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SOME MODERN METHODS OF TEACHING FOREIGN LANGUAGES

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Abstract. In recent decades, the field of foreign language teaching has undergone significant transformation due to globalization, technological advancement, and changing educational needs. Traditional grammar-centered approaches are increasingly being replaced by learner-centered and communicative methods that emphasize practical language use. This article examines some of the most effective modern methods of teaching foreign languages, including the Communicative Language Teaching approach, Task-Based Learning, Content and Language Integrated Learning (CLIL), Blended Learning, and the use of digital technologies. The analysis highlights the advantages of these methods in developing communicative competence, learner autonomy, and motivation. The article concludes that the integration of modern methodologies enhances the effectiveness of foreign language instruction and better prepares learners for real-life communication.

Key words. foreign language teaching, modern teaching methods, communicative approach, task-based learning, digital technologies, learner-centered education.

Introduction. The teaching of foreign languages has always been influenced by social, cultural, and technological changes. In the modern educational context, the main goal of language instruction is not only the acquisition of grammatical knowledge but also the development of communicative competence. As a result, modern teaching methods focus on interaction, real-life communication, and the active involvement of learners in the learning process.

Communicative Language Teaching (CLT). Communicative Language Teaching is one of the most widely used modern approaches in foreign language education. The primary aim of CLT is to enable learners to communicate effectively in the target language. This method emphasizes speaking and listening skills, authentic materials, and meaningful interaction. Grammar is taught implicitly through communication rather than through mechanical drills. CLT helps learners gain confidence and fluency in real communicative situations.

Task-Based Language Learning (TBL). Task-Based Language Learning is a learner-centered approach in which students acquire language through the completion of meaningful tasks. These tasks often reflect real-life situations, such as problem-solving, role-playing, or project work. The focus is on using language as a tool to achieve a specific outcome. TBL promotes critical thinking, collaboration, and active participation, making the learning process more engaging and effective.

Content and Language Integrated Learning (CLIL). CLIL is a modern educational approach in which a foreign language is used as a medium to teach non-language subjects such as science, history, or mathematics. This method allows learners to develop subject knowledge and language skills simultaneously. CLIL increases exposure to the target language and enhances vocabulary acquisition while maintaining high cognitive engagement.

Blended Learning and Digital Technologies. The integration of digital technologies has significantly changed foreign language teaching. Blended learning combines traditional face-to-face instruction with online learning tools, such as language learning platforms, mobile applications, and virtual classrooms. Digital resources provide opportunities for individualized learning, instant feedback, and increased learner motivation. Technology also supports autonomous learning beyond the classroom.

Conclusion. Methods of teaching foreign languages emphasize communication, learner autonomy, and the practical use of language. Approaches such as Communicative Language Teaching, Task-Based Learning, CLIL, and Blended Learning contribute to the development of comprehensive language skills and prepare learners for real-world communication. The effective application of these methods requires professional teacher training and the thoughtful integration of technology. Overall, modern methodologies play a crucial role in improving the quality of foreign language education.

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BIG DATA AND MODERN DATABASE SYSTEMS

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Abstract

Big Data technologies have become an integral component of modern information systems and play a significant role in data-driven decision-making processes. This article examines the concept of Big Data, its key characteristics, and its relationship with modern database systems. Special attention is paid to the limitations of traditional relational databases when handling large-scale data and the advantages of NoSQL and distributed database technologies. The article also analyzes practical applications of Big Data in various sectors and highlights the importance of efficient data storage, processing, and management. The study demonstrates that the integration of Big Data technologies with modern database systems enhances scalability, performance, and analytical capabilities in contemporary information environments.

Keywords: Big Data, database systems, DBMS, NoSQL, data processing, information systems, digital technologies.

INTRODUCTION

The rapid development of information technologies has led to an unprecedented growth in the volume of data generated from various sources, including digital platforms, sensor networks, social media, and information systems. Traditional data processing approaches and database systems are often unable to efficiently handle such large and complex datasets. As a result, the concept of Big Data has emerged as a response to the challenges associated with managing massive volumes of information. Big Data technologies enable organizations to collect, store, process, and analyze large-scale data in order to extract valuable insights. Modern database systems play a crucial role in supporting Big Data environments by providing flexible data models, high performance, and scalability. Therefore, studying Big Data and its interaction with modern database systems is essential for the development of effective and sustainable information systems.

