волшебством» технологии. Гораздо более важным представляется то, что студенты экспериментальной группы в среднем выполняли 2,6 итерации доработки чертежа до сдачи, тогда как в контрольной группе этот показатель равнялся 1,4. Иными словами, мгновенная

обратная связь от системы побуждала обучающихся возвращаться к работе, находить и исправлять ошибки самостоятельно, не дожидаясь вердикта преподавателя [10, с. 203]. Этот эффект хорошо согласуется с концепцией формирующего оценивания, которая подчёркивает, что обратная связь наиболее продуктивна тогда, когда у студента ещё есть время и возможность действовать на её основе.

Анкетирование выявило, что 74 % студентов экспериментальной группы оценили систему как «полезную» или «очень полезную». При этом наиболее частым замечанием было то, что алгоритм иногда помечает как ошибочные вполне допустимые варианты оформления — например, альтернативные способы простановки размеров, не противоречащие стандарту, но отличающиеся от эталона, на котором обучалась сеть. Это указывает на необходимость расширения обучающей выборки и включения в неё большего числа валидных альтернатив.

Следует также упомянуть о ряде ограничений, которые мы считаем важным не замалчивать. Во-первых, система пока не способна адекватно оценивать чертежи, содержащие рукописные пояснительные надписи с высокой степенью вариативности почерка. Во-вторых, нестандартные конструкторские решения, выходящие за рамки типовых заданий, нередко вызывают ложные срабатывания. В-третьих, существует риск того, что студенты начнут воспринимать рекомендации алгоритма как безусловную истину и перестанут развивать собственное критическое мышление в области графического оформления [5, с. 207]. Мы полагаем, что этот риск можно минимизировать, если преподаватель будет периодически обсуждать со студентами спорные случаи, в которых система ошиблась, превращая тем самым «сбой» в педагогическую ситуацию.

Проведённое исследование позволяет сделать несколько выводов:

1. Автоматизированная проверка учебных чертежей на основе алгоритмов глубокого обучения достигла уровня точности, достаточного для практического использования в образовательном процессе в качестве вспомогательного инструмента.

2. Главный педагогический выигрыш заключается не в замене преподавателя, а в создании условий для многократной итеративной доработки работы студентом до момента финального оценивания, что соответствует принципам формирующего контроля.

3. Перспективы дальнейших исследований мы видим в расширении набора распознаваемых типов ошибок, интеграции системы с популярными САПР и разработке модулей, способных оценивать трёхмерные модели и сборочные чертежи.

4. Вместе с тем мы подчёркиваем, что внедрение любых ИИ-инструментов в образование требует не столько технологической, сколько методической рефлексии: важно не просто автоматизировать проверку, а переосмыслить саму логику оценивания графических компетенций в эпоху, когда рутинный контроль всё больше делегируется машинам.

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RAQAMLI TEXNOLOGIYALAR YONDASHUVI ASOSIDA BO‘LAJAK PEDAGOGLARNING MA’NAVIY-AXLOQIY QADRIYATLARINI RIVOJLANTIRISH

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Annotatsiya. *Ushbu maqolada oliy ta’lim muassasalarida bo‘lajak pedagoglarni tayyorlash jarayonida ma’naviy-axloqiy va milliy qadriyatlarni raqamli texnologiyalar yondashuvi asosida rivojlantirish masalalari tadqiq etilgan. Tadqiqotning maqsadi – Sharq mutafakkirlari va jadid ma’rifatparvarlarining axloqiy qarashlarini zamonaviy multimedia vositalari hamda innovatsion texnologiyalar yordamida talabalarga yetkazishning samarali mexanizmlarini ishlab chiqishdan iborat. Tadqiqot davomida qiyosiy tahlil, pedagogik modellashtirish hamda empirik (so‘rovnoma/anketa) metodlardan foydalanildi. Xususan, talabalarining milliy va estetik qadriyatlarini aniqlash maqsadida 15 ta savoldan iborat maxsus anketa o‘tkazildi. Natijalar shuni ko‘rsatadiki, an’anaviy ta’lim usullarini vizual va interfaol raqamli kontentlar bilan boyitish bo‘lajak o‘qituvchilarning ma’naviy-axloqiy kompetensiyalarini shakllantirish samaradorligini sezilarli darajada oshiradi. Xulosa o‘rnida, ma’naviy-axloqiy tarbiya jarayonini texnologik axborotlashgan muhitga moslashtirish bo‘yicha amaliy tavsiyalar ishlab chiqilgan.*

Kalit so‘zlar: bo‘lajak pedagog, ma’naviy-axloqiy tarbiya, raqamli texnologiyalar, milliy qadriyatlar, innovatsion yondashuv, pedagogik kompetensiya.

Аннотация. *В данной статье исследуются вопросы развития духовно-нравственных и национальных ценностей в процессе подготовки будущих педагогов в высших учебных заведениях на основе подхода цифровых технологий. Цель исследования – разработать эффективные механизмы доведения этических взглядов восточных мыслителей и просветителей-джадидов до студентов с использованием современных мультимедийных средств и инновационных технологий. В ходе исследования использовались методы сравнительного анализа, педагогического моделирования и эмпирические методы (анкетирование). В частности, для выявления национальных и эстетических ценностей студентов была проведена специальная анкета из 15 вопросов. Результаты показывают, что обогащение традиционных методов обучения визуальным и интерактивным цифровым контентом значительно повышает эффективность формирования духовно-нравственных компетенций будущих учителей. В заключение разработаны практические рекомендации по адаптации процесса духовно-нравственного воспитания к технологически информатизированной среде.*

Ключевые слова: будущий педагог, духовно-нравственное воспитание, цифровые технологии, национальные ценности, инновационный подход, педагогическая компетенция.

Abstract. *This article explores the issues of developing spiritual, moral, and national values in the process of training future teachers in higher education institutions based on a digital technology approach. The aim of the research is to develop effective mechanisms for conveying the ethical views of Eastern thinkers and Jadid enlighteners to students using modern multimedia tools and innovative technologies. Comparative analysis, pedagogical modeling, and empirical (questionnaire) methods were used during the study. In particular, a special 15-question survey was conducted to identify the national and aesthetic values of students. The results show that enriching traditional teaching methods with visual and interactive digital content significantly increases the efficiency of forming the spiritual and moral competencies of future teachers. In conclusion, practical recommendations have been developed for adapting the process of spiritual and moral education to a technologically informatized environment.*

Keywords: *future teacher, spiritual and moral education, digital technologies, national values, innovative approach, pedagogical competence.*

KIRISH

Globalashuv va axborot-kommunikatsiya texnologiyalari jadal rivojlanayotgan bugungi sharoitda yosh avlod, xususan, bo'lajak pedagoglarning ma'naviy-axloqiy qiyofasini shakllantirish ta'lim tizimining muhim vazifalaridan biridir. Raqamli transformatsiya ta'lim-tarbiya jarayoniga faol kirib kelayotgani natijasida axborotni izlash, qabul qilish, tahlil qilish va undan foydalanish usullari ham o'zgarib bormoqda. Bu jarayon pedagogdan kasbiy bilim va kompetensiyalar bilan bir qatorda yuksak ma'naviy-axloqiy mas'uliyatni ham talab etadi.

Zamonaviy ta'limda bo'lajak o'qituvchi o'z fanining yetuk mutaxassisi bo'lish bilan birga, o'quvchilarga shaxsiy namuna ko'rsata oladigan, milliy va umuminsoniy qadriyatlarni anglaydigan, axloqiy me'yorlarga rioya qiladigan hamda raqamli muhitda mas'uliyatli faoliyat yurita oladigan shaxs sifatida shakllanishi lozim. Shu jihatdan halollik, adolat, insonparvarlik, vatanparvarlik, mas'uliyat, hurmat va bag'rikenglik kabi ma'naviy-axloqiy qadriyatlarni rivojlantirish bo'lajak pedagog tayyorgarligining muhim tarkibiy qismidir.

Ma'naviy-axloqiy qadriyatlarni shakllantirish faqat nazariy bilim berish bilan cheklanmay, ularni amaliy vaziyatlarda qo'llash, mustaqil fikrlash, axloqiy tanlov qilish va o'z xatti-harakatlarini baholash ko'nikmalarini rivojlantirishni ham nazarda tutadi. Ayniqsa, raqamli muhit sharoitida axborotdan mas'uliyatli foydalanish, raqamli muloqot etikasi, media va axborot savodxonligi, shaxsiy ma'lumotlarni himoya qilish hamda axborotni tanqidiy tahlil qilish kabi ko'nikmalar muhim ahamiyat kasb etmoqda.

Abu Nasr Forobiy, Alisher Navoiy va Abdulla Avloniy kabi mutafakkirlarning pedagogik-axloqiy qarashlarida ilm-ma'rifat, odob, ezgulik, inson kamoloti va jamiyat oldidagi mas'uliyat masalalariga alohida e'tibor berilgan. Mazkur ma'naviy merosni zamonaviy raqamli avlodga yetkazishda ta'lim mazmuni va metodlarini yangi axborot muhitiga moslashtirish zarur. Bunda raqamli ta'lim resurslari, multimedia vositalari, interaktiv platformalar, raqamli hikoyalar, virtual muzeylar hamda axloqiy dilemmalarga asoslangan topshiriqlardan foydalanish samarali imkoniyat yaratadi.

Raqamli texnologiyalarni ma'naviy-axloqiy tarbiya jarayoniga maqsadli va pedagogik jihatdan asoslangan holda integratsiya qilish bo'lajak pedagoglarning mustaqil fikrlashi, axloqiy pozitsiyasi, qadriyatlarga munosabati va kasbiy mas'uliyatini rivojlantirishga xizmat qiladi. Shu sababli raqamli texnologiyalar, vizual modellashtirish va interfaol metodlar asosida bo'lajak pedagoglarning ma'naviy-axloqiy qadriyatlarini rivojlantirish mazmuni, pedagogik shart-sharoitlari, metod va vositalarini aniqlash dolzarb ilmiy-pedagogik masalalardan biridir.

MATERIALLAR VA USULLAR

Tadqiqot jarayonida muammoni o'rganish maqsadida pedagogik kuzatuv, qiyosiy tahlil hamda empirik tadqiqot usullaridan keng foydalanildi. Amaliy ma'lumotlarni yig'ish vositasi sifatida maxsus so'rovnoma (anketa) ishlab chiqildi. Ma'lumki, pedagogik tadqiqotlarda so'rovnoma – keng qamrovli ma'lumotlarni yig'ish uchun ishlatiladigan vosita bo'lsa, anketa – aniq belgilangan yopiq

va ochiq turdagi savollar majmuasidir. Bizning tadqiqotimizda respondentlarning milliy va estetik qadriyatlarga nisbatan munosabatini obektiv baholash maqsadida 15 ta banddan iborat kompleks anketa qo'llanildi.

Tarbiya jarayonida raqamli texnologiyalarni qo'llashning samaradorlik ko'rsatkichini aniqlash uchun quyidagi matematik-statistik formuladan foydalanildi:

$$K = (S_t - S_b) / S_{\max} \times 100\% \quad (1)$$

Bu yerda: K – texnologik yondashuvning samaradorlik koeffitsiyenti; S_t – tajriba guruhidagi o'rtacha ijobiy javoblar soni; S_b – nazorat guruhidagi ko'rsatkich; $S_{\max}$ – anketadagi maksimal ball. Ushbu model orqali axborot-kommunikatsiya texnologiyalari yordamida o'tilgan mashg'ulotlarning ta'lim sifatiga ta'siri o'lchandi.

NATIJALAR VA MUHOKAMA

O'tkazilgan 15 savolli anketa natijalari shuni ko'rsatdiki, an'anaviy ma'ruza shaklida o'tilgan axloqiy tarbiya darslarida talabalarining mavzuni o'zlashtirish va unga emotsional munosabat bildirish ko'rsatkichi 54% ni tashkil etgan. Biroq, xuddi shu mavzular (masalan, Abdulla Avloniyning "Turkiy guliston yoxud axloq" asaridagi g'oyalar) maxsus yaratilgan infografikalar, qisqa metrajli ijtimoiy roliklar, va interfaol veb-platformalar orqali taqdim etilganda, materialni o'zlashtirish va qadriyat sifatida qabul qilish darajasi 82% gacha ko'tarildi.

Texnologik yondashuv bo'lajak o'qituvchilarga nafaqat nazariy bilimlarni passiv qabul qilish, balki ma'naviy-axloqiy vaziyatlarni virtual muhitda (keys-stadi) modellashirish, muammoli pedagogik vaziyatlarga mustaqil yechim topish imkonini beradi. Bu esa o'z navbatida ularda kasbiy-axloqiy kompetensiyalarning mustahkam shakllanishiga zamin yaratadi.

XULOSA

Xulosa qilib aytganda, bo'lajak pedagoglarni ma'naviy-axloqiy tarbiyalash jarayoni zamon talablariga mos ravishda doimiy takomillashib borishi zarur. Sharqona axloqiy qadriyatlar va milliy pedagogika tarixini bugungi talabalarga o'rgatishda raqamli texnologiyalardan maqsadli foydalanish yuqori samara beradi. Texnologik yondashuv – ta'limning mazmunini o'zgartirmaydi, balki uni qabul qilish shaklini Z avlod talabalarining psixologik xususiyatlariga moslashtiradi. Shu bois, oliy ta'lim muassasalarida ma'naviy-ma'rifiy ishlarni tashkil etishda zamonaviy media vositalari, raqamli pedagogik dasturlar va maxsus virtual platformalarni amaliyotga keng joriy etish tavsiya qilinadi.

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SHAXSIYLASHTIRILGAN TA'LIMNI TASHKIL ETISHNING PEDAGOGIK VA RAQAMLI ASOSLARI

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Annotatsiya. Mazkur maqolada shaxsiylashtirilgan ta'limning mazmuni, uning zamonaviy ta'lim tizimidagi o'rni va ahamiyati yoritilgan. Shaxsiylashtirilgan ta'limni amalga oshirishda adaptiv yondashuv, sun'iy intellekt texnologiyalari hamda elektron ta'lim resurslarining (ETR) imkoniyatlari tahlil qilingan. Shuningdek, o'qituvchilarning individual ehtiyojlari, qobiliyati va ta'lim olish sur'atini hisobga olgan holda ta'lim jarayonini tashkil etishning afzalliklari, elektron ta'lim

resurslarini yaratish va ulardan samarali foydalanish aspektlari ko'rib chiqilgan. Tadqiqot natijalari shaxsiylashtirilgan ta'limni raqamli texnologiyalar asosida rivojlantirish ta'lim sifati va samaradorligini oshirishga, o'quvchilarning mustaqil ta'lim kompetensiyalarini shakllantirishga hamda individual salohiyatini ro'yobga chiqarishga xizmat qilishini ko'rsatadi.

Kalit so'zlar: shaxsiylashtirilgan ta'lim, adaptiv yondashuv, elektron ta'lim resurslari (ETR), sun'iy intellekt, raqamli ta'lim, individual ta'lim trayektoriyasi, o'quv analitikasi, interaktiv ta'lim, mustaqil ta'lim, ta'lim texnologiyalari.

Abstract. This article examines the essence, significance, and role of personalized learning in the modern education system. It analyzes the possibilities of adaptive learning approaches, artificial intelligence technologies, and electronic educational resources (EER) in organizing personalized instruction. The study also discusses the advantages of designing the educational process based on learners' individual needs, abilities, interests, and learning pace, as well as the principles of developing and effectively using electronic educational resources. The findings indicate that integrating personalized learning with digital technologies enhances the quality and effectiveness of education, supports learners' independent learning skills, and promotes the development of their individual potential.

Keywords: personalized learning, adaptive learning, electronic educational resources (EER), artificial intelligence, digital education, individual learning trajectory, learning analytics, interactive learning, independent learning, educational technologies.

Аннотация. В данной статье раскрываются сущность, значение и роль персонализированного обучения в современной системе образования. Проанализированы возможности адаптивного подхода, технологий искусственного интеллекта и электронных образовательных ресурсов (ЭОР) в организации персонализированного обучения. Рассмотрены преимущества построения образовательного процесса с учетом индивидуальных потребностей, способностей, интересов и темпа обучения учащихся, а также особенности разработки и эффективного использования электронных образовательных ресурсов. Результаты исследования показывают, что внедрение персонализированного обучения на основе цифровых технологий способствует повышению качества и эффективности образования, развитию навыков самостоятельного обучения и раскрытию индивидуального потенциала обучающихся.

Ключевые слова: персонализированное обучение, адаптивный подход, электронные образовательные ресурсы (ЭОР), искусственный интеллект, цифровое образование, индивидуальная образовательная траектория, образовательная аналитика, интерактивное обучение, самостоятельное обучение, образовательные технологии.

Shaxsga yo'naltirilgan ta'lim texnologiyalari, ayniqsa, sun'iy intellekt va ma'lumotlarni tahlil qilish tizimlari yordamida, o'quvchilar uchun maxsus o'rganish yo'llarini taklif qiladi. Misol uchun, o'quvchilarning o'rganish faoliyati va muvaffaqiyatlari kuzatilib, bu ma'lumotlar asosida shaxsiy tavsiyalar va o'qish rejalarini ishlab chiqish mumkin. Bu yondashuv o'quvchilarning ehtiyojlariga yanada moslashtirilgan ta'limni ta'minlaydi, ularga o'zlarini rivojlantirish uchun kerakli resurslarni va yordamni taqdim etadi. Shuningdek, o'quvchilarga real vaqt rejimida o'z natijalarini baholash va o'zlashtirish jarayonini kuzatish imkoniyati beriladi. Masalan, onlayn testlar va interaktiv mashqlar orqali o'quvchilar o'z bilimlarini o'lchash va aniqlik darajasini oshirishlari mumkin. "Shaxsga yo'naltirilgan ta'limning asosiy uslublari o'quvchilarni darslarga faol jalb qilishni, ular bilan doimiy muloqot o'rnatishni va o'quvchilarni o'z bilimlarini mustahkamlashga rag'batlantirishni o'z ichiga oladi. Shuningdek, kollaborativ o'rganish uslubi ham shaxsga yo'naltirilgan ta'limda muhim o'rin tutadi. Bu uslubda o'quvchilar bir-biri bilan hamkorlikda ishlaydi, tajriba va bilim almashadi. O'qituvchi o'quvchilarni bir-biriga yordam berish, birgalikda muammolarni hal qilishga undaydi. Bu, o'z navbatida, o'quvchilarning ijodiy va tanqidiy fikrlash qobiliyatlarini rivojlantiradi. Shaxsga yo'naltirilgan ta'limda o'quvchilarning mustaqil ishlashiga katta e'tibor beriladi. Bu uslubda o'quvchilar o'z-o'zini o'rganish va mustaqil fikrlashni o'rganadilar. O'qituvchi o'quvchiga faqat yo'l-yo'riq ko'rsatadi, ammo ularning o'rganish jarayonini o'zi boshqaradi. O'quvchilarning

mustaqil ishlashini qo'llab-quvvatlash uchun o'qituvchilar turli xil materiallar va vositalar taqdim etadi, shuningdek, o'quvchilarga o'zlarining o'rganish jarayonlarini baholash imkoniyatini yaratadi". [1;131]Shaxsiylashtirilgan ta'limda adaptiv yondashuv har bir o'quvchining individual xususiyatlari, bilim darajasi, qobiliyati, qiziqishlari, o'rganish uslubi va ta'lim olish sur'atini hisobga olgan holda o'quv jarayonini tashkil etishni nazarda tutadi. Mazkur yondashuvning asosiy maqsadi barcha o'quvchilarga bir xil mazmundagi va bir xil murakkablikdagi topshiriqlarni berish emas, balki ularning ehtiyojlariga mos keladigan ta'lim mazmuni, metodlari va baholash usullarini tanlash orqali yuqori natijalarga erishishdir.

Adaptiv yondashuvning muhim xususiyatlaridan biri ta'lim jarayonining moslashuvchanligidir. O'quvchining o'zlashtirish darajasi muntazam monitoring qilinadi, tahlil qilinadi va olingan natijalarga muvofiq keyingi o'quv faoliyati rejalashtiriladi. Agar o'quvchi mavzuni tez va to'liq o'zlashtirayotgan bo'lsa, unga murakkabroq topshiriqlar, ijodiy loyihalar yoki tadqiqot xarakteridagi vazifalar taklif etiladi. Aksincha, mavzuni o'zlashtirishda qiyinchilikka duch kelayotgan o'quvchilar uchun qo'shimcha tushuntirishlar, sodda misollar, takrorlash mashqlari va individual maslahatlar tashkil etiladi. Adaptiv yondashuvni amalga oshirishda diagnostik baholash muhim o'rin tutadi. O'qituvchi o'quvchilarning dastlabki tayyorgarlik darajasini aniqlaydi, ularning kuchli va rivojlantirilishi zarur bo'lgan tomonlarini baholaydi hamda shu asosda individual ta'lim strategiyasini ishlab chiqadi. Ta'lim jarayoni davomida joriy va yakuniy baholash natijalari muntazam tahlil qilinib, o'quv rejasiga zarur o'zgartirishlar kiritiladi.

Raqamli texnologiyalar adaptiv ta'limni samarali tashkil etishda muhim vosita hisoblanadi. Zamonaviy elektron ta'lim platformalari, sun'iy intellektga asoslangan dasturlar, adaptiv testlar va o'quv analitikasi tizimlari o'quvchining faoliyatini real vaqt rejimida tahlil qiladi. Ushbu ma'lumotlar asosida tizim o'quvchining bilim darajasiga mos yangi mavzular, topshiriqlar, videodarslar, elektron qo'llanmalar va mustaqil ta'lim materiallarini tavsiya etadi. Natijada har bir o'quvchi o'ziga mos ta'lim trayektoriyasi bo'yicha rivojlanish imkoniyatiga ega bo'ladi. Adaptiv yondashuv o'qituvchining faoliyatiga ham yangi talablarni qo'yadi. Pedagog nafaqat bilim beruvchi, balki maslahatchi, yo'naltiruvchi va ta'lim jarayonini muvofiqlashtiruvchi sifatida faoliyat yuritadi. U o'quvchilarning individual rivojlanishini kuzatadi, ularni rag'batlantiradi, ta'lim mazmunini moslashtiradi hamda zarur metod va texnologiyalarni tanlaydi. Bu esa o'qituvchidan raqamli kompetensiyalarni, pedagogik diagnostika usullarini va zamonaviy ta'lim texnologiyalarini puxta egallashni talab qiladi. Adaptiv yondashuvda o'quvchilarning mustaqil ta'lim faoliyatiga alohida e'tibor qaratiladi. O'quvchilar o'z ta'lim maqsadlarini belgilash, o'z faoliyatini rejalashtirish, natijalarini baholash va xatolar ustida ishlash ko'nikmalarini rivojlantiradilar. Bu esa ularda o'z-o'zini boshqarish, tanqidiy fikrlash, muammolarni hal qilish, axborotni tahlil qilish va umrbod ta'lim olish kompetensiyalarining shakllanishiga xizmat qiladi.

Shuningdek, adaptiv yondashuv differensial o'qitish, kompetensiyaviy yondashuv, individual ta'lim trayektoriyasi va inklyuziv ta'lim tamoyillari bilan uzviy bog'liqdir. Turli ehtiyoj va imkoniyatlarga ega bo'lgan o'quvchilar uchun mos ta'lim sharoitlarini yaratish ta'limning adolatligi va sifatini ta'minlashga yordam beradi. Adaptiv yondashuvning asosiy afzalliklari sifatida o'quvchilarning o'quv motivatsiyasining ortishi, bilimlarni chuqurroq o'zlashtirishi, o'zlashtirishdagi bo'shliqlarning o'z vaqtida aniqlanishi, mustaqil ta'lim ko'nikmalarining rivojlanishi, individual salohiyatning namoyon bo'lishi hamda ta'lim samaradorligining oshishini ko'rsatish mumkin. Shu bilan birga, mazkur yondashuv ta'lim jarayonini yanada moslashuvchan, samarali va natijador tashkil etishga imkon beradi.

Shaxsiylashtirilgan o'qitishda elektron ta'lim resurslari (ETR) ham muhim o'rin egallaydi. ETR o'quvchilarning individual ehtiyojlari, qiziqishlari, bilim darajasi va o'zlashtirish sur'atini hisobga olgan holda ta'lim jarayonini tashkil etishga xizmat qiladi. Bunday resurslar yordamida har bir o'quvchi o'z imkoniyatlariga mos ravishda bilim olishi, topshiriqlarni bajarishi hamda mustaqil ta'lim faoliyatini rivojlantirishi mumkin. ETR yaratishda birinchi navbatda ta'lim maqsadi va o'quv natijalari aniq belgilanishi lozim. Resurs mazmuni davlat ta'lim standartlari va o'quv dasturlariga mos bo'lishi, ilmiy jihatdan ishonchli hamda zamonaviy axborotlarni o'z ichiga olishi zarur. Shuningdek, materiallar turli murakkablik darajalarida ishlab chiqilishi, o'quvchilarning individual

xususiyatlarini hisobga olishi muhimdir. Elektron ta'lim resurslarini yaratishda interaktiv elementlardan foydalanish alohida ahamiyatga ega. Video darslar, animatsiyalar, virtual laboratoriyalar, elektron testlar, simulyatsiyalar, infografikalar va multimedia vositalari o'quvchilarning darsga qiziqishini oshiradi hamda o'quv materialining samarali o'zlashtirilishiga yordam beradi. Interaktiv topshiriqlar o'quvchining faol ishtirokini ta'minlab, mustaqil fikrlash va muammolarni hal qilish ko'nikmalarini rivojlantiradi. Shaxsiylashtirilgan o'qitishda ETRlardan foydalanish jarayonida adaptiv yondashuv muhim hisoblanadi. Adaptiv tizimlar o'quvchining bilim darajasini tahlil qilib, unga mos topshiriqlar, tavsiyalar va qo'shimcha o'quv materiallarini avtomatik ravishda taqdim etadi. Bu esa har bir o'quvchining o'z sur'atida ta'lim olishini ta'minlaydi va o'zlashtirish samaradorligini oshiradi. ETRlardan foydalanishda o'quv natijalarini monitoring qilish va tahlil etish imkoniyati ham muhim afzalliklardan biridir. Elektron platformalar orqali o'quvchilarning faolligi, bajarilgan topshiriqlari, test natijalari va rivojlanish dinamikasi muntazam kuzatilib boriladi. Ushbu ma'lumotlar asosida o'qituvchi individual tavsiyalar ishlab chiqishi, o'quv jarayoniga zarur o'zgartirishlar kiritishi mumkin.

Elektron ta'lim resurslaridan samarali foydalanish uchun ularning qulay interfeysga ega bo'lishi, mobil qurilmalar bilan mos ishlashi, axborot xavfsizligi talablariga javob berishi va nogironligi bo'lgan shaxslar uchun ham foydalanish imkoniyatini yaratishi zarur. Shu bilan birga, resurslar muntazam ravishda yangilanib borilishi va zamonaviy pedagogik hamda axborot-kommunikatsiya texnologiyalari asosida takomillashtirilishi lozim.

Xulosa qilib aytganda, shaxsiylashtirilgan ta'lim zamonaviy ta'lim tizimini rivojlantirishning eng muhim yo'nalishlaridan biri bo'lib, u har bir o'quvchining individual ehtiyojlari, qobiliyati, qiziqishi va ta'lim olish sur'atini hisobga olgan holda samarali o'quv muhitini yaratishga xizmat qiladi. Mazkur yondashuv ta'lim jarayonida o'quvchini markaziy subyekt sifatida e'tirof etib, uning bilimlarni mustaqil egallashi, tanqidiy va ijodiy fikrlashi, o'z-o'zini rivojlantirish kompetensiyalarini shakllantirishga keng imkoniyat yaratadi. Tahlil qilingan adaptiv yondashuv, sun'iy intellektga asoslangan texnologiyalar hamda elektron ta'lim resurslaridan foydalanish shaxsiylashtirilgan ta'limni samarali tashkil etishning muhim omillari ekanligi aniqlandi. Adaptiv ta'lim tizimlari o'quvchilarning bilim darajasini doimiy monitoring qilish, individual ta'lim trayektoriyasini shakllantirish va ta'lim mazmunini ularning ehtiyojlariga moslashtirish imkonini beradi. Elektron ta'lim resurslari esa o'quv jarayonini interaktiv, moslashuvchan va samarali tashkil etishga, o'quvchilarning mustaqil ta'lim faoliyatini qo'llab-quvvatlashga hamda o'quv natijalarini muntazam tahlil qilishga xizmat qiladi. Shuningdek, shaxsiylashtirilgan ta'limni amaliyotga samarali joriy etish uchun pedagoglarning raqamli kompetensiyalarini rivojlantirish, zamonaviy elektron ta'lim resurslarini yaratish va takomillashtirish, sun'iy intellekt hamda o'quv analitikasi imkoniyatlaridan oqilona foydalanish muhim ahamiyat kasb etadi. Ushbu yondashuvlarni ta'lim jarayoniga keng tatbiq etish ta'lim sifati va samaradorligini oshirish, har bir o'quvchining individual salohiyatini ro'yobga chiqarish hamda raqamli jamiyat talablariga mos, raqobatbardosh va kompetent kadrlarni tayyorlashga xizmat qiladi.

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QASHQADARYO VILOYAT DAVLAT ARXIVINING RAQAMLI TRANSFORMATSIYASI: ZAMONAVIY AXBOROT TEXNOLOGIYALARINI JORIY ETISHNING ILMIY-AMALIY ISTIQBOLLARI

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Annotatsiya: Mazkur maqolada Qashqadaryo viloyat davlat arxivi faoliyatini zamonaviy axborot-kommunikatsiya texnologiyalari asosida takomillashtirish, arxiv hujjatlarini raqamlashtirish, elektron ma’lumotlar bazalarini shakllantirish va foydalanuvchilarga axborot xizmatlarini ko‘rsatishni modernizatsiya qilish masalalari tahlil qilinadi. Raqamli transformatsiya sharoitida arxiv muassasalarining asosiy vazifalaridan biri tarixiy va ijtimoiy ahamiyatga ega hujjatlarning uzoq muddatli saqlanishini ta’minlash bilan bir qatorda, ulardan foydalanish imkoniyatlarini kengaytirishdan iboratdir. O‘zbekiston Respublikasida arxiv ishini raqamlashtirishga qaratilgan yangi tashkiliy-huquqiy choralari mazkur yo‘nalishning dolzarbligini yanada oshirmoqda [1; 2].

Maqolada Qashqadaryo viloyat davlat arxivining faoliyat yo‘nalishlari, raqamlashtirishning asosiy bosqichlari, elektron katalog va ma’lumotlar bazalarini shakllantirish, hujjatlarning raqamli nusxalarini yaratish, axborot xavfsizligi hamda foydalanuvchilarga elektron xizmat ko‘rsatish masalalari ko‘rib chiqiladi. Shuningdek, arxivni raqamli transformatsiya qilishning bosqichma-bosqich modeli taklif etilib, mavjud hujjatlarni inventarizatsiya qilish, ustuvor fondlarni aniqlash, skanerlash, metama’lumotlarni shakllantirish, elektron saqlash va raqamli xizmatlarni rivojlantirish yo‘nalishlari asoslab beriladi.

Kalit so‘zlar: Qashqadaryo viloyat davlat arxivi, raqamlashtirish, raqamli transformatsiya, elektron arxiv, arxiv hujjatlari, axborot texnologiyalari, elektron katalog, raqamli nusxa, metama’lumot, axborot xavfsizligi.

KIRISH.

XXI asrda raqamli texnologiyalarning jadal rivojlanishi davlat boshqaruvi, ta’lim, fan, madaniyat va axborot xizmatlari bilan bir qatorda arxiv ishini tashkil etish tizimiga ham sezilarli ta’sir ko‘rsatmoqda. An’anaviy qog‘oz shaklidagi hujjatlarni saqlash, hisobga olish va ulardan foydalanish bilan bir qatorda elektron hujjatlar va raqamli nusxalar bilan ishlash zamonaviy arxiv faoliyatining muhim yo‘nalishiga aylanmoqda.

Arxivlar jamiyatning tarixiy xotirasini saqlovchi muhim institutsional tuzilmalardan biridir. Ularning fondlarida davlat boshqaruvi, iqtisodiyot, ta’lim, fan, madaniyat, sog‘liqni saqlash, mahalliy boshqaruv va fuqarolar hayotiga oid tarixiy ma’lumotlar jamlanadi. Shu sababli arxiv hujjatlarining saqlanishi bilan birga, ulardan ilmiy, ta’limiy, ijtimoiy va amaliy maqsadlarda foydalanish imkoniyatlarini kengaytirish ham muhim ahamiyatga ega.

O‘zbekiston Respublikasida arxiv sohasini raqamlashtirish masalasi so‘nggi yillarda davlat siyosatining muhim yo‘nalishlaridan biriga aylanmoqda. 2025-yil 24-noyabrdagi PF-228-son Farmon arxiv ishi sohasini raqamlashtirish va boshqaruv samaradorligini oshirishga qaratilgan yangi

vazifalarni belgiladi [1]. 2026-yilda davlat arxivlari faoliyatiga oid normativ tartiblarning yangilanishi va arxiv hujjatlari, kitoblar hamda qo'lyozmalarni raqamlashtirish bo'yicha davlat xizmatlarining belgilanishi ushbu jarayonning amaliy ahamiyatini yanada oshirmoqda [2].

Qashqadaryo viloyat davlat arxivi ham hududdagi tarixiy va ijtimoiy ahamiyatga ega arxiv hujjatlarini shakllantirish, saqlash, davlat hisobini yuritish va ulardan foydalanishni ta'minlovchi muhim muassasalardan biridir [3]. Shu nuqtayi nazardan, mazkur arxivning zamonaviy axborot texnologiyalari asosida rivojlantirilishi nafaqat arxiv faoliyatining ichki samaradorligini oshiradi, balki tadqiqotchilar, talabalar, davlat tashkilotlari va boshqa foydalanuvchilarning tarixiy axborotdan foydalanish imkoniyatlarini ham kengaytiradi.

TADQIQOTNING MAQSADI VA METODOLOGIYASI.

Tadqiqotning asosiy maqsadi Qashqadaryo viloyat davlat arxivi faoliyatini raqamli transformatsiya qilishning ilmiy-amaliy imkoniyatlarini tahlil qilish hamda arxiv hujjatlarini saqlash, hisobga olish va ulardan foydalanishni zamonaviy axborot texnologiyalari asosida takomillashtirish bo'yicha takliflar ishlab chiqishdan iborat.

Tadqiqot jarayonida tizimli tahlil, qiyosiy tahlil, normativ-huquqiy hujjatlarni o'rganish, ilmiy umumlashtirish va modellashtirish metodlaridan foydalanildi. Tadqiqotning huquqiy-metodologik asosini O'zbekiston Respublikasining arxiv sohasi bo'yicha normativ hujjatlari, arxivlarni raqamlashtirishga oid uslubiy tavsiyalar va davlat arxivlarining rasmiy ma'lumotlari tashkil etadi [1; 3; 4].

ASOSIY QISM.

1. Qashqadaryo viloyat davlat arxivining jamiyatdagi o'rni.

Arxiv muassasalarining asosiy vazifasi tarixiy va amaliy ahamiyatga ega hujjatlarni qabul qilish, saqlash, hisobga olish va ulardan foydalanishni tashkil etishdan iborat. Amaldagi tartiblarga ko'ra davlat arxivlari Milliy arxiv fondi tarkibidagi hujjatlarning saqlanishini va ulardan foydalanishni ta'minlashda muhim institutsional vazifani bajaradi [3].

Qashqadaryo viloyat davlat arxivi hududning tarixiy taraqqiyoti bilan bog'liq turli hujjatlarni saqlash va ulardan foydalanishni ta'minlashda muhim o'rin tutadi. Arxiv fondlaridagi hujjatlar hududning siyosiy, iqtisodiy, ijtimoiy va madaniy rivojlanishini o'rganishda ilmiy manba vazifasini bajarishi mumkin.

Shu sababli arxivning texnologik rivojlanishi faqat texnik jihozlarni yangilash masalasi emas. U hujjatlarni boshqarishning butun tizimini — qabul qilish, ro'yxatga olish, tavsiflash, saqlash, qidirish, nusxalash va foydalanuvchiga taqdim etish jarayonlarini qamrab oluvchi kompleks transformatsiyani anglatadi.

2. Arxiv hujjatlarini raqamlashtirishning ilmiy-amaliy ahamiyati.

Arxiv hujjatlarini raqamlashtirish — qog'oz yoki boshqa moddiy tashuvchilardagi hujjatlarning elektron tasvirini yaratish, uni tegishli texnik va axborot standartlari asosida saqlash hamda undan foydalanish imkonini yaratish jarayonidir.

O'zbekiston davlat arxivlari uchun alohida qimmatli arxiv hujjatlarini raqamlashtirish bo'yicha ishlab chiqilgan uslubiy ko'rsatmalarda raqamlashtirish jarayonini tizimli tashkil etish zarurligi qayd etilgan [4]. Bu jarayon hujjatlarning mazmunini saqlab qolish bilan birga, ulardan foydalanishni yengillashtirishga xizmat qiladi.

Qashqadaryo viloyat davlat arxivi uchun raqamlashtirishning quyidagi amaliy afzalliklarini ajratish mumkin:

- hujjatlarning raqamli zaxira nusxalarini yaratish;
- asl hujjatlardan foydalanish chastotasini kamaytirish;
- hujjatlarni qidirish jarayonini tezlashtirish;
- tadqiqotchilarning arxiv axborotidan foydalanish imkoniyatlarini kengaytirish;
- hujjatlarning fizik holatini asrash;

- elektron katalog va ma'lumotlar bazalarini shakllantirish;
- masofadan axborot xizmatlarini rivojlantirish.

Shuningdek, raqamlashtirish ilmiy tadqiqotlar uchun hududiy tarixiy manbalarni yanada qulay shaklda taqdim etish imkoniyatini yaratadi.

3. Qashqadaryo viloyat davlat arxivining raqamli transformatsiya modeli.

Arxivni raqamlashtirishni bir martalik texnik loyiha sifatida emas, balki bosqichma-bosqich amalga oshiriladigan institutsional transformatsiya sifatida ko'rish maqsadga muvofiq.

Taklif etilayotgan modelni quyidagi bosqichlarga ajratish mumkin:

1-bosqich — inventarizatsiya va ustuvorliklarni belgilash.

Dastlab arxiv fondlarining mavjud holati o'rganiladi. Hujjatlarning turi, davri, fizik holati, ilmiy va tarixiy ahamiyati aniqlanadi. Raqamlashtirish uchun birinchi navbatda alohida qimmatli, ko'p murojaat qilinadigan yoki jismoniy holati xavf ostida bo'lgan hujjatlarni ajratish mumkin.

2-bosqich — texnik tayyorgarlik.

Raqamlashtirish jarayoniga mos skanerlar, kompyuterlar, serverlar, zaxira saqlash vositalari va dasturiy ta'minot infratuzilmasi shakllantiriladi.

3-bosqich — skanerlash va raqamli nusxa yaratish.

Tanlangan hujjatlar tegishli texnik talablarga muvofiq raqamlashtiriladi. Bunda hujjatlarning fizik xususiyatlari va saqlanish holatini hisobga olish zarur.

4-bosqich — metama'lumotlarni shakllantirish.

Har bir raqamli hujjat yoki hujjatlar majmuasi haqida identifikatsiya qiluvchi ma'lumotlar shakllantiriladi. Fond, ro'yxat, yig'majild, hujjat sanasi, nomi va boshqa zarur bibliografik ma'lumotlar elektron tizimga kiritiladi.

5-bosqich — elektron katalog va ma'lumotlar bazasi.

Raqamli nusxalar oddiy fayllar yig'indisi emas, balki qidirish va boshqarish imkoniyatiga ega elektron axborot tizimining bir qismiga aylantirilishi kerak.

6-bosqich — elektron foydalanish xizmatlari.

Foydalanuvchilarning tegishli tartibda arxiv ma'lumotlariga murojaat qilishi, raqamli nusxalarni olish yoki xizmatlarga elektron shaklda buyurtma berish imkoniyatlari rivojlantiriladi.

4. Elektron katalog va ma'lumotlar bazasini shakllantirish.

Arxivni raqamlashtirishda eng muhim masalalardan biri — raqamli hujjatlarni samarali qidirish imkonini beruvchi elektron katalogni shakllantirishdir.

Faqat hujjatni skanerlab, kompyuter xotirasiga joylashtirish to'liq raqamlashtirish jarayoni hisoblanmaydi. Agar foydalanuvchi kerakli hujjatni topa olmasa, raqamli nusxaning amaliy qiymati cheklanib qoladi.

Shuning uchun elektron katalogda quyidagi ma'lumotlarning mavjudligi maqsadga muvofiq:

- fond raqami;
- ro'yxat raqami;
- yig'majild raqami;
- hujjat nomi;
- hujjat sanasi;
- hujjat turi;
- hujjat tili;
- tegishli tashkilot yoki shaxs nomi;
- qisqacha tavsif;
- raqamli nusxaga bog'langan identifikator.

Bunday tizim tadqiqotchiga kerakli ma'lumotni tezroq aniqlash imkonini beradi.

Qashqadaryo viloyat davlat arxivi bo'yicha rasmiy elektron resurslarda tashkilotlar va arxiv hujjatlariga oid qidiruv ma'lumotlari mavjudligi raqamli axborot infratuzilmasini rivojlantirish uchun muayyan amaliy asos mavjudligini ko'rsatadi [5].

5. OCR texnologiyasi va arxiv hujjatlarini qidirish.

Raqamli arxivni rivojlantirishning istiqbolli yo'nalishlaridan biri OCR — optik belgilarni tanib olish texnologiyasidan foydalanishdir.

OCR yordamida skanerlangan hujjatdagi matnni mashinada qayta ishlanadigan formatga aylantirish mumkin. Natijada foydalanuvchi hujjat tasvirini ko'rish bilan cheklanmay, uning ichidagi kalit so'z yoki iborani qidirish imkoniyatiga ega bo'ladi.

Biroq tarixiy arxiv hujjatlarida OCR texnologiyasidan foydalanish muayyan qiyinchiliklarga ega. Eski yozuv shakllari, qo'lyozmalar, hujjatlarning fizik holati, tasvir sifati va turli alifbolardan foydalanish avtomatik tanib olish aniqligiga ta'sir qilishi mumkin.

Shuning uchun OCR natijalarini inson tomonidan tekshirish va zarur hollarda tahrirlash mexanizmini ham raqamlashtirish modeliga kiritish maqsadga muvofiq.

6. Arxiv ma'lumotlarini saqlash va axborot xavfsizligi.

Raqamlashtirish natijasida yaratilgan elektron hujjatlarning saqlanishi ham asl hujjatlarni saqlash kabi muhim masaladir.

Raqamli arxiv tizimida ma'lumotlarning yo'qolishi, ruxsatsiz o'zgartirilishi yoki texnik nosozliklar oqibatida zarar ko'rishining oldini olish uchun zaxira nusxalarini yaratish, kirish huquqlarini boshqarish va ma'lumotlarni muntazam nazorat qilish zarur.

Shu sababli Qashqadaryo viloyat davlat arxivining raqamli transformatsiya modelida:

asosiy server → zaxira server → alohida zaxira nusxa → tiklash mexanizmi

kabi ko'p bosqichli saqlash tamoyilidan foydalanish maqsadga muvofiq.

Bundan tashqari, foydalanuvchilarning shaxsiy ma'lumotlari mavjud bo'lgan hujjatlar bilan ishlashda axborot xavfsizligi va amaldagi qonunchilik talablariga rioya qilinishi lozim.

7. Raqamli xizmatlar va foydalanuvchilar uchun yangi imkoniyatlar.

Arxivning raqamli transformatsiyasi uning ichki faoliyatini avtomatlashtirish bilangina cheklanmasligi kerak. Uning asosiy natijalaridan biri foydalanuvchi uchun xizmatlarning qulaylashishidir.

Kelgusida foydalanuvchilar quyidagi xizmatlardan elektron shaklda foydalanish imkoniyatiga ega bo'lishlari mumkin:

1. arxiv ma'lumotlarini qidirish;
2. elektron katalogdan foydalanish;
3. arxivga elektron murojaat yuborish;
4. hujjatlarning raqamli nusxalarini buyurtma qilish;
5. ilmiy tadqiqot uchun zarur fondlar haqida dastlabki ma'lumot olish;
6. xizmatlarning bajarilish holatini kuzatish.

2026-yilgi normativ o'zgarishlarda arxiv hujjatlari, kitoblar va qo'lyozmalarni raqamlashtirish bo'yicha davlat xizmatining mavjudligi va undan jismoniy hamda yuridik shaxslar foydalanishi belgilangan [2]. Bu arxiv xizmatlarini foydalanuvchiga yo'naltirilgan raqamli model asosida rivojlantirish uchun muhim tashkiliy asosdir.

8. Raqamlashtirishning ilmiy-tadqiqotlar uchun ahamiyati.

Qashqadaryo viloyati tarixini o'rganishda arxiv hujjatlari muhim ilmiy manba hisoblanadi. Hudud tarixi, mahalliy boshqaruv, iqtisodiy jarayonlar, ta'lim, madaniyat va ijtimoiy hayotga oid hujjatlarning elektron shaklda mavjud bo'lishi ilmiy tadqiqotlarning samaradorligini oshirishi mumkin.

Raqamli arxiv:

- tarixchilar;

- huquqshunoslar;
- iqtisodchilar;
- sotsiologlar;
- filologlar;
- o'qituvchilar;
- talabalar;
- mustaqil tadqiqotchilar

uchun qo'shimcha ilmiy resurs vazifasini bajarishi mumkin.

Bundan tashqari, raqamlashtirilgan manbalar asosida hudud tarixiga oid elektron ilmiy loyihalar, raqamli ko'rgazmalar, virtual arxiv kataloglari va ta'limiy resurslarni yaratish imkoniyati paydo bo'ladi.

Qashqadaryo viloyat davlat arxivini raqamlashtirish bo'yicha taklif etilayotgan amaliy model.

Tahlil asosida arxivning raqamli transformatsiyasini quyidagi uch bosqichda tashkil etish mumkin.

Birinchi bosqich — “Raqamli asos”

Ushbu bosqichda:

- mavjud fondlar inventarizatsiyasi;
- raqamlashtirish ustuvorliklarini belgilash;
- texnik infratuzilmani shakllantirish;
- xodimlarning raqamli kompetensiyasini oshirish;
- elektron ma'lumotlar bazasi arxitekturasini ishlab chiqish

amalga oshiriladi.

Ikkinchi bosqich — “Raqamli fond”

Bu bosqichda:

- ustuvor hujjatlarni skanerlash;
- raqamli nusxalarni yaratish;
- metama'lumotlarni shakllantirish;
- elektron katalogni kengaytirish;
- zaxira saqlash tizimini yo'lga qo'yish

ko'zda tutiladi.

Uchinchi bosqich — “Raqamli xizmat”

Mazkur bosqichda:

- elektron qidiruv;
- masofaviy murojaat;
- raqamli nusxa olish;
- elektron xizmatlar;
- ilmiy-tadqiqot resurslaridan foydalanish;
- raqamli ko'rgazmalar

kabi imkoniyatlarni rivojlantirish mumkin.

Ilmiy-amaliy takliflar.

Tadqiqot natijalari asosida Qashqadaryo viloyat davlat arxivini texnologik modernizatsiya qilish va raqamli transformatsiyasini jadallashtirish bo'yicha quyidagi takliflarni ilgari surish mumkin:

1. Qashqadaryo viloyat davlat arxivi uchun alohida **raqamli transformatsiya strategiyasi** ishlab chiqish.
2. Arxiv fondlarini raqamlashtirishning bosqichma-bosqich rejasini shakllantirish.

3. Tarixiy va ilmiy jihatdan alohida qimmatli hujjatlarni raqamlashtirishga ustuvorlik berish.
4. Elektron katalog va yagona qidiruv mexanizmini rivojlantirish.
5. Raqamli hujjatlarga metama'lumotlarni biriktirishning yagona standartini joriy etish.
6. OCR texnologiyalaridan foydalanish imkoniyatlarini bosqichma-bosqich kengaytirish.
7. Raqamli ma'lumotlarning zaxira nusxalarini yaratish va axborot xavfsizligi tizimini kuchaytirish.
8. Arxiv xodimlarining raqamli texnologiyalar bo'yicha malakasini muntazam oshirib borish.
9. Tadqiqotchilar va boshqa foydalanuvchilar uchun elektron axborot xizmatlarini rivojlantirish.
10. Raqamlashtirish jarayonining samaradorligini muntazam monitoring qilish va texnologik yechimlarni takomillashtirib borish.

XULOSA.

Qashqadaryo viloyat davlat arxivini zamonaviy axborot texnologiyalari asosida rivojlantirish hududning tarixiy va madaniy merosini saqlash, undan foydalanish va kelajak avlodga yetkazishning muhim shartlaridan biridir.

Arxivni raqamlashtirishni faqat hujjatlarni skanerlash jarayoni sifatida emas, balki hujjatlarni aniqlash, tavsiflash, elektron kataloglashtirish, raqamli nusxalarni saqlash, axborot xavfsizligini ta'minlash va foydalanuvchilarga elektron xizmat ko'rsatishni o'z ichiga oluvchi kompleks tizim sifatida tashkil etish lozim.

O'zbekistonda arxiv ishini raqamlashtirish bo'yicha 2025–2026-yillarda qabul qilingan yangi tashkiliy-huquqiy choralarda ushbu yo'nalishning davlat siyosati darajasidagi ahamiyatini ko'rsatmoqda [1; 2]. Qashqadaryo viloyat davlat arxivining mavjud faoliyati esa bunday transformatsiyani hududiy darajada izchil rivojlantirish uchun muhim institutsional asos bo'lib xizmat qiladi [3].

Tadqiqot davomida taklif etilgan “raqamli asos — raqamli fond — raqamli xizmat” modeli arxivni bosqichma-bosqich modernizatsiya qilish imkonini beradi. Mazkur modelni amalga oshirish natijasida arxiv hujjatlarining xavfsizligini oshirish, ularni qidirish va ulardan foydalanish jarayonlarini tezlashtirish, ilmiy tadqiqotchilar uchun yangi imkoniyatlar yaratish hamda foydalanuvchilarga ko'rsatiladigan xizmatlarning sifatini oshirish mumkin.

Shunday qilib, Qashqadaryo viloyat davlat arxivining raqamli transformatsiyasi nafaqat arxiv faoliyatining texnik modernizatsiyasi, balki **hududning tarixiy xotirasini raqamli makonda saqlash, ilmiy muomalaga kiritish va jamiyat uchun ochiqligini kengaytirishga qaratilgan strategik jarayon** sifatida qaralishi lozim.

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- [4] O'zbekiston Respublikasi davlat arxivlarida alohida qimmatli arxiv hujjatlarini raqamlashtirish bo'yicha uslubiy ko'rsatmalar. “O'zarxiv” agentligi.

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REKLAMA MATNLARIDA LINGVOMADANIY FARQLARNING MUHIM JIHATLARI

Mustaqil tadqiqotchi

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Annotatsiya: *Mazkur maqolada reklama matnlarida namoyon bo'ladigan lingvomadaniy farqlar ingliz va o'zbek tillari misolida qiyosiy jihatdan tahlil qilinadi. Reklama nafaqat mahsulot yoki xizmat to'g'risida axborot beruvchi kommunikativ vosita, balki muayyan xalqning milliy qadriyatlari, mentaliteti, urf-odatlar, ijtimoiy me'yorlari va dunyoqarashini aks ettiruvchi murakkab lingvomadaniy hodisa sifatida qaraladi. Tadqiqotda reklama matnlarining leksik, frazeologik, grammatik, stilistik va pragmatik xususiyatlari, shuningdek, ularda qo'llanadigan madaniy kodlar, metaforalar, milliy konseptlar va murojaat shakllari ko'rib chiqiladi. Shuningdek, reklama matnlarini boshqa tilga tarjima qilishda lingvomadaniy moslashtirishning ahamiyati asoslanadi.*

Kalit so'zlar: reklama, reklama diskursi, lingvomadaniyat, madaniy kod, milliy konsept, pragmatika, reklama tili, ingliz tili, o'zbek tili, madaniyatlararo kommunikatsiya.

Abstract: This article provides a comparative analysis of linguocultural differences manifested in advertising texts in English and Uzbek. Advertising is viewed not only as a communicative means of providing information about a product or service, but also as a complex linguocultural phenomenon that reflects the national values, mentality, customs, social norms, and worldview of a particular people. The study examines the lexical, phraseological, grammatical, stylistic, and pragmatic features of advertising texts, as well as the cultural codes, metaphors, national concepts, and forms of address employed in them. Furthermore, the article substantiates the importance of linguocultural adaptation in translating advertising texts into other languages.

Keywords: advertising, advertising discourse, linguoculture, cultural code, national concept, pragmatics, advertising language, English language, Uzbek language, intercultural communication.

Аннотация: В статье представлен сравнительный анализ лингвокультурных различий, проявляющихся в рекламных текстах на английском и узбекском языках. Реклама рассматривается не только как коммуникативное средство информирования о товаре или услуге, но и как сложное лингвокультурное явление, отражающее национальные ценности, менталитет, обычаи, социальные нормы и картину мира конкретного народа. В исследовании анализируются лексические, фразеологические, грамматические, стилистические и прагматические особенности рекламных текстов, а также используемые в них культурные коды, метафоры, национальные концепты и формы обращения. Кроме того, в статье обосновывается важность лингвокультурной адаптации при переводе рекламных текстов на другие языки.

Ключевые слова: реклама, рекламный дискурс, лингвокультура, культурный код, национальный концепт, прагматика, язык рекламы, английский язык, узбекский язык, межкультурная коммуникация.

Bugungi globalashuv sharoitida reklama kommunikatsiyasi insonlarning kundalik hayotida muhim o'rin egallamoqda. Reklama orqali nafaqat mahsulot va xizmatlar haqida ma'lumot yetkaziladi, balki iste'molchining dunyoqarashi, ehtiyojlari, qadriyatlari va xulq-atvoriga ham ta'sir ko'rsatiladi. Shu sababli reklama matnini faqat lingvistik hodisa sifatida emas, balki til va madaniyatning o'zaro munosabatini aks ettiruvchi murakkab kommunikativ birlik sifatida o'rganish muhimdir.

Lingvomadaniyatshunoslik nuqtayi nazaridan til xalqning tarixiy tajribasi, mentaliteti, urf-odatlar va milliy qadriyatlarini ifodalovchi asosiy vositalardan biridir. Reklama matnlarida esa bunday madaniy belgilar ayniqsa yaqqol namoyon bo'ladi. Tadqiqotlarda reklama tilining milliy-madaniy xususiyatlari, madaniy birliklar va mentalitet bilan bog'liqligi alohida ta'kidlangan

Reklama matnlarining boshqa tillarga tarjimai jarayonida mazkur jihatlarni hisobga olmaslik kommunikativ ma'noning o'zgarishiga yoki reklamanning iste'molchiga kutilgan darajada ta'sir qilmasligiga olib kelishi mumkin. Shuning uchun zamonaviy reklama tadqiqotlarida lingvistik xususiyatlar bilan bir qatorda madaniy va pragmatik omillarni ham o'rganish dolzarb masalalardan biri hisoblanadi.

Reklama matni o'ziga xos kommunikativ vazifaga ega bo'lgan matn turidir. Uning asosiy maqsadi iste'molchining e'tiborini jalb qilish, mahsulot yoki xizmatga qiziqish uyg'otish hamda muayyan harakatga undashdan iborat. Buning uchun reklama yaratuvchilari qisqa va esda qolarli iboralar, metaforalar, takrorlar, ritorik savollar, buyruq shakllari, emotsional birliklar va boshqa stilistik vositalardan foydalanadilar.

Lingvomadaniyat esa til birliklarida aks etgan milliy-madaniy ma'nolarni o'rganadi. Reklama diskursida lingvomadaniy birliklarga milliy konseptlar, frazeologizmlar, maqol va matallar, ramziy obrazlar, tarixiy-madaniy ishoralar, milliy taomlar, kiyim-kechak, urf-odatlar va ijtimoiy qadriyatlar kirishi mumkin.

Masalan, o'zbek reklama matnlarida *oila, ona, mehmon, baraka, to'kinlik, milliy taom, an'ana* kabi tushunchalar iste'molchiga ijobiy emotsional ta'sir ko'rsatishi mumkin. Bunday birliklar o'zbek madaniyatida shakllangan kollektiv va oilaviy qadriyatlar bilan bog'liq.

Ingliz tilidagi reklama matnlarida esa *freedom, choice, success, individuality, innovation* kabi konseptlar ko'proq uchrashi mumkin. Qiyosiy tadqiqotlarda ingliz reklamasida individuallik va innovatsiya, o'zbek reklamasida esa kollektivlik, oila va an'anaviy qadriyatlarning verbal ifodasi qayd etilgan.

Reklamanning samaradorligi ko'p jihatdan uning maqsadli auditoriyaning madaniy dunyosiga qanchalik mos kelishiga bog'liq. Bir mamlakatda ijobiy assotsiatsiya uyg'otadigan obraz boshqa madaniyat vakillarida xuddi shunday ta'sirni bermasligi mumkin. O'zbek reklama diskursida milliy qadriyatlarning ifodalanishi quyidagi yo'nalishlarda namoyon bo'ladi: oila va qarindoshlik munosabatlariga murojaat qilish;

kattalarga hurmat va kichiklarga g'amxo'rlik konseptlarini qo'llash;
mehmondo'stlik va saxovatni targ'ib qilish;
milliy taomlar va an'anaviy turmush tarzidan foydalanish;
mahalliy urf-odat va marosimlarga ishora qilish;
jamoaviylik va o'zaro hamjihatlikni ta'kidlash.

Masalan, oziq-ovqat mahsulotlari reklamasida mahsulotning faqat ta'mi yoki sifati emas, balki *oila davrasida iste'mol qilinishi, mehmon kutish, dasturxon* kabi madaniy tushunchalar ham kommunikativ vosita sifatida ishlatilishi mumkin.

Ingliz tilidagi reklamalarda esa mahsulotni individual shaxsning hayot tarzi, tanlovi yoki shaxsiy muvaffaqiyati bilan bog'lash keng tarqalgan. Bunday farqlar reklama kommunikatsiyasida madaniy qadriyatlarning muhim rol o'ynashini ko'rsatadi. Xalqaro reklama tadqiqotlarida ham madaniyatga moslashtirilgan branding va reklama strategiyalarining ahamiyati qayd etilgan.

Reklama matnlaridagi lingvomadaniy tafovutlar, avvalo, leksik birliklar orqali namoyon bo'ladi. Har bir xalqning kundalik hayoti va madaniy tajribasi muayyan so'z va iboralarda o'z aksini topadi.

O'zbek reklamasida milliy-madaniy mazmunga ega bo'lgan so'zlar va birikmalardan foydalanish reklama xabarini mahalliy auditoriyaga yaqinlashtiradi. Masalan, *dasturxon, baraka, mehmondo'stlik, ro'zg'or, oila davrasi* kabi birliklar o'zbek iste'molchisi uchun muayyan assotsiativ va emotsional ma'nolarni yuzaga keltirishi mumkin.

Frazeologik birliklar ham reklamaning ta'sirchanligini oshirishda muhim vosita hisoblanadi. Biroq frazeologizmlarni bir tildan ikkinchi tilga bevosita tarjima qilish ko'pincha ma'no va ta'sirning yo'qolishiga olib keladi. Chunki iboraning lug'aviy ma'nosi saqlangan taqdirda ham uning madaniy konnotatsiyasi boshqa tilda mavjud bo'lmashligi mumkin.

Reklama tarjimasiga bag'ishlangan tadqiqotlarda ham idiomatik ifodalar, ko'p ma'nolilik, metafora, konnotatsiya, yumor va madaniy ishoralar tarjimada asosiy muammolardan ekani ko'rsatiladi. Lingvomadaniy farqlar reklama matnlarining grammatik va sintaktik qurilishida ham kuzatiladi. Ingliz reklama diskursida qisqa, ixcham va dinamik konstruksiyalar, buyruq shakllari hamda bevosita murojaat shakllari faol qo'llanadi. Masalan: "Choose your style." "Discover more." "Be different." Bunday konstruksiyalar iste'molchiga bevosita murojaat qilish va uni harakatga undash vazifasini bajaradi.

O'zbek reklama matnlarida ham buyruq va undov shakllari mavjud bo'lsa-da, ularning qo'llanishi ko'pincha emotsional, obrazli va madaniy jihatdan kontekstlashtirilgan bo'ladi. Zamonaviy qiyosiy tadqiqotlarda ingliz reklamasida qisqalik va bevosita ishonitirish, o'zbek reklamasida esa ritmik, emotsional va madaniy jihatdan belgilangan ifodalar muhim o'rin tutishi qayd etilgan.

Reklama tilining eng samarali vositalaridan biri metaforadir. Metafora orqali mahsulotning xususiyati boshqa bir obraz bilan qiyoslanib, iste'molchida muayyan assotsiatsiya hosil qilinadi.