Concept and Characteristics of Big Data

Big Data refers to extremely large datasets that cannot be efficiently processed using traditional database management systems. The concept of Big Data is commonly described through several key characteristics known as the “V” model:

- **Volume** – the massive size of data generated and stored;
- **Velocity** – the high speed at which data is created and processed;
- **Variety** – the diversity of data formats, including structured, semi-structured, and unstructured data;
- **Veracity** – the reliability and quality of data;
- **Value** – the potential benefits derived from data analysis.

These characteristics require new approaches to data storage and management, leading to the development of advanced database technologies.

Traditional Databases and Their Limitations

Relational database management systems such as MySQL, Oracle, and PostgreSQL have long been used for structured data storage and processing. While these systems are effective for many applications, they face significant limitations in Big Data environments. These include limited scalability, performance constraints when processing large datasets, and difficulties in handling unstructured data.

As data volume and complexity increase, organizations require more flexible and scalable database solutions capable of supporting distributed data processing.

Modern Database Systems for Big Data

To address the challenges of Big Data, modern database systems such as **NoSQL databases** and distributed data platforms have been developed. NoSQL databases provide flexible data models and horizontal scalability, making them suitable for large-scale data processing. Common types of NoSQL databases include:

- document-oriented databases (MongoDB);
- key-value stores (Redis);
- column-oriented databases (Cassandra);
- graph databases (Neo4j).

In addition, Big Data processing frameworks such as Hadoop and Apache Spark are widely used to manage and analyze large datasets efficiently.

Practical Applications of Big Data and Databases

Big Data technologies and modern database systems are widely applied in various sectors, including finance, healthcare, education, telecommunications, and e-commerce. By analyzing large volumes of data, organizations can improve decision-making, optimize operations, and enhance service quality. In the context of the digital economy, Big Data analytics enables predictive analysis, personalized services, and intelligent system development, contributing to innovation and competitiveness.

Conclusion

In conclusion, Big Data and modern database systems play a vital role in the development of contemporary information systems. The limitations of traditional databases have led to the adoption of NoSQL and distributed database technologies capable of handling large-scale and diverse data. The effective integration of Big Data technologies enhances system scalability, performance, and analytical potential. As data continues to grow in importance, Big Data and advanced database systems will remain key drivers of digital transformation and technological progress.

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ИННОВАЦИОННЫЕ ТЕХНОЛОГИИ В ПРЕПОДАВАНИИ РУССКОГО ЯЗЫКА В ТЕХНИЧЕСКИХ ВУЗАХ

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Аннотация

В статье рассматриваются инновационные технологии, применяемые в преподавании русского языка в технических вузах, в контексте компетентностного и профессионально ориентированного образования. Целью исследования является анализ эффективности цифровых, интерактивных и проектных технологий в формировании коммуникативной и профессионально-речевой компетенции студентов технических специальностей. В работе использованы методы педагогического наблюдения, сравнительного анализа и анкетирования студентов. Полученные результаты свидетельствуют о положительном влиянии инновационных технологий на мотивацию обучающихся, уровень усвоения учебного материала и развитие навыков профессиональной коммуникации. Сделан вывод о необходимости системного внедрения инновационных образовательных технологий в процесс обучения русскому языку в технических вузах.

Ключевые слова: инновационные технологии, русский язык, технический вуз, цифровое обучение, профессиональная коммуникация, интерактивные методы.

Abstract

This article examines innovative technologies used in teaching Russian at technical universities, within the context of competency-based and professionally oriented education. The aim of the study is to analyze the effectiveness of digital, interactive, and project-based technologies in developing the communicative and professional speech competence of students majoring in technical fields. The study utilized pedagogical observation, comparative analysis, and student surveys. The results demonstrate the positive impact of innovative technologies on student motivation, learning achievement, and the development of professional communication skills. It concludes that the systematic implementation of innovative educational technologies in Russian language teaching at technical universities is necessary.

Keywords: innovative technologies, Russian language, technical university, digital learning, professional communication, interactive methods.

Annotatsiya

Mazkur maqolada texnika oliy ta'lim muassasalarida rus tilini o'qitishda qo'llanilayotgan innovatsion texnologiyalar ko'rib chiqiladi. Tadqiqotning asosiy maqsadi texnika yo'nalishi talabalarida kommunikativ hamda kasbiy yo'naltirilgan nutqiy kompetensiyalarni shakllantirishda raqamli, interaktiv va loyihaviy texnologiyalarning samaradorligini tahlil qilishdan iborat. Tadqiqot jarayonida pedagogik kuzatuv, qiyosiy tahlil hamda talabalar o'rtasida so'rovnomma o'tkazish usullaridan foydalanildi. Olingan natijalar innovatsion texnologiyalar talabalarning o'qishga bo'lgan motivatsiyasini oshirish, o'quv materialini o'zlashtirish darajasini yaxshilash hamda kasbiy muloqot ko'nikmalarini rivojlantirishga ijobiy ta'sir ko'rsatishini tasdiqladi. Xulosa sifatida texnika oliy ta'lim

muassasalarida rus tilini o'qitish jarayoniga innovatsion ta'lim texnologiyalarini tizimli ravishda joriy etish zarurligi asoslab berildi.

Kalit so'zlar: innovatsion texnologiyalar, rus tili, texnika universiteti, raqamli ta'lim, professional muloqot, interaktiv usullar.

Введение (Introduction)

В условиях глобализации и цифровизации образования возрастает роль языковой подготовки студентов технических вузов. Русский язык в системе высшего технического образования выполняет не только общеобразовательную, но и профессионально-коммуникативную функцию, обеспечивая способность будущих специалистов эффективно взаимодействовать в профессиональной среде.

Традиционные методы преподавания русского языка в технических вузах зачастую не учитывают специфику инженерного мышления, ограниченность аудиторного времени и низкую мотивацию студентов к гуманитарным дисциплинам. В связи с этим актуальной становится проблема внедрения инновационных образовательных технологий, способных повысить эффективность обучения и адаптировать его к современным требованиям.

Целью данной статьи является анализ возможностей и эффективности инновационных технологий в преподавании русского языка в технических вузах. Задачи исследования включают: определение основных видов инновационных технологий; анализ методов их применения; оценку результатов внедрения инноваций в учебный процесс.

Материалы и методы (Methods)

Настоящее исследование носит комплексный характер и основано на сочетании качественных и количественных методов педагогического анализа. Методологической основой работы послужили положения компетентностного, деятельностного и личностно-ориентированного подходов в высшем профессиональном образовании.

Исследование проводилось на базе технического вуза и охватывало студентов 1–2 курсов инженерных и информационно-технических направлений подготовки. В эксперименте приняли участие более 80 студентов, обучающихся русскому языку как дисциплине профессиональной и межкультурной коммуникации.

В учебный процесс были интегрированы инновационные технологии, электронные учебные курсы на платформе LMS (Moodle), мультимедийные презентации и видеоматериалы профессиональной направленности, интерактивные упражнения и онлайн-тестирование, проектные и кейс-задания, ориентированные на будущую профессиональную деятельность студентов, элементы смешанного обучения (blended learning). Обучение строилось по модульному принципу, где каждый модуль включал теоретический блок, практические задания, самостоятельную работу и контроль знаний.

Методы исследования

В ходе исследования использовались методы: **анализ научной и методической литературы** по проблеме инновационного обучения и преподавания русского языка в технических вузах; **педагогическое наблюдение**, позволившее оценить активность студентов, характер их взаимодействия и динамику учебной мотивации; **анкетирование студентов**, направленное на выявление отношения к использованию цифровых и интерактивных технологий;

сравнительный анализ результатов обучения до и после внедрения инновационных методов; **диагностика учебных достижений**, включающая тестирование, письменные работы и устные выступления.

Полученные данные были систематизированы и подвергнуты качественному анализу.

Результаты (Results)

Анализ результатов экспериментального обучения показал значительные положительные изменения в уровне языковой и коммуникативной подготовки студентов технических специальностей.

После внедрения инновационных технологий было зафиксировано устойчивое повышение интереса студентов к изучению русского языка. По данным анкетирования: более 70 % студентов отметили рост мотивации; увеличилась доля студентов, активно участвующих в обсуждениях и проектной работе; снизился уровень пассивного восприятия учебного материала.

Использование интерактивных методов и цифровых ресурсов способствовало расширению профессионально ориентированного словарного запаса; улучшению навыков чтения и анализа технических текстов; формированию умений устного профессионального общения (презентации, доклады, обсуждения); повышению качества письменных работ (отчетов, аннотаций, резюме).