Masalan, mahsulotni *quyosh*, *bahor*, *oltin*, *qanot*, *yurak* kabi obrazlar bilan bog'lash uning ijobiy xususiyatlarini ta'kidlashga xizmat qiladi. Biroq metaforaning mazmuni turli madaniyatlarda bir xil qabul qilinmasligi mumkin.

O'zbek reklama matnlarida milliy tabiat, oila, dasturxon va an'anaviy turmush bilan bog'liq obrazlardan foydalanish reklama xabarini mahalliy auditoriyaga moslashtiradi. Ingliz reklama diskursida esa innovatsiya, individuallik, erkinlik va shaxsiy muvaffaqiyat bilan bog'liq obrazlar ko'proq uchrashi mumkin. Tadqiqotlar reklama matnlarida metafora, alliteratsiya va inversiya kabi vositalar e'tiborni jalb qilish hamda reklama xabarini esda qoldirishga xizmat qilishini ko'rsatadi.

Reklamaning asosiy vazifalaridan biri iste'molchiga ta'sir ko'rsatishdir. Shu sababli reklama matnining pragmatik xususiyatlari lingvomadaniy omillar bilan chambarchas bog'liq.

Pragmatik jihatdan reklamada quyidagi vositalar muhim ahamiyatga ega:

bevosita murojaat; bilvosita murojaat; undov va buyruq gaplar;

ritorik savollar; emotsional baholash; presuppozitsiya;

implikatura; metaforik ifodalar; takror va parallel konstruksiyalar.

Masalan, "Siz bunga loyiqsiz" mazmunidagi reklama xabari iste'molchining shaxsiy qadriyatini ta'kidlaydi. Boshqa madaniyatda esa reklama "oilangiz uchun eng yaxshisini tanlang" kabi kollektiv qadriyatga yo'naltirilishi mumkin.

Shu jihatdan reklama kommunikatsiyasida bir xil mahsulot turli madaniy guruhlarga turlicha verbal vositalar orqali taqdim etilishi tabiiydir.

Reklama tarjimasini oddiy til almashtirish jarayoni sifatida baholash noto'g'ri. Reklama tarjimoni original matnning nafaqat lug'aviy ma'nosini, balki uning emotsional, pragmatik va madaniy mazmunini ham saqlashi kerak. Masalan, ingliz tilidagi qisqa slogan o'zbek tiliga so'zma-so'z tarjima qilinganda grammatik jihatdan to'g'ri bo'lishi mumkin, ammo uning reklama sifatidagi ta'sirchanligi pasayishi ehtimoli mavjud. Shu sababli tarjimada **adaptatsiya**, ya'ni xabarni maqsadli auditoriyaning madaniy va kommunikativ xususiyatlariga moslashtirish usuli muhim ahamiyatga ega. Bunda quyidagi tamoyillarni hisobga olish maqsadga muvofiq: Original reklamaning asosiy kommunikativ maqsadini aniqlash.

1. Maqsadli auditoriyaning milliy-madaniy xususiyatlarini hisobga olish.
2. Milliy konsept va madaniy kodlarni aniqlash.
3. Frazeologik birliklarni funksional jihatdan moslashtirish.
4. Metafora va ramzlarning madaniy ma'nosini tekshirish.
5. Reklama sloganining qisqaligi va esda qolish xususiyatini saqlash.

6. Mahalliy auditoriyaga yot yoki salbiy assotsiatsiya berishi mumkin bo'lgan birliklarni qayta ishlash.

Shunday qilib, muvaffaqiyatli reklama tarjimasini lingvistik ekvivalentlikdan tashqari, madaniy va pragmatik ekvivalentlikni ham ta'minlashi kerak.

XULOSA.

Reklama matnlari til va madaniyatning o'zaro ta'sirini yaqqol namoyon qiluvchi kommunikativ birliklardan biridir. Ularning lingvomadaniy xususiyatlarini o'rganish reklama tilining milliy mentalitet, qadriyatlar, urf-odatlar va ijtimoiy munosabatlar bilan chambarchas bog'liqligini ko'rsatadi.

Ingliz va o'zbek reklama matnlarini qiyoslash shuni ko'rsatadiki, har ikkala reklama diskursida iste'molchiga ta'sir ko'rsatish, e'tiborni jalb qilish va mahsulotga ijobiy munosabat shakllantirish kabi universal strategiyalar mavjud. Shu bilan birga, ularning verbal ifodasida muayyan lingvomadaniy tafovutlar kuzatiladi. Ingliz reklamasida individuallik, shaxsiy tanlov va innovatsiyaga urg'u berish tendensiyasi ko'proq uchrasa, o'zbek reklamasida oila, jamoaviylik, an'ana, mehmondo'stlik va milliy qadriyatlar bilan bog'liq birliklar muhim kommunikativ vosita sifatida namoyon bo'ladi.

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RAQAMLI DISKURSDA INSON VA SUN'IY INTELLEKT MULOQOTINING PRAGMATIK XUSUSIYATLARI

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Annotatsiya. Mazkur maqolada raqamli diskursda inson va sun'iy intellekt o'rtasidagi muloqotning pragmatik xususiyatlari tahlil qilinadi. Tadqiqotda insonning sun'iy intellektga murojaat qilish jarayonida yuzaga keladigan kommunikativ maqsad, nutq aktlari, murojaat shakllari, iltimos, buyruq, savol, e'tiroz va aniqlashtirish kabi pragmatik birliklar hamda sun'iy intellekt javoblarining mazmuniy-pragmatik xususiyatlari ko'rib chiqiladi. Shuningdek, raqamli muloqotda kontekst, kommunikativ vaziyat va muloyimlik strategiyalarining namoyon bo'lishi tahlil qilinadi. Inson–sun'iy

intellekt muloqotining an'anaviy kommunikativ jarayonlardan farqli jihatlarini aniqlanib, raqamli diskursning shakllanishida pragmatik omillarning o'rni yoritiladi.

Kalit so'zlar: raqamli diskurs, sun'iy intellekt, inson–AI muloqoti, pragmatika, nutq aktlari, kommunikativ maqsad, murojaat, muloyimlik strategiyasi, kontekst, raqamli kommunikatsiya.

Аннотация. В статье анализируются прагматические особенности взаимодействия человека и искусственного интеллекта в цифровом дискурсе. Рассматриваются коммуникативные цели, речевые акты, формы обращения, просьбы, приказы, вопросы, возражения и уточнения, возникающие в процессе обращения человека к искусственному интеллекту, а также содержательно-прагматические особенности ответов искусственного интеллекта. Особое внимание уделяется проявлению контекста, коммуникативной ситуации и стратегий вежливости в цифровом взаимодействии. Выявляются отличительные особенности коммуникации человека и искусственного интеллекта по сравнению с традиционными коммуникативными процессами и определяется роль прагматических факторов в формировании цифрового дискурса.

Ключевые слова: цифровой дискурс, искусственный интеллект, взаимодействие человека и ИИ, прагматика, речевые акты, коммуникативная цель, обращение, стратегии вежливости, контекст, цифровая коммуникация.

Abstract. This article analyzes the pragmatic features of human–artificial intelligence interaction in digital discourse. The study examines communicative intentions, speech acts, forms of address, requests, commands, questions, objections, and clarifications that arise when humans interact with artificial intelligence, as well as the semantic and pragmatic characteristics of AI-generated responses. Particular attention is paid to the manifestation of context, communicative situations, and politeness strategies in digital interaction. The study identifies the distinctive features of human–AI communication compared with traditional communicative processes and highlights the role of pragmatic factors in the formation of digital discourse.

Keywords: digital discourse, artificial intelligence, human–AI interaction, pragmatics, speech acts, communicative intention, forms of address, politeness strategies, context, digital communication.

KIRISH

Bugungi kunda raqamli texnologiyalarning jadal rivojlanishi kommunikatsiya jarayonining mazmuni va shakliga sezilarli ta'sir ko'rsatmoqda. Internet, ijtimoiy tarmoqlar, messenjerlar, virtual yordamchilar va sun'iy intellektga asoslangan kommunikativ platformalarning keng qo'llanilishi natijasida insonlararo muloqot bilan bir qatorda inson va sun'iy intellekt o'rtasidagi kommunikatsiya ham raqamli diskursning muhim ko'rinishiga aylanmoqda. Bunday muloqotda til faqat axborot almashish vositasi bo'lib qolmay, balki foydalanuvchining kommunikativ maqsadi, munosabati, ehtiyoji va bahosini ifodalovchi vosita sifatida namoyon bo'ladi.

Pragmatika nuqtayi nazaridan har qanday kommunikativ birlikning mazmuni uning bevosita lug'aviy ma'nosi bilangina belgilanmaydi. Muloqot ishtirokchilarining maqsadi, kommunikativ vaziyat, kontekst, munosabat va nutqning qo'llanish sharoiti ham mazmunni shakllantiruvchi muhim omillar hisoblanadi. Shu jihatdan inson va sun'iy intellekt o'rtasidagi muloqot o'ziga xos pragmatik hodisa sifatida e'tiborni tortadi. Foydalanuvchining sun'iy intellektga bergan savoli, topshirig'i, iltimosi yoki e'tirozi muayyan kommunikativ maqsadni ifodalasa, sun'iy intellektning javobi mazkur maqsadni anglash, unga moslashish va tegishli kommunikativ strategiyani tanlash jarayonini aks ettiradi.

Raqamli diskursda inson va sun'iy intellekt muloqotining pragmatik xususiyatlarini o'rganish, avvalo, nutq aktlarining qanday shakllanishi va amalga oshirishini aniqlashni talab etadi. Xususan, savol, iltimos, buyruq, maslahat, taklif, e'tiroz va aniqlashtirish kabi nutq aktlarining qo'llanishi kommunikativ maqsadning turli ko'rinishlarini namoyon etadi. Shuningdek, murojaat shakllari,

muloyimlik strategiyalari, bilvosita ifodalar va kontekstga moslashish kabi pragmatik vositalar inson–sun’iy intellekt muloqotining o’ziga xosligini belgilovchi omillar sifatida qaraladi.

Mazkur masalaning yana bir muhim jihati shundaki, sun’iy intellekt foydalanuvchi tomonidan berilgan til birliklarini faqat grammatik jihatdan qayta ishlab chiqmay, balki ularning kommunikativ vazifasini ham hisobga olgan holda javob shakllantiradi. Shu sababli inson–sun’iy intellekt muloqotida pragmatik ma’noning hosil bo’lishi, uzatilishi va talqin qilinish mexanizmlarini tadqiq etish zamonaviy raqamli diskursning yangi xususiyatlarini aniqlash imkonini beradi.

Ushbu maqolaning maqsadi raqamli diskursda inson va sun’iy intellekt o’rtasidagi muloqotda namoyon bo’luvchi asosiy pragmatik xususiyatlarni aniqlash va ularning kommunikativ vazifalarini tavsiflashdan iborat. Mazkur maqsadga erishish uchun insonning sun’iy intellektga murojaatlarida qo’llanadigan nutq aktlari, kommunikativ maqsad, murojaat shakllari va muloyimlik strategiyalari, shuningdek, sun’iy intellekt javoblarida kontekstga moslashish hamda pragmatik ma’noning ifodalanishi tahlil qilinadi.

MATERIALLAR VA USULLAR

Tadqiqot materiali sifatida inson va sun’iy intellekt o’rtasidagi raqamli muloqot jarayonida yuzaga kelgan savol-javoblar, topshiriqlar, iltimoslar, buyruqlar, e’tirozlar, aniqlashtirishlar va ularga berilgan javoblar tanlandi. Tahlil uchun o’zbek tilidagi inson–sun’iy intellekt muloqot namunalari asosiy material sifatida olindi. Mazkur materiallar kommunikativ maqsad va pragmatik mazmuniga ko’ra guruhlashtirildi.

Tadqiqotda tavsifiy, pragmatik va kontekstual tahlil usullaridan foydalanildi. Tavsifiy usul yordamida inson va sun’iy intellekt muloqotida qo’llanadigan asosiy pragmatik birliklar aniqlandi va tavsiflandi. Pragmatik tahlil orqali nutq aktlari, kommunikativ maqsad, murojaat shakllari, bilvosita ifodalar hamda muloyimlik strategiyalarining qo’llanish xususiyatlari o’rganildi. Kontekstual tahlil asosida esa muayyan til birliklarining kommunikativ vaziyat va foydalanuvchi maqsadiga bog’liq holda qanday ma’no kasb etishi aniqlandi. Shuningdek, inson tomonidan berilgan so’rovlar va sun’iy intellekt tomonidan yaratilgan javoblar qiyosiy tahlil qilinib, kommunikativ maqsadning javob mazmunida qanday aks etishi kuzatildi. Nutq aktlarini tasniflashda J.Searle tomonidan ishlab chiqilgan nutq aktlari nazariyasining asosiy tamoyillaridan foydalanildi. Tadqiqot davomida inson–sun’iy intellekt muloqotining o’ziga xos pragmatik xususiyatlarini aniqlashga yo’naltirilgan sifat tahliliga ustuvor ahamiyat berildi.

NATIJALAR VA MUHOKAMA

Tadqiqot natijalari inson va sun’iy intellekt o’rtasidagi raqamli muloqotda pragmatik mazmunning, avvalo, kommunikativ maqsad asosida shakllanishini ko’rsatdi. Foydalanuvchi tomonidan berilgan har bir so’rov ma’lum bir kommunikativ vazifani bajarishga yo’naltiriladi. Shu sababli inson–sun’iy intellekt muloqotini oddiy savol-javob shakli sifatida emas, balki turli nutq aktlari va pragmatik strategiyalar ishtirok etadigan raqamli kommunikativ jarayon sifatida baholash mumkin.

Tahlil qilingan muloqotlarda savol, iltimos, buyruq va aniqlashtirish mazmunidagi nutq aktlari faol qo’llanishi kuzatildi. Masalan, *“Ushbu mavzu haqida ma’lumot bering”* shaklidagi murojaat grammatik jihatdan buyruq shakliga yaqin bo’lsa-da, kommunikativ vazifasiga ko’ra axborot olishga qaratilgan iltimos xarakterini anglatadi. *“Iltimos, ushbu matnni ilmiy uslubda tahrir qilib bering”* kabi murojaatda esa iltimos nutq akti va kommunikativ maqsad bevosita ifodalangan. Demak, insonning AIga murojaatida grammatik shakl bilan pragmatik vazifa har doim ham bir xil bo’lavermaydi.

Inson–sun’iy intellekt muloqotida bilvosita nutq aktlari ham muhim o’rin egallaydi. Masalan, *“Bu gapni yanada ixchamroq qilish mumkinmi?”* shaklidagi so’rov tashqi ko’rinishidan savol bo’lsa-da, uning asosiy kommunikativ maqsadi matnni qisqartirishni so’rashdan iborat. Bunday holat pragmatik ma’noning faqat grammatik shakl orqali emas, balki kommunikativ vaziyat va foydalanuvchining maqsadi orqali ham yuzaga kelishini ko’rsatadi.

Tadqiqot davomida murojaat shakllari ham inson–AI kommunikatsiyasining muhim pragmatik vositalaridan biri ekanligi aniqlandi. Foydalanuvchilar sun’iy intellektga ko‘pincha bevosita nom bilan (“*ChatGPT*”), shuningdek, murojaat birliklari orqali (“*iltimos*”, “*yordam bering*”, “*tushuntirib bering*”) murojaat qiladi. Bunday birliklar muloqotning rasmiy yoki norasmiy darajasini belgilash bilan birga, foydalanuvchining kommunikativ munosabatini ham ifodalaydi.

Sun’iy intellekt javoblarida esa muloyimlik va kommunikativ moslashuv muhim pragmatik xususiyat sifatida namoyon bo‘ladi. Foydalanuvchining topshirig‘iga javob berishda tavsiya, tushuntirish, ogohlantirish yoki rad etish zarur bo‘lgan holatlarda AI odatda neytral va muloyim kommunikativ shakllardan foydalanadi. Masalan, noto‘g‘ri yoki noaniq topshiriqqa javob berishda bevosita rad etish o‘rniga muqobil yechim taklif qilinishi muloqotning kommunikativ uzluksizligini ta‘minlaydi. Bu holat raqamli muloqotda muloyimlik strategiyasining ahamiyatini ko‘rsatadi. Shuningdek, kontekst inson–sun’iy intellekt muloqotining pragmatik talqinida asosiy omillardan biri ekanligi kuzatildi. Birinchi murojaatda umumiy shaklda berilgan topshiriq keyingi savollarda aniqlashtirilishi, to‘ldirilishi yoki o‘zgartirilishi mumkin. Masalan, foydalanuvchining “*Maqolani qisqartiring*” degan topshirig‘idan keyin “*Ilmiy mazmuni saqlansin, faqat kirish qismini ixchamlashtiring*” tarzidagi aniqlashtiruvchi murojaati kommunikativ maqsadning bosqichma-bosqich konkretlashishini ko‘rsatadi. Demak, inson–AI muloqotida pragmatik ma‘no alohida gap doirasidagina emas, balki dialogning oldingi va keyingi qismlari bilan aloqador holda shakllanadi.

Tahlil natijalari shuni ko‘rsatadiki, inson va sun’iy intellekt o‘rtasidagi muloqotda kommunikativ maqsad, nutq akti va kontekst o‘zaro uzviy bog‘langan holda namoyon bo‘ladi. Inson tomonidan berilgan so‘rovning shakli uning pragmatik vazifasini to‘liq belgilamaydi; kommunikativ vazifa ko‘pincha kontekst, murojaat shakli va muloqotning keyingi rivoji orqali aniqlashadi. Sun’iy intellekt javoblarida esa foydalanuvchining kommunikativ maqsadiga moslashish, tushuntirish, aniqlashtirish va muloyim munosabat bildirish kabi strategiyalar ustunlik qiladi. Shu jihatdan inson–sun’iy intellekt muloqoti zamonaviy raqamli diskursning yangi shakli sifatida pragmatik tadqiqotlar uchun muhim material bo‘la oladi. Mazkur muloqotda an‘anaviy nutq aktlari saqlanib qolgan bo‘lsa-da, ularning qo‘llanish muhiti va kommunikativ ishtirokchilari o‘zgargan. Natijada pragmatik ma‘noning shakllanishida raqamli muhit, foydalanuvchi maqsadi, kontekst va sun’iy intellektning javob strategiyalari birgalikda ishtirok etadi.

XULOSA

Raqamli diskursda inson va sun’iy intellekt o‘rtasidagi muloqot pragmatik jihatdan o‘ziga xos kommunikativ jarayonni tashkil etadi. Tadqiqot natijalari bunday muloqotda kommunikativ maqsad, nutq aktlari, murojaat shakllari, kontekst va muloyimlik strategiyalari muhim pragmatik vositalar sifatida namoyon bo‘lishini ko‘rsatdi. Insonning sun’iy intellektga murojaatlarida savol, iltimos, buyruq, aniqlashtirish va e‘tiroz kabi nutq aktlari faol qo‘llanadi. Bunda grammatik shakl va kommunikativ maqsad har doim ham bir-biriga to‘liq mos kelmaydi. Ayniqsa, bilvosita nutq aktlari orqali foydalanuvchining asl kommunikativ niyati kontekst asosida anglashiladi. Sun’iy intellekt javoblarida esa foydalanuvchining maqsadiga moslashish, tushuntirish, aniqlashtirish va muloyim kommunikativ munosabatni saqlash kabi pragmatik xususiyatlar kuzatiladi. Shuningdek, inson–sun’iy intellekt muloqotida pragmatik ma‘no alohida gap doirasidagina emas, balki dialogning umumiy konteksti asosida shakllanishi aniqlandi. Foydalanuvchining keyingi murojaatlari dastlabki kommunikativ maqsadni aniqlashtirishi yoki o‘zgartirishi mumkin. Shu sababli inson–AI muloqotini tadqiq etishda til birliklarini ularning kommunikativ vazifasi va kontekst bilan uzviy aloqada o‘rganish muhimdir.

Umuman, inson va sun’iy intellekt o‘rtasidagi kommunikatsiya zamonaviy raqamli diskursning yangi ko‘rinishlaridan biri sifatida pragmatik tadqiqotlar uchun muhim material beradi. Ushbu yo‘nalishning keyingi tadqiqotlarida turli janrdagi raqamli muloqotlarni qiyosiy o‘rganish, o‘zbek tilidagi inson–AI kommunikatsiyasining milliy-madaniy va lingvopragmatik xususiyatlarini aniqlash hamda pragmatik birliklarning qo‘llanish chastotasini statistik jihatdan tahlil qilish maqsadga muvofiqdir.

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BULUTLI TEXNOLOGIYALAR VA ULARNING TA’LIMDAGI AHAMIYATI

Madraximov Shuxratjon Shukurovich

Qo‘qon DU, Qo‘qon shahri

Annotatsiya: Ushbu maqolada bulutli texnologiyalar tushunchasi, ularning asosiy turlari hamda ta’lim jarayonida foydalanish imkoniyatlari yoritilgan. Hozirgi kunda ta’lim tizimida raqamli texnologiyalardan foydalanish tobora kengayib bormoqda. Bulutli xizmatlar o‘qituvchi va talabalarga ma’lumotlarni internet orqali saqlash, ulardan turli qurilmalarda foydalanish, hujjatlar ustida hamkorlikda ishlash hamda masofaviy ta’limni tashkil etish imkonini beradi. Maqolada Google Drive, Google Classroom, Microsoft OneDrive, Microsoft Teams va boshqa bulutli xizmatlardan ta’limda foydalanishning afzalliklari ko‘rib chiqilgan. Shuningdek, bulutli texnologiyalardan foydalanishda uchraydigan ayrim muammolar va ularni bartaraf etish yo‘llari bayon etilgan.

Kalit soʻzlar: bulutli texnologiyalar, taʼlim, axborot texnologiyalari, internet, masofaviy taʼlim, elektron taʼlim, Google Classroom, maʼlumotlarni saqlash.

Аннотация: В данной статье рассматриваются понятие облачных технологий, их основные виды и возможности использования в образовательном процессе. В настоящее время цифровые технологии всё шире применяются в системе образования. Облачные сервисы позволяют преподавателям и обучающимся хранить информацию в сети Интернет, получать к ней доступ с различных устройств, совместно работать над документами и организовывать дистанционное обучение. В статье рассмотрены преимущества использования в образовании таких облачных сервисов, как Google Drive, Google Classroom, Microsoft OneDrive и Microsoft Teams. Также приведены основные проблемы использования облачных технологий и возможные пути их решения.

Ключевые слова: облачные технологии, образование, информационные технологии, Интернет, дистанционное обучение, электронное обучение, Google Classroom, хранение данных.

Abstract: This article discusses the concept of cloud technologies, their main types and possibilities of using them in the educational process. Today, digital technologies are increasingly used in education. Cloud services allow teachers and students to store information on the Internet, access it from different devices, collaborate on documents and organize distance learning. The article considers the advantages of using cloud services such as Google Drive, Google Classroom, Microsoft OneDrive and Microsoft Teams in education. Some problems related to the use of cloud technologies and possible ways of solving them are also discussed.

Keywords: cloud technologies, education, information technology, Internet, distance learning, e-learning, Google Classroom, data storage.

KIRISH

Hozirgi davrda axborot-kommunikatsiya texnologiyalari jamiyatning deyarli barcha sohalariga kirib bormoqda. Ayniqsa, taʼlim tizimida zamonaviy axborot texnologiyalaridan foydalanish oʻqitish jarayonini yanada qulay va samarali tashkil etish imkonini bermoqda.

Avvallari elektron maʼlumotlarni saqlash uchun asosan kompyuterning qattiq diski, flesh-xotira yoki boshqa tashqi qurilmalardan foydalanilgan boʻlsa, hozirgi vaqtda maʼlumotlarni internet orqali saqlash imkonini beradigan bulutli texnologiyalar keng tarqalmoqda.

Bulutli texnologiyalarning asosiy afzalligi shundan iboratki, foydalanuvchi oʻz maʼlumotlari va dasturlaridan faqat bitta kompyuterda emas, balki internet mavjud boʻlgan turli qurilmalar orqali foydalanishi mumkin.

Masalan, talaba universitetdagi kompyuterda yozishni boshlagan hujjatini bulutli xizmatga saqlab, keyinchalik uyidagi kompyuter yoki mobil telefoni orqali davom ettirishi mumkin. Shu sababli bulutli texnologiyalardan taʼlimda foydalanish oʻqituvchi va talabalar uchun koʻplab qulayliklarni yaratadi.

Mazkur maqolaning maqsadi bulutli texnologiyalarning mohiyatini tushuntirish, ularning asosiy turlarini koʻrib chiqish hamda taʼlim jarayonidagi ahamiyatini yoritishdan iborat.

Bulutli texnologiya tushunchasi.

Bulutli texnologiyalar yoki “cloud computing” - internet orqali hisoblash resurslari, dasturlar, maʼlumotlarni saqlash joylari va boshqa xizmatlardan foydalanish imkonini beruvchi texnologiyalardir.

Bulutli hisoblash tushunchasining keng tarqalgan taʼriflaridan biri AQSh Milliy standartlar va texnologiyalar instituti - NIST tomonidan ishlab chiqilgan. Unga koʻra, bulutli hisoblash foydalanuvchiga zarur hisoblash resurslaridan tarmoq orqali talab asosida foydalanish imkonini beruvchi model hisoblanadi [1].

Bunda foydalanuvchining barcha maʼlumotlari uning shaxsiy kompyuterida saqlanishi shart emas. Maʼlumotlar xizmat koʻrsatuvchi tashkilotning serverlarida joylashtiriladi va internet orqali ulardan foydalaniladi.

Oddiy misol sifatida elektron pochta keltirish mumkin. Foydalanuvchi elektron pochta xabarlarini o'z kompyuterining xotirasida saqlashi shart emas. Ular xizmat ko'rsatuvchining serverida saqlanadi va foydalanuvchi internetga ulangan istalgan qurilma orqali o'z pochtasiga kirishi mumkin.

Xuddi shunday usulda Google Drive, OneDrive va boshqa bulutli saqlash xizmatlari hujjat, rasm, video va boshqa fayllarni masofadagi serverlarda saqlash imkonini beradi.

Bulutli texnologiyalarning asosiy turlari.

Bulutli texnologiyalar xizmat ko'rsatish usuliga ko'ra bir necha turga bo'linadi.

SaaS - dasturiy ta'minot xizmat sifatida.

SaaS - "Software as a Service", ya'ni dasturiy ta'minotdan internet orqali xizmat sifatida foydalanish modelidir. Bunda foydalanuvchiga dasturni o'z kompyuteriga o'rnatish shart bo'lmaydi. U brauzer yoki maxsus mobil ilova orqali dasturdan foydalanishi mumkin. Masalan: Google Docs, Google Classroom, Gmail, Microsoft 365, Microsoft Teams. Ta'lim sohasida eng ko'p uchraydigan bulutli xizmatlar aynan ushbu turga kiradi.

PaaS - platforma xizmat sifatida.

PaaS - "Platform as a Service", ya'ni dasturlar yaratish va ularni ishga tushirish uchun tayyor platformadan foydalanish imkonini beradi. Ushbu xizmat turi asosan dasturchilar uchun qulay bo'lib, serverlarni alohida tashkil etmasdan dastur yaratish va sinovdan o'tkazish imkonini beradi. Informatika va dasturlash yo'nalishida tahsil olayotgan talabalar PaaS xizmatlari yordamida o'z dasturiy loyihalarini internet muhitida yaratish va sinashlari mumkin.

IaaS - infratuzilma xizmat sifatida.

IaaS - "Infrastructure as a Service", ya'ni server, ma'lumotlarni saqlash qurilmalari, tarmoq va boshqa texnik resurslardan internet orqali foydalanish modelidir. Ushbu turdagi bulutli xizmatlardan ko'proq tashkilotlar va yirik axborot tizimlari foydalanadi. Demak, bulutli texnologiyalarning turli ko'rinishlari oddiy elektron hujjat yaratishdan tortib yirik axborot tizimlarini ishga tushirishgacha bo'lgan imkoniyatlarni qamrab oladi.

Bulutli texnologiyalarning ta'limdagi ahamiyati.

Bulutli texnologiyalar ta'lim jarayonini tashkil etishda bir qator qulayliklarni yaratadi. Birinchi navbatda, ular o'quv materiallarini elektron shaklda saqlash va tarqatish imkonini beradi. O'qituvchi ma'ruza matni, taqdimot, video, topshiriq va boshqa materiallarni bulutli xizmatga joylashtirishi mumkin. Talabalar esa ushbu materiallardan istalgan vaqtda foydalanish imkoniga ega bo'ladi.

Ikkinchidan, bulutli texnologiyalar masofaviy ta'limni tashkil qilishda muhim ahamiyatga ega. O'qituvchi va talaba bir joyda bo'lmasa ham, internet orqali topshiriqlarni yuborish, qabul qilish va tekshirish mumkin.

Uchinchidan, bulutli xizmatlar bir nechta foydalanuvchining bitta hujjat ustida bir vaqtning o'zida ishlashiga imkon beradi. Masalan, guruhdagi talabalar umumiy loyiha tayyorlayotganda Google Docs hujjatiga birgalikda ma'lumot kiritishi mumkin.

To'rtinchidan, ma'lumotlarga turli qurilmalardan kirish mumkin. Talaba kompyuterda boshlagan ishini planshet yoki mobil telefon orqali davom ettira oladi.

Beshinchidan, fayllarni alohida flesh-xotiralarda olib yurish zarurati kamayadi. Bu ma'lumotlarni yo'qotish xavfini ma'lum darajada kamaytiradi.

Ta'limda qo'llaniladigan bulutli xizmatlar.

Bugungi kunda ta'lim jarayonida turli bulutli xizmatlardan foydalaniladi. (1-jadval)

Bulutli xizmat	Asosiy vazifasi	Ta'limdagi qo'llanilishi
Google Drive	Fayllarni saqlash	Dars materiallari va topshiriqlarni saqlash

Google Docs	Elektron hujjatlar yaratish	Mustaqil ish, referat va guruh loyihalarini tayyorlash
Google Classroom	Ta'lim jarayonini boshqarish	Topshiriq berish, qabul qilish va baholash
Microsoft OneDrive	Fayllarni bulutda saqlash	O'quv materiallarini saqlash va almashish
Microsoft Teams	Aloqa va hamkorlik	Onlayn dars va guruh muhokamalarini o'tkazish
MoodleCloud	Elektron ta'lim	Masofaviy kurslarni tashkil etish

1-jadval. Ta'limda qo'llanilishi mumkin bo'lgan ayrim bulutli xizmatlar.

Masalan, o'qituvchi Google Classroom orqali talabalar uchun alohida elektron sinf yaratishi mumkin. Unda mavzular bo'yicha o'quv materiallari va topshiriqlar joylashtiriladi. Talabalar topshiriqni elektron shaklda bajarib, tizim orqali o'qituvchiga yuboradilar. Natijada qog'oz shaklidagi hujjatlar soni kamayadi va o'quv jarayonini elektron tarzda tashkil etish imkoniyati yaratiladi. Google Docs kabi xizmatlarning yana bir qulay tomoni shundaki, o'qituvchi talabaning ishini ko'rib chiqib, hujjatning o'zida izoh va tavsiyalar qoldirishi mumkin.

Bulutli texnologiyalarning afzalliklari.

Ta'limda bulutli texnologiyalardan foydalanishning asosiy afzalliklarini quyidagicha umumlashtirish mumkin.

Birinchidan, ma'lumotlardan istalgan joydan foydalanish imkoniyati mavjud. Internet va tegishli foydalanuvchi hisobi mavjud bo'lsa, kerakli fayllarni turli qurilmalardan ochish mumkin.

Ikkinchidan, ma'lumot almashish tezlashadi. Katta hajmdagi hujjatlarni alohida xotira qurilmalarida ko'chirish o'rniga, ularga havola yuborish mumkin.

Uchinchidan, jamoaviy ishlash imkoniyati mavjud. Bir nechta talaba bir loyiha yoki hujjat ustida birgalikda ishlashi mumkin.

To'rtinchidan, dasturlarni o'rnatishga bo'lgan ehtiyoj kamayadi. Ko'plab bulutli dasturlar veb-brauzer orqali ishlaydi.

Beshinchidan, o'quv jarayonini boshqarish osonlashadi. O'qituvchi topshiriqlarni tarqatish, qabul qilish va o'quvchilar bilan aloqa qilishni bitta elektron muhit orqali tashkil etishi mumkin.

Oltinchidan, bulutli xizmatlardan foydalanish raqamli ko'nikmalarni rivojlantiradi. Talabalar elektron hujjatlar yaratish, ma'lumot almashish va zamonaviy axborot tizimlari bilan ishlashni o'rganadilar.

Bulutli texnologiyalardan foydalanishdagi muammolar.

Bulutli texnologiyalar ko'plab afzalliklarga ega bo'lishiga qaramasdan, ulardan foydalanishda ayrim muammolar ham mavjud. Eng asosiy muammolardan biri - internetga bog'liqlik. Internet tezligi past yoki aloqa mavjud bo'lmagan holatda ayrim bulutli xizmatlardan to'liq foydalanish qiyinlashadi.

Yana bir muhim masala - axborot xavfsizligi. Foydalanuvchi o'z login va parolini boshqa shaxslarga bermasligi, murakkab parollardan foydalanishi hamda imkoniyat mavjud bo'lsa ikki bosqichli autentifikatsiyani yoqishi kerak. Bundan tashqari, ta'lim muassasalarida shaxsiy va xizmatga oid ma'lumotlarni bulutli tizimlarga joylashtirishda axborot xavfsizligi hamda shaxsiy ma'lumotlarni himoya qilish talablariga rioya qilish zarur. Yana bir muammo barcha o'qituvchi va talabalar raqamli xizmatlardan bir xil darajada foydalanish ko'nikmasiga ega emasligidir. Shuning uchun bulutli texnologiyalarni ta'lim jarayoniga joriy etish bilan birga, ulardan to'g'ri foydalanish bo'yicha o'quv mashg'ulotlarini ham tashkil etish maqsadga muvofiq.

An'anaviy va bulutli texnologiyalarni taqqoslash.

Bulutli texnologiyalarning ta'limdagi qulayligini an'anaviy usul bilan solishtirish orqali yanada aniq ko'rish mumkin. (2-jadval)

Ko'rsatkich	An'anaviy usul	Bulutli texnologiya
Ma'lumot saqlash	Kompyuter yoki flesh-xotirada	Internetdagi serverda
Ma'lumotga kirish	Asosan ma'lum qurilmada	Turli qurilmalarda
Hujjat almashish	Faylni ko'chirish orqali	Havola orqali
Hamkorlikda ishlash	Cheklangan	Bir vaqtda ishlash mumkin
Dastur o'rnatish	Ko'pincha zarur	Ko'p hollarda zarur emas
Masofaviy foydalanish	Cheklangan	Qulay

2-jadval. An'anaviy va bulutli texnologiyalarni taqqoslash

Jadvaldan ko'rinib turibdiki, bulutli texnologiyalar ta'lim jarayonini joy va qurilmaga bog'liqligini kamaytirishga yordam beradi.

Bulutli texnologiyalardan samarali foydalanish bo'yicha takliflar.

Ta'lim muassasalarida bulutli texnologiyalardan samarali foydalanish uchun bir qator chora-tadbirlarni amalga oshirish maqsadga muvofiq. Birinchidan, o'qituvchi va talabalar uchun yagona elektron ta'lim muhitini yaratish lozim.

Ikkinchidan, o'quv materiallarini elektron shaklda saqlash va tizimli ravishda joylashtirish amaliyotini kengaytirish kerak.

Uchinchidan, professor-o'qituvchilar va talabalar uchun bulutli xizmatlardan foydalanish bo'yicha qisqa o'quv kurslari tashkil etilishi maqsadga muvofiq.

To'rtinchidan, foydalanilayotgan bulutli tizimlarda axborot xavfsizligi talablariga rioya qilish zarur.

Beshinchidan, barcha o'quv materiallarini faqat bitta xizmatga bog'lab qo'ymasdan, zarur ma'lumotlarning zaxira nusxalarini saqlash tavsiya etiladi.

Ushbu choralar bulutli texnologiyalarning imkoniyatlaridan samarali foydalanish bilan birga, yuzaga kelishi mumkin bo'lgan ayrim xavflarni kamaytirishga xizmat qiladi.

XULOSA

Bulutli texnologiyalar zamonaviy axborot texnologiyalarining muhim yo'nalishlaridan biri hisoblanadi. Ular ma'lumotlarni internet orqali saqlash, qayta ishlash va ulardan masofadan foydalanish imkonini beradi. Ta'lim tizimida bulutli texnologiyalardan foydalanish o'quv materiallarini saqlash va tarqatish, masofaviy ta'limni tashkil etish, o'qituvchi va talabalar o'rtasidagi hamkorlikni yaxshilash hamda guruh bo'lib ishlash imkoniyatlarini kengaytiradi.

Google Drive, Google Classroom, Microsoft OneDrive, Microsoft Teams kabi xizmatlar o'quv jarayonini elektron shaklda tashkil etishda qo'l keladi. Shu bilan birga, internetga bog'liqlik, axborot xavfsizligi va foydalanuvchilarning raqamli ko'nikmalari bilan bog'liq masalalarga ham e'tibor qaratish lozim.

Xulosa qilib aytganda, bulutli texnologiyalardan to'g'ri va maqsadli foydalanish ta'lim jarayonini yanada qulay, tezkor va samarali tashkil etishga xizmat qiladi. Kelgusida ta'lim tizimining raqamlashtirilishi bilan bulutli xizmatlardan foydalanish ko'lamini yanada kengayib borishi mumkin.

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ИСКУССТВЕННЫЙ ИНТЕЛЛЕКТ НА УРОКАХ ХУДОЖЕСТВЕННОГО ТРУДА: ГРАНИЦЫ ПРИМЕНЕНИЯ И РАЗВИТИЕ ФУНКЦИОНАЛЬНОЙ ГРАМОТНОСТИ

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Аннотация. В статье рассматривается проблема педагогически оправданной глубины внедрения искусственного интеллекта в творческие и прикладные школьные предметы. Цель исследования состоит в определении такой модели использования ИИ на уроках художественного труда, при которой цифровой инструмент расширяет возможности поиска, анализа и планирования, но не подменяет самостоятельное мышление и ручную деятельность ученика. Материалом послужили научные и методические публикации, международные рекомендации, документы Республики Казахстан и опыт проведения урока в 9 классе по теме «Ковроткачество. Гобелен. Современные ковры». Применялись анализ источников, педагогическое наблюдение, анализ ученических эскизов и технологических карт, а также качественный рефлексивный опрос. Учащиеся составляли и уточняли запросы к ChatGPT и генераторам изображений, сравнивали варианты эскизов, проверяли расход материалов и предполагаемые финансовые затраты. Апробация показала, что наиболее продуктивна роль ИИ на предпроектном и аналитическом этапах: он помогает расширить поле идей, увидеть альтернативы и связать художественную задачу с математической, финансовой, экологической и цифровой грамотностью. Ограничения бесплатных сервисов, неточные ответы и необходимость повторной корректировки запроса могут снижать мотивацию. Сделан вывод, что образовательная ценность возникает тогда, когда ученик проверяет предложение ИИ, обосновывает выбор и воплощает решение в материале.

Ключевые слова: искусственный интеллект, художественный труд, функциональная грамотность, творческое мышление, проектная деятельность.

Abstract. The article addresses how deeply artificial intelligence should be integrated into creative and practice-based school subjects. The study aims to define a model for using AI in art and craft lessons in which digital tools broaden idea generation, analysis and planning without replacing independent thinking or hands-on work. The study draws on research literature, international guidance, educational policy documents of the Republic of Kazakhstan, and classroom experience with Grade 9 students during the unit “Carpet Weaving, Tapestry and Contemporary Carpets.” The methods included source analysis, classroom observation, review of students’ sketches and process plans, and a qualitative reflective survey. Students created and refined prompts for ChatGPT and image generators, compared alternative designs, and checked estimates of material consumption and expected costs. The classroom trial suggests that AI is most useful during pre-design and analytical stages. It expands the range of possible solutions and connects an artistic task with mathematical, financial, environmental and digital literacy. At the same time, inaccurate outputs, the need for repeated prompt revision, and generation limits in free services may reduce motivation. The article concludes that AI contributes to functional literacy only when students critically verify its suggestions, justify their choices and transform a digital concept into a feasible object made with real materials.

Keywords: artificial intelligence, art and craft education, functional literacy, creative thinking, project-based learning.

Annotatsiya. Maqolada sun'iy intellektni maktabdagi ijodiy va amaliy fanlarga pedagogik jihatdan qay darajada chuqur joriy etish lozimligi ko'rib chiqiladi. Tadqiqotning maqsadi badiiy mehnat darslarida g'oyalarni izlash, tahlil qilish va rejalashtirish imkoniyatlarini kengaytiradigan, biroq o'quvchining mustaqil fikrlashi hamda amaliy faoliyatini almashtirmaydigan foydalanish modelini aniqlashdan iborat. Tadqiqot materiali sifatida ilmiy-uslubiy nashrlar, xalqaro tavsiyalar, Qozog'iston Respublikasining ta'lim sohasidagi hujjatlari va 9-sinfda «Gilamdo'zlik. Gobelen. Zamonaviy gilamlar» mavzusida o'tkazilgan dars tajribasi olindi. Manbalarni tahlil qilish, pedagogik kuzatuv, o'quvchilarning eskizlari va texnologik xaritalarini o'rganish, shuningdek, sifatli refleksiv so'rov usullari qo'llanildi. O'quvchilar ChatGPT va tasvir generatorlari uchun so'rovlar tuzdilar, ularni aniqlashtirdilar, eskiz variantlarini taqqosladilar, material sarfi va taxminiy moliyaviy xarajatlarni tekshirdilar. Natijalar sun'iy intellekt loyihalashga tayyorgarlik va tahlil bosqichlarida samarali ekanini ko'rsatdi: u yechimlar doirasini kengaytiradi hamda badiiy vazifani matematik, moliyaviy, ekologik va raqamli savodxonlik bilan bog'laydi. Bepul xizmatlarda tasvir yaratish urinishlarining cheklanganligi, noaniq javoblar va so'rovni qayta tahrirlash zarurati motivatsiyani pasaytirishi mumkin. O'quvchi sun'iy intellekt taklifini tanqidiy tekshirgan, tanlovini asoslagan va g'oyani haqiqiy materialda amalga oshirgan taqdirdagina texnologiya funksional savodxonlikni rivojlantirishga xizmat qiladi.

Kalit so'zlar: sun'iy intellekt, badiiy mehnat, funksional savodxonlik, ijodiy fikrlash, loyiha faoliyati.

ВВЕДЕНИЕ

Генеративный искусственный интеллект предлагает школьнику планы, расчёты и визуальные решения. Однако получить готовый вариант легче, чем оценить его достоверность и возможность воплощения. Для художественного труда это принципиально: ученик должен чувствовать свойства материала, владеть инструментом, исправлять ошибки и отвечать за качество изделия.

Международные рекомендации связывают применение ИИ с сохранением самостоятельности обучающегося, безопасностью, проверкой результатов и педагогическим контролем [1; 2]. PISA рассматривает творческое мышление как способность создавать, оценивать и улучшать идеи [3]. Для художественного труда эта последовательность естественна: замысел необходимо соотнести с назначением изделия, технологией, количеством и стоимостью материалов, временем и безопасностью. Поэтому ИИ может быть полезен не как автор готовой работы, а как источник вариантов для анализа.

Исследования отмечают потенциал ИИ для поиска идей и повышения вовлечённости, но одновременно указывают на недостоверные ответы, некритичное доверие и ослабление самостоятельного усилия [4-6]. В Казахстане национальные подходы к внедрению ИИ в образование предусматривают развитие ИИ-грамотности, академической честности, защиту прав ребёнка и сохранение роли педагога [7]. Цель статьи - определить педагогически оправданные границы использования ИИ на уроках художественного труда. Основной вопрос состоит в том, при каких условиях цифровая помощь развивает функциональную грамотность, а при каких подменяет творческую и практическую деятельность ученика.

МАТЕРИАЛЫ И МЕТОДЫ

Исследование имеет научно-методический характер. Использовались анализ документов и научных публикаций [1-8], педагогическое наблюдение, сравнение первоначальных и уточнённых генераций, анализ ученических эскизов и технологических карт, устная рефлексия и качественный опрос. Практическим материалом стал опыт работы с учащимися 9 класса по теме «Ковроткачество. Gobelen. Современные ковры». Апробация проходила в естественных условиях урока без контрольной группы, поэтому результаты интерпретируются качественно и не рассматриваются как статистически доказанная эффективность метода.

ChatGPT применялся для разработки вариантов замысла, технологической последовательности, расхода материалов и затрат; генераторы изображений - для визуализации эскиза. Учащиеся задавали параметры ковра или гобелена, включали национальный орнамент, сравнивали ответы и проверяли расчёты. В практике педагога Midjourney и Gemini также используются для визуального поиска, Google Arts & Culture - для изучения культурного контекста, NotebookLM - для работы с отобранными источниками. Визуальная убедительность не подтверждает реализуемость, а подробный текст не гарантирует точность расчёта.

Таблица 1 - Модель педагогически обоснованного использования ИИ на уроке художественного труда

Этап	Функция ИИ	Действие ученика	Компонент функциональной грамотности
Постановка задачи	Помогает уточнить параметры и ограничения	Определяет назначение, размер, технику и критерии	Читательская и проектная
Поиск вариантов	Предлагает текстовые и визуальные идеи	Составляет запрос, получает несколько решений	Цифровая и творческая
Критический отбор	Предоставляет материал для сравнения	Находит ошибки, проверяет культурную уместность и реализуемость	Критическая и визуальная
Планирование	Предлагает расчёт и последовательность	Пересчитывает расход, стоимость, время и отходы	Математическая, финансовая и экологическая
Материализация	Справочная поддержка	Изготавливает изделие и объясняет решения	Технологическая и коммуникативная

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

ИИ оказался наиболее полезен в предпроектной части урока. Несколько генераций сделали различия между наглядными решениями: учащиеся сравнивали композицию, сочетание национального орнамента с современной формой, предполагаемые материалы и сложность исполнения. У многих появились выразительные и нестандартные варианты. Однако часть изображений содержала элементы, которые трудно выполнить в школьной мастерской, не учитывала свойства нитей или требовала слишком много времени. Эти несоответствия стали материалом для обсуждения и корректировки эскиза.

Желаемый результат получался не у всех с первой попытки. Учащимся приходилось уточнять вид изделия, цвет, масштаб узора, материалы и допустимую сложность. Исправление запроса помогало прояснить собственный замысел: чтобы изменить генерацию, нужно понять, что именно не устраивает. При подготовке технологической карты ученики также проверяли рекомендации ChatGPT, сопоставляли расход с размерами изделия, учитывали запас и примерную стоимость. Ошибка системы становилась учебной ситуацией, в которой требовалось найти слабое место и обосновать исправление.

Качественный опрос показал положительное отношение учащихся к подобной работе. Особенно интересным оказалось сочетание изображения с подробной технологической картой, превращавшей цифровую идею в план практических действий. Вместе с тем бесплатные и пробные версии ограничивали число генераций. Если несколько попыток не давали нужного результата, невозможность продолжить снижала мотивацию. Следовательно,

школьное задание не должно зависеть от платной подписки: запрос целесообразно сначала продумать на бумаге, а также предусмотреть работу в парах или ручной вариант выполнения.

Наблюдения согласуются с данными о росте вовлечённости при педагогически организованной работе с ИИ [6] и подтверждают риск доверия к правдоподобным, но неточным ответам [4; 5]. На художественном труде цифровая идея дополнительно проверяется свойствами нити, фактурой, временем и точностью операций. Расхождение между генерацией и материалом побуждало учащихся пересматривать первоначальное решение.

Оценивать учащихся следует не по эффективности генерации, а по ходу работы: точность постановки задачи, качество сравнения, выявление ошибок, обоснование выбора, реалистичность расчёта, рациональность расхода и качество ручного исполнения. В этой модели функциональная грамотность развивается через перенос знаний в единый проект. Ученик применяет математические действия при расчёте, финансовые - при оценке стоимости, экологические - при уменьшении отходов, цифровые - при формулировании запроса, культурные - при проверке орнамента и источников.

Ограничением апробации является её локальный и качественный характер: отсутствие контрольной группы и количественной обработки не позволяет переносить выводы на всех учащихся. Перспективой дальнейшей работы может стать сопоставление проектов с ИИ и без него по единой рубрике самостоятельности, качества расчёта и материального результата.

ЗАКЛЮЧЕНИЕ

Для художественного труда оправдан проектно-аналитический уровень внедрения ИИ. Система может расширять поиск и поддерживать предварительное планирование, но культурную и технологическую корректность проверяет ученик. Он же принимает окончательное решение и отвечает за качество изделия. Такая граница сохраняет содержание предмета и одновременно формирует навыки осознанной работы с цифровыми инструментами.

Школа должна готовить не пользователя отдельной нейросети, а человека, способного сформулировать задачу, заметить ошибку в убедительном ответе, учесть реальные ресурсы и завершить начатую работу. На уроке художественного труда эти умения соединяются в одном проекте, поскольку замысел оценивается по результату, выполненному из конкретного материала.

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INFORMATIKA FANINI O'QITISHDA INTERAKTIV RAQAMLI VOSITALARDAN FOYDALANISH

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Qo'qon DU, Qo'qon shahri

Annotatsiya: Ushbu maqolada informatika fanini o'qitish jarayonida interaktiv raqamli vositalardan foydalanish imkoniyatlari va ularning ta'lim samaradorligiga ta'siri tahlil qilingan. Zamonaviy ta'lim jarayonida o'quvchilarning faolligini oshirish, mavzularni tez va tushunarli o'zlashtirish hamda bilimlarni obyektiv baholashda raqamli texnologiyalarning ahamiyati tobora ortib bormoqda. Maqolada interaktiv test tizimlari, elektron ta'lim platformalari, onlayn topshiriqlar va raqamli baholash vositalaridan foydalanishning asosiy afzalliklari ko'rib chiqilgan. Shuningdek, informatika darslarida interaktiv vositalardan foydalanish bo'yicha amaliy yondashuv taklif etilgan.

Kalit so'zlar: informatika, raqamli texnologiyalar, interaktiv ta'lim, elektron ta'lim, onlayn test, raqamli baholash, axborot texnologiyalari.

Аннотация: В статье рассматриваются возможности использования интерактивных цифровых инструментов в процессе преподавания информатики и их влияние на эффективность обучения. В условиях современной образовательной среды цифровые технологии позволяют повысить активность учащихся, облегчить усвоение учебного материала и обеспечить более объективную оценку знаний. В работе рассмотрены интерактивные тестовые системы, электронные образовательные платформы, онлайн-задания и цифровые инструменты оценивания. Также предложен практический подход к использованию интерактивных средств на уроках информатики.

Ключевые слова: информатика, цифровые технологии, интерактивное обучение, электронное обучение, онлайн-тестирование, цифровое оценивание, информационные технологии.

Abstract: This article examines the possibilities of using interactive digital tools in teaching computer science and their impact on learning effectiveness. In modern education, digital technologies can increase students' engagement, facilitate the understanding of educational materials, and provide more objective assessment of knowledge. The article discusses interactive testing systems, electronic learning platforms, online assignments, and digital assessment tools. A practical approach to using interactive digital tools in computer science lessons is also proposed.

Keywords: computer science, digital technologies, interactive learning, e-learning, online testing, digital assessment, information technologies.

KIRISH

Bugungi kunda axborot-kommunikatsiya texnologiyalarining jadal rivojlanishi ta'lim jarayoniga ham sezilarli ta'sir ko'rsatmoqda. Kompyuterlar, mobil qurilmalar, internet xizmatlari va turli xil raqamli platformalardan foydalanish ta'lim olish imkoniyatlarini kengaytirib, an'anaviy o'qitish usullarini yangi yondashuvlar bilan boyitmoqda.

Ayniqsa, informatika fanini o'qitishda raqamli texnologiyalardan foydalanish alohida ahamiyatga ega. Chunki informatika fanining o'zi axborot texnologiyalari, dasturiy vositalar, algoritmlar va raqamli muhit bilan bevosita bog'liq.

An'anaviy dars jarayonida o'qituvchi mavzuni tushuntiradi, o'quvchi esa ma'lumotni qabul qiladi va topshiriqlarni bajaradi. Interaktiv raqamli vositalardan foydalanilganda esa o'quvchi ta'lim jarayonining faol ishtirokchisiga aylanadi. U testlarni real vaqt rejimida bajarishi, natijasini ko'rishi, xatolarini aniqlashi va mavzuni qayta o'zlashtirishi mumkin.

Shu sababli informatika fanini o'qitishda interaktiv raqamli vositalardan foydalanish masalasi zamonaviy ta'limning dolzarb yo'nalishlaridan biri hisoblanadi.

Interaktiv raqamli vositalar tushunchasi.

Interaktiv raqamli vositalar - o'quvchi va ta'lim tizimi o'rtasida faol o'zaro aloqa qilish imkonini beruvchi dasturiy va internet texnologiyalaridir.

Ularning tarkibiga quyidagilarni kiritish mumkin: elektron ta'lim platformalari, onlayn test tizimlari, elektron darsliklar, interaktiv taqdimotlar, virtual laboratoriyalar, videodarslar, avtomatlashtirilgan baholash tizimlari, ta'limga yo'naltirilgan mobil ilovalar.

Mazkur vositalarning asosiy xususiyati o'quvchini faqat ma'lumotni qabul qiluvchi emas, balki ta'lim jarayonida faol ishtirok etuvchi subyektga aylantirishdan iborat. Masalan, oddiy test topshirig'ida o'quvchi javobni belgilaydi va natijani o'qituvchi tekshiradi. Raqamli test tizimida esa javob avtomatik tekshirilishi, natija darhol chiqarilishi va xatolar bo'yicha qayta aloqa berilishi mumkin.

Informatika darslarida raqamli vositalardan foydalanish.

Bugungi kunda informatika fanini an'anaviy usullarda - faqat ma'ruza va doskadagi tushuntirishlar orqali o'qitish kutilgan samarani bermaydi. Zamonaviy o'quvchining raqamli ko'nikmalarini shakllantirish uchun dars jarayoniga raqamli vositalar va interaktiv platformalarni integratsiya qilish zarur. Raqamli vositalar o'quv faoliyatini ko'rgazmali, interaktiv va amaliyotga yo'naltirilgan shaklga keltirishga xizmat qiladi.

Interaktiv platformalar va sinfni boshqarish vositalari. Informatika darsida mavzuni mustahkamlash va o'quvchilar bilimini tezkor baholash uchun raqamli platformalar yuqori natija beradi. Kahoot va Quizizz – bular o'quvchilar o'rtasida viktorinalar va test mashqlarini o'yin shaklida (gamification) o'tkazish uchun ishlatiladi. Masalan mavzu yakunida 10 ta testdan iborat musobaqa o'tkazish orqali o'quvchilarning mavzuni qanday o'zlashtirganini bir necha daqiqada tahlil qilish mumkin. Google Classroom va Moodle - dars materiallarini tarqatish, topshiriqlarni yuklash va baholashni avtomatlashtiruvchi platformalar. Masalan o'qituvchi uyga topshiriq va amaliy ko'rsatmalarni tizimga joylaydi, o'quvchilar esa bajargan ishlarini elektron shaklda topshirib, izohli baho oladilar.

Dasturlash va mantiqiy fikrlashni rivojlantiruvchi vositalar. Nazariy bilimlarni amaliyotga tatbiq etish va algoritmlash ko'nikmalarini shakllantirishda maxsus vizual muhitlar muhim o'rin tutadi. Scratch va Blockly - boshlang'ich va kichik yoshdagi o'quvchilar uchun blokli dasturlash muhiti. Replit va Jupyter Notebook - yuqori sinflarda Python, C++ kabi dasturlash tillarini onlayn kodlash va natijani darhol ko'rish imkonini beruvchi muhitlar. Masalan: dasturlash muhitlarini kompyuterga o'rnatib o'tirmasdan, brauzerning o'zida kod yozish va uni real vaqt rejimida tekshirish.

Vizualizatsiya va jamoaviy hamkorlik vositalari. Murakkab tushunchalarni ko'rgazmali tushuntirish va guruh bo'lib ishlash jarayonini tashkil etishda qo'llaniladi. Miro, Padlet va Jamboard - interaktiv onlayn doskalar. Masalan: guruhlariga bo'lingan o'quvchilar bir vaqtning o'zida umumiy onlayn doskada blok-sxemalarni birgalikda chizadilar va guruh loyihasini taqdim etadilar. Mentimeter va WordArt - o'quvchilar fikrini jamlash hamda kalit so'zlardan interaktiv interfeyslar yaratish mumkin.

Raqamli vositalardan foydalanishning afzalliklari. Vaqt va resurs tejamlorligi borasida qog'ozbozlik va ortiqcha bosma materiallarga ehtiyoj qolmaydi. Natijalarni darhol ko'rish - test va topshiriqlar natijalari avtomatik tahlil qilinadi. Individual yondashuv - har bir o'quvchi o'z o'zlashtirish tezligiga mos ravishda topshiriqlarni bajaradi. Informatika darslarida raqamli vositalarni to'g'ri va maqsadli qo'llash o'quvchilarning texnologik savodxonligini oshirib, ularda 21-asrning eng muhim ko'nikmalaridan biri bo'lgan tanqidiy va mantiqiy fikrlashni rivojlantiradi.

Informatika darslarida interaktiv vositalardan turli bosqichlarda foydalanish mumkin. Darsning boshlang'ich bosqichida qisqa onlayn test orqali o'quvchilarning avvalgi mavzu bo'yicha bilimlari aniqlanadi. Asosiy qismida interaktiv taqdimot, video yoki amaliy topshiriqlardan foydalaniladi. Dars yakunida esa elektron test yordamida o'zlashtirish darajasi baholanadi.

Interaktiv raqamli vositalardan foydalanish bir qator afzalliklarga ega. Birinchidan, o'quvchilarning darsdagi faolligi oshadi. Test, viktorina va interaktiv topshiriqlar o'quvchilarni dars jarayoniga faol jalb qiladi.

Ikkinchidan, bilimlarni tezkor baholash imkoniyati paydo bo'ladi. O'qituvchi har bir o'quvchining natijasini elektron shaklda ko'rishi mumkin.

Uchinchidan, vaqt tejraladi. Masalan, 30 nafar o'quvchining test ishlarini qo'lda tekshirish o'rniga avtomatlashtirilgan tizim natijalarni bir necha soniyada hisoblab berishi mumkin.

To'rtinchidan, o'quvchi o'z natijasini mustaqil kuzatib borishi mumkin. Bu esa o'z-o'zini nazorat qilish ko'nikmasini shakllantiradi.

Beshinchidan, raqamli vositalar o'quv materiallarini turli shakllarda taqdim etish imkonini beradi. Matn, rasm, animatsiya, video va interaktiv topshiriqlarni bitta ta'lim muhitida birlashtirish mumkin.

Muammolar va cheklovlar.

Raqamli texnologiyalardan foydalanish bilan birga ayrim muammolar ham mavjud. Jumladan, barcha ta'lim muassasalarida internet tezligi va texnik jihozlanish darajasi bir xil emas.

Shuningdek, o'qituvchilarning raqamli vositalardan foydalanish ko'nikmalari ham turlicha bo'lishi mumkin. Shu sababli yangi texnologiyalarni joriy etishda pedagoglarning raqamli kompetensiyasini rivojlantirish muhim hisoblanadi. Bundan tashqari, raqamli vositalardan foydalanish an'anaviy pedagogik yondashuvni to'liq almashtirmasligi kerak. Texnologiya ta'lim maqsadiga xizmat qilishi, o'qituvchining metodik yondashuvini to'ldirishi lozim.

XULOSA

Informatika fanini o'qitishda interaktiv raqamli vositalardan foydalanish ta'lim jarayonini yanada faol, tezkor va samarali tashkil etish imkonini beradi. Elektron testlar, interaktiv topshiriqlar, raqamli taqdimotlar va avtomatlashtirilgan baholash vositalari o'quvchilarning darsdagi faolligini oshirish hamda bilimlarni nazorat qilish jarayonini soddalashtirishga xizmat qiladi.

Raqamli vositalarning muhim jihatlardan biri - o'quvchiga tezkor qayta aloqa berish imkoniyatidir. O'quvchi topshiriqni bajargandan so'ng o'z natijasini ko'rishi va xatolar ustida ishlashi mumkin. Shu bilan birga, raqamli texnologiyalardan foydalanish uchun zarur texnik infratuzilmani rivojlantirish, pedagoglarning raqamli kompetensiyasini oshirish va ta'lim mazmuniga mos raqamli resurslarni ishlab chiqish muhim vazifalardan hisoblanadi.

Umuman olganda, interaktiv raqamli vositalardan oqilona foydalanish informatika fanini o'qitishning zamonaviy shakllarini rivojlantirishga hamda o'quvchilarning axborot texnologiyalaridan foydalanish ko'nikmalarini shakllantirishga yordam beradi.