Результаты итогового контроля показали повышение среднего уровня успеваемости на 15–20 % по сравнению с традиционной формой обучения.

Проектная работа позволила студентам применять языковые знания в практической деятельности. Большинство обучающихся продемонстрировали умение структурировать профессиональный текст; навыки работы с терминологией; способность аргументированно излагать собственную позицию.

Таким образом, инновационные технологии доказали свою эффективность в формировании профессионально ориентированной языковой компетенции.

4. Обсуждение (Discussion)

Полученные результаты подтверждают целесообразность внедрения инновационных технологий в процесс преподавания русского языка в технических вузах. В отличие от традиционных методов, ориентированных преимущественно на репродуктивное усвоение знаний, инновационные подходы обеспечивают активное включение студентов в учебный процесс и способствуют развитию их самостоятельности.

Особое значение имеет профессиональная направленность обучения, при которой русский язык воспринимается студентами не как абстрактная гуманитарная дисциплина, а как практический инструмент будущей профессиональной деятельности. Это соответствует современным требованиям рынка труда и концепции образования.

В то же время исследование выявило необходимость повышения цифровой компетентности преподавателей; потребность в адаптации учебных материалов под технический профиль студентов; ограниченные технические ресурсы в отдельных образовательных учреждениях.

Решение указанных проблем возможно за счет системного внедрения инноваций, разработки специализированных электронных курсов и организации методической поддержки преподавателей.

Заключение (Conclusion)

Проведённое исследование позволило сделать вывод о том, что внедрение инновационных технологий в преподавание русского языка в технических вузах является одним из ключевых факторов повышения качества языковой подготовки будущих специалистов. Использование цифровых образовательных ресурсов, интерактивных методов обучения и проектно-ориентированных технологий способствует формированию устойчивой мотивации студентов, развитию их коммуникативных и профессионально-речевых компетенций.

Результаты исследования подтвердили, что инновационные технологии обеспечивают более высокий уровень усвоения учебного материала по сравнению с традиционными методами обучения. Студенты демонстрируют улучшение навыков чтения и анализа профессионально ориентированных текстов, более уверенное владение специализированной терминологией, а также способность эффективно использовать русский язык в устной и письменной профессиональной коммуникации.

Особое значение имеет внедрение модели смешанного обучения, позволяющей оптимально сочетать аудиторную и самостоятельную работу студентов. Данная модель способствует индивидуализации обучения, развитию автономности обучающихся и формированию навыков самообразования, что особенно важно в условиях быстро меняющихся технологий и требований современного рынка труда.

В то же время исследование выявило необходимость комплексного и системного подхода к внедрению инновационных технологий. Эффективная реализация инноваций возможна лишь при наличии соответствующей материально-технической базы, методического обеспечения и достаточного уровня цифровой компетентности преподавателей. В связи с этим актуальной задачей высшей школы становится организация повышения квалификации педагогических кадров и разработка специализированных учебно-методических комплексов по русскому языку для технических направлений подготовки.

Перспективы дальнейших исследований связаны с углублённым изучением влияния инновационных технологий на долгосрочные результаты обучения, разработкой адаптивных цифровых образовательных платформ, а также расширением междисциплинарного взаимодействия при преподавании русского языка в технических вузах.

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O'ZBEK TILI TA'LIMI ORQALI YOSHLAR MA'NAVIY BARKAMOLLIGINI MUSTAHKAMLASHNING DOLZARBLIGI

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Annotatsiya

Ushbu maqolada o'zbek tili ta'limining yoshlar ma'naviy barkamolligini shakllantirishdagi o'rni va istiqbollari tahlil qilinadi. Milliy-madaniy qadriyatlar, til va tafakkur birligi, kompetensiyaviy yondashuv, rivojlangan mamlakatlar tajribasi hamda zamonaviy metodik texnologiyalar asosida o'zbek tili darslari orqali yoshlarning ma'naviy-axloqiy salohiyatini mustahkamlashning nazariy va amaliy mexanizmlari yoritilgan. Tadqiqot natijalari yoshlar ongida milliy identitet, vatanparvarlik, ijtimoiy mas'uliyat va madaniy muomala ko'nikmalarini shakllantirishda o'zbek tili ta'limining asosiy drayver ekanini ko'rsatadi.

Kalit so'zlar: o'zbek tili ta'limi, ma'naviy barkamollik, kompetensiya, til va tafakkur, ijodiy tafakkur, milliy identitet, ma'naviy qadriyatlar.

Аннотация

В статье анализируются роль и перспективы узбекского языкового образования в формировании духовной зрелости молодёжи. Раскрываются теоретические и практические механизмы укрепления духовно-нравственного потенциала молодёжи посредством обучения узбекскому языку на основе национально-культурных ценностей, единства языка и мышления, компетентностного подхода, опыта развитых стран и современных методических технологий. Результаты исследования показывают, что узбекское языковое образование является основным фактором формирования национальной идентичности, патриотизма, социальной ответственности и навыков межкультурного общения у молодёжи.

Ключевые слова: узбекское языковое образование, духовная зрелость, компетентность, язык и мышление, творческое мышление, национальная идентичность, духовные ценности.

Abstract

This article analyzes the role and prospects of Uzbek language education in the formation of spiritual maturity of youth. Theoretical and practical mechanisms for strengthening the spiritual and moral potential of youth through Uzbek language lessons based on national-cultural values, unity of language and thought, competency-based approach, experience of developed countries and modern methodological technologies are highlighted. The results of the study show that Uzbek language education is the main driver in the formation of national identity, patriotism, social responsibility and cultural communication skills in the minds of young people.

Keywords: Uzbek language education, spiritual maturity, competency, language and thought, creative thought, national identity, spiritual values.

Kirish

Yoshlar ma'naviy barkamolligi har qanday jamiyatning barqaror taraqqiyoti, ijtimoiy barqarorlik va ma'rifiy rivojlanishining asosidir. So'nggi yillarda O'zbekistonda yoshlarning intellektual salohiyati,

ma'naviy immunitetini kuchaytirish, ularda milliy g'urur va vatanparvarlik hissini shakllantirish davlat siyosatining ustuvor yo'nalishiga aylandi.

Bu jarayonda o'zbek tili ta'limi nafaqat lingvistik kompetensiyalarni, balki shaxsning ichki dunyosini, axloqiy ongini, ijtimoiy faolligini shakllantiruvchi muhim vosita sifatida maydonga chiqmoqda. Chunki til – bu faqat kommunikativ mexanizm emas, balki xalq dunyoqarashi, qadriyatlari, madaniy xotirasi va ruhiyati mujassam bo'lgan ijtimoiy hodisadir.

Shu nuqtayi nazardan, o'zbek tili ta'limi orqali yoshlar ma'naviy barkamolligini yajudiy mustahkamlash dolzarbligi bugungi globallashuv, mafkuraviy raqobat va axborot xurujlari davrida yanada oshmoqda.

Nazariy asoslar

O'zbek tili ta'limining yoshlar ma'naviy barkamolligini shakllantirishdagi o'rni nafaqat lingvistik, balki falsafiy, pedagogik, psixologik hamda sotsiokultural omillar majmuasida ilmiy asoslangan holda o'rganishni talab qiladi. Mazkur bo'lim tilning ijtimoiy mohiyati, ma'naviy qadriyatlarni yetkazishdagi funksiyalari, zamonaviy til ta'limi paradigmalari hamda milliy pedagogik meros kontekstida keng yoritiladi.

Til insoniyatning ijtimoiy-madaniy taraqqiyotida asosiy aks ettiruvchi kuch sifatida qadimdan falsafa, etnolingvistika, sotsiologiya, kulturologiya fanlarining diqqat markazida bo'lib kelgan.

Falsafiy adabiyotlarda til inson tafakkurining tashqi shakli sifatida talqin qilinadi. Vygotskiy, Humboldt, Sapir, Uorflar fikriga ko'ra: til – dunyoni idrok etish modelidir; til – shaxsning ichki axloqiy me'yorlarini shakllantiruvchi vositadir; til – jamiyatning ma'naviy tamoyillarini avloddan avlodga yetkazadi.

Demak, o'zbek tili ta'limi jarayonida nafaqat kommunikativ kompetensiya, balki **shaxsning ma'naviy-intellektual qiyofasi** shakllantiriladi.