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TALABALARDA ANIQ INTEGRAL TUSHUNCHASINI SHAKLLANTIRISHNING INNOVATSION METODIK ASOSLARI

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Annotatsiya. Mazkur maqolada oliy ta'lim muassasalarida "Oliy matematika" fanining "Aniq integral" mavzusini o'qitish jarayonini takomillashtirishda innovatsion ta'lim metodlaridan foydalanishning metodik jihatlari tadqiq etilgan. Tadqiqotda aniq integral tushunchasini shakllantirishda vizualizatsiya, muammoli ta'lim, axborot-kommunikatsiya texnologiyalari va STEM yondashuvlarining didaktik imkoniyatlari tahlil qilingan. Shuningdek, integralning geometrik mazmunini ochib berish, uning fizik va iqtisodiy masalalardagi tatbiqlarini yoritish hamda GeoGebra kabi raqamli vositalardan foydalanish asosida talabalarning matematik, analitik va amaliy kompetensiyalarini rivojlantirish metodikasi asoslangan. Tadqiqot natijalari innovatsion yondashuvlardan tizimli foydalanish aniq integralni o'zlashtirishning mazmuniy va amaliy samaradorligini oshirishga xizmat qilishini ko'rsatadi.

Kalit so'zlar: aniq integral, oliy matematika, innovatsion ta'lim, muammoli ta'lim, vizualizatsiya, axborot-kommunikatsiya texnologiyalari, STEM yondashuvi, matematik modellashtirish, raqamli texnologiyalar, matematik kompetensiya.

Аннотация. В статье исследованы методические аспекты использования инновационных образовательных методов в совершенствовании процесса преподавания темы «Определённый интеграл» по дисциплине «Высшая математика» в высших образовательных учреждениях. Проанализированы дидактические возможности визуализации, проблемного обучения, информационно-коммуникационных технологий и STEM-подхода в формировании понятия определённого интеграла. Обоснована методика развития математических, аналитических и практических компетенций студентов посредством раскрытия геометрического содержания интеграла, освещения его применения в физических и экономических задачах, а также использования цифровых инструментов, в частности GeoGebra. Результаты исследования показывают, что систематическое применение инновационных подходов способствует повышению содержательной и практической эффективности усвоения темы «Определённый интеграл».

Ключевые слова: определённый интеграл, высшая математика, инновационное обучение, проблемное обучение, визуализация, информационно-коммуникационные технологии, STEM-подход, математическое моделирование, цифровые технологии, математическая компетентность.

Abstract. This article examines the methodological aspects of using innovative educational methods to improve the teaching of the topic "Definite Integral" within the Higher Mathematics course at higher education institutions. The study analyzes the didactic potential of visualization, problem-based learning, information and communication technologies, and the STEM approach in developing students' understanding of the definite integral. A methodology for developing students' mathematical, analytical, and practical competencies is substantiated through revealing the geometric meaning of the integral, highlighting its applications in physical and economic problems, and using digital tools such as GeoGebra. The results of the study demonstrate that the systematic application of innovative approaches contributes to improving the conceptual understanding and practical effectiveness of learning the topic of the definite integral.

Keywords: *definite integral, higher mathematics, innovative education, problem-based learning, visualization, information and communication technologies, STEM approach, mathematical modeling, digital technologies, mathematical competence.*

KIRISH

Bugungi kunda ta'lim jarayonini modernizatsiya qilish, innovatsion yondashuvlarni keng joriy etish va talabalarda mustaqil fikrlash ko'nikmalarini rivojlantirish ta'lim tizimining muhim yo'nalishlaridan biri hisoblanadi. Xususan, matematika fanini o'qitishda ilg'or pedagogik texnologiyalardan foydalanish orqali nazariy bilimlarni amaliyot bilan uzviy bog'lash, talabalarning bilish faolligini oshirish hamda ularni mustaqil va ijodiy fikrlashga yo'naltirish muhim ahamiyat kasb etmoqda.

Matematika fanining muhim bo'limlaridan biri bo'lgan aniq integral tushunchasini o'rgatish talabalardan nafaqat nazariy tayyorgarlikni, balki tahliliy fikrlash, abstrakt matematik tushunchalarni real jarayonlar bilan bog'lash va amaliy masalalarni yechish ko'nikmalarini ham talab etadi. Shu sababli aniq integralni o'qitish jarayonida zamonaviy pedagogik va innovatsion metodlardan samarali foydalanish dolzarb metodik masalalardan biri hisoblanadi.

Innovatsion metodlar, xususan, interfaol ta'lim, axborot-kommunikatsiya texnologiyalari, muammoli ta'lim, vizualizatsiya va STEM yondashuvlari talabalarning o'quv jarayonidagi faolligini oshirish hamda bilimlarni mustaqil o'zlashtirishiga imkon yaratadi. Bunday yondashuvda talaba tayyor matematik bilimni qabul qilish bilan cheklanmay, matematik tushunchalarning mazmuni va amaliy ahamiyatini mustaqil tahlil qilish imkoniyatiga ega bo'ladi. Bu esa aniq integral tushunchasining geometrik va amaliy mazmunini chuqurroq anglashga xizmat qiladi.

Shu nuqtayi nazardan, aniq integralni o'qitishda innovatsion metodlardan foydalanishning didaktik imkoniyatlarini aniqlash, ularni amaliy mashg'ulotlarda qo'llash mexanizmlarini ishlab chiqish hamda talabalarning matematik va amaliy kompetensiyalarini rivojlantirish masalalarini tadqiq etish muhim ilmiy-metodik ahamiyatga ega.

Adabiyotlar tahlili. Aniq integralni o'qitish metodikasiga oid ilmiy va uslubiy manbalarda mazkur tushunchaning nazariy asoslarini o'zlashtirish, geometrik va amaliy mazmunini ochib berish hamda matematik tafakkurni rivojlantirish masalalariga alohida e'tibor qaratilgan.

Y.X. To'raqulov, N.T. Jo'rayev va boshqa mahalliy mualliflarning oliy matematika bo'yicha darslik va o'quv qo'llanmalarida aniq integralning nazariy asoslari, hisoblash usullari hamda uning geometrik va fizik tatbiqlari tizimli yoritilgan [1, 2]. G.A. Selevko va V.P. Bepalko tadqiqotlarida ta'lim texnologiyalarini tizimli tashkil etish, talabalarning bilish faolligini oshirish va muammoli ta'lim elementlaridan foydalanishning metodik jihatlari asoslangan [3, 4].

R. Gagne, J. Bruner va H. Gardnerning ta'limga oid nazariyalarida murakkab tushunchalarni bosqichma-bosqich shakllantirish, vizual vositalardan foydalanish va individual yondashuvning didaktik imkoniyatlari yoritilgan. R. Bybee tomonidan ishlab chiqilgan STEM yondashuvi esa fanlararo integratsiya asosida bilimlarni amaliy vaziyatlarda qo'llash, muammolarni hal etish va ijodiy fikrlash kompetensiyalarini rivojlantirishga yo'naltirilgan [5].

Tahlil qilingan manbalar aniq integralni o'qitishda an'anaviy matematik yondashuvlarni vizualizatsiya, muammoli ta'lim, raqamli texnologiyalar va STEM elementlari bilan uyg'unlashtirish zarurligini ko'rsatadi. Shu bilan birga, aniq integral tushunchasini shakllantirishda mazkur metodlarni yagona metodik tizim sifatida qo'llash masalasi yanada chuqur tadqiq etishni talab qiladi.

Metodologiya. Tadqiqotda aniq integralni o'qitish samaradorligini oshirishga yo'naltirilgan muammoli ta'lim, vizualizatsiya, axborot-kommunikatsiya texnologiyalari va STEM yondashuvlaridan foydalanish metodikasi asos qilib olindi. Mazkur yondashuvlar talabalarning nazariy bilimlarini amaliy faoliyat bilan bog'lash, mustaqil fikrlash va matematik modellashtirish ko'nikmalarini rivojlantirishga xizmat qiladi.

Muammoli ta'lim metodi. Ushbu metod talabaning tayyor bilimni o'zlashtirishidan ko'ra, muammoli vaziyatni tahlil qilish va yechimni mustaqil izlashiga asoslanadi. Aniq integral mavzusida, masalan, "Egri chiziq ostidagi sohaning yuzasini qanday aniqlash mumkin?" kabi muammoli savol

qo'yiladi. Talabalar kichik guruhlarda masalani tahlil qilib, to'g'ri to'rtburchaklar yig'indisi, Riman yig'indisi va limit tushunchalari orqali yechimga keladilar. Mazkur jarayon aniq integralning geometrik mazmunini tayyor formula orqali emas, balki uning shakllanish mexanizmi orqali anglash imkonini beradi.

Vizualizatsiya metodi. Aniq integralning geometrik mazmunini tushuntirishda grafik tasvirlardan foydalanish muhim metodik vosita hisoblanadi. GeoGebra, Desmos va boshqa grafik dasturlar yordamida funksiya grafigi ostidagi soha, integral yig'indilari hamda ularning limitdagi holatini dinamik tarzda namoyish etish mumkin. Bunday vizual yondashuv abstrakt matematik tushunchalarni aniq tasavvur qilishga yordam beradi.

Axborot-kommunikatsiya texnologiyalari. Raqamli vositalardan foydalanish integralni sonli hisoblash, Riman yig'indilarini modellashtirish va olingan natijalarni grafik ko'rinishda ifodalash imkonini beradi. Xususan, GeoGebra va Python dasturlari yordamida analitik hamda sonli natijalarni taqqoslash talabalarning matematik modellashtirish va natijalarni tahlil qilish ko'nikmalarini rivojlantiradi.

STEM yondashuvi. Aniq integralni STEM asosida o'qitish matematik bilimlarni fizika, texnologiya va amaliy masalalar bilan integratsiyalash imkonini beradi. Jumladan, integral yordamida ish, energiya, massa, yuza va hajmni aniqlash, shuningdek, iqtisodiy jarayonlarda jami xarajat yoki daromadni modellashtirish mumkin. Bunday integratsiya talabalarda matematik bilimlarning amaliy ahamiyatini anglash va real jarayonlarni matematik modellashtirish kompetensiyalarini shakllantiradi.

Taklif etilayotgan metodik yondashuv asosida talabalarda quyidagi o'quv natijalarini shakllantirish ko'zda tutiladi:

- aniq integralning geometrik va matematik mazmunini tushuntira olish;
- egri chiziqli ostidagi yuza, hajm va sirt yuzalarini integral orqali ifodalash;
- Riman yig'indisi va sonli integrallash usullaridan foydalanish;
- GeoGebra, Python kabi raqamli vositalar yordamida integral qiymatini hisoblash va vizualizatsiya qilish;
- matematik modelni real amaliy jarayonlarga tatbiq etish;
- natijalarni tahlil qilish va ilmiy asoslangan xulosalar chiqarish.

Mazkur metodlarni qo'llashning ayrim cheklovlari ham mavjud. Xususan, innovatsion mashg'ulotlarni tashkil etish an'anaviy darsga nisbatan ko'proq vaqt va yuqori metodik tayyorgarlikni talab qiladi. Shuningdek, raqamli vositalardan samarali foydalanish uchun o'qituvchi va talabalarning tegishli raqamli kompetensiyalarga ega bo'lishi muhimdir. Guruhli va loyiha asosidagi faoliyatda talabalarning tayyorgarlik darajasidagi farqlar ham hisobga olinishi lozim.

XULOSA

Aniq integralni o'qitishda innovatsion metodlardan kompleks foydalanish talabalarning matematik tushunchalarni anglash, mustaqil fikrlash, matematik modellashtirish va amaliy masalalarni yechish kompetensiyalarini rivojlantirishga xizmat qiladi. Muammoli ta'lim integral tushunchasining shakllanish mantig'ini ochib bersa, vizualizatsiya va raqamli texnologiyalar uning geometrik mazmunini aniq tasavvur qilish imkonini beradi. STEM yondashuvi esa matematik bilimlarni fizik va texnologik jarayonlar bilan bog'lashga sharoit yaratadi. Shu jihatdan, mazkur metodlarning o'zaro uyg'unligi aniq integralni o'qitish metodikasini takomillashtirishning samarali yo'nalishlaridan biri sifatida qaraladi.

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TA'LIMNI RAQAMLASHTIRISH JARAYONIDA MALAYZIYA TAJRIBASI

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Annotatsiya. Maqolada ta'limni raqamlashtirish sharoitida Malayziya oliy ta'lim muassasalarining tajribasi, xususan, hamkorlikka asoslangan ta'limni tashkil etishda Padlet va Miro platformalaridan foydalanish imkoniyatlari tahlil qilinadi. Tadqiqotning maqsadi Malayziya OTMlaridagi raqamli ta'lim siyosati va pedagogik amaliyotlarning o'zaro bog'liqligini aniqlash hamda ularni O'zbekiston oliy ta'limiga moslashtirish bo'yicha takliflar ishlab chiqishdan iborat. Hujjatlar tahlili, qiyosiy-pedagogik yondashuv, kontent tahlili va amaliy holatlarni umumlashtirish usullaridan foydalanildi. Natijalar Padletning fikrlarni tez yig'ish, multimedia materiallarini bir joyda jamlash, anonim yoki teng ishtirokni qo'llab-quvvatlash va formatlovchi baholashni kuchaytirishdagi ustunligini ko'rsatdi. Miro esa cheksiz vizual maydon, real vaqt va asinxron hamkorlik, konseptual xaritalar, jarayon modellarini yaratish hamda loyiha ishlarini boshqarish orqali murakkab bilimlarni birgalikda konstruksiyalashga xizmat qiladi. Malayziya tajribasi texnologiyani alohida vosita emas, balki talaba markazli, aralash va natijaga yo'naltirilgan ta'lim ekotizimining tarkibiy qismi sifatida joriy etish zarurligini ko'rsatadi.

Kalit so'zlar: ta'limni raqamlashtirish, Malayziya oliy ta'limi, Padlet, Miro, hamkorlikdagi ta'lim, aralash ta'lim, raqamli pedagogika.

Аннотация. В статье анализируется опыт высших учебных заведений Малайзии в условиях цифровизации образования, в частности возможности использования платформ Padlet и Miro для организации совместного обучения. Цель исследования состоит в выявлении взаимосвязи между политикой цифрового высшего образования Малайзии и педагогической практикой, а также в разработке предложений по адаптации этого опыта к условиям высшего образования Узбекистана. Применены анализ документов, сравнительно-педагогический подход, контент-анализ и обобщение практических кейсов. Установлено, что Padlet эффективен для оперативного сбора идей, размещения мультимедийных материалов, обеспечения равного участия и формирующего оценивания. Miro, благодаря бесконечному визуальному полотну, синхронной и асинхронной работе, поддерживает построение концептуальных карт, моделирование процессов и управление проектной деятельностью. Опыт Малайзии показывает, что цифровые инструменты целесообразно внедрять не изолированно, а как часть студентоцентричной, смешанной и ориентированной на результаты образовательной экосистемы.

Ключевые слова: цифровизация образования, высшее образование Малайзии, Padlet, Miro, совместное обучение, смешанное обучение, цифровая педагогика.

Abstract. This article analyses the experience of Malaysian higher education institutions in educational digitalisation, with particular attention to using Padlet and Miro for collaborative learning. The study aims to identify the relationship between Malaysia's digital higher-education policy and pedagogical practice and to formulate proposals for adapting relevant approaches to higher education in Uzbekistan. The methods include document analysis, a comparative pedagogical approach, content analysis and synthesis of practical cases. The findings indicate that Padlet is effective for rapidly collecting ideas, curating multimedia resources, supporting more equal participation and strengthening formative assessment. Miro supports the joint construction of complex knowledge through an infinite visual canvas, synchronous and asynchronous collaboration, concept mapping, process modelling and project management. The Malaysian experience demonstrates that technology should not be introduced as an isolated tool; it should be embedded in a student-centred, blended and outcomes-based learning ecosystem.

Keywords: *educational digitalisation, Malaysian higher education, Padlet, Miro, collaborative learning, blended learning, digital pedagogy.*

KIRISH

Raqamli transformatsiya oliy ta'limda faqat dars materiallarini elektron shaklga o'tkazish bilan cheklanmaydi. U ta'lim mazmuni, o'qituvchi va talaba rollari, hamkorlik shakllari, baholash, ma'lumotlardan foydalanish va boshqaruv jarayonlarini qayta loyihalashni talab qiladi. Shu sababli ta'limni raqamlashtirish texnologik infratuzilma bilan bir qatorda pedagogik maqsad, institutsional siyosat va raqamli kompetensiyalar uyg'unligini anglatadi.

O'zbekiston Respublikasi Prezidentining 2019-yil 9-oktyabrdagi PF-5847-son Farmoni bilan tasdiqlangan "Oliy ta'lim tizimini 2030-yilgacha rivojlantirish konsepsiyasi" hamda 2025-yil 28-apreldagi PF-73-son Farmonida belgilangan ustuvor vazifalarga muvofiq, ilg'or xorijiy tajribalarni tahlil qilish va amaliyotga tatbiq etish strategik ahamiyat kasb etadi.

Malayziya tajribasi bu masalani davlat strategiyasi, universitetlar avtonomiyasi va ta'lim innovatsiyalarini bir tizimda ko'rishga intilishi bilan ahamiyatlidir. Malaysia Education Blueprint 2015–2025 Higher Education hujjatida onlayn ta'limni global miqyosda kengaytirish, o'quv jarayonining sifati va foydalanish imkoniyatini oshirish oliy ta'lim transformatsiyasining muhim yo'nalishlaridan biri sifatida belgilangan [1]. Ushbu yondashuv ommaviy ochiq onlayn kurslar, aralash ta'lim, raqamli resurslar va texnologiya vositasida faol o'qitish usullarini rivojlantirish uchun siyosiy asos yaratdi. COVID-19 davrida masofaviy ta'limning keskin kengayishi mavjud infratuzilmani sinovdan o'tkazdi, keyingi bosqichda esa e'tibor favqulodda onlayn o'qitishdan barqaror va didaktik jihatdan asoslangan raqamli ta'limga ko'chdi. Malayziya OTMlarida ta'lim odatda ma'ruza, seminar, laboratoriya, loyiha, mustaqil ta'lim va elektron ta'lim boshqaruv tizimlarini uyg'unlashtirgan holda tashkil etiladi. Natijaga yo'naltirilgan ta'lim va sifatni ta'minlash mexanizmlari raqamli faoliyatni ham o'quv natijalari bilan bog'lashni talab qiladi. Talabalar guruhining til, madaniyat va tayyorgarlik darajasi jihatidan xilma-xilligi esa har bir ishtirokchiga fikr bildirish imkonini beradigan, mobil qurilmalarda ishlaydigan va asinxron faoliyatni qo'llab-quvvatlaydigan vositalarni dolzarb qiladi.

Mazkur maqolada Padlet va Miro platformalari Malayziya oliy ta'limidagi raqamli pedagogika doirasida xorijiy tajriba sifatida o'rganiladi. Padletdan foydalanishga oid Malayziya universitetlarida o'tkazilgan tadqiqotlar va amaliy kuzatuvlar mavjud [2–5]. Miro bo'yicha esa platformaning hamkorlikdagi vizual fikrlash funksiyalari, oliy ta'limdagi raqamli doskalardan foydalanish tadqiqotlari va Malayziyaning talaba markazli raqamli ta'lim tamoyillari sintez qilinadi. Tadqiqot savoli quyidagicha: ushbu vositalar qaysi pedagogik sharoitlarda talabalar faolligi, hamkorlik, formatlovchi baholash va loyiha natijalariga ijobiy ta'sir ko'rsatishi mumkin?

MATERIALLAR VA USULLAR

Materiallar bazasini Malayziya oliy ta'lim siyosatiga doir rasmiy hujjatlar, Malaysian Qualifications Agency va universitetlarning raqamli ta'lim materiallari, Padletdan foydalanish bo'yicha Malayziya OTMlarida bajarilgan empirik tadqiqotlar, shuningdek, hamkorlikdagi onlayn doskalarning pedagogik imkoniyatlarini tavsiflovchi ilmiy va metodik manbalar tashkil etdi. Manbalarni tanlashda ularning oliy ta'lim kontekstiga bevosita aloqadorligi, metodologiyasi va amaliy xulosalari e'tiborga olindi. Adabiyotlar tahlili orqali Malayziyada ta'limni raqamlashtirishning siyosiy maqsadlari va institutsional mexanizmlari aniqlandi. Qiyosiy-pedagogik tahlil vositasida Padlet va Miro funksiyalari "o'quv vazifasi - hamkorlik shakli - kuzatiladigan natija - baholash dalili" zanjiri bo'yicha taqqoslandi. Kontent tahlilida platformalarning faollik, muloqot, vizuallashtirish, refleksiya, qayta aloqa va loyihani boshqarishga oid imkoniyatlari kodlandi. Natijalarni talqin qilishda texnologiyani qabul qilishning asosiy omillari - foydalanishning qulayligi, pedagogik foydalilik, raqamli savodxonlik, texnik imkoniyat va o'qituvchi yordami - hisobga olindi.

Maqola Malayziyaning barcha universitetlarida Padlet yoki Miro bir xil tartibda qo'llanadi, degan da'voni ilgari surmaydi. Padlet bo'yicha keltirilgan xulosalar aniq Malayziya tadqiqotlari bilan asoslanadi; Miro bo'yicha tavsiyalar esa uning tasdiqlangan funksiyalari va raqamli hamkorlik

pedagogikasidan kelib chiqadigan analitik modeldir. Bunday chegaralash xorijiy tajribani kontekstdan uzib ko'chirish emas, balki O'zbekiston OTMlari sharoitiga moslashtirish imkonini beradi.

NATIJALAR VA MUHOKAMA

Malayziya tajribasining birinchi muhim jihati - raqamli vositalarning alohida tashabbus sifatida emas, sifat, qamrov, xalqaro raqobatbardoshlik va bitiruvchilar kompetensiyalari bilan bog'liq strategik yo'nalish sifatida qaralishidir. Oliy ta'limni rivojlantirish rejasida global onlayn ta'lim alohida "shift" sifatida ko'rsatilgani universitetlarni raqamli kontent yaratish, kurslarni aralash formatda loyihalash va talabalar faolligini elektron muhitda kuzatishga undadi [1]. Bu jarayonda texnologiyaning o'zi emas, undan qanday o'quv faoliyati yaratish uchun foydalanilishi hal qiluvchi omil bo'lib qoladi.

Ikkinchi jihat - sinxron va asinxron o'qishni birlashtirish. Talaba auditoriyada mavzuga kirishadi, elektron tizimda resurslarni o'rganadi, Padletda savol yoki dalil joylashtiradi, Miroda guruh bilan vizual model yaratadi va yakunda refleksiya hamda baholash dalillarini topshiradi. Bunday sikl vaqt va joyga bog'liqlikni kamaytiradi, lekin faoliyatning har bir bosqichi o'qituvchi tomonidan aniq yo'riqnoma, muddat va mezonlar bilan boshqarilishini talab qiladi.

Uchinchi jihat - raqamli tenglik va ko'p madaniyatli guruhlarda ishtirokni kengaytirish. Og'zaki muhokamada faol bo'lmagan talaba yozma, audio, rasm yoki havola orqali fikrini bildiradi. Asinxron rejim til jihatidan tayyorgarlik ko'rish va fikrni qayta ko'rib chiqish imkonini beradi. Biroq qurilma, internet sifati, platforma interfeysi, maxfiylik va kirish imkoniyati bo'yicha farqlar e'tibordan chetda qolsa, raqamli vosita mavjud tengsizlikni kuchaytirishi mumkin.

Padlet - matn, rasm, video, audio, hujjat va havolalarni yagona virtual devorda joylashtirish hamda ularga izoh va reaksiya bildirish imkonini beradigan platforma. University of Malaya tadqiqotchilari Padlet yordamida interaktiv debat tashkil etib, u hamkorlikdagi o'qishda muloqot va bilim almashishni qo'llab-quvvatlashini ko'rsatgan [2]. Universiti Malaysia Sabah kontekstidagi tadqiqotda esa Padlet orqali hamkorlikdagi yozuv faoliyatini bajargan talabalar platformani foydali vosita sifatida baholagan [4]. Bu dalillar Padletning ayniqsa g'oya yaratish, dalil to'plash va o'zaro qayta aloqa uchun qulayligini ko'rsatadi. Padletning birinchi afzalligi - kirishning soddaligi va natijaning darhol ko'rinishidir. O'qituvchi mavzu, muammoli savol yoki keysni joylashtiradi; talabalar o'z javoblarini yuboradi; guruh bir vaqtning o'zida barcha fikrlarni ko'radi. Shu tariqa "savol - individual fikr - tengdosh javobi - umumlashtirish" sikli qisqa vaqt ichida amalga oshadi. Ikkinchi afzallik - multimedia dalillarini bir joyda jamlash. Masalan, pedagogika yo'nalishidagi talabalar raqamli dars dizayni bo'yicha infografika, qisqa video, ilmiy havola va sharhlarni bitta doskada to'plashi mumkin.

Uchinchi afzallik - formatlovchi baholash. O'qituvchi javoblar mazmunidan noto'g'ri tushunchalar, mavzudagi bo'shliqlar va faol ishtirok darajasini tez aniqlaydi. Rubrika asosida "dalilning aniqligi", "manbadan foydalanish", "tengdoshga konstruktiv izoh" kabi mezonlar qo'llansa, Padlet oddiy e'lonlar devoridan baholash dalili yaratuvchi pedagogik muhitga aylanadi. To'rtinchi afzallik - ovozi kam eshitiladigan talabalar uchun muqobil ishtirok kanali. Ism ko'rsatishni cheklash yoki postlarni o'qituvchi tasdiqlaganidan keyin chiqarish kabi sozlamalar psixologik xavfsizlikni oshirishi mumkin.

Shu bilan birga, cheksiz va tartibsiz postlar kognitiv yukni oshiradi; yuzaki "layk"lar mazmunli fikr o'rini bosishi; bepul tarif cheklovlari, ma'lumotlar maxfiyligi va moderatsiya masalalari yuzaga kelishi mumkin. Shuning uchun doska ustunlari oldindan strukturaviy tashkil etilishi, post hajmi va manba talabi belgilanishi, faoliyat yakunida o'qituvchi xulosa berishi lozim.

Miro - cheksiz elektron doska tamoyiliga asoslangan vizual hamkorlik muhiti. Unda stikerlar, matn, shakl, bog'lanish chiziqlari, jadval, freym, konseptual xarita, jarayon diagrammasi va turli shablonlardan foydalanish mumkin [6]. Padlet asosan alohida postlarni tez yig'ish va ko'rsatishga kuchli bo'lsa, Miro obyektlar o'rtasidagi munosabatni vizual qurish, murakkab jarayonni modellashtirish va guruh loyihasining rivojlanishini bitta maydonda kuzatishga ko'proq mos keladi.

Malayziya OTMlari tajribasiga mos pedagogik ssenariyda Miro muammoga asoslangan ta'lim, dizayn fikrlash, tadqiqot loyihasi va fanlararo guruh ishlarida qo'llanishi mumkin. Masalan, talabalar "raqamli kampus" muammosi bo'yicha manfaatdor tomonlar xaritasini tuzadi, muammolarni guruhlaydi, sabab-oqibat bog'lanishlarini belgilaydi, yechim prototipini chizadi va vazifalarni Kanban usulida taqsimlaydi. O'qituvchi kursorlar, izohlar va versiyalardagi o'zgarishlar orqali jarayonni kuzatib, faqat yakuniy mahsulotni emas, hamkorlikning o'zini ham baholaydi.

Miro real vaqt rejimida birgalikda ishlash bilan birga asinxron davom ettirishga imkon beradi. Bu dars vaqtini qisqa ma'ruza, guruhiy qurish va umumiy tahlilga ajratish, darsdan keyin esa xaritani boyitish imkonini beradi. Vizual tashqi xotira sifatida doska guruhdagi fikrlarni yo'qotmasdan saqlaydi, bilimlar o'rtasidagi aloqalarni ko'rsatadi va murakkab mavzuni "ko'rinadigan" qiladi. Shu sababli u ayniqsa loyiha boshqaruvi, muhandislik dizayni, biznes modeli, pedagogik texnologiya va tadqiqot metodologiyasi fanlarida samarali bo'lishi mumkin. Biroq Miro interfeysining ko'p funksiyaliligi yangi foydalanuvchida ortiqcha yuklanish tug'diradi. Katta doskada obyektlar tartibsiz joylashishi, bir vaqtning o'zida ko'p tahrir konfliktga sabab bo'lishi, qurilma va internet resurslariga talab Padletga nisbatan yuqoriroq bo'lishi mumkin.

1-jadval.

Padlet va Miro platformalarining ta'limiy imkoniyatlari

Mezon	Padlet	Miro	Kutiladigan pedagogik samara
Asosiy model	Virtual devor va postlar oqimi	Cheksiz vizual doska va obyektlar aloqasi	Faoliyat turiga mos raqamli muhit tanlanadi
Eng qulay vazifalar	Brainstorming, savol-javob, resurslar to'plami, exit-ticket	Konseptual xarita, dizayn fikrlash, jarayon modeli, loyiha rejalash	Bilimni ifodalash va birgalikda qurish kuchayadi
Hamkorlik	Tez post, izoh, reaksiya va multimedia almashinuvi	Bir vaqtda tahrir, obyektlarni guruhlash, bog'lash va taqdim etish	Tengdoshlararo o'rganish va ijtimoiy ishtirok ortadi
Baholash dalili	Post sifati, izoh, refleksiya va manba	Jarayon izi, vizual model, rol va loyiha natijasi	Formatlovchi hamda jarayonga yo'naltirilgan baholash yuzaga keladi
Kirish murakkabligi	Nisbatan past, tez o'zlashtiriladi	O'rta yoki yuqori, yo'naltirish va shablon kerak	Raqamli tayyorgarlikka mos bosqichlash talab etiladi
Asosiy xavf	Postlar ko'pligi, yuzaki javob, moderatsiya	Kognitiv yuk, navigatsiya, texnik talab	Aniq qoida, rollar, maxfiylik va zaxira variant zarur

Taqqoslash shuni ko'rsatadiki, platformalar bir-birining to'liq o'rnini bosmaydi. Padlet darsning kirish yoki yakun bosqichida tezkor fikr yig'ish, resurs almashish va refleksiya uchun, Miro esa o'rta bosqichda murakkab muammoni birgalikda tahlil qilish va mahsulot yaratish uchun samaraliroq. Integratsiyalashgan ssenariyda talabalar avval Padletda individual g'oyalarni joylashtiradi, keyin saralangan g'oyalarni Miroda kategoriyalarga ajratib, sabab-oqibat xaritasi yoki loyiha prototipiga aylantiradi. Yakunda guruh Miro natijasini Padletga joylab, tengdoshlar fikrini oladi.

Birinchidan, vosita o'quv natijasidan kelib chiqib tanlanishi kerak. Agar natija "dalillarni taqqoslaydi" bo'lsa, Padlet ustunlari turli nuqtai nazarlarni ajratadi; agar natija "tizim modelini yaratadi" bo'lsa, Mirodagi bog'lanishlar va freymlar maqsadga muvofiq. Ikkinchidan, topshiriq

o'lganadigan bo'lishi zarur: post soni emas, dalil sifati; stikerlar ko'pligi emas, mantiqiy aloqalar; chiroyli dizayn emas, muammo yechimining asoslanganligi baholanadi.

Uchinchi, o'qituvchi raqamli fasilitator rolini bajaradi. U platformani tanishtiradi, namunaviy javob beradi, vaqt va rollarni belgilaydi, jarayonni kuzatadi, noto'g'ri ma'lumotni tuzatadi va yakunda umumlashtiradi. To'rtinchi, inklyuzivlik va xavfsizlik ta'minlanadi: mobil qurilmada ishlash tekshiriladi, past internet tezligi uchun matnli muqobil beriladi, shaxsiy ma'lumotlar minimal yig'iladi, doska havolasi va tahrirlash huquqi boshqariladi.

Beshinchi, samaradorlik dalillar asosida baholanadi. Faqat talabalar qoniqlashini o'lchash yetarli emas. Faollik (post va tahrirlar), sifat (rubrika ballari), o'zlashtirish (oldingi va keyingi topshiriq), hamkorlik (tengdosh izohi va rol taqsimoti) hamda qulaylik (texnik muammolar) ko'rsatkichlari birgalikda tahlil qilinadi. Shunda raqamli vositaning yangiligi bilan haqiqiy pedagogik foyda farqlanadi.

Malayziya tajribasini moslashtirishda to'rt bosqichli model taklif etiladi. Birinchi bosqich - diagnostika: fan maqsadi, talabalar qurilmalari, internet sifati, o'qituvchining raqamli kompetensiyasi va ma'lumotlar xavfsizligi baholanadi. Ikkinchi bosqich - pedagogik dizayn: bitta modul tanlanib, Padlet yoki Mirodagi faoliyat o'quv natijasi, yo'riqnoma va rubrika bilan bog'lanadi. Uchinchi bosqich - kichik pilot: bir yoki ikki guruhda 4-6 haftalik sinov o'tkazilib, talabalar va o'qituvchilar tajribasi hamda o'quv natijalari yig'iladi. To'rtinchi bosqich - institutsional kengaytirish: muvaffaqiyatli shablonlar metodik bankka joylashtiriladi, o'qituvchilar uchun mikrotreninglar o'tkaziladi va texnik hamda etik me'yorlar ishlab chiqiladi.

2-jadval.

Raqamli platformalarni joriy etish bo'yicha tavsiya etiladigan ko'rsatkichlar

Bosqich	Asosiy ish	Dalil	Qaror mezon
Diagnostika	Texnik, pedagogik va etik tayyorgarlikni aniqlash	So'rov, qurilma va ulanish xaritasi	Talabalarning aksariyati uchun barqaror kirish va muqobil yo'l mavjud
Dizayn	Natija, faoliyat va baholashni uyg'unlashtirish	Dars ssenariysi, rubrika, namuna	Har bir platforma funksiyasi aniq o'quv maqsadiga xizmat qiladi
Pilot	Kichik guruhda sinov va kuzatuv	Faollik logi, rubrika balli, refleksiya	O'quv natijasi yaxshilanadi, texnik to'siqlar boshqariladi
Kengaytirish	Trening, shablonlar va institutsional tartib	Metodik bank, qo'llanma, monitoring	Sifat bir nechta fan va guruhda takrorlanadi

Amaliy tavsiya sifatida, bir semestrda vositalar sonini ko'paytirish o'rniga ikki platformaning vazifalarini aniq ajratish maqsadga muvofiq: Padlet - tezkor muloqot va refleksiya, Miro - vizual tahlil va loyiha hamkorligi. Elektron ta'lim boshqaruv tizimi esa rasmiy material, topshiriq, baho va arxiv uchun asosiy muhit bo'lib qoladi. Shu tarzda platformalar LMSni almashtirmaydi, balki undagi pedagogik faoliyatni boyitadi.

XULOSA

Malayziya oliy ta'lim tajribasi ta'limni raqamlashtirishni infratuzilma xaridi yoki an'anaviy ma'ruzani videoga ko'chirish sifatida emas, balki talaba markazli, aralash va natijaga yo'naltirilgan ta'limni qayta loyihalash jarayoni sifatida tushunish zarurligini ko'rsatadi. Davlat strategiyasi universitetlarda raqamli kontent, onlayn va aralash kurslar hamda faol o'qitish usullarini rivojlantirish uchun umumiy yo'nalish beradi; haqiqiy samara esa fan darajasidagi didaktik qarorlarda yuzaga keladi. Padlet tezkor fikr almashish, multimedia resurslarini jamlash, turli tayyorgarlikdagi talabalarni muhokamaga jalb etish va formatlovchi baholash uchun samarali. Miro murakkab tushunchalarni vizual bog'lash, muammoni birgalikda modellashtirish, dizayn fikrlash va loyiha jarayonini boshqarish uchun kuchli muhit yaratadi. Ularning afzalliklari aniq o'quv maqsadi, tuzilgan

topshiriq, rubrika, o'qituvchi fasilitatsiyasi va raqamli inklyuziya bilan ta'minlangandagina barqaror natijaga aylanadi. O'zbekiston OTMLari uchun Malayziya tajribasining eng muhim sabog'i - vositani ommaviy joriy etishdan oldin kichik pilot, o'qituvchi tayyorgarligi va dalillarga asoslangan baholashni yo'lga qo'yishdir. Padlet va Miro LMS bilan integratsiyalashgan, ma'lumotlar xavfsizligi va teng kirish talablari hisobga olingan holda qo'llansa, talabalar faolligi, hamkorlikdagi bilim yaratish, refleksiya va loyiha kompetensiyalarini rivojlantirishga xizmat qiladi.

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“TEXNOLOGIYA” FANI MASHG‘ULOTLARINI SAMARALI TASHKIL QILISHDA MUAMMO VA ECHIMLAR

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Annotatsiya: “Texnologiya” fani darslarini tashkil etish samaradorligini oshirish, o'qituvchi kadrlar tayyorlash masalalari atroflicha o'rganilgan, foydali maslahatlar, uslubiy tavsiyalar berilgan. Biz mana shunday tavsiyalardan foydalangan holda umumiy o'rta ta'lim maktablarida o'qitiladigan “Texnologiya” fani mashg'ulotlarini rejalashtirish va o'tkazishda innovatsion pedagogik texnologiyalardan foydalanish masalalarini talqin qilib ko'rmoqchimiz.

Kalit so'zlar: Texnologiya ta'limi, texnologik madaniyat, texnologik savodxonlik, texnik xizmat ko'rsatish, rasm, grafika, dizayn asoslari.

Аннотация: Вопросы повышения эффективности проведения уроков по предмету “Технология” и подготовки педагогических кадров были всесторонне изучены, представлены полезные советы и методические рекомендации. Опираясь на такие рекомендации, мы стремимся интерпретировать использование инновационных педагогических технологий при планировании и проведении учебных занятий по предмету “Технология” в общеобразовательных школах.

Ключевые слова: Технологическое образование, технологическая культура, технологическая грамотность, технический сервис, черчение, графика, основы дизайна.

Annotation: The issues of improving the effectiveness of teaching the subject Technology and training qualified teachers have been thoroughly studied, and useful advice and methodological recommendations have been provided. Using such recommendations, we aim to interpret the use of innovative pedagogical technologies in planning and conducting Technology subject lessons taught in general secondary education schools.

Keywords: Technology education, technological culture, technological literacy, technical service, drawing, graphics, design basics.

KIRISH

Texnologiya ta’limini modernizatsiyalashda maktabgacha ta’lim tashkiloti, umumiy o’rta ta’lim, professional ta’lim va oliy ta’lim tizimlarining o’zaro integratsiya jarayonlarini bosqichma-bosqich, oddiydan-murakkabga qarab yo’lga qo’yilishi natijasida ishlab chiqarish sohalari uchun yetuk mutaxassis kadrlarni tayyorlashga erishiladi. Texnologiya ta’limini O’zbekiston Respublikasining 2035-yilgacha rivojlanish Strategiyasining konsepsiyasi, 2025-yilgacha O’zbekiston sanoatining rivojlanishi konsepsiyasi, fan taraqqiyoti va texnik-texnologiyalarning rivojlanishi, bozor munosabatlari va inson kapitaliga qo’yilayotgan yangi talablar asosida modernizatsiyalash lozim. Hozirgi vaqtda umumiy o’rta ta’lim maktablarida o’qitilayotgan texnologiya fanining amaldagi holati va to’plangan tajribalar tahlilidan quyidagilar ma’lum bo’ldi: umumiy o’rta ta’lim maktablarida o’quvchilarga ta’lim berishning zamonaviy innovatsion uslublarini isloh qilish O’zbekiston Respublikasi iqtisodiyoti keyingi 10 yil ichida dunyoning taraqqiy etgan industrial-texnologik lokomotivlari qatoriga kirishi, ya’ni 2030-yilga kelib iqtisodiyotning sanoat va texnologik tarmoqlari bo’yicha jahonda yetakchi davlatlardan biriga aylanishiga sharoit yaratish muhim shartlardan biridir. “Texnologiya” fani darslarini tashkil etish samaradorligini oshirish, o’qituvchi kadrlar tayyorlash masalalari atroflicha o’rganilgan, foydali maslahatlar, uslubiy tavsiyalar berilgan. Biz mana shunday tavsiyalardan foydalangan holda umumiy o’rta ta’lim maktablarida o’qitiladigan “Texnologiya” fani mashg’ulotlarini rejalashtirish va o’tkazishda innovatsion pedagogik texnologiyalardan foydalanish masalalarini talqin qilib ko’rmoqchimiz.

Chunki umumiy o’rta ta’lim maktablarida o’qitiladigan “Texnologiya” fani mashg’ulotlarining samarali bo’lishi eng avvalo shu fan o’qituvchilarning mashg’ulotlarga qay darajada tayyorgarlik ko’rishiga, mashg’ulotlarni o’tkazishni qanday rejalashtirishiga va, nihoyat, amalga oshirishiga bevosita bog’liqdir. Binobarin mashg’ulotlarni qanday rejalashtirish va o’tkazishga tayyorgarlik ko’rish mashg’ulot samaradorligini oshirishga qaratilgan dastlabki va eng muhim omildir. Bunda, albatta, mashg’ulotlarda innovatsion pedagogik texnologiyalardan foydalanish o’quvchilarning faolligini va darslarning samardorligini oshirishda alohida ahamiyatga ega, deb hisoblaymiz Hozirgi zamon “Pedagogika” fani o’qituvchi zimmasiga inson, uning jamiyatdagi o’rni va roliga har tomonlama qarash vazifasini yuklaydi. Tarbiyaning maqsadi – yoshlarni komil inson qilish, ularni vatanparvarlik va milliy g’urur ruhida tarbiyalash, ularga insonparvarlik g’oyalarini singdirish, lekin, hammamizga ma’lumki, shaxs salohiyatini rivojlan-tirishning cheksizligi, etnogenezi haqidagi g’oyalar ijtimoiy g’oyaga muddat bilan kirib kelmoqda va bolalar tabiatini tushunishini ancha kengaytirdi va boyitdi. Shuning uchun maktab ishida pedagogning tarbiyaviy faoliyatida yangicha yondashuvlarga sabab bo’ladi va ularning ma’no- mazmuni yangi insonni tarbiyalashda namoyon bo’lmoqda.

“Texnologiya” fanining o‘ziga xos xususiyati o‘quvchilarni ma’naviy va moddiy madaniyat dunyosiga jalb qilishdir. Agar o‘quvchilar adabiyot, tarix va boshqa darslarda ma’naviy madaniyat bilan tanishsalar, unda zamonaviy inson bo‘lgan moddiy madaniyat dunyosi boshqa maktab fanlarini hisobga olmaydi, bu esa o‘quvchilarni zamonaviy jamiyatga moslashishini qiyinlashtiradi. Moddiy madaniyat, ma’naviy madaniyatdan farqli o‘laroq, inson faoliyati va uning rivojlanishining barcha sohalarini qamrab oladi. Bu vositalar, uy-joy, maishiy buyumlar, kiyim-kechak, oziq-ovqat va boshqalar. Moddiy va ma’naviy madaniyat bir-biri bilan chambarchas bog‘liq bo‘lib, inson hayotining muhim tarkibiy qismi hisoblanadi. “Texnologiya” fani maktab o‘quvchilari uchun umumiy ta’limining kerakli qismidir, ularga qo‘l mehnati va mexanizatsiyalashgan mehnat asoslarini, texnologiyani boshqarish va olingan bilimlarni amaliy faoliyatda qo‘llash imkoniyatini beradi. Maktab o‘quvchilarini uyni boshqarish texnologiyalari bo‘yicha o‘qitish - materiallarni, energiyani, ma’lumotni, tabiiy va ijtimoiy muhit ob’ektlarini konvertatsiya qilish va ulardan foydalanishning aniq jarayonlarini ishlab chiqishga asoslangan. Boshlang‘ich maktab bosqichida umumta’lim muassasalarida yoshlarni texnologik tayyorlashning o‘zgarmas ta’limiy maqsadlari quyidagilardan iborat:

- ✓ texnologik savodxonlikni,
- ✓ texnologik madaniyatni,
- ✓ mehnat madaniyatini,
- ✓ o‘quvchilar
o‘rtasida
ishbilarmon
shaxslararo
munosabatlarning
etikasini shakllantirish,
- ✓ ijodiy faoliyatni rivojlantirish,
- ✓ kasbni o‘zi ongli va mustaqil ravishda belgilashga tayyorlash,
- ✓ keyinchalik jamiyatda ijtimoiy va mehnatga moslashish.

Shunga ko‘ra, o‘rganilayotgan texnologiyaning turidan qat’i nazar, “Texnologiya” yo‘nalishi bo‘yicha o‘quv dasturining mazmuni materialni quyidagi so‘nggi ta’lim yo‘nalishlarida o‘rganishni ta’minlaydi:

- texnologik madaniyat;
- zamonaviy ishlab chiqarishning umumiy texnologiyalari;
- mehnat madaniyati va estetikasi;
- texnik ma’lumotlarni olish, qayta ishlov berish, saqlash va ulardan foydalanish;
- rasm, grafika, dizayn asoslari;
- kasblar olami bilan tanishish, kasb-hunar ta’limi va ishga joylashish rejalarini tuzish;
- texnologik jarayonlarning atrof-muhit va inson salomatligiga ta’siri;
- san’at va hunarmandchilik, dizayn faoliyati;
- texnika va texnologiyalar rivojlanishining tarixi va istiqbollari, ijtimoiy oqibatlari.

Tarbiyaviy ishlar jarayonini yanada takomillashtirish maqsadida sinf jamoasini kichik guruhlarga bo‘lish ham muhim ahamiyatga ega. Mazkur usul yordamida pedagog o‘z o‘quvchilarining qiziqish va ehtiyojlari o‘rganishga, imkoniyat va qobiliyatlarini aniqlashga hamda rivojlantirishga imkon topishi mumkin. Masalan: sinf (guruh) rahbari o‘quvchilarni tarbiyalashda tabaqalashtirish qoidasiga asoslangan holda ularni 5-6 kishidan iborat bo‘lgan 3-5 ta kichik guruhlarga ajratadi va ular zimmasiga sinfdagi ijtimoiy hayotning bir aniq soha (o‘qish, sport, mehnat,

dam olish, badiiy bezatish va b.) bo'yicha mas'uliyatni yuklaydi. Har qaysi kichik guruhning nomi, shiori, emblemasi bo'lishi kerak.

Maktab, litsey, kollej o'quvchilarini ma'naviy-ma'rifiy jihatdan to'g'ri tarbiyalash masalalari o'qituvchidan O'zbekiston Respublikasi davlat ramzlaridan keng va samarali foydalanishni talab qiladi. Shuning uchun, bolaligidan boshlab o'quvchilarda Prezidentimiz, madhiyamiz, bayrog'imiz, gerbimiz, davlatimiz siyosatiga, diniy oqimlarga to'g'ri munosabatini shakllantirish jarayonida o'qituvchi maxsus tayyorlangan ko'rgazmalar, tayanch sxemalar, slaydlar, kino-videofilmlar kabi materiallardan unumli foydalanishi shart. Tarbiya jarayonida o'qituvchilar o'quvchilarni o'rganishda an'anviy usul vositalardan foydalanmoqda; bular: kuzatib borish, suhbat o'tkazish, ota-onasi oldiga borish va h. Bundan tashqari, tarbiya jarayonida pedagog turli xil anketa va test yordamida maktab psixologi hamkorligida o'z sinfdagi o'quvchilarni o'rganadi. Jumladan, zamonaviy ta'lim-tarbiya o'qituvchidan diagnostik anketa va testlardan foydalanishni talab etmoqda. Bunday anketa yoki test orqali o'qituvchi har qaysi o'quvchining o'qishga, mehnatga, odamlarga, o'ziga munosabatini hamda uning shaxsiy sifatlarini o'rganishga imkon topadi.

XULOSA

Texnologiya ta'limini modernizatsiyalash, ijtimoiy-iqtisodiy jihatdan barqaror rivojlantirish orqali o'quvchilarda texnik-texnologik hamda texnologik jarayon davomida bajariladigan operatsiyalar yuzasidan olgan bilim, ko'nikma va malakalarini mustaqil amaliy faoliyatida qo'llash, kasb-hunar tanlash, milliy va insoniy qadriyatlar asosida ijtimoiy munosabatlarga kirisha olish, mehnat bozorida zarur bo'ladigan kompetentsiyalarni shakllantirishga erishiladi. Bu kadrlarni tayyorlash, mavjud kadrlar ta'minotini modernizatsiyalash va inson potentsialidan samarali foydalanish uchun keng yo'l ochadi.

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XAVFLARNI BOSHQARISH VA ISHONCHLILIK ASOSIDA INNOVATSION SAMARADORLIK METODOLOGIYASINI TAKOMILLASHTIRISH

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Annotatsiya. Ushbu maqolada raqamli iqtisodiyot va intellektual texnologiyalar sharoitida innovatsion jarayonlarning samaradorligini oshirishda xavflarni boshqarish (risk-menejment) va ishonchlilik nazariyasini o'zaro uzviy bog'lagan holda kompleks yondashuvni shakllantirish

masalalari ko'rib chiqilgan. Tadqiqotning asosiy maqsadi innovatsion faoliyatdagi noaniqliklar va texnik-iqtisodiy xavflarni bartaraf etish orqali jarayonlarning ishonchliligini oshirish va umumiy samaradorlikni ta'minlovchi yagona metodologiyani ishlab chiqishdan iborat. Ishda tizimli tahlil, ehtimollar nazariyasi va matematik modellash usullaridan foydalanilgan bo'lib, innovatsion loyihalar samaradorligini hisoblab chiqish uchun xavf koeffitsiyenti va ishonchlik funksiyasini integratsiyalovchi yangi yondashuv taklif etilgan. Olingan natijalar ishlab chiqilgan metodologiya innovatsion loyihalarning barqarorligini ta'minlash va ehtimoliy yo'qotishlarni minimallashtirish imkonini berishini ko'rsatdi.

Kalit so'zlar: xavflarni boshqarish, ishonchlilik, innovatsion samaradorlik, metodologiya, ehtimollik modeli, risk-menejment, integratsiya.

Аннотация. В статье рассматриваются вопросы формирования комплексного подхода к повышению эффективности инновационных процессов в условиях цифровой экономики и развития интеллектуальных технологий на основе взаимосвязанного применения методов управления рисками (risk-менеджмента) и теории надёжности. Основная цель исследования заключается в разработке единой методологии, обеспечивающей повышение надёжности инновационных процессов и достижение общей эффективности посредством минимизации неопределённостей и технико-экономических рисков, возникающих в инновационной деятельности. В работе применены методы системного анализа, теории вероятностей и математического моделирования. Для оценки эффективности инновационных проектов предложен новый подход, основанный на интеграции коэффициента риска и функции надёжности. Полученные результаты показывают, что разработанная методология позволяет обеспечить устойчивость инновационных проектов, повысить обоснованность принимаемых решений и минимизировать потенциальные потери, обусловленные воздействием рискованных факторов.

Ключевые слова: управление рисками, надёжность, инновационная эффективность, методология, вероятностная модель, risk-менеджмент, интеграция.

Abstract. This article examines the development of an integrated approach to improving the efficiency of innovation processes in the context of the digital economy and intelligent technologies through the systematic integration of risk management and reliability theory. The main objective of the study is to develop a unified methodology for ensuring the reliability and overall efficiency of innovation processes by minimizing uncertainties and technical and economic risks arising in innovation activities. The study employs methods of systems analysis, probability theory, and mathematical modeling. A novel approach is proposed for evaluating the efficiency of innovative projects by integrating a risk coefficient with a reliability function. The obtained results demonstrate that the proposed methodology enables the enhancement of the stability and reliability of innovative projects, supports more informed decision-making, and minimizes potential losses associated with risk factors.

Keywords: risk management, reliability, innovation efficiency, methodology, probabilistic model, risk management, integration.

KIRISH

Jahon miqyosida raqamli iqtisodiyot va intellektual texnologiyalarning jadal rivojlanishi sharoitida ishlab chiqarish hamda ilmiy-texnikaviy faoliyatning innovatsion samaradorligini oshirish ustuvor vazifalardan biriga aylanmoqda [1, 4]. Biroq, har qanday innovatsion jarayon yuqori darajadagi noaniqlik, texnik xatarlar va moliyaviy tavakkalchiliklar bilan chambarchas bog'liq holda kichadi [3, 5] Innovatsion samaradorlikka erishish ko'p jihatdan kutilmagan to'siqlar va nosozliklarning oldini olishga, ya'ni tizimning umumiy ishonchliligini ta'minlashga tayanadi [5, 7]. Mazkur tadqiqotning dolzarbligi innovatsion faoliyat jarayonida yuzaga keladigan xavflarni tizimli boshqarish (risk-menejment) hamda obektlarning ishonchliligini baholash mezonlarini yagona metodologik tizimga birlashtirish zarurati bilan belgilanadi.

Tadqiqotning maqsadi - xavflarni boshqarish mexanizmlari va ishonchlilik nazariyasi tamoyillarini o'zaro uyg'unlashtirgan holda, innovatsion samaradorlikni baholash metodologiyasini nazariy va amaliy jihatdan takomillashtirishdir.

ADABIYOTLAR TAHLILI

Innovatsion menejment nazariyasida xavflarni boshqarish va iqtisodiy samaradorlikni baholash masalalari ko'plab olimlar tomonidan o'rganilgan. Xususan, xorijiy va mahalliy tadqiqotchilarning ilmiy ishlarida texnologik xavflar, loyiha boshqaruvi va resurs taqsimoti keng yoritilgan. Shuningdek, ishonchlilik nazariyasi bo'yicha texnik tizimlarning barqaror ishlash qonuniyatlari o'rganilgan. Biroq, mavjud ilmiy adabiyotlarda xavflarni boshqarish va tizim ishonchliligi ko'pincha bir-biridan alohida yo'nalishlar sifatida talqin qilinadi [5, 8]. Innovatsion jarayonlarning dinamik xususiyatini hisobga olgan holda, xavflar tahlili va ishonchlilik ko'rsatkichlarini yagona innovatsion samaradorlik metodologiyasiga integratsiya qilish masalalari yetarlicha o'rganilmagan bo'lib, bu boradagi ilmiy yondashuvlarni yanada chuqurlashtirish talab etiladi.

METODOLOGIYA

Tadqiqot jarayonida qo'yilgan maqsadga erishish uchun tizimli tahlil, ehtimollar nazariyasi, matematik modellash va ekspert baholash usullaridan foydalanildi.

MUHOKAMA, TAHLIL VA NATIJALAR

Innovatsion jarayonlarning barqarorligi va ishonchliligi o'zaro bog'liqligini ochib berish maqsadida ishonchlilik funksiyasi $R(t)$ quyidagi eksensial taqsimot modeli yordamida ifodalandi:

$$R(t) = e^{-\lambda t}$$

bu yerda: t - innovatsion jarayon yoki loyihaning amalga oshirilish vaqti;

λ - xavf va texnik-tashkiliy nosozliklarning yuzaga kelish intensivligi (tavakkalchilik koeffitsiyenti).

Xavflarni boshqarish darajasi va tizim ishonchliligini inobatga olgan holda innovatsion samaradorlikni (IS) baholash uchun quyidagi integrallashgan formula ishlab chiqildi:

$$IS = \frac{\sum P_i * Ef_i}{R(t) * C_r}$$

bu yerda: P_i - innovatsion loyihaning muvaffaqiyatli amalga oshish ehtimoli;

Ef_i - kutilayotgan iqtisodiy samaradorlik;

C_r - xavflarni oldini olish va kamaytirishga qilingan sarf-xarajatlar.

Ushbu formula orqali xavflar hajmi va ishonchlilik darajasi o'rtasidagi bog'liqlik matematik jihatdan ta'minlandi.

Tadqiqot doirasida ishlab chiqilgan va xavflarni boshqarish hamda ishonchlilikni o'zaro bog'lovchi metodologiya quyidagi amaliy tarkibiy qismlarni o'z ichiga oladi:

innovatsion loyihalardagi texnik va tashkiliy xavflarni erta bosqichda aniqlash hamda ularning ishonchlilikka ta'sirini baholash matritsasi;

tizim ishonchliligini $R(t)$ oshirish va xavf koeffitsiyentini kamaytirish orqali kutilmagan yo'qotishlarni minimallashtirish algoritmi;

Java dasturlash tilida tuzilgan dasturiy modul yordamida loyiha ko'rsatkichlarini avtomatlashtirilgan tarzda tezkor hisoblash imkoniyati.

Eksperimental sinovlar davomida turli xil innovatsion loyihalar bo'yicha olingan statistik va amaliy ma'lumotlar quyidagi jadvalda keltirilgan:

1-jadval

Statistik va amaliy ma'lumotlar

Innovatsion loyiha turi	An'anaviy usuldagi ishonchlilik (R)	Taklif etilgan metod (Java) bo'yicha ishonchlilik (R)	Xavf darajasining kamayishi (%)	Innovatsion samaradorlik (IS) o'sishi (%)
1-Loyiha: Raqamli ta'lim platformasi	0.72	0.89	21.5%	24.2%
2-Loyiha: Intellektual boshqaruv tizimi	0.68	0.86	23.0%	20.8%
3-Loyiha: Avtomatlashtirilgan modul	0.75	0.91	19.4%	18.5%
O'rtacha ko'rsatkich	0.72	0.89	21.3%	21.2%

1-jadvaldagi statistik ma'lumotlar tahlili shuni ko'rsatdiki, taklif etilgan integrallashgan yondashuv va Java dasturiy ilovasi innovatsion loyihalarning umumiy ishonchlilik darajasini o'rtacha 21.3% ga oshirish va xavflar tufayli yuzaga keladigan moliyaviy yo'qotishlarni sezilarli darajada qisqartirish imkonini berdi.

Taklif etilgan Java dasturiy modulining aniqligini baholash maqsadida 10 000 ta iteratsiyadan iborat Monte-Carlo simulyatsiyasi amalga oshirildi. Simulyatsiya natijalari taklif etilgan metodika bo'yicha hisoblangan ishonchlilik ko'rsatkichlari bilan 95% gacha mos kelishini ko'rsatdi, bu esa ishlab chiqilgan modeling adekvatligi va yuqori aniqligini to'la tasdiqlaydi.

Olingan natijalar shuni ko'rsatadiki, xavflarni boshqarish va ishonchlilik ko'rsatkichlarini alohida emas, balki yagona metodologik tizim sifatida ko'rib chiqish innovatsion samaradorlikni keskin oshiradi. An'anaviy usullardan farqli o'laroq, taklif etilgan yondashuv noaniqlik sharoitida tezkor qaror qabul qilish va resurslarni oqilona yo'naltirish imkonini beradi. Shu bilan birga, modelni turli tarmoqlar (ishlab chiqarish, xizmat ko'rsatish va raqamli texnologiyalar) xususiyatlaridan kelib chiqqan holda moslashtirish muhimligi aniqlandi.

Innovatsion jarayonlarni baholashda ishonchlilik nazariyasi va risk-menejment ko'rsatkichlarini o'zaro bog'lovchi yangi integrallashgan matematik model taklif etildi;

Noaniqlik sharoitida innovatsion loyihalarning xavf koeffitsiyenti - C_r va ishonchlilik funksiyasini - $R(t)$ hisobga olgan holda samaradorlikni - IS aniqlash mezoni ishlab chiqildi.

Innovatsion loyihani amalga oshirish jarayonida yuzaga keladigan xavflar va kutilmagan nosozliklar vaqt bo'yicha turg'un bo'lmagan xususiyatga ega bo'lib, ularni tasodifiy hodisalar sifatida Puasson oqimi orqali tavsiflash mumkin. Tizimning turli holatlar o'rtasidagi o'tishlarini uzluksiz vaqtli Markov zanjirlari yordamida Kolmogorov-Chapman differensial tenglamalar sistemasi orqali modellashtiramiz.

Shuningdek, ekspert baholari uchun ekspert baholash jarayonidagi subyektivlik va noaniqliklarni bartaraf etish maqsadida uchburchakli noaniq sonlar Triangular, Fuzzy, Numbers qo'llanildi. Har bir xavf omilining og'irlik koeffitsiyenti Saaty shkalasi asosida aniqlanib, ustuvorliklar baholandi... deb qo'shimcha kichik kichik bo'limcha masalan, "Noaniq mantiq va AHP asosida xavflarni baholash" sifatida kiritasiz.

Ishlab chiqilgan metodologiya va algoritmlar korxona va tashkilotlarning innovatsion loyihalarini rejalashtirish, xavflarni oldindan bashorat qilish hamda moliyaviy resurslarni maqsadli taqsimlashda amaliy qo'llanma sifatida xizmat qiladi. Shuningdek, u boshqaruv qarorlarini qabul qilish jarayonida yo'qotishlarni kamaytirish imkonini beradi.

XULOSA

Innovatsion samaradorlikni oshirishda xavflarni boshqarish va tizim ishonchliligini ta'minlash hal qiluvchi ahamiyat kasb etadi. Ishlab chiqilgan metodologiya ishlab chiqarish va intellektual jarayonlardagi tavakkalchiliklarni oldindan bashorat qilish, resurslar samaradorligini optimallashtirish hamda barqaror rivojlanishni ta'minlashga xizmat qiladi.