O'zbek xalqining tarixiy shakllanishi, boy madaniy merosi, urf-odatlar, qadriyatlari o'zbek tilida aks etgan. Demak: til – milliy o'zlikning markazi, til – tarixiy xotiraning saqlanish vositasi, til – milliy g'urur va vatanparvarlikning tayanchi, til – yoshlarda ma'naviy immunitetni shakllantiruvchi kuchdir. Shu sababli o'zbek tili ta'limi shaxsning milliy-ma'naviy barkamollik darajasini belgilovchi asosiy omillardan biri sifatida qoraladi.

I. Ma'naviy barkamollik tushunchasining ilmiy-pedagogik talqini

Ma'naviy barkamollik – bu shaxsning **axloqiy mezonlari shakllanganligi, ijtimoiy mas'uliyati yuqoriligi, milliy qadriyatlarga sodiqligi, estetik didi va madaniy saviyasi, kreativ va tanqidiy fikrlash qobiliyati** bilan ifodalanadigan ko'p qirrali sifatdir.

Avloniy fikricha “Ma'naviyat – insonning eng buyuk qurolidir”.

Zamonaviy pedagogikada ma'naviy barkamollik **aksiyologik component, kognitiv component, emotsional component, xulqiy (behavioral)** komponentlar majmuasi sifatida talqin qilinadi. **Aksiyologik component** – qadriyatlarni anglash va qabul qilish. **Kognitiv component** – ma'naviyatga oid ilmiy va madaniy bilimlar. **Emotsional component** – shaxsning ichki hissiy madaniyati. **Xulqiy (behavioral) component** – axloqiy me'yorlarda amal qilish.

O'zbek tili darslari aynan shu komponentlarni ijtimoiy-madaniy muhit bilan uyg'unlikda rivojlantirib boradi.

II. O'zbek tili ta'limining ma'naviy-tarbiyaviy funksiyalari

a) Kommunikativ-fahmiy funksiya. Nutq madaniyati, muomala madaniyati, etika – ma’naviy barkamollikning asosiy ko’rsatkichlaridan. O’zbek tili ta’limi to’g’ri so’zlashish, fikrni aniq ifodalash, madaniyatli muloqot qilish ko’nikmalarini shakllantiradi.

b) Aksiologik (qadriyatlarni singdirish) funksiya. O’zbek tili o’quv materiallari – maqol, hikmat, hadis, rivoyat, badiiy matnlar – qadriyatlar manbai hisoblanadi. Ular orqali halollik, adolat, mehnatsevarlik, odob, kattaga hurmat, kichikka izzat, kabi fazilatlar o’quvchi ongiga singiydi.

c) Estetik funksiya. Til – go’zallikni his etish vositasidir. Yozma va og’zaki nutqda badiiy obrazlar, tasviriy vositalar, nutqiy ohang, yoshlarning estetik tafakkurini yuksaltiradi.

d) Ma’naviy immunitetni shakllantirish funksiyasi

Zamonaviy axborot makonida yoshlar ko’plab mafkuraviy tahdidlarga duch kelmoqda. O’zbek tili darslarida beriladigan tanqidiy fikrlash, matn tahlili, axborotga tanlab yondashish ko’nikmalari yoshlarni zararli g’oyalardan himoya qiladi.

III. Milliy pedagogik meros va o’zbek tili ta’limi

O’zbek pedagogika tarixi boy va 100 yillik ilmiy an’analarga ega. Avloniy, Fitrat, Cho’lpon, Abdulla Qodiriy, Said Ahmad, Oybek kabi ma’rifatparvarlar asarlarida millatning ma’naviy ildizlari, insoniy fazilatlar, ona tilining sharafiga katta e’tibor bilan yoritilgan.

Avloniy tilni inson kamolotining poydevori deb biladi. “Til – tarbiya yo’li, fikr – til yo’li bilan namoyon bo’lur.” Demak, tilni o’rgatish – tarbiyaning eng samarali shaklidir.

2020-yildan boshlab qabul qilingan davlat dasturlari, o’quv rejalari va konsepsiyalarda ona tili ta’limi, ma’naviy tarbiya, milliy o’zlikni anglash kabi tushunchalar bir-biridan ajralmas jarayon sifatida belgilandi.