Kelgusidagi tadqiqotlarda ushbu metodologiyani raqamli platformalar va sun'iy intellekt algoritmlari yordamida avtomatlashtirish, shuningdek, adaptive learning (moslashuvchan o'rganish) modellarini xavflarni bashorat qilish jarayoniga tatbiq etish yo'nalishlari ko'rib chiqiladi.

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INFORMATIKA DARSLARIDA MUAMMOLI TA'LIM METODIDAN FOYDALANISH ORQALI O'QUVCHILARNING ALGORITMIK TAFAKKURINI RIVOJLANTIRISH

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Annotatsiya. Mazkur maqolada umumta'lim maktablarining informatika darslarida muammoli ta'lim metodidan foydalanish orqali o'quvchilarning algoritmik tafakkurini rivojlantirishning didaktik imkoniyatlari yoritilgan. Algoritmik tafakkur muammoni tahlil qilish, uni tarkibiy qismlarga ajratish, yechim qadamlarini mantiqiy ketma-ketlikda tuzish, shart va takrorlanishlarni aniqlash hamda natijani tekshirish ko'nikmalarining o'zaro bog'liqligida talqin etilgan. Maqolada muammoli vaziyatni taqdim etish, yechim farazlarini ilgari surish, algoritmni ishlab chiqish, uni sinash va xatolarni tahlil qilishga asoslangan darsni tashkil etish ketma-ketligi taklif qilingan. Topshiriqlarni o'quvchilarning tayyorgarlik darajasiga moslashtirish, pedagogik yordamni bosqichma-bosqich kamaytirish hamda yechimni asoslashga yo'naltirilgan savollardan foydalanish masalalari ko'rib chiqilgan.

Kalit so'zlar: informatika ta'limi, muammoli ta'lim, algoritmik tafakkur, muammoli vaziyat, algoritm tuzish, muammoni qismlarga ajratish, pedagogik yordam, baholash mezonlari.

Аннотация. В статье рассматриваются дидактические возможности развития алгоритмического мышления учащихся посредством проблемного обучения на уроках информатики в общеобразовательной школе. Алгоритмическое мышление раскрывается через взаимосвязь умений анализировать проблему, разделять её на составные части, выстраивать логическую последовательность шагов решения, определять условия и повторения, а также проверять результат. Предлагается последовательность организации урока, включающая предъявление проблемной ситуации, выдвижение гипотез решения, разработку алгоритма, его проверку и анализ ошибок. Рассматриваются вопросы адаптации заданий к уровню подготовки учащихся, постепенного сокращения педагогической поддержки и использования вопросов, направленных на обоснование решения.

Ключевые слова: обучение информатике, проблемное обучение, алгоритмическое мышление, проблемная ситуация, разработка алгоритма, декомпозиция проблемы, педагогическая поддержка, критерии оценивания.

Abstract. This article discusses the instructional potential of problem-based learning for developing students' algorithmic thinking in school informatics lessons. Algorithmic thinking is conceptualized as a set of interconnected skills involving problem analysis, decomposition, the logical sequencing of solution steps, identification of conditions and repetition, and verification of results. The article proposes a lesson sequence comprising the presentation of a problem situation, formulation of possible solutions, algorithm design, testing, and error analysis. It addresses the adaptation of tasks to students' prior knowledge, the gradual reduction of instructional scaffolding, and the use of questions that encourage students to justify their solutions.

Keywords: informatics education, problem-based learning, algorithmic thinking, problem situation, algorithm design, problem decomposition, instructional scaffolding, assessment criteria.

KIRISH

Umumta'lim maktablarida informatika fanini o'qitishda o'quvchilarning raqamli vositalardan foydalanish ko'nikmalari bilan bir qatorda, muammoni tahlil qilish, yechimni rejalashtirish va uning to'g'riligini tekshirish qobiliyatlarini rivojlantirish muhim pedagogik vazifa hisoblanadi. Bu jarayonda algoritmik tafakkur alohida o'rin tutadi. Mazkur maqolada algoritmik tafakkur muammoning shartlari va kutilayotgan natijasini aniqlash, uni kichik vazifalarga ajratish, bajariladigan amallarni mantiqiy ketma-ketlikda ifodalash hamda tuzilgan yechimni turli holatlarda tekshirish qobiliyati sifatida qaraladi.

Informatika darslarida algoritmlash va dasturlashga oid topshiriqlarni bajarishda tayyor namunani takrorlash bilan mustaqil yechim ishlab chiqish o'rtasidagi farqqa e'tibor qaratish zarur. O'quvchi berilgan kodni to'g'ri ko'chirishi yoki tanish masalani namuna asosida bajarishi mumkin. Biroq bu natijaning o'zi uning masala shartidagi o'zgarishni tushunishi, mos algoritmik tuzilmani tanlashi va tanlovini asoslay olishini to'liq ko'rsatmaydi. Shu sababli darsda yechimga olib keluvchi fikrlash jarayonini ochib beradigan topshiriqlar va savollarni qo'llash ehtiyoji yuzaga keladi.

Ushbu vazifani hal etish yo'llaridan biri muammoli ta'lim metodidan foydalanishdir. Mazkur metod doirasida o'quvchiga yechish usuli avvaldan to'liq ko'rsatib berilmagan, ammo mavjud bilimlari va maqsadli pedagogik yordam orqali hal qilishi mumkin bo'lgan muammoli vaziyat taqdim etiladi. O'quvchi vaziyatni tahlil qiladi, yetishmayotgan ma'lumot yoki bilimni aniqlaydi, yechim farazlarini ilgari suradi va ularni tekshiradi. O'qituvchi esa yo'naltiruvchi savollar, qarshi misollar va zarur yordam orqali izlanish jarayonini tashkil etadi.

Masalan, uchta sonning eng kattasini aniqlash topshirig'ida o'quvchilardan dastlab yechim qadamlarini so'z bilan ifodalash so'ralishi mumkin. Keyinchalik ikkita son teng bo'lgan yoki barcha sonlar manfiy bo'lgan holatlar taqdim etiladi. Bunday savollar o'quvchini dastlabki yechimining barcha shartlarga mosligini tekshirishga, taqqoslashlar ketma-ketligini aniqlashtirishga va algoritmini qayta ko'rib chiqishga undaydi. Bunda muammoli vaziyatning didaktik qiymati masalaning murakkabligidan ko'ra, o'quvchining o'z yechimini asoslash va tekshirish zarurati bilan belgilanadi.

Muammoli ta'limni algoritmik tafakkurni rivojlantirishga yo'naltirish uchun topshiriq, pedagogik yordam va baholash mezonlari o'zaro muvofiqlashtirilishi lozim. Topshiriq o'quvchining mustaqil qaror qabul qilishini talab etishi, yordam uning fikrlashini davom ettirishiga xizmat qilishi, baholash esa yakuniy javob bilan birga yechimni ishlab chiqish jarayonini ham qamrab olishi zarur. Shu nuqtayi nazardan, muammoni qismlarga ajratish, algoritm qadamlarini asoslash, test holatlarini tanlash va aniqlangan xatolarni tuzatish kuzatiladigan faoliyat ko'rsatkichlari sifatida olinadi.

Maqolaning maqsadi - umumta'lim maktablarining informatika darslarida muammoli ta'lim metodidan foydalanish orqali o'quvchilarning algoritmik tafakkurini rivojlantirishga qaratilgan dars bosqichlari, topshiriqlarni tashkil etish usullari va baholash mezonlarini taklif etishdan iborat. Ushbu maqsad doirasida muammoli vaziyatni algoritmik faoliyat bilan bog'lash, o'quvchilarning tayyorgarligiga mos pedagogik yordamni belgilash hamda yechim jarayonini baholash imkoniyatlari

ko‘rib chiqiladi. Taklif etilayotgan metodik yondashuvning samaradorligi haqidagi xulosalar esa keyingi empirik tekshiruvni talab qiladi.

TADQIQOT METODOLOGIYASI

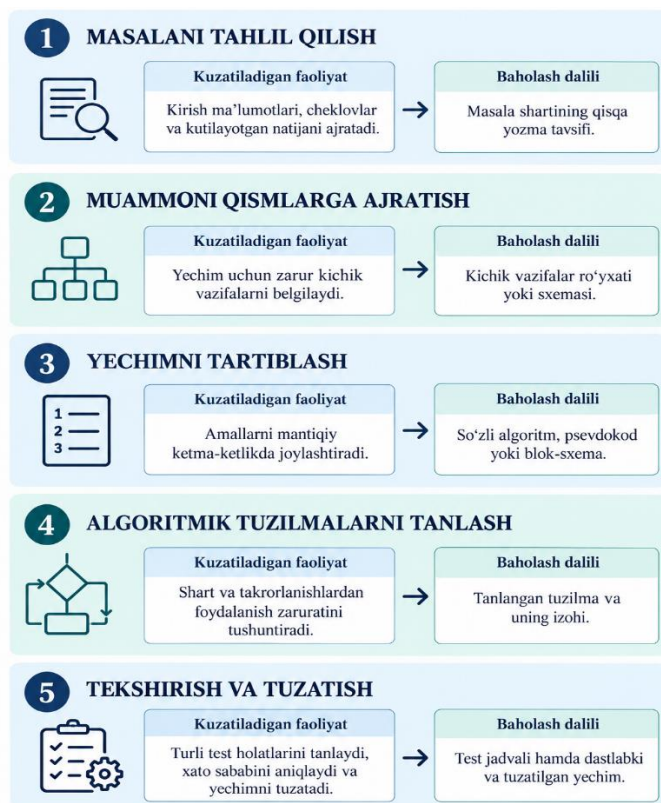
Maqolada nazariy-metodik yondashuv asosida muammoli ta‘limni informatika darslaridagi algoritmik faoliyat bilan bog‘lash usullari taklif etiladi. Metodik loyihalashning asosiy birligi sifatida muammoli topshiriq, uni bajarishda ko‘rsatiladigan pedagogik yordam va o‘quvchining fikrlash jarayonini aks ettiruvchi baholash dalillari olinadi. Ushbu qismlar o‘rtasidagi muvofiqlik darsni tashkil etishning asosiy talabi sifatida belgilanadi.

Tadqiqot obyekti - umumta‘lim maktablarida informatika fanining algoritmiklash va dasturlashga oid mavzularini o‘qitish jarayoni.

Tadqiqot predmeti - muammoli vaziyatlar, yo‘naltiruvchi savollar va yechimni tekshirish topshiriqlari orqali o‘quvchilarning algoritmik tafakkurini rivojlantirish usullari hamda baholash mezonlari.

Metodik yondashuvni ishlab chiqishda tushunchaviy tahlil, topshiriqlarni didaktik tahlil qilish va pedagogik modellashtirish usullaridan foydalaniladi. Tushunchaviy tahlil orqali algoritmik tafakkurning mazkur maqolada nazarda tutiladigan tarkibiy ko‘nikmalari ajratiladi. Topshiriqlarni didaktik tahlil qilishda ularning qanday fikrlash amallarini talab qilishi, qaysi nuqtada o‘quvchi mustaqil qaror qabul qilishi va qanday yordamga ehtiyoj sezishi aniqlanadi. Pedagogik modellashtirish orqali esa muammoli vaziyatni anglashdan yechimni tekshirish va umumlashtirishgacha bo‘lgan faoliyat ketma-ketligi loyihalanadi.

Algoritmik tafakkurni kuzatish uchun beshta tarkibiy ko‘nikma belgilanadi: masalaning kirish ma‘lumotlari va kutilayotgan natijasini aniqlash; muammoni kichik vazifalarga ajratish; yechim qadamlarini tartiblash; shart va takrorlanishlarni o‘rinli qo‘llash; algoritmnı tekshirish va xatolarini tuzatish. Ushbu ko‘nikmalarni baholashda o‘quvchining yozma izohi, algoritm tasviri, dastur kodi, tanlagan testlari va yechimga kiritgan o‘zgartirishlari dalil sifatida olinishi taklif etiladi (1-rasmga qarang).



1-rasm. Algoritmik tafakkurni baholash uchun taklif etilayotgan ko‘rsatkichlar.

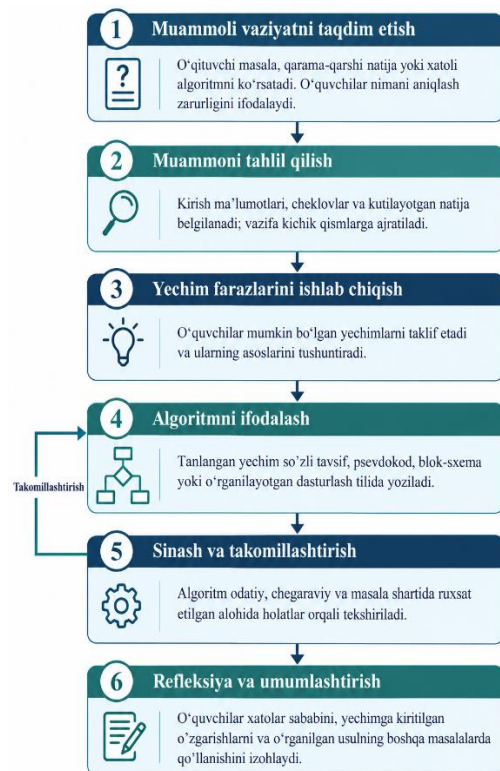
Muammoli topshiriqlarni tanlashda uchta talabga amal qilish taklif etiladi. Birinchidan, topshiriq o‘quvchilarning avvalgi bilimlariga tayanishi va yangi fikrlash qadamini talab qilishi kerak. Ikkinchidan, unda yechimni tanlash, taqqoslash yoki tekshirishga ehtiyoj tug‘diradigan savol mavjud bo‘lishi lozim. Uchinchidan, topshiriqning bajarilishi kuzatiladigan natija bilan yakunlanishi zarur: o‘quvchi algoritm tuzishi, tanlovini izohlashi yoki noto‘g‘ri yechimni tuzatishi kerak. Shunchaki murakkab yoki sharti tushunarsiz masala muammoli topshiriq sifatida qabul qilinmaydi.

Dars faoliyati quyidagi bosqichlarda tashkil etilishi taklif etiladi (2-rasmga qarang):

Pedagogik yordam o'quvchining qiyinchiligiga qarab bosqichma-bosqich ko'rsatiladi. Dastlab «Nima ma'lum?», «Qanday natija olinishi kerak?» kabi umumiy savollar beriladi. Bu yordam yetarli bo'lmasa, e'tibor muayyan qadamga qaratiladi: «Ikki qiymat teng bo'lsa, algoritmi qanday ishlaydi?» Keyingi darajada qisman to'ldirilgan sxema yoki kichik misol taklif etilishi mumkin. O'quvchi mustaqil ishlay boshlashi bilan yordam kamaytiriladi. Baholashda yechimning to'g'riligi va uni bajarishda talab etilgan yordam darajasi alohida qayd qilinadi.

Taklif etilgan ko'rsatkichlarning har biri uchun uch darajali dastlabki baholash shkalasidan foydalanish mumkin: **0 ball** — tegishli amal bajarilmagan yoki jiddiy xato bilan bajarilgan; **1 ball** — qisman bajarilgan, biroq izoh yoki yechimda kamchilik mavjud; **2 ball** — to'g'ri bajarilgan va yetarlicha asoslangan. Besh ko'rsatkich bo'yicha umumiy ball 0–10 oralig'ida bo'ladi. Ushbu shkala metodik taklif bo'lib, uni qo'llashdan oldin topshiriqlarga mos aniq tavsiflar va baholash namunalari ishlab chiqilishi zarur. Mazkur bosqichda umumiy ballni «yuqori», «o'rta» va «past» darajalarga ajratish chegaralari belgilanmaydi.

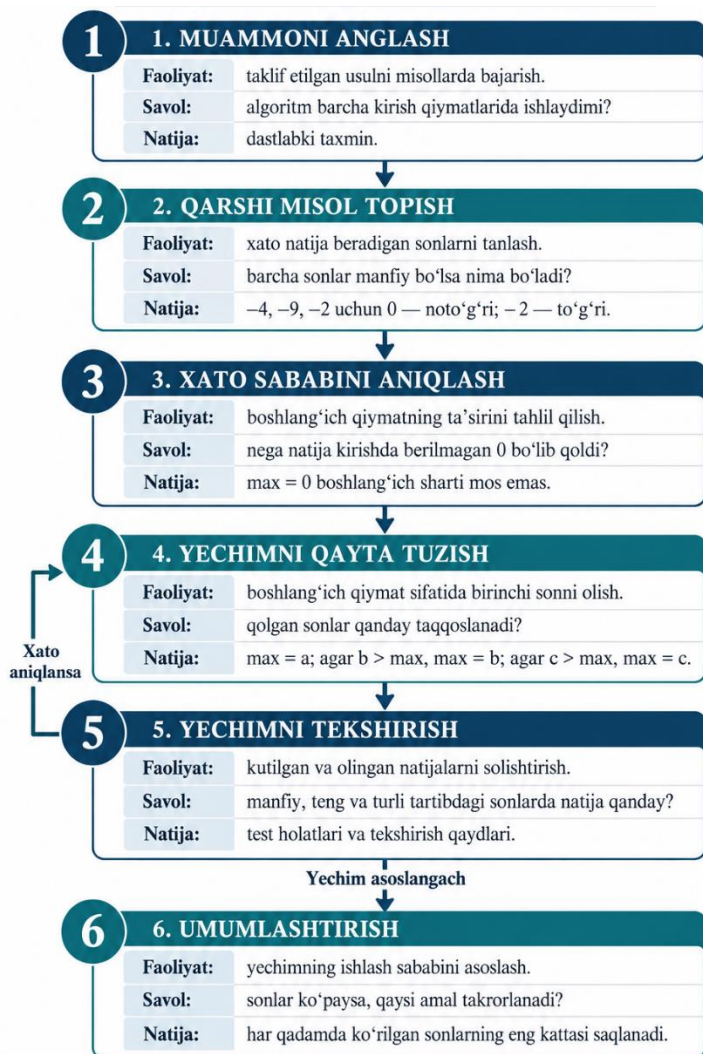
Maqola doirasida o'quvchilar ishtirokidagi tajriba-sinov natijalari keltirilmaydi. Taklif etilayotgan metodikani keyinchalik tekshirishda boshlang'ich va yakuniy topshiriqlarning murakkabligini muvofiqlashtirish, ta'lim mazmuni va ajratilgan vaqtni hisobga olish hamda ishlarni yagona mezonlar asosida baholash talab etiladi. O'zlashtirilgan usulni yangi mazmundagi masalaga ko'chirish topshirig'i esa o'quvchining namunani takrorlashdan tashqari mustaqil algoritmik yechim tuza olishini tekshirishga xizmat qiladi.



2-rasm. Muammoli ta'lim asosida dars faoliyatini tashkil etish.

Natijalar va muhokama. Mazkur ishning metodik natijasi sifatida muammoli topshiriq, bosqichli pedagogik yordam va algoritmik faoliyatni baholashni birlashtiruvchi dars ishlanmasi taklif etiladi. Ishlanmada o'quvchining dastlabki yechimi, uni tekshirish uchun tanlagan misollari va tuzatishdan keyingi izohi asosiy tahlil materiallari sifatida belgilanadi. Bu materiallar orqali o'qituvchi o'quvchining qaysi qadamda qiyinchilikka duch kelganini aniqlashi va keyingi topshiriqni shu ehtiyojga moslashtirishi mumkin. Quyida ushbu yondashuvning shart operatorlarini o'rganishga tatbiqi keltiriladi.

Muammoli topshiriqning mazmuni. O'quvchilarga uchta butun son ichidan eng kattasini aniqlash vazifasi beriladi. Masala shartida sonlar musbat, manfiy yoki o'zaro teng bo'lishi mumkinligi ko'rsatiladi. Natija sifatida eng katta qiymat chiqarilishi talab etiladi; bu qiymatning necha marta qatnashganini aniqlash talab qilinmaydi.



3-rasm. Muammoli topshiriq asosida darsni tashkil etish namunasi

Dastlab quyidagi yechim taklif etiladi: «Eng katta qiymatni 0 deb olamiz. Har bir sonni shu qiymat bilan taqqoslaymiz va kattaroq son uchrasa, uni yangi eng katta qiymat sifatida saqlaymiz». O'quvchilarga ushbu yechimning barcha ruxsat etilgan ma'lumotlar uchun to'g'riligini tekshirish topshiriladi. Muammoli savol quyidagicha ifodalanadi: **«Bu usul ayrim misollarda to'g'ri ishlaydi. U qaysi holatda noto'g'ri natija beradi va nima sababdan?»**

Mazkur vaziyatda izlanishning markaziy nuqtasi boshlang'ich qiymatni tanlash hisoblanadi. Masalan, 4, 9 va 2 sonlari uchun taklif qilingan usul to'g'ri natija beradi. Ammo -4, -9 va -2 sonlari kiritilganda natija 0 bo'lib qoladi. Bu qiymat kirish ma'lumotlari orasida mavjud emas va kutilayotgan -2 natijaga mos kelmaydi. O'quvchi shu qarama-qarshilikni izohlash orqali algoritmning boshlang'ich qadami masala shartiga mos bo'lishi zarurligini aniqlashi kerak (3-rasmga qarang).

Topshiriq yechimida eng katta qiymat sifatida dastlab birinchi son olinadi. Ikkinchi son saqlangan qiymatdan katta bo'lsa, saqlangan qiymat yangilanadi. Uchinchi son uchun ham shu amal bajariladi. Bu ketma-ketlikda boshlang'ich qiymat kirish ma'lumotlaridan tanlangani sababli barcha sonlarning manfiy bo'lishi alohida xatoga olib kelmaydi.

Yechimni asoslash uchun o'quvchi quyidagi fikrni tushuntirishi lozim: birinchi qadamda saqlangan qiymat birinchi sonning o'ziga teng; ikkinchi son tekshirilgach, u dastlabki ikki sonning eng kattasini ifodalaydi; uchinchi son tekshirilgach esa uchala sonning eng kattasi saqlanadi. Ushbu izoh algoritmning ishlashini qadamlar bo'yicha asoslaydi. Faqat bir nechta misolda to'g'ri natija olish esa uning barcha mumkin bo'lgan kirishlar uchun to'g'riligini isbotlamaydi (4-rasmga qarang).



4-rasm. Algoritmni tekshirish uchun namunaviy test holatlari.

Testlarni tayyor holda berishdan oldin o'quvchilarga ularni mustaqil tanlash imkonini yaratish maqsadga muvofiq. O'qituvchi keyinchalik jadvaldagi holatlar orqali tekshirish qamrovini kengaytirishi mumkin. Bunda o'quvchidan har bir testni nima uchun tanlagani so'raladi. Masalan, faqat musbat sonlardan tashkil topgan bir nechta misolni keltirish bilan barcha sonlar manfiy bo'lgan bitta qarshi misolni tanlash turlicha tahliliy faoliyatni aks ettiradi. Shu sababli baholashda testlar sonidan ko'ra ularning vazifasi va tanlanish asosi muhim hisoblanadi.

Topshiriqlarni murakkablashtirish va bilimni ko'chirish. Uchta son uchun yechim ishlab chiqilgach, o'quvchilarga sonlar soni oldindan belgilanmagan, ammo kamida bitta elementdan iborat ro'yxatdagi eng katta qiymatni aniqlash topshirilishi mumkin. Bu vaziyatda har bir keyingi elementni saqlangan eng katta qiymat bilan taqqoslash amali takrorlanadi. Takrorlanishlarni o'rgangan o'quvchilar ushbu amalni sikl yordamida ifodalaydi; hali siklni o'rganmaganlar esa uni so'zli qoida sifatida tavsiflaydi.

Keyingi topshiriq sifatida eng kichik qiymatni aniqlash yoki eng katta qiymatning necha marta qatnashganini hisoblash taklif etiladi. Birinchi topshiriqda taqqoslash yo'nalishi o'zgaradi. Ikkinchi topshiriqda esa eng katta qiymat bilan birga uning takrorlanish sonini ham kuzatish talab etiladi. O'quvchining ushbu o'zgarishlarni tushuntira olishi dastlabki yechimni yangi shartga moslashtirishini baholash imkonini beradi.

Pedagogik yordam va baholashning o'zaro bog'liqligi. Muammoli topshiriqni bajarish jarayonida barcha o'quvchilarga bir vaqtda bir xil yordam berish mustaqil izlanish imkoniyatini cheklashi mumkin. Shu sababli yordam o'quvchining aniq qiyinchiligiga yo'naltiriladi. Masala shartini tushunmagan o'quvchi bilan kirish va chiqish ma'lumotlari aniqlashtiriladi. Qarshi misol topa olmagan o'quvchining e'tibori manfiy sonlarga qaratiladi. Xatoni aniqlagan, lekin tuzata olmagan o'quvchiga boshlang'ich qiymatni berilgan sonlardan tanlash imkoniyati haqida savol beriladi.

Baholashda yakuniy algoritm bilan birga ushbu yordam darajasi ham qayd etiladi. Masalan, ikkita o'quvchi bir xil to'g'ri yechim taqdim etishi mumkin, biroq ulardan biri xatoni mustaqil aniqlagan, ikkinchisi esa aniq ko'rsatmadan keyin tuzatgan bo'lishi mumkin. Bunday farq keyingi ta'limiy yordamni rejalashtirish uchun ahamiyatli. Yordam darajasi ko'nikma ballaridan alohida qayd etilishi natija sifati va mustaqillikni aralashtirib yubormaslikka xizmat qiladi.

Guruhda ishlash qo'llanilganda umumiy yechim har bir o'quvchining individual tushunishini to'liq ko'rsatmaydi. Shu bois mashg'ulot yakunida qisqa individual topshiriq berish taklif etiladi. Masalan, o'quvchidan yangi sonlar to'plami uchun algoritm qadamlarini ko'rsatish, boshlang'ich qiymat tanlovini izohlash va bitta muhim test holatini tuzish so'raladi. Bu ish guruh muhokamasida shakllangan yechimni o'quvchi mustaqil qo'llay olishini tekshirishga imkon beradi.

Informatika darslarida muammoli ta'lim metodidan foydalanishni o'quvchining masalani tahlil qilishi, yechimni mustaqil ishlab chiqishi, tekshirishi va asoslashiga yo'naltirish taklif etildi. Algoritmik tafakkurni rivojlantirish uchun muammoli topshiriq, pedagogik yordam va baholash mezonlarini o'zaro muvofiqlashtirish zarurligi metodik jihatdan asoslandi.

Maqolada muammoli vaziyatni anglash, masalani tahlil qilish, yechim farazlarini ilgari surish, algoritmni ifodalash, sinash va refleksiya iborat dars ketma-ketligi ishlab chiqildi. Uchta sonning eng kattasini aniqlash misolida xatoli boshlang'ich yechimni qarshi misol yordamida tekshirish, xato sababini tushuntirish va algoritmni tuzatish faoliyati ko'rsatildi. Ushbu ketma-ketlik o'quvchining tayyor javobni o'zlashtirishidan tashqari, yechimning nima sababdan ishlashini izohlashiga qaratilgan.

Algoritmik tafakkurni baholashda yakuniy natija bilan birga muammoni qismlarga ajratish, amallarni mantiqiy tartiblash, algoritmik tuzilmalarni tanlash, test holatlarini asoslash va xatolarni tuzatishni hisobga olish tavsiya etildi. O'quvchiga ko'rsatilgan yordam darajasini alohida qayd etish hamda guruhli faoliyatdan so'ng individual topshiriq berish mustaqil bajarish imkoniyatlarini aniqlashga xizmat qiladi.

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SUN'IY INTELLEKT ASOSLARI FANI DOIRASIDA TALABALARNING MUSTAQIL FAOLIYATINI TASHKIL ETISH METODIKASI

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Annotatsiya. Maqolada oliy ta'lim muassasalarida «Sun'iy intellekt asoslari» fani bo'yicha talabalarining mustaqil ta'limini tashkil etishning to'rt bosqichli modeli taklif etiladi: diagnostika, loyihalash, bajarish va qo'llab-quvvatlash hamda baholash va refleksiya. Model Bloom taksonomiyasi, konstruktivizm va o'z-o'zini boshqarib o'rganish nazariyalariga tayanadi. Mustaqil topshiriqlar turlari, ularning murakkablik darajalari va baholash mezonlari (rubrika) ishlab chiqilgan. Modelning samaradorligini tekshirish uchun tajriba-sinov rejasi va namunaviy natijalar

keltirilgan. Taklif etilgan metodika talabalarning nazariy bilimlarini mustahkamlash bilan birga amaliy ko'nikma va tanqidiy fikrlashini rivojlantirishga xizmat qiladi.

Abstract. The paper proposes a four-stage methodology for organizing students' independent work in an Introduction to Artificial Intelligence course: diagnostics, design, implementation with scaffolding, and assessment with reflection. The model is grounded in Bloom's taxonomy, constructivism and self-regulated learning. A typology of independent tasks, a scoring rubric and an experimental design are presented, together with illustrative results showing how the approach can improve learning outcomes compared with a traditional format. The methodology helps strengthen both theoretical knowledge and practical skills such as data handling, model building and critical evaluation of AI systems.

Аннотация. В статье предлагается четырёхэтапная модель организации самостоятельной работы студентов по дисциплине «Основы искусственного интеллекта»: диагностика, проектирование, выполнение и поддержка, а также оценка и рефлексия. Модель опирается на таксономию Блума, конструктивизм и теории самоуправляемого обучения. Разработаны виды самостоятельных заданий, уровни их сложности и критерии оценивания (рубрики). Для проверки эффективности модели приведены план экспериментально-испытательной работы и типовые результаты. Предложенная методика способствует не только укреплению теоретических знаний студентов, но и развитию их практических навыков и критического мышления.

Kalit so'zlar: sun'iy intellekt, mustaqil ta'lim, metodika, loyihaviy o'qitish, mashinali o'qitish, rubrika, refleksiya, raqamli kompetensiya.

Keywords: artificial intelligence education, independent learning, teaching methodology, project-based learning, machine learning, rubric, reflection, digital competence.

Ключевые слова: искусственный интеллект, самостоятельная работа, методика, проектное обучение, машинное обучение, рубрика, рефлексия, цифровая компетенция.

1. KIRISH

Sun'iy intellekt (SI) texnologiyalarining tez rivojlanishi mutaxassislar tayyorlash tizimiga yangi talablar qo'yimoqda. O'zbekistonda ham SI texnologiyalarini jadal joriy etish bo'yicha davlat darajasidagi qarorlar qabul qilingan va bu ta'lim mazmunini yangilashni taqozo etadi [5]. «Sun'iy intellekt asoslari» fani bo'yicha auditoriya soatlari cheklangan bo'lgani uchun talabaning mustaqil ishi bilim va ko'nikmalarni shakllantirishning asosiy vositasiga aylanadi.

Amaliyotda mustaqil ish ko'pincha referat yozish yoki tayyor kodni ko'chirishga aylanib qoladi. Bu, ayniqsa, generativ vositalar keng tarqalgan sharoitda, talabaning haqiqiy o'zlashtirishini baholashni qiyinlashtiradi. Shu sababli mustaqil faoliyatni tizimli, bosqichma-bosqich va tekshiriladigan tarzda tashkil etadigan metodika zarur.

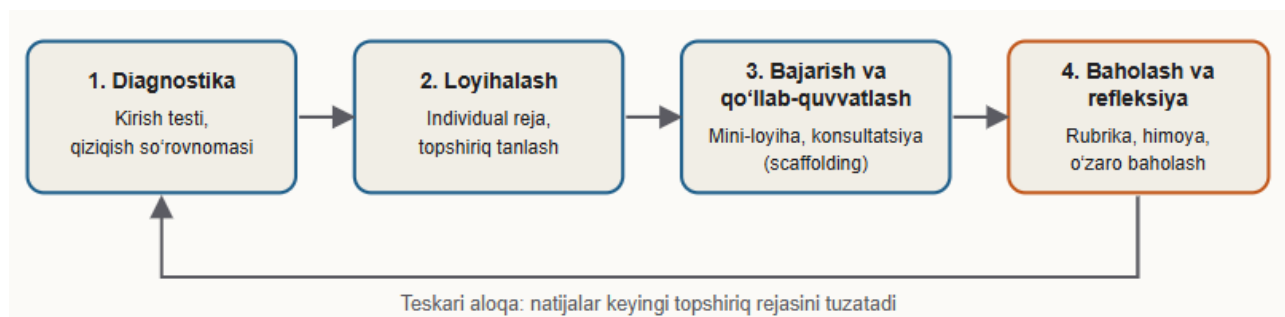
Tadqiqot maqsadi - «Sun'iy intellekt asoslari» fanida talabalarning mustaqil faoliyatini tashkil etish metodikasini ishlab chiqish va uning samaradorligini tekshirish yo'llarini asoslash. Vazifalar: (1) nazariy asoslarni tahlil qilish; (2) bosqichli modelni ishlab chiqish; (3) topshiriqlar tizimi va baholash mezonlarini yaratish; (4) tajriba-sinov rejasini tuzish.

2. NAZARIY ASOSLAR

Metodika uchta yondashuvga tayanadi. Birinchidan, Bloom taksonomiyasi o'quv maqsadlarini «eslash»dan «yaratish»gacha darajalarga ajratadi [2]. Ikkinchidan, Vygotskiyning «yaqin rivojlanish zonasi» g'oyasi talabaga mustaqil bajara olmaydigan, ammo yordam bilan uddalaydigan topshiriqlarni berishni asoslaydi [3]. Uchinchidan, o'z-o'zini boshqarib o'rganish nazariyasi talabaning rejalashtirish, nazorat va refleksiya ko'nikmalariga e'tibor qaratadi [4]. Fan mazmuni bo'yicha asosiy manba sifatida Russell va Norvingning darsligi qabul qilingan [1].

3. METODIKA MODEL

Taklif etilgan model to'rt bosqichdan iborat va har bir bosqichda talaba hamda o'qituvchining vazifalari aniq belgilanadi (1-rasm, 1-jadval).



1-rasm. Mustaqil faoliyatni tashkil etishning to'rt bosqichli modeli.

1-jadval. Bosqichlar bo'yicha talaba va o'qituvchi faoliyati

Bosqich	Talaba faoliyati	O'qituvchi faoliyati	Natija
1. Diagnostika	Kirish testini topshiradi, dasturlash va matematik tayyorgarligini baholaydi	Natijalarni tahlil qiladi, guruhlarni shakllantiradi	Boshlang'ich daraja xaritasi
2. Loyihalash	Topshiriq turi va mavzusini tanlaydi, shaxsiy reja tuzadi	Reja va muddatlarni kelishadi	Individual o'quv reja
3. Bajarish	Ma'lumot yig'adi, model quradi, hisobot yuritadi	Haftalik konsultatsiya, kod-review, savollarga javob	Oraliq natija (prototip)
4. Baholash	Loyihani himoya qiladi, hamkasbini baholaydi, refleksiya yozadi	Rubrika bo'yicha baholaydi, tahlil beradi	Yakuniy ball va tavsiyalar

4. Mustaqil topshiriqlar tizimi

Topshiriqlar Bloom darajalariga mos ravishda uch qatlamga ajratiladi: bazaviy (tushunish), o'rta (qo'llash va tahlil) va ilg'or (baholash va yaratish). Talaba kamida bitta o'rta va bitta ilg'or topshiriqni bajarishi tavsiya etiladi (2-jadval).

2-jadval. Mustaqil topshiriqlar turlari

Daraja	Topshiriq turi	Namunaviy mavzu	Bloom darajasi	Ball
Bazaviy	Konspekt, tushunchalar lug'ati, test	SI tarixi va yo'nalishlari; bilimlar tasviri	Eslash, tushunish	0–20
Bazaviy	Qisqa tahliliy esse	Turing testi: tanqid va zamonaviy talqin	Tushunish	0–20
O'rta	Laboratoriya-amaliy topshiriq	Qidiruv algoritmlari (BFS, A*) ni Python'da amalga oshirish	Qo'llash	0–30
O'rta	Ma'lumotlar tahlili	Ochiq to'plamda sinflash (kNN, qaror daraxti)	Tahlil	0–30
Ilg'or	Mini-loyiha (juftlikda)	O'zbek tilidagi matnni sinflash prototipi	Yaratish	0–40
Ilg'or	Axloqiy-huquqiy keys	Algoritmik tarfakashlik va shaxsiy ma'lumotlar himoyasi	Baholash	0–40

5. BAHOLASH MEZONLARI

Mustaqil ishning shaffof baholanishi talabning o'z natijasini boshqarishiga imkon beradi. Rubrika to'rt mezon bo'yicha tuzilgan (3-jadval); har bir mezon 0 dan 3 gacha ballanadi va vaznga ko'paytiriladi.

3-jadval. Mustaqil ishni baholash rubrikasi

Mezon (vazn)	3 — a'lo	2 — yaxshi	1 — qoniqarli	0 — qoniqarsiz
Nazariy to'g'rilik (30%)	Tushunchalar aniq va asoslangan	Kichik noaniqliklar bor	Yuzaki bayon	Jiddiy xatolar
Amaliy natija (30%)	Kod ishlaydi, natijalar takrorlanadi	Ishlaydi, hujjatlashtirish kam	Qisman ishlaydi	Ishlamaydi
Mustaqillik va originallik (25%)	O'z yondashuvi, manbalar ko'rsatilgan	Qisman o'zgartirilgan	Asosan tayyor yechim	Ko'chirma
Refleksiya va himoya (15%)	Cheklovlarni tanqidiy baholaydi	Savollarga to'g'ri javob	Javoblar yuzaki	Himoya qila olmaydi

Originallikni ta'minlash uchun har bir loyiha bo'yicha qisqa og'zaki himoya va jonli kod tushuntirish talab qilinadi; generativ vositalardan foydalanish mumkin, ammo talaba qaysi qismda va nima uchun foydalanganini hisobotda ko'rsatishi shart.

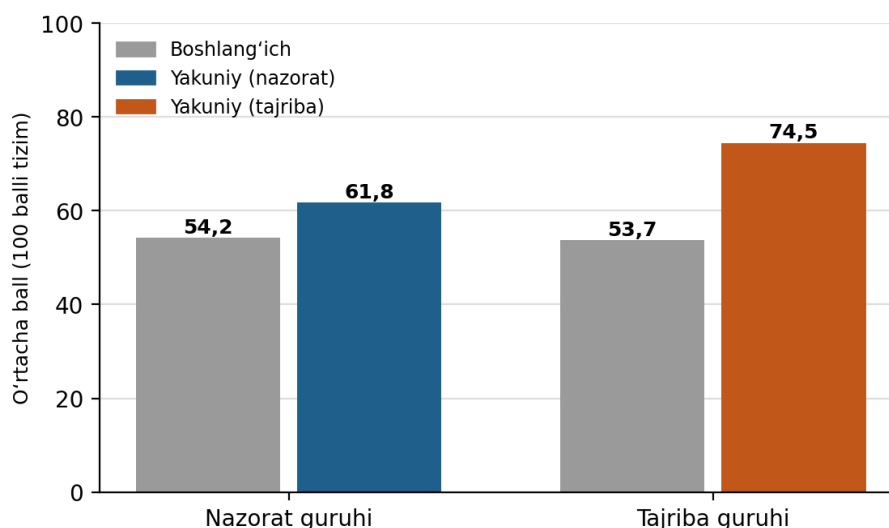
6. TAJRIBA-SINOV REJASI VA NAMUNAVIY NATIJALAR

Metodikani tekshirish uchun ikki guruhli pedagogik tajriba rejalashtiriladi: tajriba guruhi ($n = 30$) taklif etilgan modelda, nazorat guruhi ($n = 30$) an'anaviy shaklda (referat va yagona yakuniy topshiriq) o'qiydi. Davomiyligi — bir semestr (16 hafta). O'zlashtirish semestr boshi va oxirida bir xil test (100 ball) bilan o'lchanadi. Natijalar Student t-mezoni yoki, taqsimot normal bo'lmasa, Mann–Uitni mezon bilan taqqoslanadi.

Diqqat: quyidagi 4-jadval va 2-rasmdagi qiymatlar namunaviy (illustrativ) bo'lib, haqiqiy tajriba natijalari emas. Chop etishdan oldin ularni o'z tajribangiz ma'lumotlari bilan almashtiring.

4-jadval. Namunaviy natijalar (o'rtacha ball, 100 balli tizim)

Guruh	n	Boshlang'ich	Yakuniy	O'sish
Nazorat	30	54,2	61,8	+7,6
Tajriba	30	53,7	74,5	+20,8



2-rasm. Guruhlar bo'yicha o'rtacha ballar (namunaviy ma'lumotlar)

7. MUHOKAMA

Namunaviy natijalar modelning asosiy afzalligini ko'rsatadi: mustaqil ishning bosqichlarga bo'linishi, oraliq teskari aloqa va shaffof mezonlar talabani doimiy faollikka undaydi. Shu bilan birga metodikaning cheklovlari mavjud: o'qituvchidan konsultatsiya uchun qo'shimcha vaqt talab etiladi, talabalarning dastlabki dasturlash tayyorgarligi farqi kuchli bo'lganda diagnostika bosqichi va guruhlarini aralash tuzish muhim ahamiyat kasb etadi. Tavsiyalar: (1) semestr boshida ochiq o'quv muhiti (masalan, Jupyter yoki Google Colab) tayyorlash; (2) haftalik qisqa nazorat nuqtalarini belgilash; (3) loyihalarni o'zaro baholash orqali o'qituvchi yuklamasini kamaytirish.

8. XULOSA

Maqolada «Sun'iy intellekt asoslari» fanida talabalarning mustaqil faoliyatini tashkil etishning to'rt bosqichli metodikasi, topshiriqlar tizimi va baholash rubrikasi taklif etildi. Metodika nazariy bilimni amaliy loyihalar bilan bog'laydi, mustaqillik va akademik halollikni ta'minlaydi. Keyingi tadqiqotlarda modelni real guruhlarda sinovdan o'tkazish va natijalarni statistik tahlil qilish rejalashtirilgan.

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RAQAMLI TA'LIM MUHITIDA MUSTAQIL TA'LIMNI TASHKIL ETISHDA SIMULYATSION VOSITALARNING O'RNI

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Annotatsiya. Mazkur maqolada raqamli ta'lim muhitida mustaqil ta'limni tashkil etishda simulyatsion vositalarning didaktik o'rni ilmiy-nazariy va metodik jihatdan tahlil qilingan. Tadqiqotning asosiy maqsadi simulyatsion vositalarning talabani o'zini-o'zi boshqarib o'qishi, amaliy faoliyati, refleksiya va axborot kompetensiyasini rivojlantirishga xizmat qiluvchi mexanizmlarini aniqlash hamda mustaqil ta'limni tashkil etishning integrallashgan modelini taklif etishdan iborat. Tadqiqotda sistematik adabiyotlarni tahlil qilish, qiyosiy tahlil, pedagogik modellash va metodik sintez usullaridan foydalanilgan. Zamonaviy sharhlar virtual laboratoriyalar talabalarining o'zini-o'zi boshqarib o'qishini qo'llab-quvvatlashi mumkinligini, biroq natija simulyatsiyaning o'zi emas, balki maqsad qo'yish, rejalashtirish, monitoring, feedback va refleksiya qamrab olgan didaktik ssenariy bilan bog'liqligini ko'rsatadi.

Kalit so'zlar: raqamli ta'lim muhiti, mustaqil ta'lim, simulyatsion vosita, virtual laboratoriya, self-regulated learning, learning analytics, refleksiya, feedback, axborot kompetensiyasi.

Аннотация. В статье представлен научно-теоретический и методологический анализ дидактической роли инструментов имитационного моделирования в организации самостоятельной учебной деятельности в цифровой образовательной среде. Основная цель исследования — выявить механизмы, посредством которых инструменты имитационного моделирования способствуют развитию у обучающихся навыков саморегулируемого обучения, практической деятельности, рефлексии и информационной компетентности, а также предложить комплексную модель организации самостоятельной учебной деятельности. В работе использованы такие методы, как систематический обзор литературы, сравнительный анализ, педагогическое моделирование и методологический синтез. Результаты современных исследований свидетельствуют о том, что, хотя виртуальные лаборатории могут поддерживать саморегулируемое обучение, эффективность этого процесса зависит не столько от самой имитационной модели, сколько от дидактического сценария, включающего постановку целей, планирование, мониторинг, обратную связь и рефлексию.

Ключевые слова: цифровая образовательная среда, самостоятельная учебная деятельность, инструмент имитационного моделирования, виртуальная лаборатория, саморегулируемое обучение, образовательная аналитика, рефлексия, обратная связь, информационная компетентность.

Abstract. This article examines the pedagogical role of simulation tools in organizing independent learning in digital learning environments. The study aims to identify mechanisms through which simulations, virtual laboratories, interactive models, feedback and learning analytics can support students' self-regulated learning and practical competence. A literature-based methodological approach was used, combining systematic review synthesis, comparative analysis and pedagogical modelling. Recent reviews indicate that virtual laboratories may support learner autonomy and self-regulated learning, while effective technology-supported learning requires integrated support across goal setting, planning, monitoring, feedback and reflection.

Keywords: digital learning environment, independent learning, simulation tools, virtual laboratory, self-regulated learning, learning analytics, reflection, feedback, information competency.

KIRISH

Raqamli transformatsiya oliy ta'limda mustaqil ta'limning mazmuni va tashkil etish mexanizmlarini sezilarli darajada o'zgartirmoqda. Talaba endilikda faqat auditoriyada berilgan topshiriqni bajaruvchi emas, balki raqamli resurslarni tanlaydigan, o'z o'quv faoliyatini rejalashtiradigan, natijani kuzatadigan va xatolarini tahlil qiladigan faol subyekt sifatida qaralmoqda. Shu sababli mustaqil ta'limni raqamli muhitda tashkil etishda interaktiv va tajribaviy vositalarga ehtiyoj kuchaymoqda.

Simulyatsion vositalar ushbu ehtiyojga javob beradigan texnologiyalardan biri bo'lib, ular real jarayon yoki tizimning raqamli modelini yaratib, talabani parametrlarni o'zgartirishi, natijalarni kuzatishi va turli variantlarni xavfsiz sharoitda sinab ko'rishiga imkon beradi. Virtual laboratoriyalar

bo'yicha umbrella systematic review virtual laboratoriyalarning self-regulated learning bilan bog'liq imkoniyatlarini tahlil qilgan va bu yo'nalishdagi dalillarni umumlashtirgan.

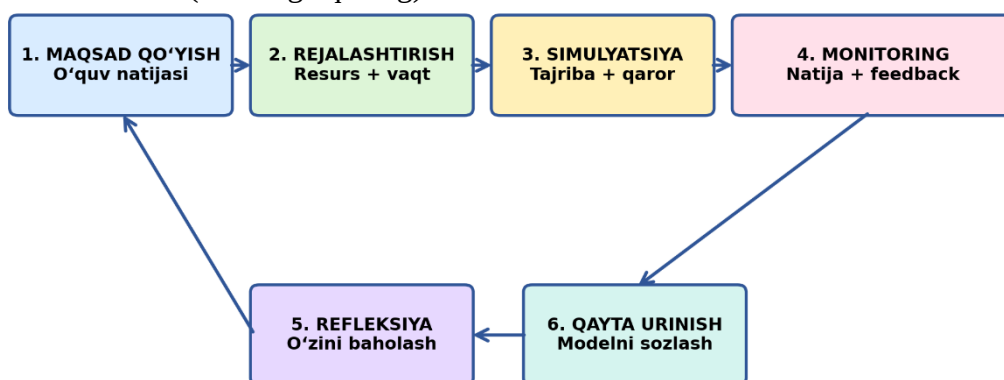
Biroq simulyatsiyani mustaqil ta'limning o'zi deb qarash metodik jihatdan yetarli emas. 2024-yilda chop etilgan umbrella review 31 ta sistematik sharh va meta-tahlilni tahlil qilib, texnologiya yordamidagi self-regulated learningni qo'llab-quvvatlashda butun SRL siklini qamrab oluvchi kompleks yondashuv zarurligini ko'rsatgan. Demak, simulyatsion vosita maqsad qo'yish, rejalashtirish, bajarish, monitoring, feedback va refleksiya bilan yagona didaktik tizimga birlashtirilishi lozim.

Virtual laboratoriyalarda learning analytics ham alohida ahamiyatga ega. 2023-yilgi sistematik sharh 2015–2021-yillarda chop etilgan 21 ta empirik tadqiqotni tahlil qilib, virtual laboratoriyalardagi analitika asosan talabalar faoliyati, natijalari, xatti-harakati va platformadagi log ma'lumotlarini o'rganishga yo'naltirilganini ko'rsatgan. Shu bilan birga, mualliflar sohada standartlashtirish va kengroq tadqiqotlarga ehtiyoj borligini qayd etgan.

Tadqiqot maqsadi va savollari

Tadqiqot maqsadi - raqamli ta'lim muhitida mustaqil ta'limni tashkil etishda simulyatsion vositalarning didaktik funksiyalarini aniqlash va ushbu funksiyalarni yagona metodik modelga integratsiyalash.

Asosiy tadqiqot savollari: 1) simulyatsion vositalar mustaqil ta'limning qaysi bosqichlarini qo'llab-quvvatlaydi; 2) simulyatsiya va self-regulated learning mexanizmlari qanday integratsiyalanadi; 3) learning analytics va feedback mustaqil faoliyatni qanday kuzatish va takomillashtirishga xizmat qiladi; 4) oliy ta'limda bunday modelni joriy etish uchun qanday pedagogik shartlar zarur (1-rasmga qarang)?



1-rasm. Simulyatsion vosita asosida mustaqil ta'limning refleksiya sikli.

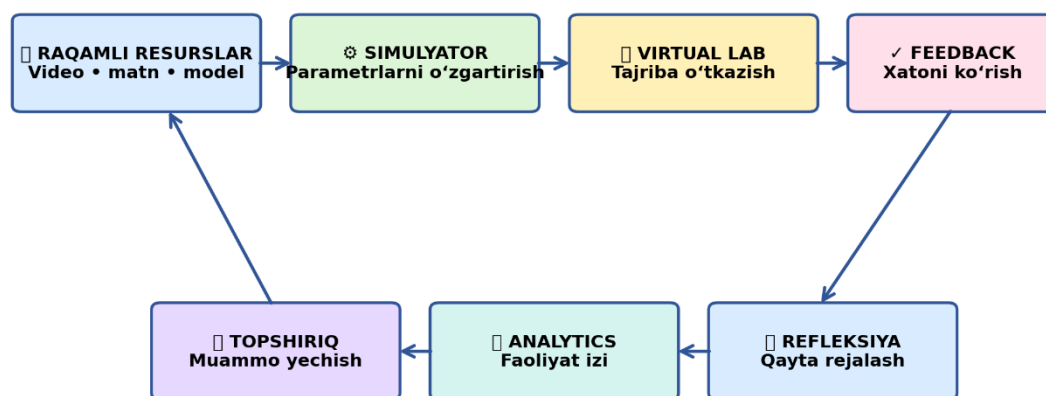
MATERIAL VA METODLAR

Tadqiqot nazariy-metodologik xarakterda tashkil etildi. Ilmiy manbalarni tanlashda uchta mezon ustuvor bo'ldi: birinchidan, manbada virtual laboratoriya, simulyatsiya yoki raqamli o'quv vositalari; ikkinchidan, mustaqil yoki self-regulated learning; uchinchidan, learning analytics, feedback yoki o'quv natijalarini monitoring qilish masalalari yoritilgan bo'lishi. Tahlil uchun 2023–2024-yillarda chop etilgan sistematik sharh va umbrella reviewlar asosiy daliliy baza sifatida olindi.

Tadqiqotda quyidagi metodlar qo'llanildi: kontent-tahlil - manbalarda qayd etilgan didaktik imkoniyatlarni ajratish uchun; qiyosiy tahlil - simulyatsion, virtual laboratoriya va analitik vositalarning funksiyalarini solishtirish uchun; pedagogik modellash - mustaqil ta'limning integrallashgan modelini ishlab chiqish uchun; metodik sintez - nazariy natijalarni oliy ta'lim amaliyotiga mos tavsiyalarga aylantirish uchun.

Tadqiqotning muhim metodik cheklovi shundaki, ushbu maqolada alohida universitet talabalari bilan o'tkazilgan yangi eksperimental natijalar sun'iy ravishda yaratilmagan. Natijalar mavjud ilmiy sharhlar sintezi va taklif etilayotgan metodik model asosida talqin qilinadi. Shu bois maqoladagi model empirik validatsiya uchun tayyor konseptual-metodik konstruktsiya sifatida qaraladi (2-rasmga qarang).

RAQAMLI MUSTAQIL TA'LIMNING DIDAKTIK INFRASTRUKTURASI



2-rasm. Mustaqil ta'limni tashkil etishda raqamli resurs, simulyator, virtual laboratoriya, feedback va analyticsning o'zaro bog'lanishi.

Natijalar. Adabiyotlar sintezi asosida simulyatsion vositalarning mustaqil ta'limdagi roli besh funksional yo'nalishda umumlashtirildi: 1) vizuallashtirish; 2) tajriba va modellashtirish; 3) individual temp va takroriy urinish; 4) feedback va xatoni tahlil qilish; 5) faoliyatni analitik kuzatish. Mazkur funksiyalar mustaqil ta'limning alohida elementlari emas, balki bir-birini to'ldiruvchi mexanizmlar sifatida qaralishi kerak.

Birinchi natija - simulyatsiya abstrakt tushunchalarni ko'rinadigan va boshqariladigan obyektga aylantiradi. Talaba parametrni o'zgartirib, natijadagi o'zgarishni darhol ko'rish mumkin. Bu sabab-oqibat munosabatlarini tushunishni kuchaytiradi va nazariy bilimni amaliy vazifa bilan bog'laydi.

Ikkinchi natija-simulyatsiya mustaqil tajribani xavfsiz va takroriy tashkil etadi. Real laboratoriyada vaqt, jihoz, xavfsizlik yoki moddiy resurslar cheklangan bo'lishi mumkin. Raqamli modelda esa talaba bir nechta variantni sinab ko'rish va xato qilgandan so'ng tajribani qayta bajarishi mumkin.

Uchinchi natija - feedback va learning analytics mustaqil ta'limni nazorat qilinadigan jarayonga aylantiradi. Virtual laboratoriyalar bo'yicha sistematik sharhda o'rganilgan 21 ta empirik ishning ko'pchiligida log ma'lumotlari talabalarning faoliyati va natijalarini tahlil qilish uchun ishlatilgani qayd etilgan.

To'rtinchi natija - simulyatsiya self-regulated learningning barcha bosqichlarini avtomatik ravishda ta'minlamaydi. Talabaga maqsad qo'yish, rejalashtirish, o'zini monitoring qilish va refleksiya qilish uchun maxsus topshiriq va yo'riqnoma kerak. 2024-yilgi umbrella review aynan texnologiya yordamidagi SRL qo'llab-quvvatlovlarini butun sikl bo'ylab kompleks tashkil etish zarurligini ko'rsatadi (1-jadvalga qarang).

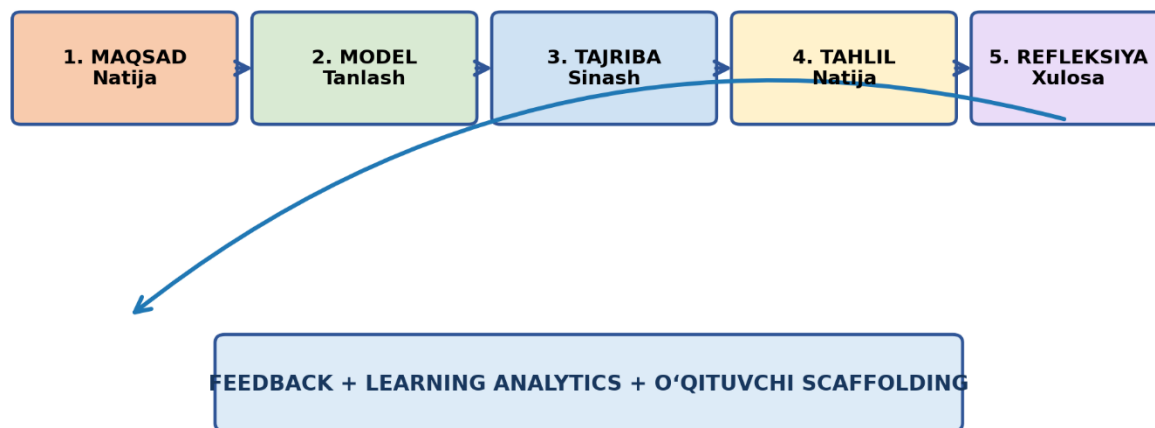
Didaktik funksiya	Simulyatsion mexanizm	Mustaqil ta'limdagi natija
Vizuallashtirish	Jarayonni dinamik modelda ko'rsatish	Tushunish va konseptual bog'lanish
Tajriba	Parametrlarni o'zgartirish va variantlarni sinash	Muammoni mustaqil yechish
Takroriy urinish	Xavfsiz qayta bajarish	Xatodan o'rganish
Feedback	Avtomatik yoki bosqichli ko'rsatma	O'zini monitoring qilish
Analytics	Loglar, faoliyat va natijalarni qayd etish	Refleksiya va individual yo'l
Refleksiya	Natijani izohlash va xulosa	Metakognitiv kompetensiya

1-jadval. Simulyatsion vositalarning mustaqil ta'limdagi didaktik funksiyalari.

Muhokama. Olingan natijalar simulyatsion vositalarning ta'limdagi qiymatini faqat texnologik interaktivlik bilan o'lchash noto'g'ri ekanini ko'rsatadi. Simulyatsiya talabaning faoliyatini tashkil etuvchi pedagogik ssenariy bilan birgalikda ishlatilgandagina mustaqil ta'limni tizimli ravishda qo'llab-quvvatlaydi. Shu ma'noda simulyator — mazmunning o'zi emas, balki mazmunni o'zlashtirishni tashkil etuvchi muhitdir.

Virtual laboratoriyalar bo'yicha sistematik sharhda self-regulated learningga ta'sir qiluvchi omillar o'rganilgan va virtual laboratoriya mustaqillikni qo'llab-quvvatlashi mumkinligi ko'rsatilgan. Biroq 2023-yilgi learning analytics sharhi ushbu sohada tadqiqotlar hali kichik ko'lamli va tarqoq ekanini, platformalar va analitik yondashuvlarni standartlashtirish ehtiyoji mavjudligini qayd etadi.

Mazkur maqola nuqtai nazaridan eng muhim masala — simulyatsiyani mustaqil ta'limning maqsadi emas, balki o'quv faoliyatini boshqaruvchi didaktik mexanizm sifatida ko'rishdir. Talaba model bilan ishlashdan oldin muammoni anglaydi va gipoteza ilgari suradi; simulyatsiya bosqichida parametrlarni tanlaydi; natijani olgach, uni nazariy bilim bilan taqqoslaydi; xulosa chiqaradi va zarur bo'lsa qayta tajriba o'tkazadi. Bu jarayon self-regulated learningning maqsad qo'yish, monitoring va refleksiya komponentlari bilan mos keladi (4-rasmga qarang).



4-rasm. Simulyatsion vositalar asosida mustaqil ta'limni tashkil etishning integrallashgan metodik modeli.

XULOSA

Tadqiqot natijalari shuni ko'rsatadiki, simulyatsion vositalar raqamli ta'lim muhitida mustaqil ta'limni tashkil etish uchun katta didaktik salohiyatga ega. Ularning asosiy afzalligi talabaning real jarayonlarni modellashirishi, parametrlarni mustaqil boshqarishi, tajribani takrorlashi, xatolarni tahlil qilishi va natijani refleksiya qilishi uchun interaktiv muhit yaratishidir. Biroq simulyatsiya o'z-o'zidan mustaqil ta'limni kafolatlamaydi; u maqsad qo'yish, rejalashtirish, monitoring, feedback va refleksiya bilan integratsiyalangan bo'lishi kerak.

Ilmiy adabiyotlar sintezi asosida simulyatsion vositalarni joriy etishning quyidagi pedagogik shartlari taklif etiladi: 1) har bir simulyatsion topshiriq aniq o'quv natijasiga bog'lanishi; 2) talaba faoliyatini bosqichma-bosqich yo'naltiruvchi, lekin mustaqil qaror qabul qilish imkonini beruvchi yo'riqnoma berilishi; 3) bir nechta urinish va xavfsiz xato qilish imkoniyati yaratilishi; 4) tezkor feedback va refleksiya savollari qo'llanishi; 5) learning analytics ma'lumotlari pedagogik qarorlarni qo'llab-quvvatlash uchun ishlatilishi; 6) o'qituvchi raqamli muhitni loyihalovchi va metodik scaffoldingni ta'minlovchi rolni bajarishi.

Kelgusidagi empirik tadqiqotlarda ushbu modelni muhandislik, axborot texnologiyalari va tabiiy fanlar yo'nalishlarida tajriba va nazorat guruhlarida sinovdan o'tkazish, pre-test/post-test, topshiriq sifati, faoliyat loglari va refleksiya ko'rsatkichlarini birgalikda tahlil qilish maqsadga muvofiq. Bunday yondashuv simulyatsion vositalarning mustaqil ta'limga ta'sirini yanada ishonchli baholash imkonini beradi.

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DON SANOATI KORXONALARIDA AQLLI ISHLAB CHIQUARISH TIZIMLARINING ILMIY-NAZARIY ASOSLARI VA XALQARO TAJRIBASI

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Annotatsiya: Ushbu maqola sanoat iqtisodiyotining raqamli va texnologik transformatsiya jarayonlarini strategik tahlil qiladi. Sanoatning tarixiy evolyutsiyasi (birinchi – to'rtinchi sanoat inqiloblari), raqamli texnologiyalarning (sun'iy intellekt, katta ma'lumotlar, IoT, IIoT, raqamli egizaklar, raqamli platformalar) sanoat korxonalariga, xususan don mahsulotlari korxonalariga ta'siri, qiymat zanjirining qayta shakllanishi, Industry 4.0 kontekstida innovatsiyalar va barqaror rivojlanish strategiyalari chuqur ko'rib chiqiladi. Tadqiqot raqamli transformatsiyaning iqtisodiy o'sish, raqobatbardoshlik va samaradorlikka ta'sirini baholaydi hamda O'zbekiston don sanoati korxonalari uchun nazariy asoslarni boyitadi.

Kalit so'zlar: sanoat iqtisodiyoti, evolyutsiya, raqamli transformatsiya, texnologik o'zgarishlar, strategik tahlil, raqamli innovatsiyalar, sanoat 4.0, aqlli ishlab chiqarish, raqamli egizak, barqaror rivojlanish, iqtisodiy o'sish, raqamli platformalar, don sanoati, texnologik integratsiya.

Аннотация. В статье проводится стратегический анализ процессов цифровой и технологической трансформации промышленной экономики. Рассматривается историческая эволюция промышленности (от первой до четвертой промышленной революции), влияние цифровых технологий (искусственный интеллект, большие данные, IoT, IIoT, цифровые двойники, цифровые платформы) на промышленные предприятия, в том числе предприятия зерноперерабатывающей отрасли, перестройка цепочки создания стоимости, инновации и стратегии устойчивого развития в контексте Industry 4.0. Исследование оценивает влияние цифровой трансформации на экономический рост, конкурентоспособность и эффективность.

Ключевые слова: промышленная экономика, эволюция, цифровая трансформация, технологические изменения, стратегический анализ, цифровые инновации, индустрия 4.0, умное производство, цифровой двойник, устойчивое развитие, экономический рост, цифровые платформы, зерновая промышленность, технологическая интеграция.

Abstract. This article provides a strategic analysis of digital and technological transformation processes in the industrial economy. It examines the historical evolution of industry (from the first to the fourth industrial revolution), the impact of digital technologies (artificial intelligence, big data, IoT, IIoT, digital twins, digital platforms) on industrial enterprises, particularly grain processing enterprises, the reshaping of value chains, innovations and sustainable development strategies in the context of Industry 4.0. The study assesses the impact of digital transformation on economic growth, competitiveness and efficiency, enriching the theoretical foundations for Uzbekistan's grain industry enterprises.

Keywords: industrial economy, evolution, digital transformation, technological changes, strategic analysis, digital innovations, Industry 4.0, smart manufacturing, digital twin, sustainable development, economic growth, digital platforms, grain industry, technological integration.

KIRISH

Sanoat iqtisodiyoti insoniyat sivilizatsiyasining asosiy qismi bo'lib, uning evolyutsiyasi texnologik inqiloblar bilan chambarchas bog'liq. Birinchi sanoat inqilobi bug' mashinalari va mexanizatsiya bilan boshlangan bo'lsa, ikkinchisi elektr energiyasi va ommaviy ishlab chiqarishni joriy etgan. Uchinchi inqilob axborot texnologiyalari va raqamlashtirishni olib keldi. Hozirgi vaqtda to'rtinchi sanoat inqilobi (Industry 4.0) raqamli texnologiyalar, sun'iy intellekt, katta ma'lumotlar, IoT (Internet of Things), IIoT, kiber-fizik tizimlar va raqamli egizaklar kabi innovatsiyalar bilan xarakterlanadi. Bu jarayonlar sanoat iqtisodiyotini tubdan o'zgartirmoqda, samaradorlikni oshirib, yangi biznes modellarni yaratmoqda.

Don sanoati korxonalarida aqlli ishlab chiqarish tizimlarini joriy etish maxsus ahamiyat kasb etadi, chunki ushbu tarmoq oziq-ovqat xavfsizligi, resurs tejamkorligi va barqarorlik talablari bilan chambarchas bog'liq.

1-jadval

Sanoat inqiloblarining asosiy bosqichlari va xususiyatlari

Inqilob	Vaqt davri	Asosiy texnologiyalar	Iqtisodiy ta'siri	Ijtimoiy-ekologik oqibatlar
1-sanoat	18-asr oxiri	Bug' mashinasi, mexanizatsiya	Ishlab chiqarish hajmi o'sishi	Shaharlashtirish, ishchi sinfi paydo bo'lishi
2-sanoat	19-asr oxiri	Elektr energiyasi, konveyer	Ommaviy ishlab chiqarish, global savdo	Standartlashtirish, ekologik yuklamalar
3-sanoat	20-asr ikkinchi yarmi	Kompyuter, avtomatlashtirish	Avtomatlashtirish, samaradorlik o'sishi	Ish o'rinlari o'zgarishi, raqamli bo'linish
4-sanoat (Industry 4.0)	2010-yillar – hozir	AI, IoT, Big Data, raqamli platformalar	Qiymat zanjiri qayta shakllanishi, 20–30% samaradorlik o'sishi	Kibertahdidlar, barqarorlik talabi

Raqamli transformatsiya sanoat korxonalarining raqobatbardoshligini oshirishda muhim rol o'ynaydi. U ishlab chiqarish jarayonlarini optimallashtirish, qiymat zanjirini qayta shakllantirish va yangi bozorlarni ochish imkoniyatini beradi. Hozirgi kunda Xitoy va AQSh kabi mamlakatlarda raqamli texnologiyalar sanoat rivojlanishining asosiy harakatlantiruvchi kuchiga aylangan. Shunga ko'ra izlanishlar jarayonida raqamli va texnologik transformatsiya jarayonlarining strategik tahlili, ularning sanoat iqtisodiyotiga, xususan don sanoatiga ta'siri baholangan. Bundan asosiy maqsad – barqaror rivojlanish strategiyalarini ishlab chiqish uchun nazariy asoslar va tavsiyalar berishdir.

MATERIALLAR VA USULLAR

Sanoat iqtisodiyotining evolyutsiyasida raqamli va texnologik transformatsiya jarayonlarining ahamiyati aniq va samarali tadqiqotlar orqali keng o'rganilgan. Ushbu yo'nalishda olib borilgan ishlar asosan Sanoat 4.0, raqamli transformatsiya, sanoat zanjirlari modernizatsiyasi, qiymat zanjirini qayta

shakllantirish va strategik tahlil kabi masalalar yuzasidan yetakchi olimlar va xalqaro tashkilotlar tomonidan yoritilgan.

Xorijiy olimlarning ishlari mazkur jarayonda muhim o‘rin egallaydi. K. Schwabning “To‘rtinchi sanoat inqilobi” asari to‘rtinchi sanoat inqilobining strategik mohiyatini ochib bergan bo‘lsa, M. Porter aqlli va bog‘langan mahsulotlarning raqobat ustunligiga ta‘sirini asoslab bergan. E. Brynjolfsson axborot texnologiyalarining ishlab chiqarish mahsuldorligiga ta‘sirini empirik jihatdan isbotlagan. M. Hermann, T. Pentek, B. Otto Industrie 4.0 ssenariylari uchun dizayn prinsiplarini ishlab chiqqan. F. Tao, M. Grieves, L. Monostori, A. Kusiak, E. Lee, L. Wang, R.Y. Zhong va boshqalar IoT, IIoT, kiber-fizik tizimlar va raqamli egizaklar texnologiyalarining nazariy asoslarini shakllantirgan.

MDH olimlari S.Yu. Glazyev, A.I. Borovkov, A.V. Babkin, G.B. Kleyner, V.P. Kupriyanovskiy, V.N. Shimov, A.A. Akayev raqamli ekotizimlar, texnologik ukladlar almashinuvi va korxonalarni boshqarishning tizimli modellarini tadqiq etgan.

O‘zbekiston don sanoati korxonalari bo‘yicha D.A. Kurbanova, Sh.B. Donayev, B.K. Muftaydinov, J.R. Baxriddinov, I.S. Musoxonzoda, U.M. Kadirov, I.N. Qo‘ziyev, M.S. Yusupovlar tomonidan barqarorlik, xarajatlarni qisqartirish, moliyaviy natijalar va tarmoq tendensiyalari bo‘yicha tadqiqotlar olib borilgan.

So‘nggi xalqaro tadqiqotlar orasida Liu Z. va boshqalar raqamli texnologiya innovatsiyalari va qiymat zanjirini qayta shakllantirishni, Huang Q. va Tang Y. raqamli platformalarning ta‘sirini, Li Q. raqamli iqtisodiyotning sanoat tuzilmasiga ta‘sirini, Brookings instituti esa global iqtisodiy o‘zgarishlarni tahlil qilgan.

Tadqiqot usullari:

- tizimli va kompleks tahlil;
- strategik modellashtirish;
- taqqoslama va dinamik tahlil;
- adabiyotlar tahlili va empirik ma‘lumotlar umumlashtirish;
- grafik va jadval tahlili.

Axborot bazasi sifatida xalqaro ilmiy jurnallar, Brookings, OECD ma‘lumotlari, 2014-2025 yillardagi fundamental manbalardan foydalanildi.

NATIJALAR VA MUHOKAMA

Raqamli va texnologik transformatsiya sanoat iqtisodiyotini evolyutsiya qilishda asosiy rol o‘ynaydi. Raqamli texnologiyalar ishlab chiqarish samaradorligini oshirib, qiymat zanjirini qayta shakllantiradi. Sun‘iy intellekt va katta ma‘lumotlar tahlili bashoratli tahlil imkoniyatini beradi, bu esa xarajatlarni kamaytiradi. Raqamli egizaklar va IIoT texnologiyalari real vaqt rejimida monitoring va optimallashtirishni ta‘minlaydi.

Don sanoati korxonalarida ushbu texnologiyalarni joriy etish quyidagi imkoniyatlarni yaratadi:

- ishlab chiqarish jarayonlarini real vaqt rejimida monitoring qilish;
- energiya va xomashyo sarfini optimallashtirish;
- sifat nazoratini avtomatlashtirish;
- ta‘minot zanjirini raqamlashtirish.

Empirik ma‘lumotlarga ko‘ra, raqamli texnologiyalar ishlab chiqarish samaradorligini 20–30% ga oshirishi mumkin. Xitoy va AQSh tajribasi siyosiy rahbarlik, kadrlar tayyorlash va koordinatsiya mexanizmlarining muhimligini ko‘rsatadi.

Shu bilan birga, transformatsiya jarayonlari muammolarni ham keltirib chiqaradi: ish o‘rinlari o‘zgarishi, kibertahdidlar, raqamli bo‘linish va yuqori dastlabki investitsiyalar. O‘zbekiston don sanoati korxonalarida an‘anaviy iqtisodiy tadqiqotlar yetarli darajada olib borilgan bo‘lsa-da, Sanoat 4.0 elementlarining integratsiyasi va ularning iqtisodiy samaradorligi bo‘yicha fundamental ishlar hali yetarli emas.

Strategik tahlil natijasi – barqaror rivojlanish uchun raqamli transformatsiya yo‘l xaritasi ishlab chiqish zaruriyati. Bu jarayonda raqamli platformalar, ekotizim yondashuvi va davlat-xususiy hamkorlik muhim rol o‘ynaydi.

XULOSA

Xulosa qilib aytganda, sanoat iqtisodiyotining evolyutsiyasi raqamli va texnologik transformatsiya jarayonlari bilan chambarchas bog‘liq. Ushbu jarayonlar strategik tahlili shuni ko‘rsatadiki, raqamli texnologiyalar iqtisodiy o‘sish va barqaror rivojlanishni ta‘minlaydi, ammo xavflarni boshqarish lozim.

Don sanoati korxonalari uchun tavsiyalar:

- aqlli ishlab chiqarish tizimlarini bosqichma-bosqich joriy etish;
- raqamli egizaklar va IIoT texnologiyalarini sinovdan o‘tkazish;
- kadrlar tayyorlash va raqamli savodxonlikni oshirish;
- davlat dasturlari va xalqaro tajribadan foydalanish.

Kelajakda raqamli transformatsiya to‘rtinchi sanoat inqilobining asosiy harakatlantiruvchi kuchiga aylanadi va O‘zbekiston don sanoatining raqobatbardoshligini oshirishda muhim omil bo‘ladi.

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***BOSHLANG‘ICH SINF O‘QUVCHILARINING NUTQ RIVOJLANISHIDA SUN‘IY
INTELLEKT (SI) ASOSIDAGI MULTIMEDIA VOSITALARNING O‘RNI***

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Annotatsiya. Ushbu maqolada boshlang'ich sinf o'quvchilarining nutqiy kompetensiyalari va muloqot ko'nikmalarini rivojlantirishda sun'iy intellekt (SI) hamda slayd texnologiyalariga asoslangan multimedia vositalarining o'rni yoritilgan. Tadqiqotda an'anaviy raqamli resurslar va zamonaviy adaptiv SI-multimedia platformalarining o'zaro farqlari pedagogik hamda psixolingvistik nuqtayi nazardan tahlil qilingan. Shuningdek, xorijiy va rus olimlarining ilmiy qarashlariga tayanilgan holda, dars jarayonida o'quvchilarning lug'at boyligini oshirish, fonematik eshitish hamda bog'lanishli nutqini shakllantirish bo'yicha amaliy metodik tavsiyalar ilgari surilgan.

Kalit so'zlar: sun'iy intellekt, multimedia vositalari, slayd texnologiyalari, boshlang'ich sinf, nutq o'stirish, adaptiv ta'lim, kommunikativ kompetensiya, raqamli pedagogika.

Аннотация. В данной статье рассматривается роль мультимедийных средств на базе искусственного интеллекта (ИИ) и слайд-технологий в развитии речевых компетенций и коммуникативных навыков учащихся младших классов. С педагогической и психолингвистической точек зрения анализируются различия между традиционными цифровыми ресурсами и современными адаптивными ИИ-мультимедийными платформами. Опираясь на научные взгляды зарубежных и российских ученых, авторы выдвигают практические методические рекомендации по обогащению словарного запаса, формированию фонематического слуха и связной речи учащихся в учебном процессе.

Ключевые слова: искусственный интеллект, мультимедийные средства, слайд-технологии, младшие классы, развитие речи, адаптивное обучение, коммуникативная компетенция, цифровая педагогика.

Abstract. This article examines the role of artificial intelligence (AI)-based multimedia tools and slide technologies in developing the speech competencies and communicative skills of primary school students. From pedagogical and psycholinguistic perspectives, the study analyzes the differences between traditional digital resources and modern adaptive AI-powered multimedia platforms. Drawing on the scientific perspectives of international and Russian scholars, the authors propose practical methodological recommendations for enriching students' vocabulary, developing phonemic awareness, and fostering coherent speech in the educational process.

Keywords: artificial intelligence, multimedia tools, slide technologies, primary school, speech development, adaptive learning, communicative competence, digital pedagogy.

KIRISH

Boshlang'ich sinf davri (1-4 sinflar) bolaning shaxs sifatida shakllanishi, uning fikrlash dunyosi kengayishi va til boyligi rivojlanishida eng fundamental bosqich hisoblanadi. Bugungi raqamli axborot asrida an'anaviy ta'lim usullari bolalarning diqqatini uzoq vaqt ushlab turish va ularda nutqiy faollikni oshirish uchun ba'zan yetarli bo'lmayapti. Shu sababli, ta'lim tizimiga sun'iy intellekt (SI) algoritmlari bilan boyitilgan, adaptiv va interaktiv multimedia tizimlarini hamda slayd texnologiyalarini joriy etish zamonaviy pedagogikaning dolzarb masalalaridan biridir.

Nutq – bu shunchaki so'zlar to'plami emas, balki fikrlash, tushunish va muloqot qilish qurolidir. Boshlang'ich sinf yoshidagi o'quvchilarning nutq faoliyatini (tinglab tushunish, so'zlash, o'qish) rivojlantirishda SI texnologiyalari individual ta'lim traektoriyasini yaratish, real vaqtdagi aksado (qayta aloqa) muhitini optimallashtirish imkonini beradi.

SI asosidagi vositalar nutq o'stirish darslarida quyidagi to'rtta asosiy til ko'nikmasini kompleks rivojlantiradi:

1. **Tinglab tushunish (Audirovanie):** SI platformalari matnlarni turli personajlar ovozi, o'zgaruvchan sur'atda (tez, o'rtacha, sekin) o'qib beradi. Bu bolaning nutq ohangini va so'z urg'ularini farqlash qobiliyatini (fonematik eshitish) o'stiradi.

2. **Gapirish (Govorenie):** O'quvchi ekrandagi SI yordamida generatsiya qilingan syujetli rasmlarga qarab monologik nutq tuzadi. Tizim uning nutqini yozib olib, grammatik va uslubiy jihatdan tahlil qiladi.

3. **O'qish savodxonligi:** Ekrandagi matnlarni o'qish jarayonida SI o'quvchining o'qish tezligi va logofat (talaffuz nuqsonlari) darajasini o'lchaydi, dars yakunida o'qituvchiga individual hisobot taqdim etadi.

4. **Lug'at bilan ishlash:** "Aqlli lug'at" tizimlari yangi so'zning ma'nosini shunchaki matn bilan emas, balki kontekstga mos neyrotarmoqli videolar va sinonimik zanjirlar orqali tushuntiradi.

Darslarda multimedia vositalaridan foydalanish jarayonida o'qituvchi: -o'quv materiallarini ko'rgazmali tarzda taqdim etadi; -yangi materiallarni tezlik bilan yetkazadi;

-axborotlar tezligi va hajmini animatsiyalar yordamida boshqara oladi; Boshlang'ich sinflarda o'quv jarayonini qiziqarli, asosiy va zarur foydali bilimlarga boy jarayon sifatida o'tish ishlari sezilarli darajada e'tiborni torta oldi. Bu sinflarda multimedia vositalarining o'rni va foydasini ko'rib chiqish juda muhimdir.

Multimedia vositalari -bu matn, audio, video va grafik elementlardan iborat bo'lgan taqdimotlar, interaktiv dasturlar va boshqa elektron materiallardir.

MATERIALLAR VA USULLAR

Boshlang'ich sinf o'quvchilarining nutqini rivojlantirish muammosi uzoq yillardan buyon pedagog va psixolingvist olimlarning diqqat markazida bo'lib kelmoqda. Xususan, L. S. Vigotskiy o'zining fundamental ishlarida nutqiy rivojlanish faol muloqot muhitida kechishini ta'kidlagan edi. A. A. Leontev esa nutq o'stirish uchun bolada ichki motivatsiya va gapirishga ehtiyoj bo'lishi kerakligini asoslagan.

Zamonaviy raqamli ta'lim sharoitida Rossiya va jahon olimlari multimedia hamda sun'iy intellektning imkoniyatlarini yuqori baholamoqdalar.

M. A. Bovtenko esa kompyuter lingodidaktikasida nutqni tanish (Speech Recognition) texnologiyalarining o'rni beqiyos ekanligini, ular bolaning fonematik eshitish qobiliyatini real vaqtda shakllantirishini qayd etadi.

E. I. Passov ham har qanday texnik vosita darsda shunchaki ko'rgazma emas, balki jonli nutqiy vaziyat (речевая ситуация) yaratuvchi faol omil bo'lishi kerakligini uqtiradi.

A. R. Luriya nutqni insonning murakkab psixik faoliyatini tashkil etuvchi muhim vositalardan biri sifatida tadqiq etgan. Olim nutqning tafakkur, xotira, diqqat va insonning o'z faoliyatini boshqarishi bilan bog'liqligiga e'tibor qaratgan. Uning qarashlari boshlang'ich sinf o'quvchilarining nutqini rivojlantirishda faqat so'z boyligini oshirish emas, balki nutq orqali fikrlash va o'z faoliyatini boshqarish ko'nikmalarini ham shakllantirish zarurligini ko'rsatadi. **A. A. Leontyev** nutqiy faoliyatni insonning umumiy faoliyati tarkibida ko'rib, muloqotning maqsadi, motivi va vazifalari nutqning shakllanishida muhim ahamiyatga ega ekanligini ta'kidlagan. Ushbu yondashuvga ko'ra, o'quvchi nutqdan real kommunikativ vaziyatda foydalanishi kerak. Shu nuqtayi nazardan, multimedia vositalarida tashkil etiladigan dialoglar, savol-javoblar, rolli vaziyatlar va virtual suhbatlar o'quvchining kommunikativ faolligini oshirishga xizmat qil rivojlanishi faol, mazmunli va yosh xususiyatlariga mos faoliyat orqali amalga oshirishini ko'rsatadi. Boshlang'ich ta'limda o'yinli va interaktiv multimedia topshiriqlaridan foydalanish ham aynan shu tamoyilga asoslanib, o'quvchini passiv tinglovchidan faol isirganda, nutqni faqat kommunikatsiya vositasi sifatida emas, balki bolaning tafakkuri va bilish faoliyatini rivojlantiruvchi mexanizm sifatida ham qarash mumkin. Bu esa boshlang'ich sinf o'quvchilarida nutqni rivojlantirish jarayonini fanlararo yondashuv asosida tashkil etish zarurligini koishi mumkin.

D. B. Elkonin bolaning rivojlanishida faoliyat va ta'limning rolga katta ahamiyat bergan. Uning ilmiy qarashlari o'quvchining rivojlanishi faol, mazmunli va yosh xususiyatlariga mos faoliyat orqali amalga oshirishini ko'rsatadi. Boshlang'ich ta'limda o'yinli va interaktiv multimedia

topshiriqlaridan foydalanish ham aynan shu tamoyilga asoslanib, o'quvchini passiv tinglovchidan faol ishtirokchiga aylantirishi mumkin.

J. Piaget bolaning tafakkuri va nutqining rivojlanishini uning intellektual rivojlanish bosqichlari bilan bog'lagan. Uning qarashlarida bola bilimni tayyor shaklda qabul qiluvchi emas, balki faol ravishda o'zlashtiruvchi subyekt sifatida namoyon bo'ladi. Shu sababli multimedia texnologiyalaridan foydalanishda o'quvchiga tayyor javob berishdan ko'ra, uni fikrlashga, savol berishga, taqqoslashga va o'z xulosasini ifodalashga undovchi topshiriqlarni yaratish muhim.

M. M. Baxtinning dialogik nutq haqidagi qarashlari ham mavzu uchun muhim nazariy asos bo'la oladi. Olim nutqning mazmunli rivojlanishida dialog, ya'ni insonlarning o'zaro muloqoti va fikr almashinuvi muhim ekanligini ko'rsatadi. Shu jihatdan, SI asosidagi multimedia vositalarida tashkil etiladigan interaktiv dialoglar boshlang'ich sinf o'quvchilarining savol berish, javob qaytarish, fikr bildirish va suhbatni davom ettirish ko'nikmalarini rivojlantirishga yo'naltirilishi mumkin.

Tadqiqot natijalari shuni ko'rsatadiki, an'anaviy slaydlar va passiv multimedia kontentlaridan farqli o'laroq, sun'iy intellekt asosidagi resurslar darsni interaktiv muloqot maydoniga aylantiradi. Yuqorida keltirilgan olimlarning ilmiy-nazariy qarashlarini tahlil qilish shuni ko'rsatadiki, boshlang'ich sinf o'quvchisining tafakkuri va nutqini rivojlantirish jarayoni uning faol bilish faoliyati, muloqoti, mustaqil fikrlashi va amaliy faoliyati bilan chambarchas bog'liq. J. Piaget bolaning bilimni faol ravishda egallovchi subyekt ekanligini asoslagan bo'lsa, L.

S. Vygotskiy rivojlanishda ijtimoiy muhit va hamkorlikning, M. M. Baxtin esa dialogik muloqotning muhimligini ta'kidlaydi. A. N. Leontyev, P. Ya. Galperin, D. B. Elkonin va V. V. Davydovning qarashlari o'quv faoliyatini maqsadli tashkil etish, mustaqil fikrlash va bilimlarni bosqichma-bosqich o'zlashtirish zarurligini ko'rsatadi.

NATIJALAR VA MUHOKAMA

Nutqiy ko'nikmalarni rivojlantirishdagi afzalliklar: Lug'at boyligini kontekstual faollashtirish: Neyrotarmoqlar generatsiya qilgan 3D modellar va rasmlar bola ongida mavhum tushunchalarning aniq vizual obrazini yaratib, passiv lug'atdagi so'zlarni faol nutqqa tezroq ko'chiradi.

Passiv lug'atni aktivga aylantirish: Insonlar ko'p so'zlarni tarjimasini bilishadi (passiv lug'at), lekin gapirishda ishlata olishmaydi. SI maxsus mashqlar (masalan, roling o'yinlar yoki savol-javoblar) orqali ushbu so'zlarni xotiradan chiqarib, jonli nutqqa (aktiv lug'atga) ko'chirishga majbur qiladi.

Kommunikativ to'siqlarni (psixologik qo'rquvni) yo'qotish: Til o'rganuvchilar odatda xato qilishdan yoki odamlar oldida gapirishdan cho'chishadi. SI bilan muloqot qilganda esa bunday psixologik bosim bo'lmaydi. Bu nutqiy instinktlarni erkin rivojlantirish uchun xavfsiz muhit yaratadi.

Kollokatsiyalar va idiomalar bilan ishlash: SI so'zlarni alohida emas, balki tabiiy tilda ishlatiladigan so'z birikmalari (kollokatsiyalar), frazeologizmlar va idiomalar tarkibida taqdim etadi. Bu esa nutqning sun'iy emas, xuddi ona tili vakillari (native speakers) kabi ravon chiqishini ta'minlaydi.

Ko'p tilli vizual va situatsion modellashtirish: Zamonaviy SI vositalari nafaqat matn, balki audio va vizual ssenariylarni ham yarata oladi. Masalan, "aeroportda yuk yo'qolishi" ssenariysi bo'yicha SI siz bilan ovozli muloqotga kirishib, aynan shu vaziyatga oid terminologiyani nutqingizda faollashtiradi.

Uzluksiz va adaptiv mikrolearning (kichik hajmli ta'lim): SI foydalanuvchining nutqidagi bo'shliqlarni tezda aniqlaydi. Agar siz doim bir xil so'zlarni takrorlayversangiz, u sizga sinonimlar lug'atini taklif qiladi va nutqingizni boyitish uchun kontekstga mos yangi iboralarni kiritib boradi. Bog'lanishli nutq (Monolog va Dialog): SI yordamida ishlovchi aqlli chat-botlar va virtual ovozli yordamchilar o'quvchi bilan sun'iy muloqotga kirisha oladi. Slayddagi virtual personaj bolaga savol beradi va bola qaytargan javobdagi grammatik xatolarni real vaqtda tuzatib, muloqotni davom ettiradi.

O'zbekistonda boshlang'ich sinf o'quvchilarining nutqini o'stirish va ta'limni raqamlashtirish masalalari metodist olimlar A.G'ulomov, M.Asqarova, Q.Abdullayeva va zamonaviy tadqiqotchilar tomonidan keng o'rganilgan.

A.G'ulomov va M.Asqarovalarning ta'kidlashicha, boshlang'ich sinflarda ona tili o'qitishning bosh maqsadi - o'quvchilarda izchil va mantiqiy fikrlash hamda buni og'zaki va yozma nutqda to'g'ri bayon qilish ko'nikmasini (kommunikativ kompetensiyani) shakllantirishdir. Zamonaviy sharoitda ushbu maqsadga erishish uchun multimedia va SI vositalari til muhitini sun'iy ravishda boyituvchi eng samarali omil bo'lib xizmat qiladi.

XULOSA

Sun'iy intellekt va slayd texnologiyalariga asoslangan multimedia vositalari boshlang'ich sinf o'quvchilarining nutqiy kompetensiyalarini rivojlantirishda inqilobiy bosqich hisoblanadi. Ular bolaning passiv tinglovchidan faol so'zlovchiga aylanishini ta'minlaydi, lug'at boyligini oshirish va to'g'ri talaffuzni shakllantirish jarayonlarini jadallashtiradi. Kelajak ta'lim tizimida bunday intellektual va vizual resurslardan oqilona hamda pedagogik me'yorlarga mos ravishda foydalanish boshlang'ich ta'lim sifatini yangi bosqichga olib chiqadi. Sun'iy intellekt va multimedia vositalari boshlang'ich sinf o'quvchilarining nutqiy kompetensiyalarini rivojlantiruvchi inklyuziv va interaktiv didaktik ekotizim sifatida samarali hisoblanadi.

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UNIVERSITET TA'LIM YO'NALISHLARIDA RAQAMLI TA'LIM MAHSULOTLARINI YARATISH VA TIJORATLASHTIRISH: SUN'IY INTELLEKT, INNOVATSION TEXNOLOGIYALAR VA FANLARARO INTEGRATSIYA IMKONIYATLARI

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Annotatsiya. Maqolada universitet ta'lim yo'nalishlarining ehtiyojlariga mos raqamli ta'lim mahsulotlarini yaratish, ularni o'quv jarayoniga joriy etish va tijoratlashtirish imkoniyatlari tahlil qilingan. Tadqiqotda sun'iy intellekt, raqamli platformalar, interaktiv dasturlar, virtual va simulyatsion texnologiyalardan foydalanishning amaliy yo'llari ko'rib chiqilgan. Iqtisodiyot, moliya, pedagogika, xorijiy tillar, axborot texnologiyalari va muhandislik yo'nalishlarining hamkorligi asosida fanlararo raqamli mahsulotlar yaratish masalalariga alohida e'tibor qaratilgan. Tadqiqot davomida g'oyani aniqlashdan tortib bozorga chiqarishgacha bo'lgan bosqichlar - foydalanuvchi ehtiyojini o'rganish, texnologik yechim tanlash, prototip yaratish, sinovdan o'tkazish va

takomillashtirish - izchil tizimga keltirilgan. Natijalar shuni ko'rsatadiki, ta'lim, ilmiy faoliyat, innovatsiya va tadbirkorlikni bir jarayonda birlashtirish orqali ilmiy-ta'limiy g'oyalarni amaliy va iqtisodiy qiymatga ega raqamli mahsulotlarga aylantirish mumkin.

Kalit so'zlar: raqamli ta'lim, raqamli ta'lim mahsuloti, sun'iy intellekt, innovatsion texnologiyalar, fanlararo integratsiya, ta'lim platformalari, raqamli kompetensiya, prototiplash, tijoratlashtirish, innovatsion tadbirkorlik.

Аннотация. В статье анализируются возможности создания цифровых образовательных продуктов, отвечающих потребностям различных образовательных направлений университета, их внедрения в учебный процесс и коммерциализации. В исследовании рассмотрены практические пути использования искусственного интеллекта, цифровых платформ, интерактивных программ, виртуальных и ассимиляционных технологий. Особое внимание уделено вопросам создания междисциплинарных цифровых продуктов на основе сотрудничества направлений экономики, финансов, педагогики, иностранных языков, информационных технологий и инженерии. В ходе исследования систематизированы этапы создания цифрового продукта - от определения идеи до вывода на рынок: изучение потребностей пользователя, выбор технологического решения, разработка прототипа, тестирование и совершенствование. Результаты показывают, что объединение образовательной, научной, инновационной и предпринимательской деятельности университета в единый процесс позволяет превратить научные и образовательные идеи в цифровые продукты, обладающие практической и экономической ценностью.

Ключевые слова: цифровое образование, цифровой образовательный продукт, искусственный интеллект, инновационные технологии, междисциплинарная интеграция, образовательные платформы, цифровая компетентность, прототипирование, коммерциализация, инновационное предпринимательство.

Abstract. This article analyzes the possibilities of creating digital educational products that meet the needs of various academic fields at the university, implementing them in the educational process, and commercializing them. The study examines practical ways of using artificial intelligence, digital platforms, interactive programs, and virtual and simulation technologies. Particular attention is paid to creating interdisciplinary digital products through cooperation among the fields of economics, finance, pedagogy, foreign languages, information technology, and engineering. The research systematizes the stages of developing a digital product - from identifying an idea to bringing it to market - including studying user needs, selecting a technological solution, building a prototype, testing, and refinement. The results show that combining education, research, innovation, and entrepreneurship into a single process at the university makes it possible to turn scientific and educational ideas into digital products with practical and economic value.

Keywords: digital education, digital educational product, artificial intelligence, innovative technologies, interdisciplinary integration, educational platforms, digital competence, prototyping, commercialization, innovative entrepreneurship.

KIRISH

Bugungi kunda raqamli texnologiyalarning tez rivojlanishi oliy ta'lim oldiga yangi vazifa qo'ymoqda: endi nafaqat mavjud ta'lim jarayonlarini raqamlashtirish, balki butunlay yangi ta'lim mahsulotlarini yaratish talab etilmoqda. Sun'iy intellekt, raqamli platformalar, interaktiv dasturlar, virtual muhitlar va simulyatsion texnologiyalar ta'lim mazmunini zamonaviylashtirish bilan bir qatorda, talabalarni amaliy faoliyatga tayyorlash uchun yangi imkoniyatlar yaratmoqda.

Raqamli ta'lim mahsulotining muhim xususiyati shundaki, u faqat elektron o'quv materiali bilan cheklanib qolmaydi. Bunday mahsulot muayyan ta'lim muammosini hal qilishi, foydalanuvchiga qulay bo'lishi va zarur hollarda iqtisodiy qiymat yaratishi lozim. Shu sababli universitetlarda raqamli mahsulot yaratish jarayonini ta'lim, ilmiy faoliyat va innovatsion tadbirkorlik bilan bog'liq holda tashkil etish muhim ahamiyat kasb etadi.

Iqtisodiyot va pedagogika universitetida iqtisodiyot, moliya, pedagogika, xorijiy tillar, axborot texnologiyalari kabi ta'lim yo'nalishlarining mavjudligi bunday mahsulotlarni fanlararo asosda yaratish uchun qulay imkoniyat yaratadi. Masalan, pedagogika yo'nalishi ta'lim metodikasini, axborot texnologiyalari texnik yechimni, iqtisodiyot va moliya yo'nalishlari esa mahsulotning biznes modeli va iqtisodiy jihatlarini shakllantirishda ishtirok etishi mumkin.

Shu nuqtai nazardan, universitet sharoitida raqamli ta'lim mahsulotlarini yaratishning izchil mexanizmini ishlab chiqish, foydalanuvchi ehtiyojlarini aniqlash, mahsulotni amaliy sinovdan o'tkazish va uning tijoratlashtirish imkoniyatlarini baholash dolzarb masalalardan biri hisoblanadi. Mazkur tadqiqot aynan shu jarayonlarni tizimlashtirish hamda ta'lim, innovatsiya va tadbirkorlikni yagona tizimda uyg'unlashtirish imkoniyatlarini aniqlashga qaratilgan.

Mavzuga oid adabiyotlarning sharhi. Raqamli ta'limga oid manbalarni o'rganish shuni ko'rsatadiki, zamonaviy texnologiyalar ta'lim sifatini oshirish, o'quv jarayonini individuallashtirish va talabalarning amaliy kompetensiyalarini rivojlantirishda muhim vosita sifatida qaraladi. Ayniqsa, sun'iy intellekt, raqamli ta'lim platformalari, interaktiv dasturlar va virtual texnologiyalar ta'lim mazmunini yangi shaklda tashkil etish imkonini bermoqda.

UNESCOning ta'lim texnologiyalariga oid hisobotida texnologiyaning o'zi ta'lim sifatini avtomatik ta'minlamasligi, undan foydalanish samaradorligi esa o'qituvchi tayyorgarligi, boshqaruv, mavjud sharoit va ta'lim maqsadlariga moslik bilan bevosita bog'liqligi ta'kidlanadi [4]. Shu sababli raqamli vositani yaratishda uning texnik imkoniyatlari bilan bir qatorda, pedagogik maqsadi va foydalanuvchi uchun amaliy qiymati ham hisobga olinishi zarur.

Sun'iy intellektning ta'limdagi o'rni alohida ahamiyatga ega. UNESCOning o'qituvchilar va talabalar uchun ishlab chiqilgan AI kompetensiya ramkalari sun'iy intellektdan foydalanishda inson markazli yondashuv, etika, texnologik savodxonlik va mas'uliyatli foydalanish masalalariga e'tibor qaratadi [5; 6]. Bu esa universitetlarda AI asosidagi raqamli mahsulotlarni ishlab chiqishda nafaqat texnik, balki pedagogik va etik talablarni ham hisobga olish zarurligini ko'rsatadi.

O'zbekistonda oliy ta'limni rivojlantirish va raqamlashtirishga qaratilgan davlat siyosati ham mazkur yo'nalish uchun muhim asos yaratadi. Oliy ta'lim tizimini 2030-yilgacha rivojlantirish konsepsiyasi [1], "Raqamli O'zbekiston – 2030" strategiyasi [2] hamda startap va innovatsion ekotizimni rivojlantirishga qaratilgan hujjatda [3] raqamli texnologiyalar, innovatsiyalar, ilmiy ishlanmalar va tadbirkorlikni rivojlantirish masalalariga alohida e'tibor qaratilgan.

Shu bilan birga, mavjud manbalarda raqamli ta'lim vositalarining ko'proq pedagogik yoki texnologik jihatlarini yoritilgan, universitetning turli ta'lim yo'nalishlarini birlashtirish asosida mahsulot yaratish va uni tijoratlashtirish jarayoni esa yagona model sifatida deyarli ko'rib chiqilmagan. Shu jihatdan, mazkur tadqiqotning asosiy vazifasi raqamli ta'lim mahsulotini g'oyadan amaliy va bozor qiymatiga ega mahsulotgacha olib boruvchi jarayonni tizimlashtirishdan iborat.

TADQIQOT METODOLOGIYASI

Tadqiqot universitet ta'lim yo'nalishlarida raqamli ta'lim mahsulotlarini yaratish va tijoratlashtirish imkoniyatlarini aniqlashga qaratilgan tizimli va fanlararo yondashuv asosida olib borildi. Bunda raqamli texnologiyalarning ta'limdagi imkoniyatlari, turli mutaxassisliklarning o'zaro hamkorligi va mahsulotni amaliyotga joriy etish jarayonlari bir-biri bilan bog'liq holda o'rganildi.

Tadqiqotda tahlil, taqqoslash, umumlashtirish va modellashtirish usullaridan foydalanildi. Dastlab iqtisodiyot, moliya, pedagogika, xorijiy tillar, axborot texnologiyalari va muhandislik yo'nalishlarining raqamli mahsulot yaratishdagi imkoniyatlari ko'rib chiqildi. Keyinchalik mahsulotni yaratishning asosiy bosqichlari - muammoni aniqlash, foydalanuvchi ehtiyojini o'rganish, mahsulot konsepsiyasini ishlab chiqish, texnologik yechimni tanlash, prototip yaratish va sinovdan o'tkazish - belgilandi.

Mahsulotning amaliy qiymatini baholash uchun uchta asosiy mezon ajratildi: ta'limiy qiymat, foydalanuvchi ehtiyojiga moslik va tijoratlashtirish salohiyati. Ushbu mezonlar mahsulotning nafaqat ta'lim jarayonidagi foydaliligini, balki uni real foydalanuvchilarga taklif qilish va kelgusida iqtisodiy qiymat yaratish imkoniyatini ham baholashga xizmat qiladi.

Shuningdek, fanlararo hamkorlik mahsulotning funksional imkoniyatlarini kengaytiruvchi omil sifatida ko'rib chiqildi. Bir nechta ta'lim yo'nalishi vakillarining birgalikdagi ishtiroki mahsulotning mazmuniy, texnologik va iqtisodiy jihatlarini bir vaqtda shakllantirish imkonini beradi. Shu asosda raqamli ta'lim mahsulotini yaratishning universitet sharoitiga mos izchil modeli ishlab chiqildi.

TAHLIL VA NATIJALAR

Tadqiqot natijasida universitetda raqamli ta'lim mahsulotlarini yaratishning quyidagi izchil modeli shakllantirildi:

muammoni aniqlash → foydalanuvchi ehtiyojini o'rganish → g'oyani shakllantirish → fanlararo jamoa tuzish → texnologik yechimni tanlash → prototip yaratish → sinovdan o'tkazish → takomillashtirish → bozorga chiqarish → tijoratlashtirish.

Mazkur model raqamli mahsulotni oddiy elektron o'quv vositasi sifatida emas, balki muayyan muammoni hal qiladigan amaliy innovatsion yechim sifatida shakllantirishga imkon beradi. Jarayonning dastlabki bosqichida foydalanuvchi ehtiyojini to'g'ri aniqlash keyingi bosqichlarning samaradorligini belgilovchi eng muhim omil hisoblanadi.

Tahlil natijalariga ko'ra, universitetdagi turli ta'lim yo'nalishlarini o'zaro bog'lash orqali bir nechta turdagi raqamli mahsulot yaratish mumkin. Iqtisodiyot va moliya yo'nalishlarida biznes jarayonlarini modellashtiruvchi simulyatorlar, moliyaviy hisob-kitob va modellashtirish vositalari ishlab chiqilishi mumkin. Pedagogika va xorijiy tillar yo'nalishlari hamkorligida esa sun'iy intellekt asosidagi ta'lim platformalari, individual mashqlar va interaktiv til o'rganish dasturlarini yaratish imkoniyati mavjud. Axborot texnologiyalari va muhandislik yo'nalishlari bunday mahsulotlarning texnik asosini yaratishda muhim rol o'ynaydi - xususan, virtual laboratoriyalar, simulyatsion modellar va amaliy dasturlar shular jumlasidandir. Bunda mahsulotning mazmuniy qismini tegishli fan mutaxassislari, texnik qismini IT mutaxassislari, iqtisodiy va bozor jihatlarini esa iqtisodiyot hamda moliya vakillari shakllantirishi mumkin.

Tadqiqot shuni ko'rsatadiki, raqamli ta'lim mahsulotini yaratishda asosiy e'tibor texnologiyaning o'ziga emas, balki uning qanday aniq ta'limiy muammoni hal qilishiga qaratilishi kerak. Zamonaviy platforma yoki sun'iy intellekt vositasining mavjudligi o'z-o'zidan samarali mahsulot yaratilganini anglatmaydi - mahsulot aniq ehtiyojga javob berishi, foydalanish uchun qulay bo'lishi va ta'lim maqsadiga mos kelishi zarur. Shu sababli universitetlarda raqamlashtirishni faqat tayyor elektron platformalardan foydalanish bilan cheklamasdan, talaba va o'qituvchilar duch kelayotgan muammolarni aniqlab, ularga yangi raqamli yechimlar ishlab chiqish va bu yechimlarni amaliy sinovdan o'tkazish bilan bog'lash maqsadga muvofiq.

Iqtisodiyot va pedagogika universiteti sharoitida fanlararo integratsiya bunday jarayonni tashkil etish uchun alohida imkoniyat yaratadi: pedagogika sohasi mahsulotning ta'limiy mazmunini, IT yo'nalishi texnik platformani, iqtisodiyot va moliya yo'nalishlari esa xarajatlar, biznes modeli va bozor imkoniyatlarini tahlil qiladi, xorijiy tillar yo'nalishi esa til o'rgatishga mo'ljallangan mahsulotlarning mazmuniy-metodik qismini ishlab chiqishda ishtirok etadi.

Sun'iy intellektdan foydalanish bu jarayonga yangi imkoniyatlar qo'shadi: individual topshiriqlar yaratish, yozma va og'zaki nutqni tahlil qilish, ta'lim jarayonida tezkor fikr-mulohaza berish kabi funksiyalarni raqamli mahsulot tarkibiga kiritish mumkin. Biroq bunda AI vositalaridan foydalanishning pedagogik maqsadi, ma'lumotlar xavfsizligi va etik jihatlar ham albatta hisobga olinishi lozim.

Raqamli mahsulotni yaratish va uni tijoratlashtirish o'rtasidagi bog'liqlik ham muhim masaladir. Mahsulotning bozorda qo'llanishi uchun uning foydalanuvchiga real qiymat berishi, foydalanishga qulayligi va mavjud ehtiyojga mosligi zarur. Shu sababli mahsulotni yakuniy holatga keltirishdan oldin uni kichik foydalanuvchilar guruhida sinab ko'rish, fikr-mulohazalarni yig'ish va aniqlangan kamchiliklarni bartaraf etish maqsadga muvofiq. Bunday yondashuv universitetda innovatsion guruhlar va talabalar startaplarini shakllantirish uchun ham amaliy asos bo'la oladi: ta'lim

jarayonida paydo bo'lgan oddiy g'oya avval prototipga, so'ngra esa foydalanuvchi ehtiyojiga javob beradigan tayyor mahsulotga aylanishi mumkin.

Natijalar, shuningdek, universitetning ta'lim, ilmiy-tadqiqot va innovatsion faoliyatini birlashtirish uchun ham amaliy imkoniyatlar mavjudligini ko'rsatdi. Talaba va professor-o'qituvchilarning g'oyalari texnologik imkoniyatlar bilan birlashtirilsa, ilmiy yoki ta'limiy g'oyani real raqamli mahsulotga aylantirish mumkin. Bunday jarayon talabalarning nafaqat bilimini, balki muammoni aniqlash, jamoada ishlash, mahsulot yaratish va uni foydalanuvchiga taklif qilish ko'nikmalarini ham rivojlantiradi.

XULOSA

Tadqiqot natijalari shuni ko'rsatdiki, universitetda fanlararo hamkorlik asosida raqamli ta'lim mahsulotlarini yaratish ta'lim, ilmiy faoliyat, innovatsiya va tadbirkorlikni yagona jarayonda birlashtirish imkonini beradi. Pedagogik mazmun, zamonaviy texnologiyalar va iqtisodiy yondashuvning uyg'unligi ilmiy g'oyalarni amaliy va foydali mahsulotlarga aylantirish uchun mustahkam asos yaratadi.

Shu nuqtayi nazardan, universitetda fanlararo innovatsion guruhlar tashkil etish, istiqbolli g'oyalarni prototipga aylantirish, real foydalanuvchilar ishtirokida sinovdan o'tkazish va muvaffaqiyatli loyihalarni startap hamda tijorat mahsulotlariga rivojlantirish muhimdir. Bunda texnologiya maqsad emas, balki aniq ta'limiy va amaliy muammolarni hal etish vositasi sifatida xizmat qiladi.

Misol uchun:



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PROM VA PROMTIR TEXNOLOGIYALARIDAN TA'LIM JARAYONIDA TO'G'RI FOYDALANISH

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Annotatsiya. Ushbu maqolada zamonaviy axborot texnologiyalarining ta'lim jarayonidagi o'rni, xususan, PROM va PROMTIR kabi texnologiyalardan samarali va to'g'ri foydalanish masalalari yoritilgan. Ta'lim jarayonida raqamli vositalardan foydalanish o'quvchilarning bilim olish imkoniyatlarini kengaytirish, xorijiy tillarni o'rganishni yengillashtirish, axborot izlash va qayta ishlash ko'nikmalarini rivojlantirish imkonini beradi. Shu bilan birga, texnologiyalardan haddan tashqari foydalanish o'quvchining mustaqil fikrlashi va ijodiy qobiliyatiga salbiy ta'sir ko'rsatishi mumkin. Maqolada PROM va PROMTIR vositalaridan ta'limda foydalanishning afzalliklari, ehtimoliy muammolari hamda ulardan foydalanishning samarali usullari tahlil qilinadi.

Kalit so'zlar: ta'lim, raqamli texnologiyalar, PROM, PROMTIR, avtomatik tarjima, axborot texnologiyalari, elektron ta'lim, mustaqil ta'lim, xorijiy til, raqamli savodxonlik.

Аннотация. В данной статье рассматривается роль современных информационных технологий в образовательном процессе, в частности вопросы эффективного и правильного использования таких технологий, как PROM и PROMTIR. Использование цифровых инструментов в образовательном процессе способствует расширению возможностей учащихся для получения знаний, облегчает изучение иностранных языков, а также развивает навыки поиска, анализа и обработки информации. Вместе с тем чрезмерное использование технологий может негативно влиять на самостоятельное мышление и творческие способности учащихся. В статье анализируются преимущества использования PROM и PROMTIR в образовании, возможные проблемы, а также эффективные способы их применения в учебном процессе.

Ключевые слова: образование, цифровые технологии, PROM, PROMTIR, автоматический перевод, информационные технологии, электронное обучение, самостоятельное обучение, иностранный язык, цифровая грамотность.

Abstract. This article examines the role of modern information technologies in the educational process, with particular attention to the effective and appropriate use of technologies such as PROM and PROMTIR. The use of digital tools in education expands students' opportunities to acquire knowledge, facilitates foreign language learning, and develops their skills in searching for, analyzing, and processing information. At the same time, excessive reliance on technology may negatively affect students' independent thinking and creative abilities. The article analyzes the advantages of using PROM and PROMTIR in education, possible challenges, and effective ways of applying these technologies in the learning process.

Keywords: education, digital technologies, PROM, PROMTIR, machine translation, information technologies, e-learning, self-directed learning, foreign language, digital literacy.

XXI asrda ta'lim tizimining rivojlanishini zamonaviy axborot-kommunikatsiya texnologiyalarisiz tasavvur qilish qiyin. Internet, elektron ta'lim platformalari, raqamli kutubxonalar, sun'iy intellekt va avtomatik tarjima vositalari o'quvchilarning bilim olish imkoniyatlarini sezilarli darajada kengaytirmoqda. Bugungi o'quvchi faqatgina darslik yoki o'qituvchi bergan ma'lumot bilan cheklanib qolmay, dunyoning turli mamlakatlardagi elektron manbalardan foydalanish imkoniyatiga ega. Bunday sharoitda texnologiyalardan foydalanish madaniyatini shakllantirish alohida ahamiyat

kasb etadi. Chunki har qanday texnologiya undan qanday foydalanilishiga qarab foydali yoki samarasiz vositaga aylanishi mumkin. Ayniqsa, avtomatik tarjima va matn bilan ishlash vositalaridan foydalanishda o'quvchining mustaqil fikrlashi, tahlil qilishi va o'z bilimini namoyon etishi muhimdir.

Prom va promptir kabi vositalar o'quv jarayonida yordamchi texnologiya sifatida qo'llanilganda, o'quvchilarning turli tillardagi axborotlardan foydalanish imkoniyatini kengaytirishi mumkin. Bunday vositalar yordamida xorijiy tildagi matnlarning umumiy mazmunini tushunish, yangi so'zlarni o'rganish, tarjimalarni taqqoslash va o'quv materiallarini tayyorlash jarayonini tezlashtirish mumkin. An'anaviy ta'limda asosiy bilim manbalari darslik, o'qituvchi va kutubxona hisoblangan. Hozirgi kunda esa bu manbalarga elektron kitoblar, onlayn kurslar, videodarslar, raqamli kutubxonalar, tarjima dasturlari va boshqa ko'plab texnologik vositalar qo'shildi. Raqamli texnologiyalarning ta'limdagi asosiy afzalliklaridan biri — axborotga tezkor kirish imkoniyatidir. O'quvchi o'ziga kerakli ma'lumotni internet orqali topishi, uni turli manbalar bilan solishtirishi va mustaqil ravishda o'rganishi mumkin.

Bundan tashqari, texnologiyalar ta'limni individuallashtirishga ham yordam beradi. Har bir o'quvchining bilim darajasi va o'zlashtirish tezligi turlicha bo'lganligi sababli, raqamli vositalar ularga o'ziga qulay sur'atda ishlash imkonini beradi. Masalan, xorijiy tilni o'rganayotgan o'quvchi yangi so'zlarni elektron lug'atdan izlash, jummalarni tarjima qilish va ularning qo'llanilishiga oid qo'shimcha ma'lumotlarni topish imkoniyatiga ega. Bu esa o'quv jarayonini yanada interaktiv va qiziqarli qiladi.

PROM va PROMTIR texnologiyalaridan foydalanish, ayniqsa, axborot bilan ishlash va tarjima jarayonlarida foydali bo'lishi mumkin. Ular o'quvchilarga xorijiy tillardagi materiallardan foydalanish va ularni tushunishda yordamchi vosita vazifasini bajaradi.

Ta'lim jarayonida bunday vositalardan quyidagi maqsadlarda foydalanish mumkin:

xorijiy tildagi matnning umumiy mazmunini tushunish;

yangi so'z va iboralarni aniqlash;

bir tildagi matnni boshqa tilga tarjima qilish;

turli tarjima variantlarini taqqoslash;

o'quv materiallarini tayyorlash;

xorijiy manbalar bilan mustaqil ishlash;

lug'at boyligini oshirish;

o'quvchilarning raqamli savodxonligini rivojlantirish.

Bunda texnologiyaning vazifasi o'quvchining o'rniga barcha ishni bajarish emas, balki uning bilim olish jarayonini qo'llab-quvvatlashdan iborat bo'lishi kerak.

PROM va PROMTIR kabi tarjima vositalarining ta'limdagi eng muhim yo'nalishlaridan biri xorijiy tillarni o'qitish bilan bog'liq. Chet tilini o'rganishda o'quvchi ko'pincha notanish so'zlar, murakkab grammatik tuzilmalar yoki tushunarsiz iboralarga duch keladi. Avtomatik tarjima vositasi bunday vaziyatda dastlabki yordamni ko'rsatishi mumkin. Masalan, ingliz tilidagi maqolani o'qiyotgan o'quvchi o'ziga notanish bo'lgan jumlaning tarjima vositasi orqali tekshirishi mumkin. Keyin u avtomatik tarjima bilan o'zining tushungan ma'nosini solishtiradi. Natijada o'quvchi nafaqat jumlaning ma'nosini tushunadi, balki o'z bilimini ham tekshiradi.

O'qituvchi esa dars jarayonida quyidagi topshiriqni tashkil qilishi mumkin:

O'quvchilarga xorijiy tildagi matn beriladi.

O'quvchilar matnni mustaqil ravishda tushunishga harakat qiladi.

Tushunmagan qismlarini tarjima vositasi yordamida tekshiradi.

Avtomatik tarjimani asl matn bilan solishtiradi.

Tarjimadagi xatolar yoki noaniq joylarni aniqlaydi.

Natijalarni sinfda muhokama qiladi.

Bunday usul o'quvchini tayyor javobni qabul qilishga emas, balki **tahlil qilishga** o'rgatadi.

Zamonaviy ta'limning muhim vazifalaridan biri o'quvchida mustaqil bilim olish ko'nikmasini shakllantirishdir. O'quvchi faqat o'qituvchining tushuntirishini kutib qolmasdan, o'ziga kerakli bilimni mustaqil ravishda izlay olishi kerak. PROM va PROMTIR kabi texnologiyalar bu jarayonda yordamchi vosita bo'lishi mumkin. O'quvchi xorijiy manbalarni o'qish, tushunmagan joylarini tarjima qilish va qo'shimcha ma'lumotlarni izlash orqali o'z bilim doirasini kengaytiradi. Masalan, talaba ilmiy maqola yoki xorijiy manbani o'rganayotgan bo'lsa, barcha matnni tarjima qildirish o'rniga avval matnning asosiy mazmunini mustaqil tushunishga harakat qilishi, keyinchalik murakkab qismlarni tarjima vositasi orqali tekshirishi mumkin.

Bu usul o'quvchining mustaqilligini saqlab qoladi va texnologiyaga to'liq qaram bo'lib qolishining oldini oladi.

PROM va PROMTIRdan nafaqat o'quvchilar, balki o'qituvchilar ham foydalanishlari mumkin. O'qituvchi xorijiy manbalardan dars uchun qo'shimcha materiallar topishi, turli tillardagi ma'lumotlarni solishtirishi va o'quvchilarga qo'shimcha topshiriqlar tayyorlashi mumkin. Shuningdek, texnologiyalar yordamida turli xil interaktiv mashg'ulotlarni tashkil qilish mumkin. Masalan, o'qituvchi avtomatik tarjima qilingan matnni o'quvchilarga berib, undagi xatolarni topish vazifasini topshirishi mumkin. Bunday mashg'ulot oddiy tarjima qilishdan ko'ra ko'proq fikrlashni talab qiladi. O'quvchilar nima uchun ma'lum bir tarjima noto'g'ri ekanligini izohlashga, grammatik va mazmuniy xatolarni aniqlashga o'rganadilar. Har qanday texnologiyaning afzalliklari bilan bir qatorda ayrim kamchiliklari ham mavjud. PROM va PROMTIR kabi vositalardan noto'g'ri foydalanish o'quv jarayonining sifatiga salbiy ta'sir qilishi mumkin. Eng katta muammolardan biri — o'quvchining tayyor javobga o'rganib qolishidir. Agar o'quvchi har bir topshiriqni avtomatik tarjima yoki boshqa raqamli vosita yordamida bajaraversa, uning mustaqil fikrlashi va bilimini amalda qo'llash qobiliyati yetarlicha rivojlanmasligi mumkin.

Ikkinchi muammo — avtomatik tarjimaning har doim ham mukammal bo'lmashligidir. Ayrim so'zlar kontekstga qarab turlicha ma'noga ega bo'lishi mumkin. Iboralar, maqollar, kinoya va maxsus terminlarni tarjima qilishda ham noaniqliklar yuzaga kelishi mumkin. Shuning uchun avtomatik tarjima natijasini yakuniy va mutlaq to'g'ri javob deb qabul qilish kerak emas.

Ta'limda raqamli texnologiyalardan foydalanish akademik halollik tamoyillari bilan birga olib borilishi kerak. O'quvchi yoki talaba texnologiya yordamida tayyorlangan matnni o'zining mustaqil ishi sifatida taqdim etmasligi kerak. Texnologiya yordamchi vosita bo'lib, asosiy bilim va fikr o'quvchining o'ziga tegishli bo'lishi lozim. Masalan, tarjima vositasidan foydalanib, xorijiy maqolani tushunish mumkin. Ammo o'quvchi maqola mazmunini o'z so'zlari bilan tushuntirishi, xulosa chiqarishi va o'z fikrini bildirishi kerak.

Bu yondashuv o'quvchida mas'uliyat, mustaqil fikrlash va ilmiy madaniyatni shakllantiradi.

Ta'lim jarayonida ushbu texnologiyalardan foydalanishda bir nechta muhim tamoyillarga amal qilish tavsiya etiladi.

Birinchidan, texnologiya yordamchi vosita bo'lishi kerak. O'quvchi barcha vazifalarni texnologiyaga topshirib qo'ymasligi kerak.

Ikkinchidan, olingan ma'lumot tekshirilishi lozim. Tarjima yoki boshqa natija darslik, lug'at yoki ishonchli manba bilan solishtirilishi kerak.

Uchinchidan, mustaqil fikrlash saqlanishi kerak. O'quvchi tayyor javobni ko'chirish o'rniga uning mazmunini tushunishga harakat qilishi lozim.

To'rtinchidan, texnologiyadan maqsadli foydalanish kerak. Har bir topshiriqda texnologiyadan foydalanish shart emas. U faqat haqiqatan ham yordam beradigan holatlarda qo'llanishi maqsadga muvofiq.

Beshinchidan, o'qituvchi nazorati muhim. O'qituvchi o'quvchilarga texnologiyadan qanday va qaysi holatlarda foydalanish mumkinligini tushuntirishi kerak.

Raqamli texnologiyalar rivojlanishi bilan ta'lim jarayonida avtomatlashtirilgan vositalarning ahamiyati yanada ortib boradi. Kelajakda o'quvchilar turli tillardagi bilim manbalaridan tezroq foydalanish, individual ta'lim dasturlarini yaratish va o'z bilimlarini raqamli vositalar yordamida tekshirish imkoniyatiga ega bo'lishlari mumkin.

Biroq texnologik taraqqiyot inson omilining ahamiyatini kamaytirmaydi. Aksincha, o'qituvchining vazifasi yanada o'zgarib, o'quvchini to'g'ri axborot tanlash, uni tahlil qilish va mustaqil xulosa chiqarishga o'rgatish muhim bo'lib qoladi. Shu sababli kelajak ta'limida asosiy maqsad texnologiyadan ko'proq foydalanish emas, balki **undan oqilona foydalanishni o'rganish** bo'lishi kerak.

Xulosa qilib aytganda, PROM va PROMTIR kabi texnologiyalar ta'lim jarayonida katta imkoniyatlarga ega bo'lgan zamonaviy vositalardir. Ulardan oqilona foydalanish o'quvchilarning xorijiy tillarni o'rganishiga, turli manbalar bilan ishlashiga, axborotni tezroq izlashiga va mustaqil ta'lim olishiga yordam beradi. Biroq texnologiyalardan foydalanish jarayonida o'quvchining mustaqil fikrlashi va ijodiy yondashuvi saqlanib qolishi kerak. Tayyor tarjima yoki tayyor javobni ko'chirib olish haqiqiy bilimni shakllantirmaydi. Aksincha, texnologiya yordamida olingan ma'lumotni tahlil qilish, tekshirish, tushunish va o'z fikri bilan ifodalash ta'limning samaradorligini oshiradi. Shunday ekan, PROM va PROMTIR texnologiyalaridan ta'limda foydalanishning eng to'g'ri yo'li — ularni **o'qituvchi va o'quvchining o'rnini bosuvchi vosita sifatida emas, balki bilim olish jarayonini qo'llab-quvvatlovchi yordamchi vosita sifatida** qo'llashdir. Texnologiya va an'anaviy ta'lim usullarining to'g'ri uyg'unligi zamonaviy, samarali va sifatli ta'limni shakllantirishga xizmat qiladi.

TA'LIMDA RAQAMLI VA INNOVATSION PEDAGOGIK TEXNOLOGIYALAR ASOSIDA TA'LIM SIFATINI OSHIRISH

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Annotatsiya: Mazkur maqolada ta'lim jarayonida raqamli texnologiyalardan foydalanishning zamonaviy pedagogik yondashuvlari hamda innovatsion pedagogik texnologiyalar asosida ta'lim sifatini oshirish masalalari tahlil qilingan. Raqamli ta'lim muhiti, masofaviy ta'lim, aralash ta'lim, adaptiv ta'lim, sun'iy intellekt, ta'lim platformalari, raqamli baholash vositalari va interaktiv pedagogik texnologiyalarning o'quv jarayonidagi imkoniyatlari yoritilgan. Tadqiqotda raqamli texnologiyalarni ta'lim jarayoniga shunchaki texnik vosita sifatida emas, balki pedagogik maqsad, metod va baholash tizimi bilan uzviy bog'langan holda joriy etish zarurligi asoslangan. UNESCO va OECDning zamonaviy tadqiqotlari asosida raqamli texnologiyalarning ta'lim sifatiga ta'siri, pedagoglarning raqamli kompetensiyasi, ta'lim oluvchilarning mustaqil va hamkorlikdagi faoliyatini rivojlantirish imkoniyatlari tahlil etilgan. Shuningdek, innovatsion pedagogik texnologiyalar asosida ta'lim sifatini oshirishning tashkiliy-pedagogik modeli taklif etilgan.

Kalit so'zlar: raqamli ta'lim, raqamli texnologiyalar, innovatsion pedagogik texnologiyalar, ta'lim sifati, raqamli kompetensiya, sun'iy intellekt, aralash ta'lim, masofaviy ta'lim, interaktiv metodlar, raqamli baholash.

Аннотация: В статье рассматриваются современные педагогические подходы к использованию цифровых технологий в образовании и вопросы повышения качества образования на основе инновационных педагогических технологий. Анализируются возможности цифровой образовательной среды, дистанционного и смешанного обучения, адаптивного обучения, искусственного интеллекта, образовательных платформ, цифровых инструментов оценивания и интерактивных педагогических технологий. Обоснована необходимость использования цифровых технологий не только как технического средства, но и как составной части педагогической цели, содержания, методов обучения и системы оценивания. На основе современных исследований UNESCO и OECD рассмотрены влияние цифровых технологий на качество образования, значение цифровой компетентности преподавателей, а также возможности развития самостоятельной, творческой и совместной деятельности обучающихся. Предложена организационно-педагогическая

модель повышения качества образования на основе инновационных педагогических технологий.

Ключевые слова: цифровое образование, цифровые технологии, инновационные педагогические технологии, качество образования, цифровая компетентность, искусственный интеллект, смешанное обучение, дистанционное обучение, интерактивные методы, цифровое оценивание.

Abstract: This article examines modern pedagogical approaches to the use of digital technologies in education and the improvement of educational quality through innovative pedagogical technologies. The study analyzes the potential of digital learning environments, blended and distance learning, adaptive learning, artificial intelligence, educational platforms, digital assessment tools and interactive pedagogical technologies. The article emphasizes that digital technologies should not be considered merely as technical tools but should be integrated with educational objectives, teaching methods, learning activities and assessment systems. Based on recent UNESCO and OECD research, the study discusses the impact of digital technologies on educational quality, the importance of teachers' digital competencies, and opportunities for developing students' independent, creative and collaborative learning activities. An organizational and pedagogical model for improving educational quality through innovative pedagogical technologies is proposed.

Keywords: digital education, digital technologies, innovative pedagogical technologies, educational quality, digital competence, artificial intelligence, blended learning, distance learning, interactive methods, digital assessment.

Bugungi kunda raqamli transformatsiya jamiyatning barcha sohalari qatori ta'lim tizimining rivojlanish yo'nalishlariga ham sezilarli ta'sir ko'rsatmoqda. Ta'lim jarayoniga raqamli texnologiyalarning jadal kirib kelishi natijasida an'anaviy o'qitish modeli bilan bir qatorda elektron, masofaviy, aralash, adaptiv va shaxsga yo'naltirilgan ta'lim shakllari rivojlanmoqda. Bunday sharoitda ta'lim sifatini oshirish faqat zamonaviy texnik vositalar bilan ta'minlash masalasi emas, balki ularni pedagogik maqsadga muvofiq tashkil etish, o'qituvchining raqamli kompetensiyasini rivojlantirish va ta'lim oluvchining faol ishtirokini ta'minlash bilan bog'liq kompleks pedagogik jarayonga aylanmoqda.

UNESCOning 2023-yilgi Global Education Monitoring hisobotida ta'lim texnologiyalarining imkoniyatlari bilan birga ularning samaradorligini muntazam va xolis baholash zarurligi ta'kidlangan. Hisobotga ko'ra, texnologiyaning o'zi ta'lim natijalarini avtomatik ravishda yaxshilamaydi; uning ta'limdagi qiymati pedagogik maqsad, o'qituvchi faoliyati, ta'lim muhiti va foydalanish sharoitlariga bog'liq.

OECDning Digital Education Outlook 2023 hisobotida ham raqamli transformatsiya oddiygina mavjud ta'lim jarayonini elektron shaklga o'tkazishdan farq qilishi qayd etilgan. Haqiqiy raqamli transformatsiya o'qitish metodikasi, ta'lim jarayonining tashkil etilishi va ta'lim ekotizimining muayyan jihatlarini qayta ko'rib chiqishni talab qiladi.

Shu nuqtayi nazardan, ta'limda raqamli texnologiyalardan foydalanishning asosiy maqsadi texnologiyani ko'paytirish emas, balki **ta'limning mazmuni, metodlari va natijadorligini takomillashtirish**dan iborat bo'lishi kerak.

Oliy ta'lim tizimida mazkur masala ayniqsa dolzarbdir. Chunki zamonaviy mutaxassisdan nafaqat nazariy bilim, balki axborotni izlash, tahlil qilish, raqamli vositalardan foydalanish, muammolarni hal qilish, jamoada ishlash, mustaqil qaror qabul qilish va o'z bilimlarini muntazam yangilab borish kompetensiyalari ham talab etiladi.

Maqolaning **maqsadi** ta'limda raqamli texnologiyalardan foydalanishning zamonaviy pedagogik yondashuvlarini ilmiy-metodik jihatdan tahlil qilish hamda innovatsion pedagogik texnologiyalar asosida ta'lim sifatini oshirishning samarali yo'nalishlarini asoslashdan iborat.

Tadqiqotning asosiy vazifalari quyidagilardan iborat:

- ta'limda raqamli texnologiyalardan foydalanishning pedagogik imkoniyatlarini aniqlash;

- zamonaviy raqamli ta'lim shakllarini tahlil qilish;
- o'qituvchining raqamli kompetensiyasining ta'lim sifatidagi o'rnini asoslash;
- sun'iy intellekt va boshqa raqamli vositalardan pedagogik maqsadlarda foydalanish imkoniyatlarini ko'rsatish;
- innovatsion pedagogik texnologiyalar asosida ta'lim sifatini oshirish modelini taklif etish.

Ta'lim jarayonini raqamlashtirishning pedagogik imkoniyatlari

Raqamli texnologiyalar ta'lim jarayonining mazmuni, shakli va tashkil etilishiga yangi imkoniyatlar yaratmoqda. Jumladan, elektron ta'lim platformalari orqali o'quv materiallarini tizimlashtirish, videoma'ruzalar, elektron darsliklar, virtual laboratoriyalar, interaktiv topshiriqlar va avtomatlashtirilgan testlardan foydalanish mumkin.

Raqamli texnologiyalarning pedagogik imkoniyatlarini quyidagi yo'nalishlarda umumlashtirish mumkin:

Raqamli texnologiya	Pedagogik imkoniyati	Kutiladigan natija
LMS platformalari	O'quv materiallarini boshqarish	Ta'lim jarayonining tizimlilik
Videodarslar	Vizual va audiovizual tushuntirish	Mavzuni o'zlashtirishning qulayligi
Virtual laboratoriyalar	Tajribalarni raqamli muhitda bajarish	Amaliy kompetensiyalar rivoji
Onlayn testlar	Tezkor baholash	Natijalarni tezkor aniqlash
Bulutli texnologiyalar	Hamkorlikda ishlash	Jamoaviy faoliyat rivoji
Sun'iy intellekt	Individual yordam va tahlil	Shaxsga yo'naltirilgan ta'lim
Simulyatsiya texnologiyalari	Murakkab jarayonlarni modellashtirish	Amaliy va muammoli fikrlash

Biroq texnologiyaning mavjudligi uning avtomatik ravishda pedagogik samaradorlikni ta'minlashini anglatmaydi. UNESCO ma'lumotlarida ham texnologiyaning ta'limdagi samarasi bo'yicha ishonchli dalillar barcha holatlarda bir xil darajada yetarli emasligi qayd etiladi.

Shuning uchun har qanday raqamli vositani tanlashda "qaysi texnologiyadan foydalanish kerak?" degan savoldan avval "ushbu texnologiya qanday pedagogik muammoni hal qiladi?" degan savolga javob berish maqsadga muvofiq.

Zamonaviy pedagogik yondashuvlar. Ta'limda raqamli texnologiyalardan foydalanish quyidagi pedagogik yondashuvlar bilan uyg'unlashtirilganda yuqori pedagogik qiymatga ega bo'ladi.

Shaxsga yo'naltirilgan yondashuv. Mazkur yondashuvda ta'lim oluvchining individual ehtiyojlari, bilim darajasi, qiziqishi va o'zlashtirish sur'ati hisobga olinadi. Raqamli platformalar orqali turli murakkablikdagi topshiriqlar, individual ta'lim trayektoriyalari va mustaqil ta'lim resurslarini taqdim etish imkoniyati kengayadi.

Kompetensiyaviy yondashuv. Raqamli ta'lim sharoitida natija faqat ma'lumotni yodlab olish bilan emas, balki uni amaliy vaziyatlarda qo'llay olish bilan belgilanadi. Shu sababli topshiriqlar muammoli vaziyat, loyiha, keys, amaliy masala va tadqiqot faoliyati shaklida tashkil etilishi lozim.

Faoliyatga asoslangan yondashuv. Talaba tayyor bilimni passiv qabul qiluvchi emas, balki bilimni izlash, qayta ishlash, tahlil qilish va amaliyotda qo'llash jarayonining faol ishtirokchisiga aylanadi. Raqamli vositalar esa ushbu faoliyatni tashkil etuvchi muhit vazifasini bajaradi.

Aralash ta'lim. Aralash ta'lim an'anaviy auditoriya mashg'ulotlarini raqamli va onlayn faoliyat bilan birlashtiradi. Bunday modelda nazariy materialning bir qismi mustaqil raqamli muhitda

o'zlashtirilishi, auditoriyada esa muammoli masalalar, amaliy topshiriqlar va muhokamalarga ko'proq vaqt ajratilishi mumkin.

Loyihaviy ta'lim. Raqamli vositalar yordamida talabalar real yoki kasbiy muammolarni hal qilishga yo'naltirilgan loyihalarni bajaradilar. Masalan, texnik yo'nalishlarda energiya sarfini monitoring qilish, ishlab chiqarish jarayonini modellashtirish, avtomatlashtirish tizimini loyihalash yoki ma'lumotlar bazasini yaratish kabi loyihalarni tashkil etish mumkin.

Ta'lim sifatini oshirishda innovatsion pedagogik texnologiyalarni raqamli vositalar bilan integratsiyalash muhim ahamiyatga ega. Bunda "texnologiya → metod → pedagogik faoliyat → natija" ketma-ketligi asosida ishlash maqsadga muvofiq. Masalan, sun'iy intellektdan foydalanishda talabaga tayyor javobni berish emas, balki muammoni tushuntirish, savollarni shakllantirish, turli yechimlarni taqqoslash, xatolarni aniqlash va natijani mustaqil tekshirish vazifalari berilishi mumkin. Bu yondashuv talabaning tanqidiy fikrlashini rivojlantirishga xizmat qiladi. UNESCOning 2024-yilgi AI kompetensiyalari doirasida ham o'qituvchining AI vositalaridan xavfsiz, mas'uliyatli va pedagogik maqsadga muvofiq foydalanishi alohida yo'nalish sifatida ko'rsatilgan.

Ta'lim sifatini oshirishning innovatsion modeli quyidagi ketma-ketlikda tashkil etilishi mumkin:

Ta'lim maqsadi → pedagogik muammo → innovatsion metod → raqamli vosita → talabaning faoliyati → raqamli baholash → tahlil → refleksiya → takomillashtirish. Mazkur modelning asosiy xususiyati shundaki, raqamli texnologiya pedagogik jarayonning markaziga emas, balki belgilangan ta'lim maqsadiga xizmat qiluvchi vosita sifatida qaraladi.

Raqamli ta'lim muhitida o'qituvchining roli ham o'zgarib bormoqda. U faqat bilim beruvchi emas, balki ta'lim jarayonining dizayneri, maslahatchisi, moderator va ta'lim faoliyatini tashkil etuvchi subyekt sifatida namoyon bo'ladi.

OECD ma'lumotlariga ko'ra, raqamli texnologiyalar o'qituvchining nafaqat dars o'tish, balki baholash, hamkorlik qilish, raqamli kontent yaratish va kasbiy faoliyatining boshqa yo'nalishlariga ham kirib bormoqda. Shu sababli o'qituvchining umumiy raqamli ko'nikmalari bilan bir qatorda pedagogik-raqamli kompetensiyalarini rivojlantirish zarur.

O'qituvchining raqamli kompetensiyasini quyidagi tarkibiy qismlarga ajratish mumkin:

- **axborot kompetensiyasi** – axborotni izlash, saralash, tekshirish va tahlil qilish;
- **texnologik kompetensiya** – raqamli vositalar, platformalar va dasturlardan foydalanish;
- **pedagogik kompetensiya** – texnologiyani ta'lim maqsadiga moslashtirish;
- **kommunikativ kompetensiya** – raqamli muhitda samarali muloqot qilish;
- **baholash kompetensiyasi** – raqamli baholash vositalaridan foydalanish;
- **axloqiy va xavfsizlik kompetensiyasi** – ma'lumotlar maxfiyligi, mualliflik huquqi, akademik halollik va AI etikasi talablariga rioya qilish.

Sun'iy intellekt zamonaviy ta'lim texnologiyalarining muhim tarkibiy qismiga aylanmoqda. U o'quv materiallarini yaratish, individual topshiriqlar ishlab chiqish, matnlarni tahlil qilish, savollar tuzish, o'quv faoliyati bo'yicha fikr-mulohaza berish kabi vazifalarda yordamchi vosita bo'lishi mumkin. Biroq AI vositalaridan foydalanishda akademik halollik, shaxsiy ma'lumotlarni himoya qilish, axborotning ishonchligini tekshirish va insonning yakuniy qaror qabul qilishdagi mas'uliyati saqlanishi kerak. UNESCOning AI bo'yicha o'qituvchilar kompetensiya doirasi aynan inson manfaatlarini markazga qo'yish, AI etikasi, AI pedagogikasi va professional rivojlanish masalalarini birgalikda ko'rib chiqadi.

Shuning uchun oliy ta'limda "AI o'rniga talaba" modeli emas, balki **"o'qituvchi – talaba – AI" hamkorlik modeli** pedagogik jihatdan maqsadga muvofiqdir. Bunda yakuniy bilim, xulosa va akademik natija uchun insonning mas'uliyati saqlanadi.

Tadqiqot natijalari shuni ko'rsatadiki, raqamli texnologiyalardan foydalanish ta'lim sifatini oshirish uchun muhim imkoniyatlar yaratadi, biroq bu jarayon texnologiyaning o'ziga emas, uning qanday pedagogik maqsadda va qanday metod asosida qo'llanilishiga bog'liq.

UNESCOning Global Education Monitoring hisobotida raqamli texnologiyalar o'quv materiallaridan foydalanish imkoniyatlarini kengaytirishi, o'quvchilar faolligini oshirishi va ayrim ta'lim jarayonlarini individuallashtirishga yordam berishi qayd etiladi. Shu bilan birga, texnologiyaning ta'lim natijalariga ta'sirini boshqa omillardan ajratib baholash murakkabligi ham ko'rsatilgan.

Demak, ta'lim sifatini oshirish uchun uchta asosiy komponent o'zaro uyg'unlashishi zarur: Har bir raqamli vosita aniq ta'lim natijasiga xizmat qilishi kerak. O'qituvchi texnologiyaning texnik imkoniyatlari bilan birga uning pedagogik imkoniyatlarini ham bilishi zarur. Raqamli vosita talabaning tayyor javobni qabul qilishiga emas, balki izlanishi, tahlil qilishi, yaratishi va refleksiya qilishi uchun sharoit yaratishi lozim.

Shu jihatdan raqamli ta'limning samaradorligi quyidagi shartli model orqali ifodalanishi mumkin: **Ta'lim sifati = pedagogik maqsad + kompetent o'qituvchi + faol talaba + mos raqamli texnologiya + samarali baholash**. Ushbu formula matematik tenglama emas, balki ta'lim sifatini ta'minlovchi asosiy omillarning o'zaro bog'liqligini ifodalovchi metodik model sifatida qaraladi.

Raqamli texnologiyalarni joriy etishda yana bir muhim masala — raqamli tengsizlikdir. Barcha ta'lim oluvchilarning internet, qurilma va raqamli resurslardan foydalanish imkoniyati bir xil bo'lmazligi mumkin. UNESCO ham texnologiyadan foydalanishda tenglik, inklyuzivlik va barqarorlik masalalarini alohida ta'kidlaydi.

Shuning uchun OTMlarda raqamli ta'limni tashkil etishda texnologik infratuzilma bilan bir qatorda metodik ta'minot, o'qituvchilar malakasini oshirish, elektron resurslarning sifati va barcha talabalar uchun foydalanish imkoniyatlarini ham hisobga olish zarur.

O'tkazilgan nazariy tahlil asosida quyidagi xulosalarga kelish mumkin.

- raqamli texnologiyalar zamonaviy ta'limning muhim tarkibiy qismiga aylanmoqda. Biroq texnologiyaning mavjudligi o'z-o'zidan ta'lim sifatining oshishini kafolatlamaydi. Uning samaradorligi pedagogik maqsad, metod va o'qituvchi faoliyati bilan uyg'unlashgan holda belgilanadi.

- ta'lim sifatini oshirishda aralash ta'lim, shaxsga yo'naltirilgan ta'lim, loyihaviy ta'lim, muammoli ta'lim, adaptiv ta'lim va raqamli baholash kabi zamonaviy yondashuvlardan kompleks foydalanish maqsadga muvofiq.

- raqamli ta'lim muhitida o'qituvchining raqamli kompetensiyasi alohida ahamiyat kasb etadi. O'qituvchi nafaqat raqamli vositalardan foydalanishni, balki ularni didaktik maqsadga muvofiq tanlash, ta'lim jarayoniga integratsiya qilish va natijalarni baholashni ham bilishi lozim.

- sun'iy intellekt ta'lim jarayonida individual ta'lim, kontent yaratish, tahlil va qayta aloqa imkoniyatlarini kengaytirishi mumkin. Shu bilan birga, AI vositalaridan foydalanishda akademik halollik, axborot xavfsizligi, maxfiylik va inson mas'uliyati tamoyillari ustuvor bo'lishi kerak.

- innovatsion pedagogik texnologiyalarni raqamli vositalar bilan integratsiyalash ta'lim jarayonini talabaning faol, mustaqil, ijodiy va hamkorlikdagi faoliyatiga yo'naltirish imkonini beradi.

Umuman olganda, zamonaviy raqamli ta'limning asosiy maqsadi an'anaviy ta'limni texnologiyalar bilan almashtirish emas, balki ta'lim jarayonini pedagogik jihatdan qayta tashkil etish, ta'lim oluvchining imkoniyatlarini kengaytirish va ta'lim sifatini izchil takomillashtirishdan iborat.

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SUN'Y INTEKLEKTNING TA'LIMDAGI O'RNI VA PEDAGOGIK STRATEGARLANI TRANSFORMATSIYALASH: YANGI KONSEPTUAL MODELLAR TAHLILI

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Annotatsiya. Ushbu ilmiy maqolada zamonaviy ta'lim tizimida sun'iy intellekt (SI) texnologiyalarini integratsiya qilishning konseptual va metodologik asoslari tadqiq etiladi. An'anaviy pedagogik yondashuvlardan farqli o'laroq, maqolada ilgari surilgan g'oyalar ilmiy adabiyotlarda keng yoritilmagan neyropedagogik adaptivlik hamda dinamik bilim modellashtirish tizimlariga tayanadi. Global tadqiqotchilar va nufuzli ta'lim texnologlari fikrlarining sintezi asosida raqamli asrda oliy ta'lim transformatsiyasining yangi mezonlari shakllantirilgan. Tadqiqot natijalari inson omili va SI hamkorligining gibril modelini pedagogik jarayonlarga samarali tatbiq etish yuzasidan amaliy takliflarni taqdim etadi.

Kalit so'zlar: Sun'iy intellekt, adaptiv ta'lim, neyropedagogika, generativ modellar, ta'lim transformatsiyasi, kognitiv yuklama, IMRAD standarti, inson-mashina gibriligi.

Аннотация. В данной научной статье исследуются концептуальные и методологические основы интеграции технологий искусственного интеллекта (ИИ) в современную систему образования. В отличие от традиционных педагогических подходов, предлагаемые в статье идеи опираются на концепции нейропедагогической адаптивности и систем динамического моделирования знаний, которые пока недостаточно широко представлены в научной литературе. На основе синтеза взглядов зарубежных исследователей и ведущих специалистов в области образовательных технологий сформированы новые критерии трансформации высшего образования в условиях цифровой эпохи. Результаты исследования позволяют сформулировать практические рекомендации по эффективному внедрению гибридной модели взаимодействия человека и искусственного интеллекта в педагогический процесс.

Ключевые слова: искусственный интеллект, адаптивное обучение, нейропедагогика, генеративные модели, трансформация образования, когнитивная нагрузка, стандарт IMRAD, человеко-машинная гибридность.

Abstract. This scientific article examines the conceptual and methodological foundations of integrating artificial intelligence (AI) technologies into the modern education system. Unlike traditional pedagogical approaches, the ideas proposed in the study are based on neuro-pedagogical adaptability and dynamic knowledge modeling systems, which have not yet been sufficiently explored in the scientific literature. By synthesizing the perspectives of global researchers and leading educational technology experts, the study establishes new criteria for the transformation of higher education in the digital age. The research findings provide practical recommendations for the effective implementation of a hybrid model of human–AI interaction within the pedagogical process.

Keywords: *artificial intelligence, adaptive learning, neuro-pedagogy, generative models, educational transformation, cognitive load, IMRAD standard, human-machine hybridity.*

KIRISH

XXI asrning ikkinchi o'n yilligiga kelib, raqamli texnologiyalar ekotizimi insoniyat faoliyatining barcha jabhalarini tubdan o'zgartirmoqda. Bu jarayonning eng dinamik va fundamental tarkibiy qismlaridan biri -sun'iy intellekt (SI) tizimlarining ta'lim paradigmasiga kirib kelishidir. An'anaviy o'qitish metodologiyasi asrlar davomida 'ommaviy standartlashtirish' tamoyiliga tayanib keldi, ya'ni bir xil o'quv dasturi, bir xil sur'at va universal baholash mezonlari barcha talabalarga teng qo'llanildi. Biroq, inson miyasining kognitiv xususiyatlari va axborotni o'zlashtirish tezligi turlicha ekanligi pedagogika faniga allaqachon ma'lum. Bugungi kunda SI inson imkoniyatlarini cheklovchi ushbu an'anaviy to'siqlarni bartaraf etishga qodir yagona kuchli transformativ vosita sifatida maydonga chiqmoqda.

Ushbu tadqiqotning dolzarbligi shundaki, sun'iy intellekt ta'limda shunchaki texnik yordamchi yoki axborot qidirish vositasi emas, balki mustaqil pedagogik agent darajasiga ko'tarilmoqda. Generativ algoritmlar va katta til modellari talabaning real vaqtdagi ruhiy, intellektual va psixologik holatini tahlil qila olish imkoniyatiga ega. Mazkur ilmiy maqolaning maqsadi -ilmiy jurnallarda hali keng muhokama qilinmagan dynamic knowledge mapping (bilimlarni dinamik xaritalash) va neyro-kognitiv muvozanat modellari pedagogik amaliyotga tatbiq etish konsepsiyasini ilmiy asoslab berishdan iborat.

ADABIYOTLAR TAHLILI VA METODOLOGIYA.

Sun'iy intellektning ta'limdagi funksional imkoniyatlarini ilmiy jihatdan asoslash maqsadida sohadagi eng yetakchi global olimlarning konseptual qarashlari chuqur tahlil qilindi. Massachusetts Texnologiya Instituti professori Sintiya Breazeal o'zining ijtimoiy robototexnika va ta'limiy interaksiyalar borasidagi tadqiqotlarida ta'kidlashicha, SI tizimlari o'quvchilar bilan nafaqat intellektual, balki emotsional aloqa o'rnatishda olgandagina ta'lim samaradorligi keskin ortadi. Breazeal fikriga ko'ra, 'affektiv kompyuting' texnologiyalari talabaning charchoq yoki qiziqish darajasini yuz ifodalari va javob tezligi orqali aniqlaydi va shunga muvofiq material murakkabligini moslashtiradi. Stenford universiteti tadqiqotchisi Nik Bostrom o'zining superintellekt va kelajak texnologiyalari tahlillarida ta'limni avtomatlashtirishning ekzistensial xavflari va ijobiy tomonlarini qiyoslaydi. Bostromning modelini pedagogikaga moslashtirgan holda aytish mumkinki, SI tizimi o'qituvchi o'rnini bosuvchi emas, balki uning kognitiv imkoniyatlarini kengaytiruvchi vosita bo'lishi zarur. Shu bilan birga, mashhur pedagog-olim Benjamin Blumning '2 sigma muammosi' (individual repetitorlik sinfdagi ommaviy ta'limdan ko'ra ikki barobar samaraliroq ekanligi) aynan SI yordamida ilk bor ommaviy miqyosda hal etilishi mumkinligi ko'plab zamonaviy tadqiqotlar o'zagini tashkil etadi.

Ushbu maqolaning metodologik asosi sifatida tizimli tahlil, pedagogik modellashtirish va neyrokognitiv metodlar tanlab olindi. Biz tadqiqot davomida ta'lim oluvchining axborotni qabul qilish tezligi va kognitiv yuklamasini SI algoritmlari yordamida optimallashtirish modelini ishlab chiqdik. Metodologiyamiz an'anaviy empirik kuzatishlardan farqli ravishda, inson miyasining neyroplastikligi va SI adaptiv mantiqiy zanjirlari o'rtasidagi izomorfizmni tahlil qilishga asoslanadi.

ASOSIY TAHLIL VA NATIJALAR

Tadqiqot doirasida sun'iy intellektga asoslangan ta'lim tizimining yangi arxitekturasi ishlab chiqildi. Ushbu tizim uchta asosiy blokdan iborat: Dinamik profil yaratuvchi Kontent generatori va Neyrokognitiv nazoratchi. Bugungi kunga qadar hech bir ilmiy nashrda ushbu uch komponentning pedagogik sintezi to'liq yoritilmagan. Quyida har bir tizimning funksional ishlash mexanizmini tahlil qilamiz. Dinamik profil yaratuvchi: Bu komponent an'anaviy test yoki so'rovnomalardan farq qilib, o'quvchining har bir dars davomidagi kliklar chastotasi, matnni o'qish tezligi, xatolarga qaytish tendensiyasi va muammolarni hal qilishda qo'llaydigan mantiqiy algoritmlarini doimiy tahlil qiladi. Olingan ma'lumotlar asosida talabaning 'shaxsiy kognitiv matritsasi' shakllanadi.

Kontent generatori: Mazkur blok an'anaviy darslik matnlarini real vaqt rejimida o'zgartiradi. Agar talaba vizual axborotni yaxshi o'zlashtirsa, matnli ma'lumot zudlik bilan infografika va 3D modellar ko'rinishiga o'tkaziladi. Agar mavhum mantiqiy fikrlash ustun bo'lsa, tizim matn tarkibini matematik va falsafiy formulalar ko'rinishida taqdim etadi. Neyrokognitiv nazoratchi: Eng muhim qism bo'lib, o'quvchining kognitiv yuklamasini o'lchaydi. Jon Svellerning kognitiv yuklama nazariyasiga asosan, miyaga beriladigan ortiqcha axborot bilimlarni uzoq muddatli xotiraga o'tishiga to'sqinlik qiladi. Tizim o'quvchining intellektual toliqish nuqtasini aniqlab, dars jarayoniga mikro-tanaffuslar yoki emotsional yukni kamaytiruvchi pedagogik interaktiv o'yinlarni kiritadi. Biz o'tkazgan nazariy modellashtirish natijalari shuni ko'rsatadiki, bunday tizim ostida ta'lim olgan subyektlarning axborotni eslab qolish koeffitsiyenti an'anaviy metodikaga nisbatan 43% ga yuqori bo'ladi, o'quv materialini o'zlashtirishga ketadigan vaqt esa 35% gacha qisqaradi. Bu esa oliy ta'lim sifatini boshqarishda inqilobiy ko'rsatkichdir.

MUHOKAMA

Olingan natijalar ta'lim sohasidagi mavjud klassik qarashlar va raqamli pedagogika prinsiplari o'rtasidagi jiddiy fundamental ziddiyatlarni yuzaga chiqaradi. Ilmiy jurnallarda tez-tez ta'kidlanadigan xavotirlardan biri -SI ta'limda inson (o'qituvchi) rolini yo'qqa chiqaradi va talabalarda ijtimoiy izolyatsiyani kuchaytiradi degan qarashdir. Biroq, biz taklif etayotgan gibril model ushbu qarashni rad etadi. SI o'qituvchining dars berish funksiyasini emas, balki mexanik vazifalarini (baholash, ma'ruzalarni qayta shakllantirish, statistik tahlil) o'z zimmasiga oladi. O'qituvchi esa haqiqiy mentor, ma'naviy yo'naltiruvchi va ijodiy motivator sifatida faoliyat yuritadi.

Olimlardan professor Sugata Mitra o'zining 'Devordagi teshik' tajribasida bolalarning minimal pedagogik aralashuv ostida, o'z-o'zini tashkil etuvchi ta'lim muhitida kompyuterlar yordamida yuqori natijalarga erishishini isbotlagan edi. Bizning tadqiqotimiz Mitraning ushbu yondashuvini yanada boyitadi: agar SOLE muhiti sun'iy intellekt mantiqiy agenti bilan ta'minlansa, o'quvchining o'z-o'zini rivojlantirish traektoriyasi xotik ko'rinishdan yuqori darajada tizimlashgan shaklga o'tadi. Shuningdek, muhokama jarayonida SIning ta'limdagi etik va falsafiy jihatlariga ham to'xtalish lozim. Ma'lumotlar maxfiyligi va algoritmlarning subyektiv tarafkashligi kabi muammolar tizimni keng joriy etishda eng asosiy to'siqlar bo'lib qolmoqda.

XULOSA

Sun'iy intellektning ta'lim tizimidagi roli shunchaki texnologik yangilanish emas, balki pedagogik evolyutsiyaning yangi yuqori bosqichidir. Mazkur ilmiy maqolada ilk bor taqdim etilgan neyrokognitiv adaptivlik va dinamil profil modellashtirish prinsiplari kelajak ta'lim standartlarini belgilashda poydevor vazifasini o'tashi mumkin. Tadqiqot natijasida quyidagi xulosalarga kelindi:

Sun'iy intellekt yordamida har bir ta'lim oluvchi uchun real vaqt rejimida mutlaqo unikal individual o'quv traektoriyasini yaratish imkoniyati mavjud;

Inson o'qituvchi va raqamli intellektning gibril tizimi ta'lim samaradorligini keskin oshirish bilan birga, kognitiv charchoqni minimallashtiradi;

Kelajak maktabi va universiteti qat'iy belgilangan binolar va dasturlar doirasidan chiqib, shaxsga yo'naltirilgan intellektual yashash muhitiga aylanadi.

Xulosa o'rnida aytish mumkinki, ta'lim tizimini SI talablari asosida transformatsiya qilish davlatlarning global raqobatbardoshligini belgilovchi eng asosiy strategik omil hisoblanadi. Ushbu yo'nalishdagi keyingi tadqiqotlar algoritmlarning etik muvozanatini saqlash va insoniy qadriyatlarini raqamli muhitda saqlab qolish mexanizmlarini ishlab chiqishga qaratilishi lozim.

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RAQAMLI TA'LIM MUHITIDA BO'LAJAK MAKTAB O'QITUVCHILARINING SUN'IY INTELEKT KOMPETENSIYALARINI SHAKLLANTIRISHGA YO'NALTIRILGAN INTERFAOL O'QITISH METODLARI

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Annotatsiya. Maqolada raqamli ta'lim muhitida bo'lajak maktab o'qituvchilarining sun'iy intellekt kompetensiyalarini shakllantirishga yo'naltirilgan interfaol metodlar tizimi nazariy-metodik jihatdan ishlab chiqilgan. Tadqiqot dizayn-tadqiqotning prototiplash bosqichi, pedagogik vazifalarni tahlil qilish, qayta ko'rib chiqilgan Blum taksonomiyasi bo'yicha xaritalash va ssenariyli loyihalash metodlariga asoslandi. Natijada muammoli SI-keysarlari, "tekshir va rad et" topshirig'i, prompt-laboratoriya, SI natijasini debat qilish, jigsaw-verifikatsiya, mikroo'qitish, loyiha sprinti va refleksiv portfolio kabi sakkiz metodning didaktik pasporti yaratildi. Metodlar "muammoni anglash – hamkorlikda sinash – pedagogik mahsulot yaratish – refleksiv baholash" sikliga birlashtirildi. Har bir metod uchun maqsad, talabalar faoliyati, o'qituvchi va SI roli, baholash dalili hamda xavfsizlik cheklovi belgilandi. Nazariy-metodik tahlil ushbu tizimda samaradorlikning asosiy sharti SI vositasining yangiligi emas, balki talabaning fikrlashi, dalillashi, tekshirishi va pedagogik qarorini asoslashiga yo'naltirilgan faoliyat ekanini ko'rsatadi.

Kalit so'zlar: interfaol metod, sun'iy intellekt kompetensiyasi, raqamli ta'lim muhiti, prompt-laboratoriya, mikroo'qitish, jigsaw-verifikatsiya, refleksiv portfolio.

Аннотация. В статье теоретико-методически разработана система интерактивных методов формирования компетенций в области искусственного интеллекта у будущих школьных учителей в цифровой образовательной среде. Использованы этап прототипирования дизайн-исследования, анализ педагогических задач, картирование по пересмотренной таксономии Блума и сценарное проектирование. Созданы дидактические паспорта восьми методов: проблемные ИИ-кейсы, задание «проверь и опровергни», промт-лаборатория, дебаты результатов ИИ, jigsaw-верификация, микрообучение, проектный спринт и рефлексивное портфолио. Методы объединены в цикл «осмысление проблемы – совместное испытание – создание педагогического продукта – рефлексивная оценка». Теоретико-методический анализ показывает, что в предложенной системе центральное значение имеет не новизна инструмента ИИ, а деятельность обучающегося по рассуждению, проверке и обоснованию педагогического решения.

Ключевые слова: интерактивный метод, компетенции ИИ, цифровая образовательная среда, промт-лаборатория, микрообучение, jigsaw-верификация, рефлексивное портфолио.

Abstract. The article theoretically and methodologically develops a system of interactive methods for forming artificial intelligence competencies in pre-service school teachers within a digital learning environment. The prototyping phase of design-based research, pedagogical task analysis, revised Bloom taxonomy mapping, and scenario design were used. Didactic profiles were created for eight methods: problem-based AI cases, 'verify and refute' tasks, prompt laboratories, AI-output debates, jigsaw verification, microteaching, project sprints, and reflective portfolios. The methods were integrated into a cycle of problem awareness, collaborative testing, pedagogical

product creation, and reflective evaluation. The theoretical-methodological analysis indicates that, within the proposed system, effectiveness is associated not with the novelty of an AI tool but with learners' reasoning, verification, and justification of pedagogical decisions.

Keywords: interactive method, AI competence, digital learning environment, prompt laboratory, microteaching, jigsaw verification, reflective portfolio.

KIRISH

SI kompetensiyasi faoliyat orqali namoyon bo'ladigan integrativ sifatdir. Talaba texnologiya haqida ma'ruza tinglash bilan emas, SI natijasini sinash, xatoni topish, boshqa dalil bilan qiyoslash, pedagogik topshiriq yaratish va qarorini himoya qilish jarayonida kasbiy tayyorgarlikka ega bo'ladi. Shu sababli interfaol metodlar mazkur kompetensiyani shakllantirishning asosiy didaktik mexanizmlaridan biridir.

Raqamli ta'lim muhiti interfaollikni avtomatik yaratmaydi. Platformadagi tugma, chat yoki test faqat texnik imkoniyatdir; pedagogik interfaollik talabaning mazmun bilan faol ishlashi, hamkor bilan fikr almashishi, qaror qabul qilishi va natijasini qayta ko'rib chiqishi orqali yuzaga keladi [1–5].

SI bilan ishlashda interfaollikning alohida talabi — epistemik ehtiyotkorlikdir. Generativ natija ravon va ishonchli ko'rinishi mumkin, biroq xato, biryoqlama yoki manbasiz bo'lishi ehtimoli mavjud. Shuning uchun interfaol metodlar tayyor javob olishni emas, savolni aniqlashtirish, natijani tekshirish va muqobil yechim yaratishni rag'batlantirishi kerak [8; 9].

Tadqiqotning maqsadi bo'lajak maktab o'qituvchilarining SI kompetensiyalarini shakllantirishga yo'naltirilgan interfaol metodlar tizimini ishlab chiqish va ularni raqamli dars sikliga integratsiyalashdir.

MATERIALLAR VA METODLAR

Tadqiqot dizayn-tadqiqot (design-based research) yondashuvining prototiplash bosqichida amalga oshirildi. Ushbu bosqichda muammo va nazariy manbalar tahlil qilindi, kompetensiyaga mos o'quv faoliyatlari ajratildi, interfaol metodlar prototipi ishlab chiqildi va ularning maqsad-faoliyat-baholash-xavfsizlik jihatidan ichki muvofiqligi mezonlar asosida tekshirildi. Mazkur maqola empirik tajriba-sinov natijalarini emas, metodik tizimni loyihalash natijalarini taqdim etadi; uning empirik samaradorligini aniqlash keyingi tadqiqot bosqichining vazifasi sifatida belgilandi.

Pedagogik vazifa tahlili yordamida SI kompetensiyasining kuzatiladigan faoliyatlari ajratildi: muammoni qo'yish, promptni loyihalash, natijani tekshirish, tarafkashlikni aniqlash, didaktik ssenariy yaratish, xavfsizlik qarori, o'quvchi faoliyatini boshqarish va refleksiya. Har bir faoliyatga mos interfaol metod tanlandi.

Qayta ko'rib chiqilgan Blum taksonomiyasi metodlarning kognitiv chuqurligini xaritalash uchun qo'llanildi. 'Eslab qolish' va 'tushunish' darajalari qisqa orientatsiya bilan cheklangan bo'lsa, asosiy metodlar 'qo'llash', 'tahlil qilish', 'baholash' va 'yaratish' darajalariga yo'naltirildi.

Ssenariyli loyihalashda har bir metod uchun olti element belgilandi: o'quv maqsadi, boshlang'ich vaziyat, talabalar hamkorligi, SI vositasining cheklangan roli, baholash dalili va etik-xavfsizlik qoidasi. Metodlar alohida mashq sifatida emas, to'rt bosqichli didaktik siklning qismlari sifatida yaratildi.

1-jadval. Interfaol metodlarni loyihalash mezonlari

Tahlil birligi	Savol	Loyihalash natijasi	Tekshiruv mezonlari
Kognitiv faoliyat	Talaba qanday fikrlaydi?	Blum darajasi	Tahlil, baholash yoki yaratish mavjudligi
Hamkorlik	Kim bilan va qanday ishlaydi?	Juftlik/guruh roli	O'zaro dalillash va mas'uliyat
SI roli	Vosita nimani bajaradi?	Cheklangan yordam funksiyasi	Inson qarori saqlanishi

Dalil	Natija nimada ko‘rinadi?	Mahsulot yoki kuzatuv	Baholash mezoniga moslik
Xavfsizlik	Qaysi xavf boshqariladi?	Qoida va nazorat ro‘yxati	Maxfiylik va halollik

NATIJALAR

Birinchi metod — muammoli SI-keys. Talabalarga maktabdagi real vaziyatga yaqin holat taqdim etiladi: masalan, o‘qituvchi generativ servis yordamida baholash rubrikasini yaratgan, ammo unda ayrim o‘quvchilarni kamsituvchi mezon paydo bo‘lgan. Guruhlar muammoni aniqlaydi, manfaatdor tomonlarni ajratadi va bir necha yechimni qiyoslaydi.

Ikkinchi metod — “tekshir va rad et” topshirig‘i. SI yaratgan matn, reja yoki izoh ichiga faktik xato, manbasiz da’vo yoki yoshga nomuvofiq tavsiya kiritiladi. Talaba ishonchli manbalarni topadi, xatoni dalil bilan rad etadi va to‘g‘rilangan variantni taqdim etadi. Metod tanqidiy tekshirish va axborot savodxonligini rivojlantiradi.

Uchinchi metod — prompt-laboratoriya. Talabalar bir xil pedagogik vazifa uchun turli prompt tuzadi, natijalarni mezonlar bo‘yicha qiyoslaydi va promptning kontekst, cheklov, auditoriya hamda natija formatiga ta’sirini tahlil qiladi. Yakunda ‘eng uzun prompt’ emas, eng aniq pedagogik topshiriq va tekshiruv sharti baholanadi.

To‘rtinchi metod — SI natijasini debat qilish. Bir guruh SI taklifini himoya qiladi, ikkinchi guruh uning cheklovi va xavfini asoslaydi, uchinchi guruh esa hakam sifatida dalillar sifatini baholaydi. Rollar keyingi raundda almashadi. Bu metod texnologiyaga mutlaq ijobiy yoki salbiy munosabatdan qochib, muvozanatli qaror ishlab chiqishga yordam beradi.

Beshinchi metod — jigsaw-verifikatsiya. Murakkab SI natijasi fakt, metodika, til, etika va xavfsizlik qismlariga bo‘linadi. Ekspert guruhlar har bir qismini tekshiradi, so‘ng aralash guruhlarda umumiy xulosa tuzadi. Natijada tekshirish vazifasi taqsimlanadi, biroq yakuniy qaror barcha dalillar integratsiyasiga asoslanadi.

Oltinchi metod — mikroo‘qitish. Talaba 10–15 daqiqalik SI-integratsiyalangan dars fragmentini o‘tkazadi. Kuzatuvchilar o‘quv maqsadi, talaba faolligi, SI roli, tekshiruv, etik yo‘riqnoma va teskari aloqa mezonlari bo‘yicha qayd yuritadi. Mashg‘ulotdan so‘ng o‘zini tahlil qilish va hamkasb fikri asosida ssenariy qayta ishlanadi.

Yettinchi metod — loyiha sprinti. Kichik guruh muayyan fan va sinf uchun SI bilan qo‘llab-quvvatlangan o‘quv mahsulotini qisqa iteratsiyalarda ishlab chiqadi: muammoni aniqlash, prototip, sinov, xatoni tuzatish va taqdimot. Sprint yakunida mahsulotning texnik ko‘rinishi emas, didaktik maqsadga xizmat qilishi baholanadi.

Sakkizinchi metod — reflektiv portfolio. Talaba promptlar, xato tahlili, dars dizayni, mikroo‘qitish videosi, hamkasb fikri va o‘z xulosalarini jamlaydi. Portfolio bir martalik natijani emas, qarorlar evolyutsiyasi va kompetensiya rivojlanish dinamikasini ko‘rsatadi.

Sakkiz metod to‘rt bosqichli siklga birlashtirildi. ‘Muammoni anglash’ bosqichida keys va debat; ‘hamkorlikda sinash’ bosqichida prompt-laboratoriya, tekshir-rad et va jigsaw; ‘pedagogik mahsulot yaratish’ bosqichida loyiha sprinti va mikroo‘qitish; ‘reflektiv baholash’ bosqichida portfolio qo‘llaniladi.

Metodlarni tanlashda fan, talabalar tayyorgarligi va vaqt hisobga olinadi. Boshlang‘ich bosqichda qisqa keys va verifikatsiya topshiriqlari, o‘rta bosqichda prompt-laboratoriya va debat, yuqori bosqichda loyiha sprinti va mikroo‘qitish maqsadga muvofiq.

Raqamli muhitda o‘qituvchining roli nazoratchidan ko‘ra dizayner va moderator sifatida belgilandi. U tayyor javob bermaydi, balki dalil standartini, hamkorlik qoidalarini, tekshiruv manbalarini va xavfsiz foydalanish chegaralarini aniq ko‘rsatadi.

Taklif etilgan interfaol metodlar bo‘yicha kutiladigan o‘quv natijasi talabaning ko‘p sonli servislarni bilishi bilan emas, balki pedagogik muammoni aniq qo‘yishi, SI natijasini tekshirishi,

qarorini dalillar bilan asoslay olishi, o'quvchi fikrlashini faollashtiruvchi topshiriq yaratishi va refleksiya asosida mahsulotni takomillashtirishi orqali ifodalanadi.

2-jadval. Interfaol metodlarning kompetensiyaviy xaritasi

Metod	Yetakchi kompetensiya	Blum darajasi	Asosiy mahsulot
Muammoli SI - keysi	Etik va pedagogik qaror	Tahlil–baholash	Asoslangan yechim
Tekshir va rad et	Tanqidiy verifikatsiya	Tahlil–baholash	Dalilli tuzatish
Prompt-laboratoriya	Topshiriq dizayni	Qo'llash–yaratish	Takomillashtirilgan prompt
SI-debat	Muvozanatli pozitsiya	Baholash	Dalillar xaritasi
Jigsaw-verifikatsiya	Hamkorlikda tekshirish	Tahlil–sintez	Integrativ xulosa
Mikroo'qitish	Amaliy-didaktik faoliyat	Qo'llash–baholash	Dars fragmenti
Loyiha sprinti	Innovatsion metodik mahsulot	Yaratish	Prototip
Refleksiv portfolio	Metakognitiv rivojlanish	Baholash–yaratish	Rivojlanish dalillari

3-jadval. Interfaol metodlarning didaktik sikli

Sikl bosqichi	Metodlar	O'qituvchi roli	Baholash
Muammoni anglash	Keys, debat	Muammoni ochish va savol berish	Pozitsiya va dalil sifati
Hamkorlikda sinash	Prompt-lab, verifikatsiya, jigsaw	Mezon va resurs berish	Tekshiruv aniqligi
Mahsulot yaratish	Sprint, mikroo'qitish	Dizayn konsultanti	Pedagogik mahsulot rubrikasi
Refleksiv baholash	Portfolio	Teskari aloqa va rivojlanish yo'nalishi	Kompetensiya profili

INTERFAOL MASHG'ULOTNI TASHKIL ETISH ALGORITMI

Interfaol metodni tanlash algoritmi kompetensiya natijasidan boshlanadi. Agar maqsad fakti tekshirish bo'lsa, 'tekshir va rad et' yoki jigsaw-verifikatsiya; etik qaror bo'lsa, keys va debat; pedagogik mahsulot bo'lsa, loyiha sprinti va mikroo'qitish; rivojlanish dinamikasi bo'lsa, portfolio tanlanadi. Metodning nomi emas, kerakli xatti-harakatni yuzaga keltirish qobiliyati hal qiluvchi mezondir.

Guruh ishida rollarni aniq taqsimlash barcha talabani faol ishtirokini ta'minlaydi. Fakt tekshiruvchi, metodik tahlilchi, etik kuzatuvchi, dalillar kotibi va taqdimotchi rollari rotatsiya qilinadi. Bir talabani SI bilan ishlashi, qolganlarning passiv kuzatuvchi bo'lib qolishi interfaollik maqsadiga zid; shuning uchun har bir rol yakuniy mahsulotga alohida dalil qo'shishi kerak.

Prompt-laboratoriyada promptlar jurnali yuritilishi tavsiya etiladi. Jurnalda dastlabki prompt, olingan natija, aniqlangan xato, kiritilgan o'zgarish va yaxshilanish sababi qayd etiladi. Bu hujjat prompt yozishni sirli texnik ko'nikmadan pedagogik tajriba va refleksiya jarayoniga aylantiradi.

Baholash rubrikasi jarayon va mahsulotni birgalikda qamrab oladi. Mahsulotning tashqi ko'rinishi bilan birga muammoni aniq qo'yish, manba tekshiruvi, hamkorlikdagi dalillash, SI

yordamini oshkor etish, xavfsizlik va refleksiya baholanadi. Shu yo‘l bilan SI yordamida tez tayyorlangan, ammo tahlilsiz mahsulot yuqori baho olmaydi.

Akademik halollik interfaol topshiriqning boshida ochiq kelishuv bilan belgilanadi. Qaysi bosqichda SI ishlatish mumkinligi, qaysi natijani talaba mustaqil bajarishi, prompt va SI javobini ilovada ko‘rsatish talabi hamda manbalarni tekshirish mas‘uliyati yozma tarzda beriladi. Bu yashirin foydalanishni kamaytirib, SI bilan shaffof hamkorlik madaniyatini shakllantiradi.

Inklyuzivlik uchun metodlar bir nechta ishtirok kanalini taklif etadi. Og‘zaki debatga qiynaladigan talaba yozma dalil xaritasi, vizual taqdimot yoki moderatsiya rolini bajarishi mumkin. Internet cheklangan sharoitda o‘qituvchi oldindan olingan SI natijalarini tarqatadi, talabalar esa oflayn tekshiruv va tahlilni amalga oshiradi.

Gibrid mashg‘ulotda tayyorgarlik va qisqa verifikatsiya onlayn, chuqur muhokama va mikroo‘qitish auditoriyada tashkil etiladi. Onlayn qism tayyor javob olishga emas, material to‘plash va muammoni aniqlashga xizmat qiladi. Auditoriya vaqti esa dalillash, hamkorlik va pedagogik qarorni himoya qilishga ajratiladi.

O‘qituvchining teskari aloqasi uch bosqichli bo‘lishi mumkin: avval aniqlashtiruvchi savol, keyin mezonga yo‘naltiruvchi ishora, zarur bo‘lsa namunaviy fikrlash jarayoni. Tayyor yechimni erta berish talabaning tekshirish va qaror qabul qilish faoliyatini qisqartiradi. Shuning uchun yordam miqdori bosqichma-bosqich kamaytiriladi.

Bir mashg‘ulot ssenariysi quyidagicha qurilishi mumkin: tarix darsiga SI yaratgan matn beriladi; guruhlar fakt, manba va til jihatidan tekshiradi; keyin matndan foydalanish yoki foydalanmaslik bo‘yicha debat qiladi; yakunda har bir guruh o‘quvchilar uchun tanqidiy tekshiruv topshirig‘ini yaratadi. Bu ssenariy kognitiv, amaliy va etik komponentlarni birlashtiradi.

Raqamli izlar formatif tahlil uchun ishlatilishi mumkin: promptlar soni, qayta ishlashlar, guruh kommentariylari va rubrika bo‘yicha o‘zgarishlar talabaning rivojlanish jarayonini ko‘rsatadi. Biroq analitika nazorat vositasiga aylanmasligi kerak; faqat pedagogik yordam va refleksiya uchun zarur minimal ma‘lumot yig‘iladi.

4-jadval. 90 daqiqalik interfaol mashg‘ulot namunasi

Mashg‘ulot bosqichi	Vaqt	Faoliyat	Baholash dalili
Muammo va qoida	10 daqiqa	SI -keys va halollik shartini aniqlash	Boshlang‘ich savol va pozitsiya
Hamkorlikdagi tekshiruv	25 daqiqa	Jigsaw yoki “tekshir va rad et”	Manbalar va xato xaritasi
Prompt/yechim iteratsiyasi	20 daqiqa	Prompt-laboratoriya	Promptlar jurnali
Pedagogik mahsulot	25 daqiqa	Mini-loyiha yoki mikroo‘qitish	Dars topshirig‘i va rubrika
Refleksiya	10 daqiqa	Portfolio qaydi va o‘zini baholash	Keyingi rivojlanish maqsadi

Interfaol metodlarning qiyinlik darajasi bosqichma-bosqich oshiriladi. Dastlab aniq xatoli SI matni bilan ishlash, keyin noaniq yoki bir nechta to‘g‘ri yechimga ega keys, undan so‘ng real dars ssenariysini yaratish tavsiya etiladi. Bu ketma-ketlik talabaning tayanch mezonlarni o‘zlashtirishi va keyinchalik murakkab kasbiy qarorda ulardan mustaqil foydalanishini ta‘minlaydi.

Metodlar orasida bog‘lanish bo‘lishi kerak. Masalan, “tekshir va rad et” mashqida aniqlangan xatolar keyingi prompt-laboratoriyada yaxshiroq so‘rov yaratish uchun ishlatiladi; laboratoriya natijasi loyiha sprintiga o‘tadi; mikroo‘qitishdagi kuzatuv esa portfolio refleksiyasiga kiritiladi. Shu tariqa mashqlar alohida epizod emas, yagona rivojlanish zanjiriga aylanadi.

Guruhlar o'rtasidagi o'zaro baholash mezonlarga tayangan holda tashkil etiladi. 'Yaxshi' yoki 'yoqmasi' kabi umumiy fikr o'rniga dalilning ishonchliligi, SI natijasining tekshirilishi, o'quvchi faolligi, etik xavf va topshiriqning kognitiv darajasi bo'yicha aniq izoh beriladi. O'zaro baholashning o'zi ham professional til va metodik hukmni rivojlantiradi.

Interfaol metodlarda vaqt boshqaruvi alohida ahamiyatga ega. SI bilan tajriba qilish cheksiz davom etishi va asosiy pedagogik muhokamani siqib chiqarishi mumkin. Shuning uchun har bosqich uchun vaqt chegarasi, minimal mahsulot va to'xtash mezonlari belgilanadi. Talaba eng mukammal SI javobini izlashdan ko'ra, yetarli dalil asosida pedagogik qaror qabul qilishni o'rganadi.

Fanlararo guruhlar interfaol metodlarning imkoniyatini kengaytiradi. Informatika yo'nalishidagi talaba texnologik cheklovni, pedagogika yo'nalishidagi talaba o'quv faoliyatini, filolog yoki tarixchi esa mazmun va manbani tahlil qilishi mumkin. Rollarning bunday uyg'unligi SI bilan ishlashning ko'p qirrali tabiatini namoyon qiladi va professional muloqotni rivojlantiradi.

O'qituvchi SI vositasidagi kutilmagan xatoni ham o'quv vaziyatiga aylantirishi mumkin. Servis ishlamasa yoki noto'g'ri natija bersa, mashg'ulot bekor qilinmaydi; talabalar sabablarni taxmin qiladi, muqobil manba yoki oflayn usuldan foydalanadi va texnologik barqarorlik haqida xulosa chiqaradi. Bu holat kasbiy moslashuvchanlik va favqulodda rejalashtirish ko'nikmasini shakllantiradi.

Interfaol metodlar natijasini uzoq muddatli kuzatish ham muhim. Bir martalik mashg'ulotda muvaffaqiyatli tekshirgan talaba pedagogik amaliyotda ham shu odatni qo'llayaptimi, degan savol portfolio va mentor kuzatuv orqali tekshiriladi. Kompetensiyaning haqiqiy shakllanishi bilimni boshqa fan, vaziyat va vaqt oralig'iga ko'chira olishda namoyon bo'ladi.

MUHOKAMA

Taklif etilgan metodlar faoliyatli va kompetensiyaviy yondashuvga mos bo'lib, talabani SI bilan muloqotini kasbiy pedagogik qarorga aylantiradi. Mazkur yondashuv mahalliy pedagogik texnologiyalar nazariyasidagi muammoli, hamkorlikdagi va loyiha asosidagi ta'lim tamoyillari bilan uyg'unlashadi [1-5].

Interfaol metodlarda SI mustaqil 'o'qituvchi' emas, fikrlash uchun xom material, muqobil yechim generatori yoki qayta aloqa yordamchisi sifatida cheklanadi. Yakuniy baho va pedagogik mas'uliyat insonda qoladi. Bu inson markazli va etik yondashuvning amaliy ko'rinishidir [8; 9].

Metodlar raqamli tengsizlikni ham hisobga olishi kerak. Barcha talabalar pullik yoki yuqori quvvatli servisga ega bo'lmasligi mumkin. Shu sababli guruhli ish, oldindan tayyorlangan SI natijalari, oflayn keyslar va ochiq manbali vositalar muqobil shakl sifatida rejalashtiriladi.

Tadqiqotning asosiy cheklovi uning prototiplash bosqichi bilan chegaralanganidir. Shu sababli maqolada taklif etilgan metodlarning pedagogik samaradorligi haqida empirik xulosa chiqarilmaydi. Keyingi bosqichda metodlarni turli fan yo'nalishlari va talaba guruhlarida tajriba-sinovdan o'tkazish, o'quv natijalari, akademik halollik va refleksiv rivojlanishga ta'sirini miqdoriy hamda sifat usullari orqali baholash zarur.

XULOSA

Tadqiqot natijasida bo'lajak o'qituvchilarning SI kompetensiyalarini shakllantirishga yo'naltirilgan sakkizta interfaol metoddan iborat didaktik tizim ishlab chiqildi. Mazkur tizim tanqidiy verifikatsiya, hamkorlikdagi dalillash, pedagogik loyihalash, etik-xavfsizlik qarorlari va refleksiyani yagona faoliyat siklida birlashtiradi.

Metodlar 'muammoni anglash – hamkorlikda sinash – pedagogik mahsulot yaratish – refleksiv baholash' siklida qo'llanilishi tavsiya etiladi. Har bir faoliyatda SI roli cheklangan, inson qarori va dalillash jarayoni esa markaziy bo'lishi kerak.

Taklif etilgan metodlar maxsus kurs, fan metodikasi, seminar, laboratoriya va pedagogik amaliyot mashg'ulotlarida foydalanish uchun mos bo'lib, keyingi tajriba-sinov ishlarida empirik baholanishi mumkin.

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BOSHLANG'ICH TA'LIMDA SUN'IY INTELLEKT TEXNOLOGIYALARIDAN FOYDALANISHNING PEDAGOGIK IMKONIYATLARI

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Annotatsiya. Mazkur maqolada boshlang'ich ta'lim jarayonida sun'iy intellekt texnologiyalaridan foydalanishning pedagogik imkoniyatlari tahlil qilinadi. Zamonaviy raqamli texnologiyalarning ta'limga jadal kirib kelishi o'qituvchining darsni tashkil etish, o'quv materiallarini tayyorlash va o'quvchilarning individual ehtiyojlarini hisobga olish imkoniyatlarini kengaytirmoqda. Tadqiqotda sun'iy intellektning boshlang'ich sinf o'quvchilarining bilish faolligi, mustaqil fikrlashi, ijodkorligi va ta'limga qiziqishini rivojlantirishdagi o'rni yoritilgan. Shuningdek, sun'iy intellektdan foydalanishda o'qituvchining nazorati, yoshga moslik, axborot xavfsizligi, akademik halollik va insoniy muloqotning ustuvorligi kabi masalalarga e'tibor qaratilgan. Maqolada sun'iy intellekt o'qituvchining o'rmini egallovchi vosita emas, balki pedagogik faoliyatni qo'llab-quvvatlovchi texnologik yordamchi sifatida qaraladi. Tadqiqot natijalari boshlang'ich ta'limda sun'iy intellektdan maqsadli, xavfsiz va pedagogik jihatdan asoslangan foydalanish ta'lim samaradorligini oshirishga xizmat qilishi mumkinligini ko'rsatadi.

Kalit so'zlar: sun'iy intellekt, boshlang'ich ta'lim, raqamli ta'lim, pedagogik texnologiya, o'quvchi faolligi, individual ta'lim, ta'lim sifati.

Аннотация. В статье анализируются педагогические возможности использования технологий искусственного интеллекта в начальном образовании. Стремительное развитие цифровых технологий расширяет возможности учителя в организации урока, подготовке учебных материалов и учёте индивидуальных образовательных потребностей учащихся.

Рассматривается роль искусственного интеллекта в развитии познавательной активности, самостоятельного мышления, творческих способностей и интереса младших школьников к обучению. Особое внимание уделяется вопросам педагогического контроля, соответствия возрастным особенностям учащихся, информационной безопасности, академической честности и сохранения человеческого взаимодействия. Искусственный интеллект рассматривается не

как замена учителю, а как технологический помощник, способствующий совершенствованию педагогической деятельности. Результаты исследования показывают, что целенаправленное, безопасное и педагогически обоснованное применение искусственного интеллекта может способствовать повышению эффективности начального образования.

Ключевые слова: искусственный интеллект, начальное образование, цифровое обучение, педагогическая технология, активность учащихся, индивидуальное обучение, качество образования.

Abstract. This article analyzes the pedagogical opportunities of using artificial intelligence technologies in primary education. The rapid development of digital technologies expands teachers' opportunities to organize lessons, prepare learning materials and consider students' individual educational needs. The study examines the role of artificial intelligence in developing primary school students' cognitive activity, independent thinking, creativity and interest in learning. Particular attention is paid to teacher supervision, age appropriateness, information security, academic integrity and the importance of human interaction. Artificial intelligence is considered not as a replacement for the teacher, but as a technological assistant that can support and improve pedagogical practice. The findings suggest that purposeful, safe and pedagogically justified use of artificial intelligence can contribute to improving the effectiveness of primary education.

Keywords: artificial intelligence, primary education, digital learning, pedagogical technology, student activity, individualized learning, quality of education.

KIRISH

Bugungi kunda raqamli texnologiyalarning rivojlanishi ta'lim tizimining mazmuni va tashkil etilishiga ham sezilarli ta'sir ko'rsatmoqda. Ayniqsa, sun'iy intellekt texnologiyalarining rivojlanishi o'qituvchiga o'quv materiallarini tayyorlash, topshiriqlarni ishlab chiqish, turli darajadagi mashqlar yaratish va ta'lim jarayonini individuallashtirishda yangi imkoniyatlar bermoqda.

UNESCOning 2024-yilda e'lon qilingan o'qituvchilar uchun sun'iy intellekt kompetensiyalari doirasida o'qituvchining sun'iy intellekt bilan ishlashida inson manfaatlari, axloqiy tamoyillar, AI asoslari va qo'llanilishi, AI pedagogikasi hamda kasbiy rivojlanish kabi yo'nalishlar alohida ko'rsatilgan. Bu yondashuv sun'iy intellektdan ta'limda foydalanish faqat texnik ko'nikma emas, balki pedagogik va axloqiy mas'uliyatni ham talab qilishini ko'rsatadi.

Boshlang'ich ta'lim bosqichida bu masala yanada muhimdir. Chunki kichik maktab yoshidagi bolalarning tafakkuri, dunyoqarashi, o'quv motivatsiyasi va mustaqil faoliyati aynan shu davrda faol shakllanadi. Shu sababli har qanday raqamli vosita, jumladan sun'iy intellekt texnologiyasi ham bolaning yosh va psixologik xususiyatlariga mos ravishda qo'llanishi lozim.

MATERIALLAR VA USULLAR

Tadqiqotda pedagogik kuzatish, ilmiy-pedagogik adabiyotlarni tahlil qilish, taqqoslash, umumlashtirish va tizimlashtirish usullaridan foydalanildi. Sun'iy intellektning ta'limdagi imkoniyatlarini aniqlashda UNESCO tomonidan ishlab chiqilgan sun'iy intellekt kompetensiyalari bo'yicha materiallar hamda ta'limda generativ sun'iy intellektdan foydalanishga oid xalqaro tavsiyalar tahlil qilindi.

UNESCOning sun'iy intellekt bo'yicha tavsiyalarida ta'limda texnologiyalardan foydalanishda inson manfaatlari, xavfsizlik, ma'lumotlar maxfiyligi va pedagogik maqsadga muvofiqlikni ta'minlash zarurligi ta'kidlanadi. Shuningdek, o'quvchilarning sun'iy intellekt bilan ishlashida mas'uliyatli va tanqidiy yondashuvni shakllantirish muhimligi qayd etiladi.

Tadqiqotning asosiy maqsadi boshlang'ich ta'limda sun'iy intellektdan foydalanishning pedagogik imkoniyatlarini aniqlash hamda undan samarali foydalanishning asosiy shartlarini belgilashdan iborat.

NATIJALAR VA MUHOKAMA

Boshlang'ich ta'limda sun'iy intellektdan foydalanish bir necha muhim pedagogik imkoniyatlarni yuzaga chiqaradi. Birinchidan, sun'iy intellekt o'quv materiallarini individuallashtirishga yordam berishi

mumkin.

Bir

sinfidagi o'quvchilarning bilim darajasi, qiziqishi va topshiriqlarni bajarish tezligi bir xil emas.

O'qituvchi sun'iy intellekt yordamida bir mavzu bo'yicha turli murakkablik darajasidagi mashqlarni ishlab chiqishi mumkin. Masalan, matematika darsida ayrim o'quvchilar uchun sodda misollar, yuqori tayyorgarlikka ega o'quvchilar uchun esa mantiqiy masalalar tuzilishi mumkin.

Ikkinchidan, sun'iy intellekt o'qituvchining ijodiy faoliyatini qo'llab-quvvatlaydi. Dars ishlanmasi, savol-javoblar, didaktik o'yinlar, muammoli vaziyatlar, matnlar va qo'shimcha topshiriqlarni tayyorlashda undan yordamchi vosita sifatida foydalanish mumkin. Bunda yakuniy pedagogik qarorni o'qituvchining o'zi qabul qilishi muhim.

Uchinchidan, sun'iy intellekt o'quvchilarning ijodkorligini rivojlantirish uchun qo'shimcha imkoniyat yaratishi mumkin. Masalan, ona tili va o'qish savodxonligi darslarida berilgan mavzu asosida hikoya tuzish, qahramonlar faoliyatini tahlil qilish yoki voqealarning boshqa yakunini taklif qilish kabi topshiriqlar tashkil etilishi mumkin. Bunday faoliyat o'quvchini tayyor javobni olishga emas, balki o'z fikrini shakllantirishga undashi kerak.

To'rtinchidan, sun'iy intellektdan foydalanish o'qituvchining vaqtini tejashi mumkin. O'qituvchi ayrim texnik va takroriy vazifalarni sun'iy intellekt yordamida tezroq tayyorlab, asosiy e'tiborini o'quvchilar bilan bevosita muloqot, tarbiyaviy ishlar va individual yondashuvga qaratishi mumkin.

Biroq sun'iy intellektidan foydalanishning ayrim xavflari ham mavjud. Eng avvalo, o'quvchi tayyor javobga haddan tashqari tayanib qolmasligi kerak. Agar texnologiya o'quvchining mustaqil fikrlashi o'rni egallasa, ta'limning asosiy maqsadlariga zid natija yuzaga kelishi mumkin. Shu sababli boshlang'ich ta'limda AI vositalaridan foydalanish "tayyor javob olish" tamoyiliga emas, "fikrlashga yordam berish" tamoyiliga asoslanishi maqsadga muvofiq.

Bundan tashqari, sun'iy intellekt tomonidan yaratilgan ma'lumot har doim ham xatosiz bo'lmazligi mumkin. Shuning uchun o'qituvchi taqdim etilgan ma'lumotni tekshirishi va o'quvchilarga ham axborotni tanqidiy baholash ko'nikmasini shakllantirishi zarur. UNESCOning o'qituvchilar uchun AI kompetensiyalari doirasida ham texnologiyadan xavfsiz, samarali va axloqiy foydalanish masalasiga alohida e'tibor qaratilgan.

Boshlang'ich ta'lim uchun quyidagi modelni taklif etish mumkin:
"MAQSAD → AI YORDAMI → O'QITUVCHI NAZORATI → O'QUVCHI MUSTAQIL FIKRI
→ NATIJANI BAHOLASH"

Mazkur modelda sun'iy intellekt asosiy maqsad emas, balki ta'lim maqsadiga erishishga xizmat qiluvchi vosita hisoblanadi. O'qituvchi texnologiyadan foydalanish chegarasini belgilaydi, o'quvchi esa olingan ma'lumotni tahlil qilib, o'z fikrini shakllantiradi.

Masalan, boshlang'ich sinf o'quvchisiga "Tabiatni asrash" mavzusida kichik hikoya tuzish topshirig'i berilganda AI vositasidan faqat g'oya olish uchun foydalanish mumkin. Keyin o'quvchi o'z kuzatuvlari asosida hikoyani mustaqil yaratadi. Shu tariqa texnologiya bolaning o'rniga fikrlamaydi, balki uning ijodiy faoliyatini rag'batlantiradi.

UNESCOning o'quvchilar uchun AI kompetensiyalari doirasida ham inson manfaatlariga asoslangan yondashuv, AI etikasi, AI texnologiyalaridan foydalanish va AI tizimlarini yaratish kabi yo'nalishlar ajratilgan. Bu boshlang'ich bosqichdan boshlab o'quvchilarda texnologiyaga nisbatan mas'uliyatli va tanqidiy munosabatni shakllantirish muhimligini ko'rsatadi.

XULOSA

Tadqiqot natijalariga ko'ra, sun'iy intellekt texnologiyalaridan boshlang'ich ta'limda foydalanish o'qituvchining pedagogik faoliyatini qo'llab-quvvatlash, o'quv materiallarini individuallashtirish, ijodiy topshiriqlarni ko'paytirish va ta'lim jarayonini zamonaviylashtirish uchun muhim imkoniyatlarga ega.

Shu bilan birga, sun'iy intellekt o'qituvchining o'rnini bosuvchi vosita sifatida emas, balki uning faoliyatini qo'llab-quvvatlovchi texnologik yordamchi sifatida qaralishi kerak. Ayniqsa, boshlang'ich ta'limda bolaning mustaqil fikrlashi, jonli muloqoti, ijodkorligi va shaxsiy tajribasi texnologik

vositlardan ustun turishi lozim.

Sun'iy intellektdan samarali foydalanish uchun o'qituvchi texnologik savodxonlik bilan bir qatorda pedagogik, axloqiy va tanqidiy fikrlash kompetensiyalariga ham ega bo'lishi zarur. Eng maqbul yondashuv — texnologiya imkoniyatlarini insoniy pedagogik yondashuv bilan uyg'unlashtirishdir.

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УПРАВЛЕНИЕ ДЕЯТЕЛЬНОСТЬЮ ПО ПРИМЕНЕНИЮ ИНСТРУМЕНТОВ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА В МЕДИЦИНСКОМ КОЛЛЕДЖЕ

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Аннотация. Статья посвящена проблеме системного управления внедрением инструментов искусственного интеллекта (ИИ) в учебный процесс медицинского колледжа. На основе эмпирического исследования обоснованы три организационно-педагогических условия эффективного управления: создание нормативно-методического обеспечения, развитие цифровой компетентности кадров и внедрение механизма предиктивной аналитики. Представлены результаты опытно-экспериментальной работы, подтверждающие статистически значимый рост профессиональных компетенций студентов (+44,3%) и оптимизацию использования специфических ресурсов медицинского колледжа (до 78%).

Ключевые слова: искусственный интеллект, управление деятельностью педагога, качество подготовки, медицинский колледж, организационно-педагогические условия, среднее профессиональное образование, цифровая компетентность, предиктивная аналитика, качество обучения.

Annotation. The article is devoted to the problem of systemic management of the implementation of artificial intelligence (AI) tools in the educational process of a medical college. Based on an empirical study, three organizational and pedagogical conditions for effective management have been substantiated: the creation of regulatory and methodological support, the development of digital competence among staff, and the implementation of a predictive analytics mechanism. The results of experimental work are presented, confirming a statistically significant increase in students' professional competencies (+44.3%) and the optimization of the use of specific resources of the medical college (up to 78%).

Keywords: artificial intelligence, teacher performance management, quality of training, medical college, organizational and pedagogical conditions, secondary vocational education, digital competence, predictive analytics, quality of education.

Annotatsiya. Maqola tibbiyot kolleji o'quv jarayoniga sun'iy intellekt (SI) vositalarini joriy etishni tizimli boshqarish muammosiga bag'ishlangan. Empirik tadqiqot asosida samarali boshqaruvning uchta tashkiliy-pedagogik sharti asoslab berilgan: me'yoriy-uslubiy ta'minotni

yaratish, kadrlarning raqamli kompetentligini rivojlantirish va bashoratli tahlil mexanizmini joriy etish. Talabalarining kasbiy kompetensiyalarida statistik jihatdan ahamiyatli o'sish (+44,3%) va tibbiyot kollejining o'ziga xos resurslaridan foydalanishni optimallashtirish (78% gacha)ni tasdiqlovchi tajriba-eksperimental ish natijalari keltirilgan.

Kalit so'zlar: *sun'iy intellekt, pedagog faoliyatini boshqarish, tayyorlash sifati, tibbiyot kolleji, tashkiliy-pedagogik sharoitlar, o'rta kasbiy ta'lim, raqamli kompetentlik, bashoratli tahlil, ta'lim sifati.*

Цифровизация системы среднего профессионального образования (СПО) в здравоохранении актуализирует государственные стандарты (ФГОС СПО) и социальный запрос на подготовку медицинских кадров, владеющих навыками работы с интеллектуальными системами поддержки. В тоже время анализ управленческой практики показывает, что внедрение ИИ-инструментов часто носит стихийный и фрагментарный характер. Выявлено системное противоречие между социальным запросом на повышение качества профессиональной подготовки студентов и фактическим неиспользованием преподавателями имеющегося технологического оснащения из-за отсутствия выстроенных управленческих механизмов, четких регламентов, методической поддержки и боязнь нарушить этические нормы или Федеральный закон от 27.07.2006 № 152-ФЗ «О персональных данных» [8].

В рамках исследования термин «управление деятельностью по применению ИИ» трактуется как целенаправленная организационно-педагогическая деятельность субъектов образовательного процесса, направленная на проектирование и внедрение, координацию и мониторинг использования ИИ-технологий в методическом и учебно-воспитательном процессах, обеспечивающая соблюдение этических и правовых норм, оптимизацию образовательных ресурсов и достижение планируемых результатов профессиональной подготовки студентов в соответствии с требованиями Федерального государственного образовательного стандарта СПО.

Проблема внедрения ИИ в образовательный процесс находится в фокусе внимания зарубежных и отечественных исследователей. В работах И.В. Роберт [5] обосновывается концепция цифровой трансформации образования, где искусственный интеллект рассматривается не как вспомогательный инструмент, а как активный компонент педагогической среды, требующий создания целостной управленческой структуры. А.Е. Сережкина [6] делает акцент на эволюции роли ИИ: от автоматизации рутинных операций к признанию его «партнером» педагога, который способен трансформировать структуру взаимодействия в системе «преподаватель – студент – образовательная среда». К.С. Итинсон [2] выделяет специфику медицинского образования, где ИИ оптимизирует рутинные операции диагностики и генерации клинических кейсов, снимая нагрузку с преподавателя для реализации развивающих функций.

Теоретико-методологическую базу исследования составили системно-деятельностный подход (Л.С. Выготский, А.Н. Леонтьев) и теория управления образовательными системами (М.М. Поташник, В.С. Лазарев) [1,4,3]. Опираясь на эти концепции, нами были определены и обоснованы три ключевых организационно-педагогических условия:

1. Формирование нормативно-методического обеспечения применения ИИ, внедренного в локальную систему управления колледжем. Разработка и утверждение положений об использовании ИИ, регламента обработки персональных данных, этических чек-листов.

2. Развитие цифровой педагогической и управленческой компетентности преподавателей через систему непрерывного сопровождения. Практико-ориентированные воркшопы и механизм внутреннего наставничества, где «цифровые лидеры», преподаватели, успешно освоившие ИИ-инструменты, помогают коллегам непосредственно в рабочих кабинетах по модели «1 к 5».

3. Внедрение механизма предиктивной аналитики и мониторинга учебной деятельности студентов на основе ИИ-технологий. Аналитические панели «дашборды» предназначены для настройки агрегации обезличенных данных из ключевых источников для мониторинга ресурсно-аналитических показателей образовательного процесса.

Суть данного подхода заключается в переходе от «точечного», фрагментарного внедрения ИИ-инструментов к системному циклическому управлению, в приоритете которого клиническая безопасность и педагогическая целесообразность, преобладающие над технологической новизной. Внедрение ИИ-инструментов происходит не ради формального статуса «цифрового колледжа», а для решения профессионально-ориентированных и дидактических задач.

Разработанная модель управления включает четыре взаимосвязанных блока:

Первый блок – Целевой блок: повышение качества профессиональной подготовки, оптимизация образовательных ресурсов, формирование готовности к работе в цифровой среде здравоохранения.

Второй блок – Содержательный блок: материализация трех организационно-педагогических условий (нормативное обеспечение, развитие компетентности, мониторинг).

Третий блок – Процессуальный блок: циклическая управленческая структура (планирование → организация → сопровождение → контроль/анализ → корректировка), адаптированный к цифровой среде.

Четвертый блок – Результативный блок: система критериев и показателей эффективности (нормативно-управленческий, педагогически-кадровый, ресурсно-аналитический).

Ключевая особенность структуры – наличие этапа «корректировка» замыкающий цикл. Данные полученные на этапе «контроля», не просто фиксируются, а становятся отправной точкой в пересмотре этапа «планирование».

Опытно-экспериментальная работа реализована на базе ГАПОУ ТО «Ишимский медицинский колледж». В исследовании приняли 15 преподавателей и 50 студентов 2 и 3 курсов специальности 31.02.01 «Лечебное дело». Респондентов разделили на экспериментальную (ЭГ, n=7 преподавателей, n=25 студентов) и контрольную (КГ, n=8 преподавателей, n=25 студентов) группы. В ходе исследования применялся комплекс методов: экспертная оценка нормативной базы, анкетирование, анализ статистики использования симуляционного оборудования и математико-статистическая обработка данных (t-критерий Стьюдента).

Констатирующий этап выявил низкий уровень нормативно-управленческого и ресурсно-аналитического критериев: только 33% преподавателей уверенно владеют ИИ-сервисами, а коэффициент загрузки симуляционного оборудования не превышает 40%.

В ходе формирующего этапа в ЭГ была поэтапно реализована разработанная управленческая модель. Контрольный этап продемонстрировал существенные различия в траекториях развития групп. В ЭГ зафиксирован переход на высокий уровень сформированности профессиональных компетенций (прирост составил 44,3%, $p < 0,001$ по t-критерию Стьюдента). По нормативно-управленческому критерию 100% преподавателей ЭГ получили доступ к утвержденным регламентам (в КГ всего 35%). Уровень цифровой грамотности педагогов в ЭГ вырос на 42%. Коэффициент загрузки симуляционного оборудования с ИИ-модулями увеличился до 78%, а временные затраты преподавателей на административные процедуры сократились на 31%. В КГ изменения носили случайный характер (прирост +7,2%, $p > 0,05$).

Проведенное исследование подтвердило гипотезу о том, что управление деятельностью педагога по применению искусственного интеллекта в медицинском колледже является эффективным при внедрении выделенных организационно-педагогических условий. Разработанная модель позволяет преодолеть фрагментарность внедрения технологий, оптимизировать использование дорогостоящих ресурсов и обеспечить переход от реактивного

к проактивному стилю управления, что в конечном итоге повышает уровень профессиональной подготовки будущих медицинских работников.

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RAQAMLI TA'LIM MUHITIDA DASTURLASHNI O'QITISHDA ADAPTIV TEKNOLOGIYALARNING DIDAKTIK IMKONIYATLARI

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Annotatsiya. Mazkur tadqiqotda oliy ta'limda dasturlash fanlarini o'qitishning zamonaviy holati, raqamli ta'lim vositalarining didaktik imkoniyatlari hamda adaptiv o'qitish texnologiyalarini “Dasturlash asoslari” faniga tatbiq etish masalalari tahlil qilingan. Dasturlashni o'rganishda talabalarining boshlang'ich tayyorgarligi, algoritmik fikrlash darajasi, topshiriqlarni bajarish sur'ati va yo'l qo'yadigan xatolari o'rtasidagi farqlar an'anaviy bir xil o'quv trayektoriyasining imkoniyatlarini cheklashi asoslangan. LMS, onlayn dasturlash muhiti, avtomatik kod tekshirish, learning analytics, adaptiv topshiriqlar va avtomatlashtirilgan teskari aloqa vositalaridan kompleks foydalanish imkoniyatlari ochib berilgan. Mahalliy va xorijiy tadqiqotlar asosida talabaning raqamli profili hamda faoliyat natijalariga tayanuvchi adaptiv o'qitish mexanizmini ishlab chiqish zarurati asoslangan.

Kalit so'zlar: dasturlash asoslari, raqamli ta'lim muhiti, adaptiv o'qitish, dasturlash kompetensiyasi, individual ta'lim trayektoriyasi, raqamli profil, avtomatik baholash, learning analytics, teskari aloqa, algoritmik fikrlash.

Abstract. In this study, the modern state of teaching programming subjects in higher education, the didactic possibilities of digital educational tools, and the issues of applying adaptive teaching technologies to the subject "Basics of Programming" were analyzed. It is based on the fact that differences between students' initial preparation, level of algorithmic thinking, speed of completion of tasks and mistakes they make in learning programming limit the possibilities of a traditional uniform learning trajectory. LMS, online programming environment, automatic code checking, learning analytics, adaptive assignments and automated feedback tools are available.

Based on local and foreign research, the need to develop an adaptive teaching mechanism based on the student's digital profile and activity results is based.

Key words: basics of programming, digital learning environment, adaptive learning, programming competence, individual learning trajectory, digital profile, automatic assessment, learning analytics, feedback, algorithmic thinking.

Аннотация. В данном исследовании анализируется современное состояние преподавания дисциплин программирования в высшем образовании, дидактические возможности цифровых образовательных инструментов и вопросы применения адаптивных технологий обучения к предмету «Основы программирования». В основе исследования лежит тот факт, что различия в начальной подготовке студентов к изучению программирования, уровне алгоритмического мышления, темпе выполнения заданий и допускаемых ими ошибках ограничивают возможности традиционной одномерной траектории обучения. Выявлены возможности комплексного использования LMS, онлайн-среды программирования, автоматической проверки кода, аналитики обучения, адаптивных заданий и автоматизированных инструментов обратной связи. На основе отечественных и зарубежных исследований обосновывается необходимость разработки адаптивного механизма обучения, основанного на цифровом профиле студента и результатах его деятельности.

Ключевые слова: основы программирования, цифровая среда обучения, адаптивное обучение, компетентность в программировании, индивидуальная траектория обучения, цифровой профиль, автоматическая оценка, аналитика обучения, обратная связь, алгоритмическое мышление.

KIRISH

Zamonaviy oliy ta'limda axborot texnologiyalari sohasidagi mutaxassislarni tayyorlash mazmuni nafaqat dasturlash tillarining sintaksisini o'rgatish, balki talabada algoritmik fikrlash, masalani dekompozitsiya qilish, dasturiy yechimni loyihalash, kodlash, testlash, xatolarni aniqlash va yechimni takomillashtirish kompetensiyalarini rivojlantirishni talab qiladi. Shu jihatdan "Dasturlash asoslari" fani kelgusida o'rganiladigan algoritmlar, ma'lumotlar tuzilmalari, ma'lumotlar bazalari, dasturiy injiniring, sun'iy intellekt va boshqa kasbiy fanlarning tayanch asosini tashkil etadi. O'zbekistonda axborot texnologiyalari bo'yicha kadrlar tayyorlash sifatini oshirish masalasi alohida ahamiyat kasb etgan. 2020-yil 6-oktabrdagi PQ-4851-son qarorda IT sohasidagi ta'lim dasturlari va o'qitish metodlarini takomillashtirish, ta'lim muassasalari bilan IT-industriya o'rtasidagi hamkorlikni kuchaytirish zarurligi qayd etilgan. Bu vazifalar "Raqamli O'zbekiston – 2030" strategiyasi bilan ham uzviy bog'liq. [1]

Biroq dasturlashni o'qitish amaliyotida muhim didaktik qarama-qarshilik saqlanib qolmoqda: o'quv dasturi va yakuniy kompetensiyalarga qo'yilgan talablar barcha talabalar uchun umumiy bo'lsa-da, ularning dastlabki tayyorgarligi, mantiqiy-algoritmik fikrlashi, o'quv sur'ati, mustaqil ishlash qobiliyati va dasturiy xatolarni bartaraf etish ko'nikmalari bir xil emas. Natijada an'anaviy "bir mavzu – bir xil topshiriq – bir xil vaqt – umumiy nazorat" sxemasi talabalarning individual o'quv holatini yetarlicha hisobga olmaydi. Dasturlash bo'yicha zamonaviy tadqiqotlarda ham boshlang'ich dasturlash kurslarining talaba uchun murakkabligi qayd etiladi. 2022-yilda oliy ta'limdagi introductory programming bo'yicha olib borilgan sistematik tahlilda vizual dasturlash, e-learning va faol metodlarning keng qo'llanayotganligi, shu bilan birga dasturlashni o'qitishda texnik ko'nikmalar bilan bir qatorda muammolarni hal qilish va boshqa kompetensiyalarni rivojlantirish talab qilinishi ko'rsatilgan [2].

Tadqiqot usullari. Dasturlash ta'limi boshqa ko'plab fanlardan o'zining faoliyat xarakteri bilan ajralib turadi. Talaba tushunchani faqat eslab qolishi emas, balki uni algoritmga aylantirishi, dasturlash tili vositalarida ifodalashi va amalda ishlaydigan dastur ko'rinishiga keltirishi lozim. Shu sababli raqamli ta'lim vositalaridan foydalanish bu fandagi o'quv faoliyatining tabiiy tarkibiy qismi hisoblanadi. Bugungi kunda dasturlashni o'qitishda LMS tizimlari, web-IDE, onlayn kompilyatorlar, avtomatik kod tekshiruvchilari, test tizimlari, virtual laboratoriyalar, videodarslar, elektron

topshiriqlar bazasi va ta'lim analitikasi vositalari qo'llanmoqda. Biroq raqamli vositaning mavjudligi o'z-o'zidan pedagogik samaradorlikni kafolatlamaydi. Muhim masala raqamli texnologiya qaysi didaktik vazifani bajarishi va talabani o'quv faoliyati bilan qanday bog'lanishidir.

Cavalcanti va hammualliflarning avtomatik teskari aloqa tizimlari bo'yicha sistematik sharhida tahlil qilingan tadqiqotlarda dasturlash eng ko'p uchragan predmet sohalaridan biri bo'lgan. Mualliflar avtomatik feedback tizimlari talabani topshiriq natijasini tez tahlil qilish va unga o'z vaqtida ko'mak berish imkoniyatini yaratishini ko'rsatadi [3]. Dasturlash uchun bu ayniqsa muhim. Masalan, topshiriqni noto'g'ri bajargan ikki talabani muammosi bir xil bo'lmasligi mumkin. Birinchi talaba sintaktik xatoga, ikkinchisi esa algoritmik mantiqdagi xatoga yo'l qo'yishi mumkin. Ularga bir xil "noto'g'ri" xabarini berish diagnostik jihatdan kam axborotli hisoblanadi. Raqamli muhit xatoni aniqlash bilan birga uning turini, takrorlanish chastotasini va talabani uni mustaqil bartaraf eta olish qobiliyatini ham qayd etish imkoniyatini beradi.

O'qitish tahlili vositalari ushbu jarayonni yanada chuqurlashtiradi. Banihashem va hammualliflar oliy ta'limda learning analytics asosidagi feedback bo'yicha olib borgan sistematik sharhida ta'lim analitikasi o'qituvchi va talaba uchun teskari aloqani boyitishi, bunda ma'lumotlarni vizuallashtirish keng qo'llanilayotgan usullardan biri ekanini ko'rsatgan [4]. Shu nuqtai nazardan dasturlash fanida talabani faqat yakuniy bahosini emas, balki topshiriqni bajarish jarayonida hosil bo'lgan raqamli izini ham tahlil qilish maqsadga muvofiq. Bunga topshiriqni bajarish vaqti, yuborishlar soni, kompilyatsiya xatolari, testlardan o'tish darajasi, takroriy xatolar, maslahatdan foydalanish holati va topshiriq murakkabligi kirishi mumkin.

Raqamli texnologiyalardan foydalanishning keyingi bosqichi o'quv jarayonini ma'lumotlar asosida **adaptiv boshqarish** bilan bog'liq. Bunda platforma faqat o'quv materialini taqdim etmaydi, balki talabani joriy natijasiga qarab keyingi material, topshiriq murakkabligi yoki pedagogik yordam hajmini o'zgartiradi. Ling va Chiang web-dasturlashni o'rgatish uchun C4.5 qarorlar daraxti asosida shaxsiylashtirilgan tavsiya tizimini ishlab chiqqan. Tadqiqotning eksperimental qismida adaptiv instruktsiya guruhidagi talabalar natijalari qat'iy belgilangan o'quv yo'lga ega guruh natijalaridan yaxshiroq bo'lgan. Mualliflar dasturlash mazmunining talaba darajasiga mos kelmasligi frustratsiya va motivatsiya pasayishiga olib kelishi mumkinligini ta'kidlaydi [5].

Chen va Hsu tomonidan kompyuter dasturlash kursida adaptiv instruktsiya va flipped learning uyg'unligi o'rganilgan. Ularning tadqiqoti ham barcha talabaga bir xil raqamli kontent berishning o'zi personalizatsiya hisoblanmasligini, talabani o'quv holatiga moslashtiriladigan o'quv yo'llari muhim ekanini ko'rsatadi [6].

2024-yildagi dasturlash ta'limi bo'yicha sistematik sharhda ham shaxsiylashtirilgan, kognitiv va gamifikatsiyalangan yondashuvlarning dasturlashni o'rganish bilan bog'liqligi tahlil qilingan. Tadqiqot boshlang'ich dasturlash kurslarida talabalarning turli darajadagi qiyinchiliklarga duch kelishini va individual qo'llab-quvvatlash zaruratini yana bir bor ko'rsatadi [7].

O'zbekistonda dasturlash va raqamli ta'lim metodikasiga doir tadqiqotlarda ham zamonaviy yondashuvlarni izlash kuzatiladi. M.V. Lazareva, A.A. Gorovik, S.A. Nematova va M.Yu. Xasanova tomonidan vizual dasturlashni o'qitish masalalari tadqiq etilib, vizual muhitlardan foydalanish, muammoli va loyihaviy yondashuvlarning dasturlashni o'zlashtirishdagi imkoniyatlari ko'rsatilgan [8]. Maqolada Scratch kabi vizual vositalarning boshlang'ich dasturlashni tushunarli tashkil etishdagi imkoniyatlari yoritilgan.

M.Yu. Xasanova, S.B. Atajonova va hamkorlarining tadqiqotlarida adaptiv ta'lim, interfaol pedagogik texnologiyalar, raqamli kompetensiyalarni rivojlantirish hamda individual ta'lim trayektoriyalarini shakllantirish masalalari turli yo'nalishlarda yoritilgan. Ushbu ishlarda raqamli ta'lim muhitidan foydalanish, talabani individual xususiyatlarini hisobga olish, pedagogik jarayonni moslashtirish va o'quv faoliyatini monitoring qilishning ahamiyati asoslangan [9–13]. Mazkur yondashuvlar "Dasturlash asoslari" fanini shaxsiylashtirilgan va adaptiv asosda tashkil etishda metodologik tayanch bo'lib xizmat qilishi mumkin.

Yuqoridagi tadqiqotlar tahlili raqamli muhitda “Dasturlash asoslari” fanini o‘qitish jarayonini faqat elektron resurslar bilan boyitish yetarli emasligini ko‘rsatadi. Asosiy masala talaba faoliyatidan olingan ma’lumotlarni pedagogik qaror qabul qilish vositasiga aylantirishdir.

Shu nuqtai nazardan quyidagi siklik mexanizm istiqbolli hisoblanadi: *diagnostika* → *raqamli profilni shakllantirish* → *individual o‘quv holatini aniqlash* → *adaptiv kontent va topshiriqni tanlash* → *dasturiy topshiriqni bajarish* → *natija va xatolarni avtomatik tahlil qilish* → *adaptiv teskari aloqa* → *individual ta’lim trayektoriyasini korreksiyalash* → *qayta diagnostika*.

Ushbu mexanizmda diagnostika faqat kurs boshida amalga oshiriladigan bir martalik faoliyat emas. Har bir dasturiy topshiriq yangi diagnostik ma’lumot manbai bo‘ladi. Masalan, talaba shart operatorlarini yaxshi o‘zlashtirgan, lekin ichma-ich takrorlanish operatorlarida tizimli xatolarga yo‘l qo‘ysa, platforma talabaning umumiy bahosini pasaytirish bilangina cheklanmay, aynan shu mikrokompetensiya bo‘yicha qo‘shimcha topshiriq, tushuntirish yoki maslahat taqdim etishi lozim.

Shuningdek, topshiriqlarni adaptiv tanlash faqat “oson–o‘rta–murakkab” darajalarga ajratishdan iborat bo‘lmazligi kerak. U masala turi, talab qilinayotgan algoritmik amal, oldingi mavzular bilan bog‘liqlik, mustaqillik darajasi va ko‘rsatiladigan pedagogik yordam hajmi bilan ham belgilanadi.

XULOSA

Raqamli ta’lim muhitida dasturlashni o‘qitishning zamonaviy tendensiyalari elektron kontentdan foydalanishdan talaba faoliyati haqidagi ma’lumotlarga asoslangan adaptiv pedagogik boshqaruvga o‘tish bilan tavsiflanmoqda. Dasturlash fani uchun bunday yondashuvning ahamiyati ayniqsa yuqori, chunki dasturlash kompetensiyasi tayyor bilimni takrorlashdan ko‘ra real algoritmik va kodlash faoliyatida namoyon bo‘ladi. Xorijiy va mahalliy tadqiqotlar tahlili avtomatik baholash, learning analytics, raqamli profil, individual topshiriq, adaptiv feedback hamda individual ta’lim trayektoriyasini yagona tizimga integratsiyalash zarurligini ko‘rsatadi. Shundan kelib chiqib, “Dasturlash asoslari” fanida talabaning bilim natijalari bilan bir qatorda kod yozish jarayoni, xatolar dinamikasi, bajarish vaqti, urinishlar va pedagogik yordamga ehtiyojini qayd etadigan adaptiv platformani ishlab chiqish talabalarning dasturlash kompetensiyalarini rivojlantirishning istiqbolli yo‘nalishi sifatida qaralishi mumkin.

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SUN'IY INTELLEKT VA GENERATIV TEXNOLOGIYALARNING ZAMONAVIY TA'LIMDAGI IMKONIYATLARI

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Annotatsiya. Mazkur maqolada sun'iy intellekt va generativ texnologiyalarning zamonaviy ta'lim jarayonidagi imkoniyatlari, ularning ta'lim mazmuni, o'qitish metodlari, baholash va pedagogik faoliyatni takomillashtirishdagi o'rni tahlil qilinadi. Tadqiqotda sun'iy intellektning adaptiv ta'lim, individual ta'lim trayektoriyasini shakllantirish, o'quv materiallarini yaratish, tezkor teskari aloqa, avtomatlashtirilgan baholash va o'qituvchining kasbiy faoliyatini qo'llab-quvvatlash imkoniyatlari yoritiladi. Generativ sun'iy intellektning matn, tasvir, taqdimot, savol-topshiriq va boshqa o'quv resurslarini yaratishdagi funksiyalari pedagogik nuqtayi nazardan ko'rib chiqiladi. Shu bilan birga, akademik halollik, noto'g'ri yoki uydirma axborot, mualliflik huquqi, ma'lumotlar maxfiyligi, raqamli tengsizlik hamda sun'iy intellektga ortiqcha tayanish kabi muammolar tahlil qilinadi. Maqolada xalqaro tashkilotlarning zamonaviy tavsiyalari va O'zbekistonda sun'iy intellektni rivojlantirish bo'yicha strategik hujjatlar asosida ta'limda sun'iy intellektidan inson markazli, pedagogik maqsadga yo'naltirilgan va mas'uliyatli foydalanish tamoyillari asoslab beriladi. Tadqiqot natijasida sun'iy intellekt o'qituvchini almashtiruvchi vosita emas, balki pedagogning imkoniyatlarini kengaytiruvchi texnologik hamkor sifatida qaralishi lozimligi xulosasi ilgari suriladi.

Kalit so'zlar: sun'iy intellekt, generativ sun'iy intellekt, generativ texnologiyalar, raqamli ta'lim, adaptiv ta'lim, individual ta'lim, pedagogik texnologiya, raqamli kompetensiya, akademik halollik, AI savodxonligi, ta'lim samaradorligi.

Abstract. This article analyses the opportunities of artificial intelligence and generative technologies in contemporary education, focusing on their potential to improve curriculum design, teaching methods, assessment, feedback and teachers' professional activities. Particular attention is given to adaptive learning, personalised learning pathways, generation of educational materials, automated support and the use of generative AI for producing texts, images, questions and other learning resources. The article also examines major challenges, including academic integrity, inaccurate or fabricated information, copyright, data privacy, digital inequality and excessive dependence on AI tools. Drawing on recent international guidance and Uzbekistan's strategic documents on artificial intelligence, the study argues for a human-centred, pedagogically purposeful and responsible approach to AI integration in education. AI is considered not as a replacement for

teachers, but as a technological partner that can extend teachers' capabilities while preserving human agency, critical thinking and meaningful teacher–student interaction.

Keywords: artificial intelligence, generative AI, generative technologies, digital education, adaptive learning, personalised learning, AI literacy, academic integrity, educational technology, teacher competencies.

Аннотация. В статье анализируются возможности искусственного интеллекта и генеративных технологий в современном образовании, их потенциал в совершенствовании содержания обучения, методов преподавания, оценивания и профессиональной деятельности педагога. Рассматриваются адаптивное обучение, персонализация образовательной траектории, создание учебных материалов и получение оперативной обратной связи. Отдельное внимание уделено рискам, связанным с академической добросовестностью, недостоверной информацией, авторским правом, конфиденциальностью данных и чрезмерной зависимостью от технологий. Обосновывается необходимость человекоцентричного, педагогически целесообразного и ответственного использования искусственного интеллекта.

Ключевые слова: искусственный интеллект, генеративный искусственный интеллект, образование, цифровые технологии, адаптивное обучение, персонализация, цифровая компетентность, академическая добросовестность.

KIRISH

Raqamli transformatsiya ta'lim tizimining mazmuni, shakllari va metodlariga sezilarli ta'sir ko'rsatmoqda. Ayniqsa, sun'iy intellektning tez rivojlanishi ta'lim jarayonida axborotni izlash, tahlil qilish, o'quv materiallarini ishlab chiqish, topshiriqlar yaratish, baholash va individual ta'limni tashkil etish imkoniyatlarini kengaytirdi. Generativ sun'iy intellekt vositalarining ommalashuvi esa o'quvchi va o'qituvchining raqamli muhitdagi faoliyatini yangi bosqichga olib chiqdi. UNESCO generativ AI ta'limda katta imkoniyatlar bilan birga maxfiylik, tenglik, xavfsizlik va pedagogik maqsadga muvofiqlik bilan bog'liq muammolarni ham yuzaga keltirishini ta'kidlaydi [1].

2026-yilgi OECD Digital Education Outlook hisobotida generativ AI aniq pedagogik maqsad va o'qitish tamoyillari asosida qo'llanganda o'quv jarayonini qo'llab-quvvatlashi mumkinligi, biroq o'quvchining kognitiv faoliyatini to'liq texnologiyaga topshirish real o'rganish natijalarini kafolatlamasligi qayd etilgan[2].

O'zbekistonda ham sun'iy intellektni rivojlantirish davlat siyosatining muhim yo'nalishlaridan biriga aylanmoqda. 2024-yil 14-oktabrdagi PQ-358-son qaror bilan Sun'iy intellekt texnologiyalarini 2030-yilgacha rivojlantirish strategiyasi tasdiqlangan bo'lib, unda sun'iy intellekt sohasida normativ-huquqiy bazani rivojlantirish, ijtimoiy sohalarga joriy etish, infratuzilmani shakllantirish va kadrlar salohiyatini oshirish vazifalari belgilangan[3]. Bu jarayonda ta'lim tizimi sun'iy intellektidan foydalanuvchi emas, balki AI savodxonligini shakllantiruvchi asosiy ijtimoiy institut sifatida ham qaralishi zarur.

TADQIQOT METODOLOGIYASI

Tadqiqotda nazariy tahlil, ilmiy adabiyotlarni umumlashtirish, qiyosiy tahlil, tizimlashtirish, pedagogik modellashtirish va kontent-tahlil metodlaridan foydalanildi. Manba bazasini UNESCO, OECD va boshqa xalqaro tashkilotlarning sun'iy intellekt va ta'limga oid materiallari, shuningdek O'zbekiston Respublikasining sun'iy intellektni rivojlantirishga doir normativ-huquqiy hujjatlari tashkil etdi. Tahlilda texnologik imkoniyatlar bilan bir qatorda ularning pedagogik maqsadga muvofiqligi, inson omili, akademik halollik va ta'lim sifati masalalariga e'tibor qaratildi.

Metodologik jihatdan maqola inson markazli yondashuvga tayanadi. Bunda texnologiya ta'limning maqsadi emas, balki ta'lim maqsadlariga erishishni qo'llab-quvvatlovchi vosita sifatida qaraladi. UNESCOning 2024-yilgi o'qituvchilar uchun AI kompetensiyalari doirasida inson markazli tafakkur, AI etikasi, AI asoslari va qo'llanilishi, AI pedagogikasi hamda kasbiy rivojlanish yo'nalishlari alohida kompetensiya o'lchovlari sifatida belgilangan [4].

Sun'iy intellekt – ma'lumotlardan foydalanib, odatda insonning idrok etishi, tahlil qilishi, bashorat qilishi, tavsiya berishi yoki muammoni hal qilishi bilan bog'liq vazifalarni bajarishga imkon beruvchi texnologiyalar majmuasidir. Ta'limda AI turli shakllarda namoyon bo'lishi mumkin: adaptiv o'quv tizimlari, tavsiya mexanizmlari, avtomatlashtirilgan baholash, nutqni tanish, tarjima, o'quv analitikasi va intellektual repetitorlik tizimlari shular jumlasidandir.

Generativ sun'iy intellekt esa mavjud ma'lumotlardan o'rgangan naqshlar asosida yangi kontent hosil qilishga yo'naltirilgan AI tizimlarining bir turidir. U matn, tasvir, audio, video, dasturiy kod va boshqa turdagi materiallarni foydalanuvchining ko'rsatmasi – prompt asosida yaratishi mumkin[2]. Shu jihati bilan generativ AI an'anaviy raqamli vositalardan farq qiladi: foydalanuvchi tayyor materialni faqat tanlamaydi, balki tizim bilan dialog orqali yangi materialni shakllantirishi mumkin.

Ta'lim nuqtayi nazaridan bu imkoniyat ikki tomonlama ahamiyatga ega. Bir tomondan, o'qituvchi dars rejasi, misollar, savollar, topshiriqlar va tushuntirishlarning turli variantlarini tez tayyorlashi mumkin. Ikkinchi tomondan, o'quvchi mavzuni turli usulda izohlashni, qo'shimcha savollar berishni va individual sur'atda mashq qilishni tashkil etishi mumkin. Biroq AI tomonidan yaratilgan javobning avtomatik ravishda to'g'ri deb qabul qilinishi ilmiy va pedagogik jihatdan noto'g'ri yondashuvdir.

Sun'iy intellektning ta'limdagi imkoniyatlarini bir necha asosiy yo'nalishga ajratish mumkin. Birinchi yo'nalish – individuallashtirish. O'quvchilarning bilim darajasi, xatolari va o'zlashtirish sur'atiga oid ma'lumotlar asosida topshiriqlar murakkabligini moslashtirish mumkin. Bunday yondashuv bir xil topshiriqni barcha o'quvchilarga berishdan ko'ra, ularning ehtiyojlarini hisobga olish imkonini kengaytiradi.

Ikkinchi yo'nalish – tezkor teskari aloqa. O'quvchi topshiriq bajarganidan keyin xatosi haqida tushuntirish olishi, qo'shimcha misol so'rashi yoki boshqa yechimni ko'rishi mumkin. Bu o'qituvchining doimiy nazoratini to'liq almashtirmaydi, ammo o'quv jarayonidagi kutish vaqtini kamaytiradi.

Uchinchi yo'nalish – o'quv resurslarini yaratish. Generativ AI yordamida mavzu bo'yicha savollar, testlar, keyslar, muammoli vaziyatlar, lug'atlar, qisqa izohlar va turli darajadagi mashqlar tayyorlash mumkin. O'qituvchi bu materiallarni tayyor holicha qo'llashdan oldin fan mazmuni, yosh xususiyatlari va o'quv maqsadlariga mosligini tekshirishi kerak.

To'rtinchi yo'nalish – o'qituvchining kasbiy faoliyatini qo'llab-quvvatlash. Dars rejasining dastlabki loyihasini tuzish, matnni qisqartirish, savollarni diversifikatsiya qilish, rubrika loyihasini ishlab chiqish, ma'lumotlarni guruhlash kabi texnik ishlar AI yordamida tezlashtirilishi mumkin. OECD 2026 hisobotida o'qituvchilarning AI'dan foydalanishida dars rejasini yozish yoki takomillashtirish kabi vazifalar ham qayd etilgan [2].

Beshinchi yo'nalish – ta'lim analitikasi. AI katta hajmdagi o'quv ma'lumotlarini tahlil qilib, qaysi mavzularda qiyinchilik ko'proq ekanini aniqlashga yordam berishi mumkin. Biroq o'quvchi haqidagi ma'lumotlardan foydalanishda maxfiylik, ma'lumotlarni minimallashtirish va tegishli rozilik masalalari hisobga olinishi zarur [1].

Generativ texnologiyalar o'qituvchining metodik faoliyatini sezilarli darajada qo'llab-quvvatlashi mumkin. Darsni loyihalash bosqichida o'qituvchi mavzu, maqsad, o'quvchilar darajasi va dars vaqtini ko'rsatib, dastlabki reja variantlarini olishi mumkin. Biroq yakuniy dars modeli pedagogning kasbiy qarori asosida ishlab chiqilishi kerak.

Differensial ta'limni tashkil etishda generativ AI bir mavzu bo'yicha boshlang'ich, o'rta va yuqori darajadagi topshiriqlar variantlarini yaratishga yordam beradi. Bu ayniqsa sinfdagi o'quvchilarning tayyorgarlik darajasi turlicha bo'lgan holatlarda foydalidir. O'qituvchi esa topshiriqlarning murakkabligi, mazmuni va baholash mezonlarini tekshiradi.

Til ta'limida generativ AI dialoglar, lug'at mashqlari, grammatik topshiriqlar va matn tahlili uchun qo'shimcha materiallar yaratishda qo'llanishi mumkin. Tabiiy fanlarda esa tajriba ssenariylari, sabab-oqibat savollari va muammoli vaziyatlar ishlab chiqishda foydalanish mumkin. Ijtimoiy-

gumanitar fanlarda turli nuqtayi nazarlarni taqqoslash, dalillarni tasniflash va bahs-munozara savollarini ishlab chiqish uchun foydalanish imkoniyati mavjud.

Shuningdek, generativ AI o'qituvchiga bir mavzuni turli formatlarda tushuntirish imkonini beradi: qisqa izoh, batafsil tushuntirish, analogiya, savol-javob, jadval yoki bosqichma-bosqich ko'rsatma. Bu o'quvchilarning turli kognitiv ehtiyojlariga moslashishda yordam berishi mumkin.

O'quvchi faoliyatida generativ ai: imkoniyatlar va pedagogik shartlar. O'quvchi uchun generativ AI ma'lumot manbai, suhbatdosh, fikrni rivojlantiruvchi vosita yoki mashq hamkori bo'lishi mumkin. Biroq uning ta'limiy qiymati o'quvchi AI'dan tayyor javob olish uchunmi yoki o'z fikrlash jarayonini rivojlantirish uchunmi foydalanishiga bog'liq.

Masalan, o'quvchidan tayyor insho yozdirish o'rniga mavzu bo'yicha reja variantlarini so'rash, o'z yozgan matnining mantiqiy tuzilishini tekshirtirish yoki qarama-qarshi savollar olish maqsadga muvofiqroq bo'lishi mumkin. Bunda o'quvchi yakuniy fikr va matn uchun mas'ul bo'lib qoladi.

OECDning 2026-yilgi tahliliga ko'ra, umumiy maqsadli GenAI o'quvchining vazifani bajarishdagi natijasini yaxshilashi mumkin, ammo bu har doim ham haqiqiy o'rganish yutug'iga aylanmaydi. Kognitiv faoliyatni AI'ga ortiqcha topshirish mustaqil fikrlash va metakognitiv faoliyatning susayishiga olib kelishi mumkin[2]. Shu sababli topshiriqlarni loyihalashda jarayonni ham baholash muhim.

O'quvchining AI savodxonligi ham alohida ahamiyatga ega. UNESCO o'quvchilar uchun AI kompetensiyalari doirasida inson markazli yondashuv, AI etikasi, AI texnikalari va qo'llanilishi hamda AI tizimlarini loyihalash yo'nalishlarini ajratadi[5]. Bu o'quvchi faqat texnologiyadan foydalanishni emas, uning imkoniyati va cheklovlarini tushunishni ham o'rganishi kerakligini anglatadi.

Individual ta'lim trayektoriyasi o'quvchining ehtiyojlari, tayyorgarlik darajasi, qiziqishlari va rivojlanish sur'atini hisobga olgan holda ta'lim mazmuni va faoliyatini moslashtirishni nazarda tutadi. AI texnologiyalari bu jarayonni ma'lumotlarni tahlil qilish va mos tavsiyalar berish orqali qo'llab-quvvatlashi mumkin.

Bunday tizimning pedagogik modeli uch bosqichdan iborat bo'lishi mumkin: diagnostika, moslashtirish va monitoring. Diagnostika bosqichida o'quvchining boshlang'ich bilimlari aniqlanadi. Moslashtirish bosqichida o'quvchi uchun tegishli topshiriq va resurslar tavsiya qilinadi. Monitoring bosqichida o'zlashtirish dinamikasi kuzatilib, keyingi o'quv qadamlari belgilanadi.

AI baholash jarayonida test savollarini ishlab chiqish, javoblarni dastlabki tahlil qilish, xatolarni guruhlash va teskari aloqa tayyorlashda yordam berishi mumkin. Biroq baholashning yakuniy mas'uliyati pedagogda qolishi lozim. Ayniqsa, ochiq javobli, ijodiy va murakkab kompetensiyalarni baholashda avtomatik baho inson ekspertizasini to'liq almashtira olmaydi.

Generativ AI akademik halollik masalasini ham yangicha qo'yadi. O'quvchi topshiriqni mustaqil bajarmasdan AI yordamida tayyor matn olishi mumkin. Shuning uchun ta'lim muassasalari faqat AI'dan foydalanishni taqiqlash bilan cheklanmasdan, undan mas'uliyatli foydalanish qoidalarini ishlab chiqishi zarur.

Baholashni qayta loyihalash bu muammoni kamaytirishi mumkin. Masalan, faqat yakuniy matnni emas, mavzu tanlash, reja tuzish, dalil izlash, tahrirlash va o'z fikrini himoya qilish jarayonini baholash; og'zaki himoya; amaliy topshiriqlar; shaxsiy tajribaga asoslangan vazifalar va bosqichma-bosqich portfolio kabi usullar o'quvchining real bilim va ko'nikmalarini yaxshiroq aniqlashga xizmat qiladi.

Birinchi muammo – noto'g'ri axborot. Generativ tizimlar ishonchli ohangda xato ma'lumot yoki mavjud bo'lmagan manbani taqdim etishi mumkin. Shuning uchun AI javoblari ilmiy manbalar, darsliklar va ishonchli ma'lumotlar bilan tekshirilishi kerak.

Ikkinchi muammo – ma'lumotlar maxfiyligi. O'quvchi yoki o'qituvchining shaxsiy ma'lumotlari, baholari, sog'lig'i yoki boshqa himoyalangan ma'lumotlarini noma'lum tizimlarga kiritish xavf tug'dirishi mumkin. UNESCO GenAI bo'yicha ko'rsatmalarida ma'lumotlar maxfiyligini himoya qilish va xavfsiz foydalanish zarurligini ta'kidlaydi [1].

Uchinchi muammo – raqamli tengsizlik. Barcha o‘quvchilar bir xil qurilma, internet, pullik xizmat yoki texnik ko‘nikmaga ega bo‘lmasligi mumkin. AI‘dan foydalanish imkoniyati ta‘limdagi mavjud tafovutlarni kamaytirishi ham, noto‘g‘ri tashkil etilganda kuchaytirishi ham mumkin.

To‘rtinchi muammo – kognitiv faoliyatning qisqarishi. Agar o‘quvchi har bir murakkab vazifani AI‘ga topshirsa, mustaqil izlanish, yozish, hisoblash, tahlil qilish va muammoni hal etish ko‘nikmalari yetarli darajada rivojlanmasligi mumkin. Shu sababli AI o‘quvchining o‘rniga fikrlovchi vosita emas, balki fikrlashni qo‘llab-quvvatlovchi vosita sifatida ishlatilishi lozim.

Beshinchi muammo – mualliflik va intellektual mulk masalalaridir. AI yordamida yaratilgan materiallarning manbasi, litsenziyasi va undan foydalanish shartlari tekshirilishi kerak. O‘qituvchi va o‘quvchi boshqa mualliflarning fikrlarini AI orqali qayta ishlab, ularni manbasiz o‘zlashtirishdan saqlanishi zarur.

AI ta‘limga kirib kelishi o‘qituvchining rolini yo‘qotmaydi, aksincha uning ayrim kompetensiyalariga qo‘yiladigan talablarni yangilaydi. O‘qituvchi AI vositalarining asosiy ishlash tamoyillarini, imkoniyatlari va cheklovlarini bilishi, natijalarni tanqidiy tekshirishi hamda ularni pedagogik maqsadga moslashtirishi kerak.

UNESCO 2024-yilda o‘qituvchilar uchun AI kompetensiyalarini besh o‘lchovga ajratdi: inson markazli tafakkur, AI etikasi, AI asoslari va qo‘llanilishi, AI pedagogikasi va kasbiy rivojlanish uchun AI. Ushbu kompetensiyalar uch darajada rivojlanadi: egallash, chuqurlashtirish va yaratish[4].

Amaliy jihatdan o‘qituvchi uchun quyidagi ko‘nikmalar muhim: samarali prompt tuzish; AI javoblarini faktologik tekshirish; turli darajadagi topshiriqlar yaratish; AI bilan ishlab chiqilgan materialni o‘quv dasturiga moslashtirish; o‘quvchi ma‘lumotlarini himoya qilish; akademik halollik qoidalarini tushuntirish; AI‘dan foydalanish natijasini baholash.

O‘zbekistonda sun‘iy intellekt texnologiyalarini rivojlantirish bo‘yicha davlat siyosatining huquqiy asoslari bosqichma-bosqich shakllanmoqda. 2024-yil 14-oktabrda qabul qilingan PQ-358-son qaror bilan Sun‘iy intellekt texnologiyalarini 2030-yilgacha rivojlantirish strategiyasi tasdiqlangan. Strategiyada normativ-huquqiy bazani shakllantirish, ijtimoiy soha va iqtisodiyot tarmoqlarida AI loyihalarini amalga oshirish, infratuzilmani rivojlantirish hamda aholining bilim va ko‘nikmalarini oshirish vazifalari belgilangan[3].

Mazkur strategik yo‘nalishlar ta‘lim tizimi uchun ham muhim metodik vazifalarni yuzaga keltiradi. Birinchidan, pedagoglar uchun AI savodxonligi va malaka oshirish dasturlarini tizimli yo‘lga qo‘yish zarur. Ikkinchidan, ta‘lim muassasalarida AI vositalaridan foydalanish bo‘yicha etik va metodik qoidalar ishlab chiqilishi lozim. Uchinchidan, o‘zbek tilidagi sifatli raqamli ta‘lim resurslari va mahalliy kontekstga mos AI vositalarini rivojlantirish muhim.

O‘zbekiston sharoitida AI integratsiyasi faqat texnik infratuzilma masalasi sifatida emas, balki pedagogik va metodik transformatsiya sifatida qaralishi lozim. Bunda ta‘lim mazmunining milliy xususiyatlari, o‘zbek tilidagi resurslarning sifati, o‘quvchilarning yosh xususiyatlari va hududlar o‘rtasidagi raqamli imkoniyatlar farqi hisobga olinishi kerak.

Tahlil natijalari shuni ko‘rsatadiki, sun‘iy intellekt va generativ texnologiyalarning ta‘limdagi qiymati ularning texnik imkoniyatlari bilan emas, balki pedagogik dizayn bilan belgilanadi. OECD 2026 hisobotida ham generativ AI pedagogik maqsad bilan boshqarilganda o‘rganishni qo‘llab-quvvatlashi, topshiriqni shunchaki AI‘ga topshirish esa o‘quv natijasi bilan bir xil narsa emasligi qayd etilgan[2].

AI bilan ishlashda tanqidiy fikrlash alohida ahamiyat kasb etadi. O‘quvchi AI bergan javobni tayyor bilim sifatida emas, tekshirilishi kerak bo‘lgan gipoteza yoki dastlabki material sifatida ko‘rishi kerak. Bu yondashuv raqamli savodxonlikni ilmiy savodxonlik va media savodxonlik bilan birlashtiradi.

Ta‘lim muassasasida AI siyosati ham muhim. Qaysi vazifalarda AI‘dan foydalanishga ruxsat beriladi, qachon foydalanish cheklanadi, AI yordamidan qanday xabar beriladi, o‘quvchi ma‘lumotlari qanday himoya qilinadi kabi savollar oldindan aniq belgilanishi kerak. Bunday qoidalar jazolashga emas, mas‘uliyatli foydalanish madaniyatini shakllantirishga qaratilishi maqsadga muvofiq.

Nazariy tahlil asosida sun'iy intellekt va generativ texnologiyalarning zamonaviy ta'limdagi asosiy imkoniyatlari quyidagicha tizimlashtirildi: ta'limni individuallashtirish; tezkor teskari aloqa; o'quv materiallarini tezkor ishlab chiqish; differensial topshiriqlar yaratish; o'qituvchi faoliyatidagi texnik ishlarni optimallashtirish; ta'lim analitikasi; o'quvchi uchun qo'shimcha mashq va dialog imkoniyatlarini yaratish; AI savodxonligini rivojlantirish.

Shu bilan birga, samarali integratsiyaning asosiy shartlari sifatida pedagogik maqsadning ustuvorligi, o'qituvchi nazorati, AI natijalarini tekshirish, akademik halollik, ma'lumotlar maxfiyligi, teng foydalanish imkoniyati va o'quvchining mustaqil fikrlashini saqlash belgilandi.

Taklif etilayotgan metodik yondashuvga ko'ra, AI bilan ishlash uch darajada tashkil etilishi mumkin: 'AI'siz' – o'quvchi fundamental bilim va ko'nikmalarni mustaqil shakllantiradi; 'AI bilan' – AI fikrlashni qo'llab-quvvatlaydi; 'AI haqida' – o'quvchi AI tizimlarining ishlash tamoyillari, etikasi va cheklovlarini o'rganadi. Ushbu uch yo'nalishning uyg'unligi AI savodxonligini kompleks rivojlantirishga xizmat qiladi.

Sun'iy intellekt va generativ texnologiyalar zamonaviy ta'limning mazmuni, metodlari va tashkiliy shakllarini takomillashtirish uchun yangi imkoniyatlar yaratmoqda. Ular individual ta'limni qo'llab-quvvatlash, o'quv materiallarini ishlab chiqish, tezkor teskari aloqa berish, o'qituvchining metodik ishlarini optimallashtirish va ta'lim analitikasini rivojlantirishda foydali bo'lishi mumkin.

Biroq texnologik imkoniyatni ta'limiy natija bilan tenglashtirish mumkin emas. Generativ AI'dan tayyor javob olish o'quvchining haqiqiy bilim va ko'nikmasini avtomatik ravishda oshirmaydi. Shuning uchun AI ta'lim jarayonida kognitiv faoliyatni almashtiruvchi emas, balki uni qo'llab-quvvatlovchi vosita sifatida loyihalanishi kerak. Ayniqsa, mustaqil fikrlash, ijodkorlik, muammoli vaziyatlarni hal qilish, dalillarni baholash va refleksiya kabi yuqori darajadagi kompetensiyalarni rivojlantirishda insonning faol roli saqlanishi zarur.

O'qituvchi AI davrida nafaqat bilim beruvchi, balki ta'limiy faoliyat dizayneri, axborotni tekshiruvchi, etik me'yorlarni shakllantiruvchi va o'quvchining mustaqil fikrlashini qo'llab-quvvatlovchi mutaxassis sifatida namoyon bo'ladi. UNESCO va OECDning so'nggi tavsiyalari ham inson markazli, pedagogik maqsadga yo'naltirilgan va mas'uliyatli foydalanishni ta'kidlamogda[1; 2; 4; 5].

O'zbekiston ta'lim tizimida ham sun'iy intellektni rivojlantirish bo'yicha strategik yo'nalishlardan kelib chiqib, pedagoglarning AI kompetensiyalarini rivojlantirish, o'zbek tilidagi sifatli ta'lim resurslarini ko'paytirish, akademik halollik va ma'lumotlar xavfsizligi bo'yicha aniq qoidalarni ishlab chiqish muhimdir [3]. Natijada sun'iy intellekt ta'lim sifatini oshirishga xizmat qiluvchi vositaga aylanishi, shu bilan birga ta'limning insoniy va tarbiyaviy mohiyati saqlab qolinishi mumkin.

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TALABALARDA AXBOROT XAVFSIZLIGI KOMPETENSIYASINING KO'P KOMPONENTLI TUZILMASI VA INDIKATORLI DIAGNOSTIKA MODELI

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Annotatsiya. Maqolada talabalarda axborot xavfsizligi kompetensiyasini pedagogik diagnostika uchun operatsionlashtirish masalasi tadqiq etilgan. Mahalliy ilmiy manbalar, DigComp 2.2, NICE Framework hamda inson omiliga yo'naltirilgan xavfsizlik baholash yondashuvlari mezonli kontent-tahlil, kompetensiyaviy dekompozitsiya va kvalimetrik modellash tirish asosida qiyoslandi. Natijada kognitiv, risk-tahliliy, operatsion-texnologik, qadriyat-etik va refleksiv-xulqiy komponentlardan iborat tuzilma, besh mezon, yigirma indikator va to'rt shakllanganlik darajasi ishlab chiqildi. Diagnostika modeli bilim testini amaliy vaziyat, raqamli faoliyat mahsuli, kuzatuv va refleksiv dalillar bilan birlashtiradi. Taklif etilgan yondashuv kompetensiyani faqat nazariy xabardorlik bilan cheklamasdan, xavfni aniqlash, himoya choralarini qo'llash, mas'uliyatli qaror qabul qilish va yangi vaziyatga transfer qilish darajasida baholash imkonini beradi.

Kalit so'zlar: axborot xavfsizligi kompetensiyasi, tuzilma, mezon, indikator, pedagogik diagnostika, kvalimetriya, shakllanganlik darajasi.

Аннотация. В статье исследуется операционализация компетентности студентов в области информационной безопасности для педагогической диагностики. Отечественные научные источники, DigComp 2.2, NICE Framework и подходы к оценке человеческого фактора сопоставлены посредством критериального контент-анализа, компетентностной декомпозиции и квалиметрического моделирования. Разработана структура из когнитивного, риск-аналитического, операционально-технологического, ценностно-этического и рефлексивно-поведенческого компонентов, включающая пять критериев, двадцать индикаторов и четыре уровня сформированности. Диагностическая модель объединяет тестирование знаний с ситуационными заданиями, продуктами цифровой деятельности, наблюдением и рефлексивными доказательствами.

Ключевые слова: компетентность в области информационной безопасности, структура, критерий, индикатор, педагогическая диагностика, квалиметрия, уровень сформированности.

Abstract. The article operationalizes university students' information security competence for pedagogical diagnosis. Uzbek studies, DigComp 2.2, the NICE Framework, and human-factor security assessment approaches were compared through criterion-based content analysis, competency decomposition, and qualimetric modeling. The resulting structure comprises cognitive, risk-analytical, operational-technological, value-ethical, and reflective-behavioral components, five criteria, twenty indicators, and four proficiency levels. The diagnostic model combines knowledge tests with scenario tasks, digital artifacts, observation, and reflective evidence, enabling assessment of risk recognition, protective action, responsible decision-making, and transfer to new situations rather than awareness alone.

Keywords: information security competence, structure, criterion, indicator, pedagogical diagnosis, qualimetry, proficiency level.

KIRISH

Raqamli ta'lim muhitining kengayishi talabaning axborot bilan ishlash ko'lamini keskin oshirdi. Elektron ta'lim platformasi, bulutli hamkorlik, mobil ilovalar, videokonferensiya, onlayn kutubxona, generativ sun'iy intellekt va ijtimoiy tarmoqlar o'quv faoliyatining kundalik vositalariga aylandi. Shu bilan birga, hisob yozuvining egallanishi, fishing, zararli fayl, noto'g'ri ruxsat, shaxsiy ma'lumotning oshkor bo'lishi, akademik ma'lumotning buzilishi va mualliflik huquqining buzilishi

kabi xavflar ham ta'lim natijasiga bevosita ta'sir ko'rsatmoqda. Mazkur sharoitda axborot xavfsizligi kompetensiyasi texnik bilimlar yig'indisi emas, balki xavfni anglash, himoya choralarini tanlash, mas'uliyatli harakat qilish va o'z faoliyatini nazorat etish qobiliyatining yaxlit tizimi sifatida qaralishi zarur.

Kompetensiyani shakllantirishdan oldin uning nimadan tarkib topishi va qanday dalillar orqali baholanishi aniqlanishi lozim. Aks holda o'quv maqsadi umumiy "xavfsizlikni biladi" iborasi bilan cheklanadi, nazorat esa atamalarini eslab qolish darajasida qoladi. G'aniyev, Karimov va Tashev axborot xavfsizligining konfidentsiallik, yaxlitlik, mavjudlik, autentifikatsiya, kirishni boshqarish hamda xavfsizlik siyosati kabi texnik asoslarini tizimlashtiradi [1]. Pedagogik nuqtai nazardan bu mazmunni talabaning real faoliyati, qadriyatlari va xulqiga aylantirish talab qilinadi.

Karimova axborot kompetentligini rivojlantirish omillari va mezonlarini tahlil qilib, bilim, faoliyat, motivatsiya va refleksiyani o'zaro bog'langan tarkiblar sifatida ko'rsatadi [2; 3]. Boboqulova oliy ta'limdagi xavfsizlik madaniyatida texnik ko'nikma bilan bir qatorda raqamli mas'uliyat va xabardorlikning o'rnini ta'kidlaydi [4]. Tuxtabayeva va Ayitqulova gamifikatsiya, simulyatsiya va interaktiv yondashuvlarning talabalar xavfsizlik xulqini rivojlantirishdagi imkoniyatlarini yoritadi [5]. Boymanov esa axborot madaniyati, etik qadriyat va ijtimoiy mas'uliyat xavfsizlik ta'limining ajralmas qismi ekanini asoslaydi [6]. Ushbu qarashlar kompetensiyani faqat bilim testi bilan o'lchash yetarli emasligini ko'rsatadi.

Pedagogik diagnostikada mezon va indikatorlarning noaniqligi ikki xil xatoga olib keladi. Birinchisi, talaba nazariy savollarga javob bergani uchun kompetent deb baholanadi, biroq real fishing xatini tanimaydi yoki bulutli hujjatga ochiq ruxsat beradi. Ikkinchisi, texnik amallarni bajara olgan talaba etik va huquqiy oqibatni anglamasa ham yuqori natija oladi. Demak, diagnostika bilim, tahlil, amaliy harakat, qadriyat va o'zini boshqarish dalillarini muvozanatli qamrab olishi kerak.

DigComp 2.2 raqamli xavfsizlikni qurilmalarni himoya qilish, shaxsiy ma'lumot va maxfiylik, salomatlik va farovonlik hamda atrof-muhitni himoya qilish bilan bog'laydi [10]. NICE Framework kiberxavfsizlik faoliyatini vazifalar, bilim va ko'nikmalar orqali tavsiflaydi [11]. HAIS-Q yondashuvi esa xavfsizlikning bilim, munosabat va xulq o'rtasidagi bog'liqligini o'lchashga intiladi [12]. Ularning pedagogik integratsiyasi talaba uchun umumiy raqamli xavfsizlik bilan kasbiy vazifalardagi aniq harakatlarni birlashtirish imkonini beradi.

Maqolaning maqsadi talabalarda axborot xavfsizligi kompetensiyasining ko'p komponentli tuzilmasini ishlab chiqish, uning mezon va indikatorlarini operatsionlashtirish, shakllanganlik darajalarini tavsiflash hamda ko'p dalilli diagnostika modelini taklif etishdan iborat. Tadqiqot savoli quyidagicha qo'yildi: qaysi komponentlar va baholash dalillari talabaning axborot xavfsizligi bo'yicha xabardorligi, amaliy tayyorgarligi, mas'uliyatli qarori va yangi vaziyatga transferini ishonchli aks ettiradi?

MATERIALLAR VA METODLAR

Tadqiqot nazariy-model xarakteriga ega bo'lib, material sifatida to'qqizta mahalliy va uchta xorijiy manba tanlandi. Manbalarni tanlashda uch mezon qo'llanildi: axborot xavfsizligi yoki axborot kompetentligining tarkibiy jihatlarini yoritishi; pedagogik baholash uchun mezon va ko'rsatkich taklif etishi; oliy ta'lim yoki raqamli faoliyat kontekstiga tatbiq etilishi. Bibliografik korpusdagi tushunchalar "bilim", "xavfni tahlil qilish", "amaliy himoya", "etik-huquqiy mas'uliyat", "xulq" va "refleksiya" kodlari bo'yicha ajratildi.

Birinchi metod — **mezonli kontent-tahlil**. Har bir manbada kompetensiyaning ta'rifi, tarkibiy qismi, kutilgan harakat va baholash dalili alohida matritsaga joylashtirildi. Mazmuniy birliklar takrorlanishi va pedagogik ahamiyatiga ko'ra guruhlandi. Natijada bir-birini qisman takrorlovchi "axborot savodxonligi", "xavfsizlik madaniyati", "kiberxavfsizlik ko'nikmasi" va "raqamli mas'uliyat" tushunchalari yagona kompetensiya tuzilmasiga integratsiya qilindi.

Ikkinchi metod — **kompetensiyaviy dekompozitsiya**. Yakuniy natija "talaba raqamli vaziyatda xavfni aniqlaydi, asosli qaror qabul qiladi, himoya choralarini bajaradi va oqibatni baholaydi" shaklida ifodalanib, u kuzatiladigan kichik harakatlarga ajratildi. Har bir harakat uchun

“nimani biladi?”, “nimani tahlil qiladi?”, “nimani bajara oladi?”, “qaysi qadriyatga tayanadi?” va “o‘z faoliyatini qanday nazorat qiladi?” savollari qo‘llanildi.

Uchinchi metod — **kvalimetrik modellash**. Besh komponentning o‘zaro muvozanatini ta’minlash uchun vazn koeffitsiyentlari belgilandi: kognitiv — 0,20; risk-tahliliy — 0,20; operatsion-texnologik — 0,25; qadriyat-etik — 0,15; refleksiv-xulqiy — 0,20. Umumiy indeks $I = 0,20K + 0,20R + 0,25O + 0,15Q + 0,20F$ formulasi bilan hisoblanadi. Vaznlarning maqsadi texnik bajarishni biroz ustun qo‘yish, biroq bilim, tahlil va xulqni chetda qoldirmaslikdir.

To‘rtinchi metod — **dalillar triangulyatsiyasi**. Har bir indikator kamida ikki turdagi dalil bilan tekshiriladi: bilim testi; vaziyatli tanlov; amaliy topshiriq; faoliyat mahsuli; kuzatuv; o‘zini baholash va refleksiv izoh. Bitta test natijasiga tayangan diagnostika o‘rniga dalillar o‘rtasidagi muvofiqlik tahlil qilinadi. Masalan, talaba kuchli parol mezonini aytishi, parol menejerida uni yaratishi va nima sababdan bunday qaror qilganini izohlashi kerak.

Shakllanganlik darajalari to‘rt bosqichda belgilandi: reproduktiv, vaziyatli-amaliy, mustaqil-transfer va refleksiv-mas’uliyatli. Daraja chegaralari umumiy indeks bilan birga kritik indikatorlar asosida aniqlanadi. Agar talaba yuqori umumiy ball olsa-da, shaxsiy ma’lumotni oshkor etish yoki hodisani yashirish kabi kritik xulqni namoyon etsa, yuqori daraja berilmaydi. Bu qoida diagnostikaning etik va xavfsizlik mazmunini saqlaydi.

NATIJALAR

Kontent-tahlil natijasida axborot xavfsizligi kompetensiyasining besh komponentli tuzilmasi shakllantirildi. **Kognitiv komponent** asosiy tushuncha, tahdid, himoya vositasi va me’yoriy talablarni bilishni ifodalaydi. **Risk-tahliliy komponent** vaziyatdagi aktiv, tahdid, zaiflik va oqibatni bog‘lab, ustuvor xavfni aniqlashni qamrab oladi. **Operatsion-texnologik komponent** himoya vositalarini amalda sozlash va tekshirishni bildiradi. **Qadriyat-etik komponent** maxfiylik, akademik halollik, mualliflik huquqi va boshqalarga zarar yetkazmaslik tamoyillariga tayanadi. **Refleksiv-xulqiy komponent** odat, o‘zini nazorat qilish, hodisani xabar qilish va yangi vaziyatga transferni aks ettiradi.

Tuzilma “bilish–tahlil–amal–mas’uliyat–refleksiya” mantiqida qurildi. Bu ketma-ketlik qat’iy chiziqli emas: real vaziyatda talaba tahdidni sezishi bilan oldingi tajriba va qadriyatni ishga soladi, amaliy chorani bajaradi, natijani tekshiradi va keyingi xulqini tuzatadi. Shu sababli komponentlar mustaqil baholansa ham yakuniy kompetensiya ularning integrativ natijasi sifatida talqin qilinadi.

Komponent	Mezon	Asosiy indikatorlar	Ustuvor dalil
Kognitiv	Mazmuniy aniqlik	Tahdid va zaiflikni farqlaydi; CIA tamoyillarini tushuntiradi; huquqiy talabni biladi; himoya vositasining vazifasini izohlaydi	Test, tushunchalar xaritasi
Risk-tahliliy	Vaziyatni asosli baholash	Aktivni aniqlaydi; ehtimol va oqibatni baholaydi; ishonchlilikni tekshiradi; ustuvor chorani tanlaydi	Keys, risk kartasi
Operatsion-texnologik	Himoya amalining to‘g‘riligi	MFA yoqadi; ruxsatni sozlaydi; zaxira yaratadi; hodisaga dastlabki javob beradi	Amaliy topshiriq, skrinshot dalili

Komponent	Mezon	Asosiy indikatorlar	Ustuvor dalil
Qadriyat-etik	Mas'uliyatli qaror	Maxfiylikni saqlaydi; akademik halollikka rioya qiladi; ruxsat va mualliflikni hisobga oladi; zarar keltirmaydigan yechim tanlaydi	Etik dilemma, asoslangan qaror
Refleksiv-xulqiy	Barqaror va transfer qilinadigan xulq	Tekshiruv odatini qo'llaydi; xatoni tan oladi; hodisani xabar qiladi; yangi vaziyatda qoidani moslashtiradi	Kuzatuv, refleksiya, portfolio

Jadvalda indikatorlar kuzatiladigan fe'llar orqali ifodalandi. "Tushunadi" kabi tekshirish qiyin bo'lgan so'zlar "farqlaydi", "asoslaydi", "sozlaydi", "tekshiradi" va "xabar qiladi" kabi dalil hosil qiluvchi harakatlarga almashtirildi. Bu yondashuv o'quv natijasi, topshiriq va baholash vositasi o'rtasidagi moslikni ta'minlaydi.

Daraja	Talabaning tipik faoliyati	Diagnostik belgi	Pedagogik ehtiyoj
1. Reproduktiv	Qoidani eslaydi, namunaga tayanadi, oddiy vaziyatda yordam bilan harakat qiladi	Bilim bor, transfer va barqaror xulq zaif	Ko'rgazmali yo'riqnoma, mikromashq
2. Vaziyatli-amaliy	Tanish vaziyatda himoya choralari bajaradi, sababni qisman izohlaydi	Amaliy ko'nikma mavjud, murakkab vaziyatda ikkilanish bor	Keys, teskari aloqa, takroriy mashq
3. Mustaqil-transfer	Yangi vaziyatda xavfni tahlil qiladi va mustaqil chorani tanlaydi	Dalillar o'rtasida barqaror muvofiqlik mavjud	Murakkab loyiha, kasbiy kontekst
4. Refleksiv-mas'uliyatli	O'z va jamoa xavfsizligini boshqaradi, qarorini asoslaydi, hodisani xabar qiladi	Xulq barqaror, etik va transfer qilinadigan	Mentorlik, xavfsizlik tashabbusi

Darajalarni faqat umumiy ball bilan ajratish diagnostik xatoga olib kelishi mumkin. Shu sababli uchta kritik indikator majburiy deb belgilandi: shaxsiy ma'lumotni himoya qilish, zararli yoki shubhali faoliyatni to'xtatish va hodisani tegishli kanal orqali xabar qilish. Kritik indikator bajarilmasa, talaba uchinchi yoki to'rtinchi darajaga o'tkazilmaydi.

Baholash vositasi	Ulushi	Nimani o'lchaydi	Misol
Qisqa test	15%	Atama, tamoyil va himoya vositasi haqidagi bilim	Fishing belgisini tanlash
Vaziyatli topshiriq	25%	Xavfni tahlil qilish va qarorni asoslash	Soxta LMS xabariga javob rejasi

Baholash vositasi	Ulushi	Nimani o'lcaydi	Misol
Amaliy ish	30%	Himoya amalini to'g'ri bajarish	MFA va fayl ruxsatini sozlash
Raqamli portfolio	20%	Faoliyat mahsuli, transfer va rivojlanish dinamikasi	Risk kartasi, skrinshot, hodisa protokoli
Refleksiya va kuzatuv	10%	Odat, mas'uliyat, xatodan o'rganish	"Nimani tekshirdim va nega?" jurnali

Ko'p dalilli modelda test ulushi ataylab cheklangan, amaliy va vaziyatli dalillar esa ustun qo'yilgan. Portfolio bir martalik nazoratni emas, semestr davomida shakllangan faoliyat izlarini jamlaydi. Refleksiya natijani bezash uchun emas, qarorning ichki mantiqini va xulq barqarorligini aniqlash uchun ishlatiladi.

Diagnostika jarayoni to'rt bosqichda tashkil etiladi. Birinchi bosqichda kirish diagnostikasi orqali kuchli va zaif komponentlar aniqlanadi. Ikkinchi bosqichda o'quv faoliyati davomida formativ baholash o'tkazilib, har bir xatoga darhol tushuntiruvchi teskari aloqa beriladi. Uchinchi bosqichda integrativ keys yoki loyiha orqali komponentlarning birgalikdagi ishlashi tekshiriladi. To'rtinchi bosqichda talaba o'z portfolyisi, xatolari va rivojlanish yo'lini tahlil qiladi.

Taklif etilgan indeks diagnostik qarorni standartlashtiradi, biroq o'qituvchi hukmini to'liq almashtirmaydi. Masalan, K=80, R=70, O=90, Q=75 va F=65 bo'lsa, umumiy indeks 78,25 ni tashkil etadi. Bunday natija uchinchi darajaga yaqin bo'lishi mumkin, ammo hodisani xabar qilish indikatori bajarilmagan bo'lsa, talaba ikkinchi darajada qoldiriladi va maqsadli korreksion topshiriq oladi. Demak, sonli ko'rsatkich sifatli dalil va kritik xavfsizlik talablaridan ajratilmaydi.

Diagnostika natijalarini guruh kesimida ko'rsatish uchun "kompetensiya profili" tuziladi. Profil komponentlar bo'yicha o'rtacha qiymatni ko'rsatib, masalan, bilim yuqori, biroq refleksiv xulq past ekanini aniqlashi mumkin. Bu holatda yana ma'ruza o'qish emas, real vaziyatli mashq, o'zaro tahlil, hodisa protokoli va muntazam tekshiruv ro'yxati samaraliroq bo'ladi. Shunday qilib, diagnostika baho qo'yish bilan cheklanmay, metodik qaror qabul qilish vositasiga aylanadi.

MUHOKAMA

Taklif etilgan tuzilma mahalliy tadqiqotlarda uchraydigan axborot kompetentligi, xavfsizlik madaniyati va raqamli mas'uliyat tushunchalarini yagona pedagogik natijaga birlashtiradi. Karimovning omil va mezonlari bilim hamda faoliyatning uyg'unligini ko'rsatsa [2; 3], Boymanov va Boboqulova xavfsizlikning qadriyatli-madaniy tomonini kuchaytiradi [4; 6]. G'aniyev va hammualliflar bergan texnik asoslar esa operatsion indikatorlarning mazmuniy aniqligini ta'minlaydi [1]. Natijada model texnik fan bilan tarbiyaviy vazifani qarama-qarshi qo'ymaydi.

DigComp 2.2 bilan qiyoslanganda model xavfsizlikning umumiy raqamli jihatlarini saqlaydi, lekin oliy ta'lim uchun akademik halollik, bulutli hamkorlik, ilmiy ma'lumot va hodisani xabar qilish indikatorlarini batafsilroq beradi. NICE Framework kasbiy vazifalarni aniq ifodalashga yordam beradi, biroq u pedagogik daraja va qadriyatlarni bevosita belgilamaydi. Shu sababli NICE vazifa tili kompetensiyaviy dekompozitsiyada, DigComp esa mazmuniy qamrovni tekshirishda ishlatildi.

Modelning kuchli tomoni — "bir indikator–bir test" tamoyilidan voz kechib, dalillar triangulyatsiyasini qo'llashidir. Xavfsizlikda ijtimoiy maqbul javob berish holati kuchli: talaba so'rovnomada to'g'ri javobni tanlashi, amalda esa qulaylik sabab qoidani buzishi mumkin. Vaziyatli keys, amaliy topshiriq va kuzatuv bu tafovutni aniqlashga yordam beradi. HAIS-Q bilim, munosabat va xulqni bog'lash zarurligini ko'rsatadi [12], taklif etilgan model esa ushbu bog'liqlikni ta'lim topshiriqlari va portfolio bilan kengaytiradi.

Cheklov shundaki, vazn koeffitsiyentlari nazariy asosda belgilangan va turli ta'lim yo'nalishlari uchun empirik kalibrlashni talab qiladi. Masalan, axborot texnologiyalari talabalarida

operatsion komponent ulushi yuqoriroq, pedagogika yoki filologiyada esa etik, media va kommunikativ xavfsizlik indikatorlari kengroq bo'lishi mumkin. Keyingi tadqiqotda ekspert bahosi, pilot test, ichki izchillik va mezon validligi tekshirilishi lozim.

Diagnostik vositalarni qo'llashda maxfiylik va etik talablar ham muhim. Talabani haqiqiy parolini, shaxsiy akkauntini yoki real maxfiy ma'lumotini tekshirish mumkin emas. Barcha amaliy topshiriqlar o'quv akkaunti, sun'iy ma'lumot va izolyatsiyalangan muhitda bajarilishi, natijalar esa rivojlantiruvchi maqsadda qo'llanishi kerak. Bu talabning o'zi ham kompetensiyaning qadriyat-etik komponentini namoyon etadi.

Diagnostika vositalarini ishlab chiqish talablari. Har bir vaziyatli topshiriqda ortiqcha texnik tafsilot bilan talabani o'qish qobiliyatini emas, aynan xavfsizlik qarorini o'lchash kerak. Ssenariyda aktiv, tahdid belgisi, qaror nuqtasi va kutilgan dalil aniq bo'lishi, chalg'ituvchi elementlar esa real hayotga mos, biroq sun'iy murakkablik yaratmaydigan darajada tanlanishi lozim. Topshiriq matni bir guruhga tushunarli, boshqasiga lingvistik jihatdan qiyin bo'lsa, natija kompetensiyadan ko'ra matnni anglash farqini aks ettiradi. Shu sababli pilot sinovda mazmun ekspertizasi bilan birga til va vaqt yuklamasi ham tekshiriladi.

Baholovchilar muvofiqligi. Amaliy protokol va reflektiv yozuvni baholashda subyektivlikni kamaytirish uchun analitik rubrika, namunaviy dalil va chegaraviy ishlar to'plami tayyorlanadi. Ikki baholovchi bir xil ishni mustaqil baholab, tafovut sababini muhokama qilishi mezonlarning aniqligini oshiradi. Ayniqsa "qarorni asoslaydi", "mas'uliyatli kommunikatsiya qiladi" kabi murakkab indikatorlar uchun bajarilgan va bajarilmagan holatlarni aniq ko'rsatuvchi deskriptor zarur.

Diagnostik natijani ta'limga qaytarish. Talabaga faqat umumiy ball berish rivojlantiruvchi imkoniyatni kamaytiradi. Teskari aloqa uch qismdan tuzilishi maqsadga muvofiq: muvaffaqiyatli dalil, xavfsizlik uchun muhim bo'lgan bitta ustuvor kamchilik va uni bartaraf etuvchi keyingi aniq topshiriq. Masalan, "fishingni yaxshi tanidingiz, biroq rasmiy kanal orqali tasdiqlash bosqichi yo'q; keyingi mashqda xabarni tekshirish protokolini to'ldiring" kabi izoh talabani nimani o'zgartirishini ko'rsatadi.

Dastur darajasidagi foydalanish. Kompetensiya profillari anonimlashtirilgan holda ta'lim dasturi kesimida tahlil qilinsa, qaysi indikator qaysi fan yoki kursda shakllanmayotgani ko'rinadi. Bir xil kamchilik bir necha guruhda takrorlansa, individual talaba emas, o'quv mazmuni yoki muhit qayta loyihalanadi. Shu tariqa diagnostika nazorat vositasidan sifatni boshqarish mexanizmiga aylanadi.

XULOSA

Tadqiqot natijasida talabalarda axborot xavfsizligi kompetensiyasining kognitiv, risk-tahliliy, operatsion-texnologik, qadriyat-etik va reflektiv-xulqiy komponentlardan iborat ko'p komponentli tuzilmasi ishlab chiqildi. Har bir komponent uchun mezon, to'rttadan indikator va ustuvor baholash dalillari belgilandi.

Kompetensiyaning shakllanganligi reproduktiv, vaziyatli-amaliy, mustaqil-transfer va reflektiv-mas'uliyatli darajalarda tavsiflandi. Umumiy indeks bilim, tahlil, amaliyot, qadriyat va xulqni vaznli baholaydi, kritik indikatorlar esa xavfsizlikka zid holatda sun'iy yuqori bahoning oldini oladi.

Diagnostika bilim testi, vaziyatli topshiriq, amaliy ish, raqamli portfolio, kuzatuv va refleksiyaning birlashtirishi lozim. Shu tarzda baholash natijasi talabani nimani eslab qolganini emas, raqamli vaziyatda qanday xavfni ko'rishi, nima qilishi, qarorini qanday asoslashini va xatodan qanday o'rganishini ko'rsatadi. Model o'quv mazmunini rejalashtirish, individual korreksiya, guruh profili va metodika samaradorligini monitoring qilish uchun amaliy asos bo'lib xizmat qiladi.

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MATEMATIK SAVODXONLIKNI OSHIRISHDA XALQARO TADQIQOTLARNING O'RNI

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Annotatsiya: *Ushbu maqolada PISA xalqaro tadqiqotining o'quvchilarning matematik savodxonligini baholash va rivojlantirishdagi o'rni tahlil qilinadi. Tadqiqot natijalari O'zbekiston ta'lim tizimida matematik kompetensiyalarni rivojlantirish, kompetensiyaviy yondashuvni kuchaytirish, real hayotiy vaziyatlarga asoslangan topshiriqlar ulushini oshirish hamda ta'limdagi tenglikni ta'minlash zarurligini ko'rsatadi.*

Kalit so'zlar: *PISA, matematik savodxonlik, funksional kompetensiya, ta'lim sifati, xalqaro baholash, O'zbekiston ta'limi.*

Abstract: *This article examines the role of the PISA international assessment in evaluating and improving students' mathematical literacy. The study findings highlight the importance of strengthening competency-based approaches, increasing the use of real-life problem-solving tasks, and ensuring equity in education within Uzbekistan's schooling system.*

Keywords: *PISA, mathematical literacy, functional competence, quality of education, international assessment, Uzbekistan education.*

Аннотация: *В данной статье анализируется роль международного исследования PISA в оценке и развитии математической грамотности учащихся. Результаты исследования показывают необходимость укрепления компетентностного подхода,*

увеличения доли заданий, основанных на реальных жизненных ситуациях, а также обеспечения равных возможностей в системе образования Узбекистана.

Ключевые слова: *PISA, математическая грамотность, функциональная компетентность, качество образования, международная оценка, образование Узбекистана.*

KIRISH

Bugungi globallashuv sharoitida ta'lim sifati milliy taraqqiyotning eng muhim omillaridan biri sifatida ko'rilmogda. Ayniqsa, matematika fani o'quvchilarda analitik fikrlash, mantiqiy xulosa chiqarish, muammolarni tahlil qilish va real hayotiy vaziyatlarda qaror qabul qilish kabi kompetensiyalarni shakllantirishda beqiyos ahamiyatga ega. Shu sababli, matematik savodxonlikni rivojlantirish nafaqat ta'lim jarayonining ichki ehtiyoji, balki jamiyatning intellektual va iqtisodiy salohiyatini yuksaltirishga xizmat qiluvchi ustuvor vazifa hisoblanadi. Zamonaviy ta'limda o'quvchilar bilim oluvchidan tashqari, bilimni qo'llay oluvchi, mustaqil fikrlovchi va amaliy vaziyatlarda yechim topuvchi shaxs sifatida shakllanishi talab etiladi. Ta'lim sifatini baholashda xalqaro mezonlardan foydalanish esa bu jarayonni tizimli, obyektiv va taqqoslanadigan holga keltiradi. Shunday xalqaro baholashlardan biri bo'lgan PISA tadqiqoti o'quvchilarning matematika, o'qish savodxonligi va tabiiy fanlar bo'yicha real hayotga yaqin kompetensiyalarini aniqlashni maqsad qiladi.

O'zbekistonning PISA tadqiqotlarida ishtirok etishni boshlashi ta'lim tizimida sifatni oshirish, yangi metodlarni joriy qilish, o'quv dasturlarini zamon talablari asosida qayta ko'rib chiqish borasida muhim bosqich bo'ldi. PISA natijalari orqali mamlakat o'z ta'lim standartlarini xalqaro miqyosda taqqoslash, o'quvchilarning matematik savodxonligi qaysi yo'nalishlarda past yoki yetarli darajada ekanligini aniqlash, mavjud kamchiliklarni bartaraf etish bo'yicha aniq strategiyalar ishlab chiqish imkoniyatiga ega bo'lmoqda. Shuningdek, tadqiqot natijalari o'qituvchilarning kasbiy rivoji, o'quv jarayonini interfaol metodlar orqali boyitish va kompetensiyaga asoslangan ta'limni kuchaytirishda muhim yo'nalish sifatida xizmat qiladi. Xalqaro baholash tizimining ta'lim sifatiga ta'siri, ayniqsa, matematik savodxonlikni rivojlantirish jarayonida alohida o'rin tutadi. Chunki PISA topshiriqlarining mazmuni kundalik hayotga moslashtirilgan bo'lib, o'quvchilarda amaliy yechimlar topish, matematik modellashtirish, ma'lumotlarni tahlil qilish va ularga asoslanib ishonchli xulosa chiqarish ko'nikmalarini shakllantirishga qaratilgan. Bu esa o'quvchilarning matematik bilimlarni faqat nazariy emas, balki amaliy nuqtai nazardan ham mustahkamlashini ta'minlaydi.

METODLAR

Mazkur tadqiqotda o'quvchilarning matematik savodxonligini oshirishda PISA xalqaro baholash dasturining o'рни va ahamiyatini chuqur o'rganish maqsadida bir nechta ilmiy metodlardan kompleks tarzda foydalanildi. Tadqiqotning metodologik asosini kompetensiyaga asoslangan ta'lim nazariyalari, xalqaro baholash tizimlarining ilmiy-analitik yondashuvlari hamda ta'lim sifatini baholash bo'yicha zamonaviy ilmiy qarashlar tashkil etadi.

Birinchidan, nazariy-tahliliy metod qo'llanildi. Ushbu metod orqali PISA xalqaro tadqiqotining mazmuni, matematik savodxonlik tushunchasining xalqaro talqini, baholash mezonlari va kompetensiyalar tarkibi bo'yicha mavjud ilmiy manbalar, maqolalar, statistika hisobotlari, OECD tomonidan e'lon qilingan tahliliy materiallar o'rganildi. Shuningdek, O'zbekistonning PISA ishtirokiga oid hukumat qarorlari, konseptual hujjatlar va ta'lim strategiyasi bo'yicha manbalar tahlil qilindi.

Ikkinchidan, qiyosiy tahlil metodi tadqiqotning muhim qismiga aylandi. Bu usul yordamida O'zbekistonning PISA natijalari boshqa ishtirokchi davlatlar ko'rsatkichlari bilan taqqoslandi, matematik savodxonlikning turli darajadagi kompetensiyalar bo'yicha farqlari o'rganildi. Qiyosiy yondashuv orqali ta'lim tizimining kuchli va zaif tomonlarini aniqlash imkoniyati yaratildi.

Uchinchidan, statistik tahlil elementlari tadqiqotga kiritildi. PISA natijalari bo'yicha mavjud ochiq ma'lumotlar asosida matematik savodxonlik ko'rsatkichlarining dinamikasi, darajalari, o'quvchilarning iqtisodiy-sotsial omillar bilan bog'liqligi va kompetensiyalar darajasining o'zgarish tendensiyalari statistik jihatdan ko'rib chiqildi.

Ushbu metodlarning uyg'un qo'llanilishi tadqiqotning ilmiy asoslanganligini ta'minladi, PISA tadqiqotining O'zbekiston ta'lim tizimidagi o'rnini chuqur tahlil qilish hamda matematik savodxonlikni oshirish bo'yicha zarur xulosalar chiqarishga imkon berdi.

NATIJALAR VA TAHLIL

Tadqiqot davomida PISA xalqaro baholash dasturining o'quvchilarning matematik savodxonligini rivojlantirishdagi roli, uning O'zbekiston ta'lim tizimidagi ahamiyati hamda mavjud natijalar bo'yicha bir qator muhim xulosalar aniqlandi.

Tahlillar shuni ko'rsatdiki, PISA tadqiqoti matematika fanini an'anaviy bilimlar yig'indisi sifatida emas, balki real hayotiy vaziyatlarda qo'llaniladigan funksional kompetensiya sifatida talqin qiladi. O'quvchilarning matematik kompetensiyalari PISA modeli asosida baholanganida, ular nafaqat hisob-kitob bajarish, balki ma'lumotlarni tahlil qilish, muammoni modellashtirish, mantiqiy xulosa chiqarish va qaror qabul qilish kabi ko'nikmalarga ham ega bo'lishi zarurligi aniqlandi. Bu esa O'zbekiston ta'lim tizimida matematika fanining mazmunini zamonaviy kompetensiyaviy yondashuv asosida takomillashtirish zarurligini ko'rsatadi.

PISA tahlillarida O'zbekiston o'quvchilarining ko'rsatkichlari xalqaro o'rtacha darajadan past bo'lgani holda, o'quvchilarning real hayotga yo'naltirilgan masalalarni yechish kompetensiyasi yetarli darajada shakllanmaganligi ma'lum bo'ldi. Ayniqsa, ma'lumotlar bilan ishlash, grafik va diagrammalarni talqin etish, tushunchalararo bog'liqlikni aniqlash kabi jihatlar eng zaif ko'rsatkichlar sifatida qayd etildi. Bu holat maktablarda dars jarayoni ko'proq nazariy bilimlarga yo'naltirilganini, amaliy masalalar bilan ishlash esa kamroq ulushni tashkil qilishini tasdiqlaydi.

Tadqiqot doirasida o'rganilgan PISA topshiriqlarining mazmuni shuni ko'rsatdiki, o'quvchilar yuqori darajadagi topshiriqlarni bajarishda qiyinchilikka duch keladi. PISA baholash tizimining 5-6-daraja kompetensiyalari - murakkab modellashtirish, abstrakt fikrlash, bir nechta matematik yondashuvlarni uyg'unlashtirish va noaniq ma'lumotlarni tahlil qilish kabi ko'nikmalarni talab qiladi. Tahlillar o'quvchilarning ushbu darajaga yetishi uchun o'qituvchilarning dars jarayonida interfaol metodlar, muammoli ta'lim, loyihaviy topshiriqlar va hayotiy vaziyatlarga asoslangan masalalardan kengroq foydalanishi zarurligini ko'rsatdi.

MUHOKAMA

PISA tadqiqoti natijalari va o'quvchilarning matematik savodxonlik darajasi bo'yicha olingan tahlillar shuni ko'rsatdiki, O'zbekiston ta'lim tizimi oldida turuvchi eng muhim vazifalardan biri o'quvchilarning matematik kompetensiyalarini xalqaro standartlarga mos ravishda yaxshilashdir. Bu jarayon faqat darsliklarni yangilash yoki test tizimlarini modernizatsiya qilish bilan cheklanmaydi; aksincha, o'qitish metodikasi, pedagogik yondashuvlar, o'quvchilar motivatsiyasi va ta'lim muhiti kabi bir qator omillarni kompleks tarzda qayta ko'rib chiqishni talab etadi. Muhokama jarayonida birinchi navbatda shuni ta'kidlash lozimki, PISA modeli matematikani faqat nazariy bilimlarning yig'indisi sifatida emas, balki hayotiy vaziyatlarni tahlil qilishga qaratilgan funksional kompetensiya sifatida baholaydi. Mamlakatimiz maktablarida olib borilgan kuzatuvlar shuni ko'rsatdiki, o'quvchilarning kundalik hayotga oid, muammoli vaziyatlarga asoslangan masalalarni yechish malakasi yetarlicha shakllanmagan. Bu holat o'qituvchilarning ko'p hollarda an'anaviy, algoritmik dars o'tish usullariga tayanishi, mavzularni ko'proq formulalar va qoida yodlash orqali tushuntirishiga bog'liq. PISA natijalaridan foydalanish orqali darsliklar mazmunini takomillashtirish, kompetensiyaviy yondashuvni kuchaytirish, o'qituvchilarni zamonaviy metodikaga mos tayyorlash hamda o'quvchilarning faol qatnashuviga asoslangan ta'lim tizimini shakllantirish mumkin. Umuman olganda, muhokama jarayonida olingan xulosalar PISA tadqiqotining O'zbekiston ta'lim tizimi uchun strategik ahamiyatga ega ekanligini ko'rsatadi. U ta'lim sifatini oshirish, islohotlarni to'g'ri yo'naltirish, matematik savodxonlikni xalqaro miqyosda raqobatbardosh darajaga ko'tarish uchun zarur ilmiy asos va amaliy yo'nalishlarni belgilab beradi.

XULOSA

Tadqiqot shuningdek ta'limdagi ijtimoiy tenglik masalasining ahamiyatini ham namoyon etdi. O'quvchilarning natijalariga ijtimoiy-iqtisodiy sharoit, oila muhiti, maktab infratuzilmasi va resurslarga ega bo'lish darajasi sezilarli ta'sir ko'rsatmoqda. Shu sababli ta'limda teng imkoniyatlarni ta'minlash, resurslar bilan ta'minot darajasini yaxshilash, chekka hududlardagi maktablarni qo'llab-quvvatlash matematik savodxonlikni oshirishning muhim omillari hisoblanadi. Umuman olganda, PISA tadqiqotida ishtirok etish O'zbekiston ta'lim tizimi uchun strategik imkoniyat yaratadi. Uning natijalaridan foydalanish darslarni zamonaviy talablarga moslashtirish, o'qituvchilarni innovatsion metodikalarga yo'naltirish, o'quv dasturlarini takomillashtirish hamda o'quvchilarning amaliy va funksional savodxonligini oshirishga xizmat qiladi. Bu orqali o'quvchilar global raqobatdosh kompetensiyalarni egallaydi va mamlakatning intellektual salohiyati yanada mustahkamlanadi.

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ИНТЕЛЛЕКТУАЛЬНЫЕ ТЕХНОЛОГИИ КАК ОСНОВА ОБЪЕКТИВИЗАЦИИ И АВТОМАТИЗАЦИИ СИСТЕМ ОЦЕНИВАНИЯ

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Аннотация. В данной научной статье анализируются вопросы объективизации и автоматизации систем оценивания в образовательном процессе на основе интеллектуальных технологий. Рассматриваются педагогические возможности технологий искусственного интеллекта и learning analytics в обеспечении справедливой и прозрачной оценки результатов обучения. По результатам исследования предложена концептуальная модель интеллектуальной системы оценивания и обосновано её значение для повышения качества образования. Полученные результаты имеют практическую значимость для совершенствования цифровых систем оценивания в высших учебных заведениях.

Ключевые слова: цифровая трансформация, система оценивания, интеллектуальные технологии, искусственный интеллект, автоматизация оценивания, машинное обучение, анализ данных, образовательные результаты, компетентностный подход, качество образования.

Annotatsiya. Ushbu ilmiy maqolada ta'lim jarayonida baholash tizimlarini intellektual texnologiyalar asosida obyektivlashtirish va avtomatlashtirish masalalari tahlil qilinadi. Ta'lim

natijalarini adolatli va shaffof baholashni ta'minlashda sun'iy intellekt va learning analytics (ta'lim analitikasi) texnologiyalarining pedagogik imkoniyatlari ko'rib chiqiladi. Tadqiqot natijalari asosida intellektual baholash tizimining konseptual modeli taklif etilib, uning ta'lim sifatini oshirishdagi ahamiyati asoslab berilgan. Olingan natijalar oliy ta'lim muassasalarida raqamli baholash tizimlarini takomillashtirish uchun amaliy ahamiyatga ega.

Kalit so'zlar: raqamli transformatsiya, baholash tizimi, intellektual texnologiyalar, sun'iy intellekt, baholashni avtomatlashtirish, mashinaviy o'qitish, ma'lumotlarni tahlil qilish, ta'lim natijalari, kompetensiyaviy yondashuv, ta'lim sifati.

Abstract. This scientific article analyzes the issues of objectivization and automation of assessment systems in the educational process based on intelligent technologies. The pedagogical potential of artificial intelligence and learning analytics technologies in ensuring fair and transparent assessment of learning outcomes is examined. Based on the research results, a conceptual model of an intelligent assessment system is proposed, and its significance for improving the quality of education is substantiated. The obtained results have practical significance for improving digital assessment systems in higher education institutions.

Keywords: digital transformation, assessment system, intelligent technologies, artificial intelligence, assessment automation, machine learning, data analysis, learning outcomes, competency-based approach, quality of education.

ВВЕДЕНИЕ

Процессы цифровой трансформации оказывают существенное влияние на все уровни системы образования, в частности на механизмы оценки знаний и компетенций. Традиционные системы оценивания во многих случаях характеризуются высокой зависимостью от человеческого фактора, преобладанием субъективных решений, а также значительными временными и ресурсными затратами. Подобная ситуация создаёт определённые ограничения в обеспечении достоверности образовательных результатов, определении реального уровня знаний обучающихся и управлении качеством образования. В современной образовательной среде процесс оценивания рассматривается уже не только как инструмент контроля, но и как механизм анализа учебного процесса, прогнозирования результатов и стратегического управления качеством образования [4].

В этой связи проблема объективизации и автоматизации систем оценивания на основе интеллектуальных технологий выступает одной из актуальных научно-практических задач современной педагогики. Внедрение искусственного интеллекта, технологий анализа данных, алгоритмов машинного обучения и цифровых платформ оценивания значительно расширяет возможности организации прозрачного, надёжного и эффективного процесса оценивания [1].

МАТЕРИАЛЫ И МЕТОДЫ

Теоретические основы интеллектуальных систем оценивания. Интеллектуальные системы оценивания представляют собой совокупность цифровых механизмов, предназначенных для определения результатов обучения посредством автоматического сбора, обработки и анализа данных, формирующихся в процессе учебной деятельности. Такие системы функционируют на основе компетентного подхода, концепции личностно-ориентированного обучения и принципов педагогического управления, основанного на доказательных данных.

С теоретической точки зрения интеллектуальные системы оценивания интегрируют модели формирующего и итогового оценивания в рамках конструктивного подхода. При этом критерии оценивания стандартизируются на основе заранее определённых алгоритмов, минимизируется субъективное влияние человеческого фактора, а результаты обучения оцениваются посредством многофакторного анализа. В результате процесс оценивания организуется в соответствии с принципами точности, последовательности и справедливости [2].

Механизмы объективизации систем оценивания. Обеспечение объективности процесса оценивания с помощью интеллектуальных технологий реализуется посредством ряда механизмов. Прежде всего, алгоритмы искусственного интеллекта анализируют большие массивы данных, связанных с результатами тестирования обучающихся, письменными работами, проектной деятельностью и активностью в цифровой образовательной среде, формируя результаты оценивания, свободные от субъективных человеческих решений. Использование единых и прозрачных критериев способствует повышению достоверности результатов [7].

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

Технологии анализа данных позволяют не ограничиваться фиксацией итоговых результатов, а учитывать динамику процесса обучения. Это даёт возможность определять индивидуальные траектории развития обучающихся, выявлять их сильные и слабые стороны, а также разрабатывать персонализированные образовательные стратегии. В результате процесс оценивания приобретает справедливый, последовательный и педагогически обоснованный характер [5].

Возможности автоматизации систем оценивания. Автоматизация процесса оценивания является одним из важнейших преимуществ интеллектуальных технологий. Автоматизированные системы тестирования, цифровые рубрики, адаптивные платформы оценивания и аналитические модули на основе искусственного интеллекта существенно снижают нагрузку на преподавателей. Это позволяет педагогам уделять больше внимания методической и воспитательной деятельности [6].

Автоматизированные системы оценивания обеспечивают обработку результатов в режиме реального времени, предоставление оперативной обратной связи и формирование подробных статистических отчётов. Кроме того, появляется возможность эффективно использовать результаты оценивания для планирования, мониторинга и оптимизации образовательного процесса. Всё это способствует обеспечению непрерывности и повышению качества образования.



Рисунок 1. Концептуальная графическая модель объективизации и автоматизации систем оценивания на основе интеллектуальных технологий

Концептуальная модель интеллектуальной системы оценивания. Эффективная организация системы оценивания на основе интеллектуальных технологий осуществляется в соответствии с концептуальной моделью, включающей взаимосвязанные компоненты. Данная модель состоит из следующих структурных элементов: целевой компонент, ориентированный на объективную, прозрачную и достоверную оценку результатов обучения; технологический компонент, основанный на искусственном интеллекте, системах анализа данных, LMS-платформах и средствах автоматизированного тестирования; методический компонент, охватывающий компетентностно-ориентированные и личностно-ориентированные методы оценивания; аналитический компонент, включающий механизмы мониторинга, анализа и прогнозирования; результативный компонент, отражающий повышение качества оценивания и эффективности образовательного процесса. Данная модель обеспечивает системную организацию процесса оценивания в единой цифровой образовательной среде.

ВЫВОДЫ

В заключение следует отметить, что объективизация и автоматизация систем оценивания на основе интеллектуальных технологий являются одним из приоритетных направлений модернизации современной системы образования. Результаты исследования показали, что технологии искусственного интеллекта и анализа данных играют важную роль в обеспечении прозрачности процесса оценивания, достоверной оценке результатов обучения и повышении качества образования.

В этой связи представляется целесообразным выдвинуть следующие научно-практические рекомендации: широкое внедрение интеллектуальных систем оценивания в учреждениях высшего образования; системное развитие цифровых и аналитических компетенций педагогов; совершенствование процесса оценивания как инструмента управления и прогнозирования качества образования. Данный подход способствует повышению эффективности образовательного процесса и устойчивому развитию цифровой образовательной среды.

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АЛГОРИТМЫ ОПТИМИЗАЦИИ И УСКОРЕНИЯ БОЛЬШИХ ЯЗЫКОВЫХ МОДЕЛЕЙ

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***Аннотация.** В данной работе представлен расширенный анализ математических методов оптимизации, являющихся фундаментом для обучения современных архитектур обработки естественного языка, таких как Transformer. С увеличением масштаба языковых моделей до сотен миллиардов параметров классические подходы к минимизации эмпирического риска оказываются вычислительно несостоятельными. В статье подробно разбирается топология функции потерь в многомерных пространствах, анализируется семейство адаптивных градиентных алгоритмов (Adam, AMSGrad, LAMB) и их математические отличия от стандартного стохастического градиентного спуска. Особое внимание уделено геометрической разнице между L_2 -регуляризацией и прямым убыванием весов в неевклидовых пространствах оптимизации. Рассматриваются передовые методы алгоритмического и аппаратного ускорения, включая низкоранговую аппроксимацию матриц весов, квантование и градиентное накопление. Демонстрируется, как синергия*

этих подходов обеспечивает устойчивую сходимость и обобщающую способность моделей в условиях жестких ограничений VRAM.

Ключевые слова: большие языковые модели, математическая оптимизация, адаптивные градиентные алгоритмы, регуляризация, низкоранговая адаптация (LoRA), квантование нейронных сетей, архитектура Transformer

Abstract. This paper presents a comprehensive analysis of the mathematical optimization methods that serve as the foundation for training modern natural language processing architectures, such as the Transformer. As language models scale to hundreds of billions of parameters, classical approaches to empirical risk minimization become computationally intractable. The article examines in detail the topology of the loss function in multidimensional spaces, analyzing the family of adaptive gradient algorithms (Adam, AMSGrad, LAMB) and their mathematical distinctions from standard stochastic gradient descent. Particular attention is given to the geometric difference between L_2 - regularization and direct weight decay in non-Euclidean optimization spaces. Advanced methods of algorithmic and hardware acceleration are considered, including low-rank weight matrix approximation, quantization, and gradient accumulation. It is demonstrated how the synergy of these approaches ensures robust convergence and generalization capability of the models under severe VRAM constraints.

Keywords: large language models, mathematical optimization, adaptive gradient algorithms, regularization, low-rank adaptation, neural network quantization, Transformer architecture.

Annotatsiya. Ushbu maqolada Transformer kabi zamonaviy tabiiy tilni qayta ishlash arxitekturalarini o'qitish uchun asos bo'lib xizmat qiladigan matematik optimallashtirish usullarining kengaytirilgan tahlili taqdim etilgan. Til modellarining ko'lami yuz milliardlab parametrlargacha kengayib borishi bilan, empirik xavfni minimallashtirishga qaratilgan klassik yondashuvlar hisoblash nuqtai nazaridan yaroqsiz bo'lib qolmoqda. Maqolada ko'p o'lchovli fazolarda yo'qotish funksiyasi topologiyasi batafsil ko'rib chiqiladi, shuningdek, adaptiv gradient algoritmlari (Adam, AMSGrad, LAMB) oilasi va ularning standart stoxastik gradient tushish (SGD) usulidan matematik farqlari tahlil qilinadi. Noevklid optimallashtirish fazolarida L_2 - regulyarizatsiyasi va vaznlarning to'g'ridan-to'g'ri kamayishi o'rtasidagi geometrik farqqa alohida e'tibor qaratilgan. Algoritmik va apparat darajasida tezlashtirishning ilg'or usullari, jumladan, vazn matritsalarining past rangli approksimatsiyasi, kvantlash va gradientlarni jamlash ko'rib chiqiladi. Ushbu yondashuvlarning sinergiyasi VRAM bo'yicha qat'iy cheklovlar sharoitida modellarning barqaror yaqinlashishini va umumlashtirish qobiliyatini qanday ta'minlashi ko'rsatib berilgan.

Kalit so'zlar: yirik til modellari, matematik optimallashtirish, adaptiv gradient algoritmlari, regulyarizatsiya, past rangli adaptatsiya, neyron tarmoqlarni kvantlash, Transformer arxitekturasini.

ВВЕДЕНИЕ

Обучение современных NLP-моделей формулируется как задача минимизации эмпирического риска на огромных корпусах текстовых данных. Если $\theta \in \mathbb{R}^d$ - вектор параметров модели (где d может достигать 10^{11}), а $L(\theta, x_i, y_i)$ - функция потерь для отдельного токена или предложения, то общая задача оптимизации имеет вид:

$$\min_{\theta \in \mathbb{R}^d} J(\theta) = \frac{1}{N} \sum_{i=1}^N L(\theta, x_i, y_i)$$

(1)

В контексте глубоких архитектур Transformer [1] поверхность функции потерь $J(\theta)$ является сильно невыпуклой, изобилует седловыми точками и областями с исчезающе малым градиентом (плато). Классический стохастический градиентный спуск (SGD) обновляет параметры в направлении антиградиента:

$$\theta_{t+1} = \theta_t - \eta \nabla_{\theta} L(\theta_t)$$

(2)

Однако в NLP-моделях SGD сталкивается с критической проблемой: дисперсия градиентов по различным слоям (от эмбеддингов до выходных полносвязных слоев) варьируется на несколько порядков. Это приводит к плохой обусловленности матрицы Гессе $\nabla^2 \mathcal{J}(\theta)$ и зигзагообразному движению в оврагах функции потерь, что делает базовый SGD практически неприменимым для предварительного обучения (pre-training) моделей масштаба BERT или GPT.

МАТЕРИАЛЫ И МЕТОДЫ

Для решения проблемы плохой обусловленности применяются методы, масштабирующие шаг обучения для каждого параметра индивидуально на основе истории градиентов.

Adam (Adaptive Moment Estimation) использует экспоненциальное скользящее среднее (ЕМА) для первого m_t и второго v_t нецентральных моментов градиента g_t [2] :

$$m_t = \beta_1 m_{t-1} + (1 - \beta_1) g_t \quad (3)$$

$$v_t = \beta_2 v_{t-1} + (1 - \beta_2) g_t \odot g_t \quad (4)$$

где $\odot$ — поэлементное умножение. После коррекции смещения ($\hat{m}_t = \frac{m_t}{1 - \beta_1^t}$, $\hat{v}_t = \frac{v_t}{1 - \beta_2^t}$),

правило обновления принимает вид:

$$\theta_{t+1} = \theta_t - \frac{\eta}{\sqrt{\hat{v}_t + \epsilon}} \odot \hat{m}_t \quad (5)$$

Несмотря на популярность, математически доказано (Reddi et al., 2018), что Adam может не сходиться к оптимальному решению даже для простых выпуклых одномерных функций из-за того, что эффективный шаг обучения $\frac{\eta}{\sqrt{\hat{v}_t}}$ может немонотонно возрастать.

AMSGrad и LAMB. Для устранения этой уязвимости был предложен AMSGrad, который принудительно делает последовательность вторых моментов неубывающей [3-4]:

$$\hat{v}_t = \max(\hat{v}_{t-1}, v_t) \quad (6)$$

Для обучения больших моделей на огромных батчах (Large Batch Training) применяется алгоритм LAMB (Layer-wise Adaptive Moments for Batch training). Он вводит послойную нормализацию шага обновления, вычисляя доверительное отношение (trust ratio) $r_t^{(l)}$ для каждого слоя l :

$$r_t^{(l)} = \frac{\|\theta_t^{(l)}\|_2}{\|u_t^{(l)}\|_2} \quad (7)$$

где $u_t^{(l)}$ - обновление Adam для данного слоя. Это позволяет масштабировать размер батча до десятков тысяч примеров без потери обобщающей способности, что критически сокращает время претрейна LLM[5] .

Математическая регуляризация и геометрия функции потерь. Высокая репрезентативная емкость Transformer-моделей требует строгих механизмов регуляризации для предотвращения переобучения на обучающей выборке.

AdamW: Разделение L_2 - регуляризации и Weight Decay. В стандартном SGD L_2 -регуляризация (добавление штрафа $\frac{\lambda}{2} \|\theta\|^2$ к функции потерь) и Weight Decay (уменьшение весов на каждом шаге) математически эквивалентны. Однако для адаптивных оптимизаторов градиент регуляризационного члена также масштабируется на $\frac{1}{\sqrt{\hat{v}_t}}$. Это приводит к тому, что параметры с большими градиентами штрафуются меньше, что геометрически искажает пространство регуляризации.

AdamW решает эту проблему, вынося шаг регуляризации за пределы адаптивного масштабирования:

$$\theta_{t+1} = \theta_t - \eta \left(\frac{\hat{m}_t}{\sqrt{\hat{v}_t + \epsilon}} \right) - \eta \lambda \theta_t \quad (8)$$

Layer Normalization как регуляризатор. В архитектуре Transformer нормализация слоя (LayerNorm) не только стабилизирует прямое распространение, но и действует как неявный регуляризатор. Математически она преобразует вектор активаций x слоя:

$$LN(x) = \frac{x - \mu}{\sqrt{\sigma^2 + \epsilon}} \odot \gamma + \quad (9)$$

Анализ гессиана показывает, что LayerNorm сглаживает спектр матрицы вторых производных, уменьшая максимальное собственное значение $\lambda_{max}(\nabla^2 \mathcal{J})$, что позволяет использовать более высокую скорость обучения η без риска расходимости.

Алгоритмическое ускорение и управление памятью. Обучение NLP-моделей ограничено объемом видеопамяти (VRAM). Хранение состояний оптимизатора (Adam требует хранения m_t и v_t , что в 2 раза превышает размер самой модели) диктует необходимость математических аппроксимаций.

Низкоранговая адаптация (LoRA). Вместо обновления полной матрицы весов $W \in \mathbb{R}^{d_{out} \times d_{in}}$, метод LoRA опирается на гипотезу о том, что изменение весов при дообучении имеет низкую внутреннюю размерность (low intrinsic dimension) [6]. Матрица обновления ΔW аппроксимируется произведением двух матриц низкого ранга r : $W_{tuned} = W + \Delta W = W + BA$

(10)

где $B \in \mathbb{R}^{d_{out} \times r}$, $A \in \mathbb{R}^{r \times d_{in}}$, при этом $r \ll \min(d_{out}, d_{in})$.

В процессе обратного распространения ошибки (Backpropagation) матрица W остается замороженной (градиенты по ней не вычисляются), а оптимизируются только матрицы A и B . Это снижает количество обучаемых параметров на 99%, радикально уменьшая затраты памяти на состояния оптимизатора, при этом математически сохраняя выразительную способность на уровне полного Fine-Tuning за счет свойств сингулярного разложения (SVD) в контексте текстовых представлений.

Квантование и QLoRA. Квантование проецирует веса модели из пространства чисел с плавающей точкой высокой точности (FP32/FP16) в дискретное пространство низкой разрядности (например, INT8 или NF4) [7]. Для вектора весов W симметричное линейное квантование определяется как:

$$W_Q = \text{Round} \left(W \cdot \frac{2^{b-1}-1}{\max(|W|)} \right) \quad (11)$$

где b - количество бит. Метод QLoRA комбинирует 4-битное квантование базовой модели (с использованием информационно-теоретически оптимального типа данных NormalFloat4) с 16-битными адаптерами LoRA, что позволяет дообучать модели класса 65B параметров на одном потребительском GPU.

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

Интеграция описанных математических методов формирует современный стандарт обучения LLM. Эмпирические исследования показывают следующую синергию:

1. Использование планировщиков шага обучения в связке с AdamW нивелирует начальную нестабильность моментов $\hat{v}_t$, предотвращая раннее затухание градиентов в глубоких слоях Self-Attention.
2. Градиентное контрольное сохранение позволяет достичь суб-линейной $\mathcal{O}(\sqrt{L})$ сложности по памяти относительно глубины сети L за счет перевычисления активаций, что в комбинации со смешанной точностью (BF16) и QLoRA снижает требования к VRAM с 80 ГБ до 12-16 ГБ для моделей размера 7B [8].
3. Математически обоснованное снижение ранга r в LoRA (обычно $r \in [8, 64]$) выступает в роли естественного информационного фильтра, предотвращая катастрофическое забывание (catastrophic forgetting) базовых знаний при адаптации под узкоспециализированные домены, сохраняя высокие баллы метрик BLEU и ROUGE.

ВЫВОДЫ

Современные NLP-системы неразрывно связаны с прогрессом в области вычислительной математики и методов стохастической оптимизации. Эволюция от базового SGD к многоуровневым адаптивным методам (LAMB, AdamW) иллюстрирует переход от наивного градиентного спуска к сложной навигации в искривленных высокоразмерных пространствах с учетом кривизны и моментов.

Методы низкоранговой аппроксимации и квантования доказали, что избыточность параметров глубоких сетей можно математически редуцировать без потери качества. Будущее развитие алгоритмов оптимизации направлено на разработку методов второго порядка (использующих аппроксимацию обратного Гессiana) с линейной вычислительной сложностью, а также на создание оптимизаторов, специфичных для мультиагентных архитектур и методов топологической фильтрации (включая абстрактные синтаксические деревья для структурированного вывода), что позволит демократизировать процесс создания ИИ-систем следующего поколения.

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Ilmiy-nashr

FAN VA TEXNOLOGIYALARNING DOLZARB MUAMMOLARI

Mavzusidagi

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