IV. Zamonaviy til ta’limi paradigmaları

1. Kompetensiyaviy paradigma

Til ta’limi faqat bilim emas, balki shaxsga yo’naltirilgan kompetensiyalarni shakllantiradi: lingvistik kompetensiya, kommunikativ kompetensiya, madaniy kompetensiya, aksiyologik kompetensiya, ma’naviy-axloqiy kompetensiya.

2. Kommunikativ paradigma

Til – bu nutq faoliyati; nutq faoliyati esa ijtimoiy-axloqiy tafakkurni shakllantiradi. O’quvchilar fikrlaydi, bahslashadi, o’z pozitsiyasini himoya qiladi, bu esa ma’naviy yetuklikni kuchaytiradi.

3. Aksiologik paradigma (qadriyatga yo’naltirilgan ta’lim)

Darslar qadriyatlar asosida quriladi: badiiy matnlar tahlili, muammoli savollar, ma’naviy vaziyatlarni hal qilish, orqali yoshlarning ichki ruhiyati rivojlanadi.

2.6. O’zbek tili ta’limida ma’naviy komponentni kuchaytiruvchi vositalar

1. Badiiy adabiyot. Badiiy asarlar milliy ruh, tarixiy xotira, axloqiy fazilatlar singdirishning eng kuchli vositasidir.

2. Maqollar, hikmatlar, xalq og’zaki ijodi. Ular qisqa, mazmunli bo’lib, axloqiy me’yorlarni tez o’zlashtirishga yordam beradi.

3. Hayotiy case-studiylar. O’quvchilarda muammoni axloqiy nuqtai nazardan baholash, to’g’ri qaror qabul qilish, ko’nikmalarini shakllantiradi.

4. Media va raqamli resurslar. Ma’naviy-tarbiyaviy kontentlar milliy film va videolar, podkastlar, ma’naviyatga oid intervyular, ularda ma’naviy immunitetni mustahkamlaydi.

2.7. Nazariy asoslarning umumiy xulosasi

Yuqoridagi ilmiy-nazariy yondashuvlar shuni ko'rsatadiki: til shaxs ma'naviyatining asosiy manbai; o'zbek tili ta'limi yoshlar ma'naviyatini shakllantiruvchi strategik omil; til o'qitish jarayonida ma'naviy qadriyatlarni singdirish tabiiy, tug'ma jarayon; ma'naviy barkamollik til o'qitishning umumiy maqsadi sifatida maydonga chiqadi.

3. Metodologiya va tadqiqot usullari

Mazkur tadqiqotning metodologik asoslari tilshunoslik, pedagogika, psixologiya, aksiologiya, etnopedagogika va zamonaviy ta'lim texnologiyalari yutuqlari asosida shakllantirilgan bo'lib, yoshlarning ma'naviy barkamolligini o'zbek tili ta'limi orqali rivojlantirish jarayonini chuqur va tizimli o'rganishni maqsad qiladi. Bo'limda tadqiqotning nazariy-metodologik poydevori, ilmiy yondashuvlar hamda qo'llanilgan tadqiqot usullari keng yoritiladi.

Tilni xalqning tarixiy taraqqiyotida shakllangan ijtimoiy-madaniy tajriba sifatida o'rganish ushbu tadqiqotning asosiy metodologik tayanchlaridandir. Bu yondashuvga ko'ra til – madaniy merosning tarkibiy qismi, til – qadriyat va axloqiy me'yorlar tashuvchisi, til ta'limi – shaxsning ma'naviy shakllanishi uchun muhim psixologik omildir.

Tadqiqot ma'naviy barkamollikni shakllantirish jarayonini qadriyatlarga asoslangan holda o'rganadi. Aksiologik yondashuv ma'naviy qadriyatlar, axloqiy normalar, milliy g'oyalarni ta'lim mazmuni va metodikasiga integratsiya qilishni nazarda tutadi.

Zamonaviy ta'lim siyosati shaxsning bilim, ko'nikma va qadriyatlar majmuasini kompetensiyalar orqali o'lchaydi. **Kompetensiyaviy** yondashuv asosida o'zbek tili darslarida ma'naviy-axloqiy kompetensiya, kommunikativ kompetensiya, lingvistik va madaniy kompetensiya, tanqidiy va ijodiy fikrlash kompetensiyasi shakllantirilishi ko'zda tutiladi:

Shaxsga yo'naltirilgan yondashuv-bu yondashuv har bir o'quvchining individual ehtiyojlari, qobiliyati, shaxsiy ma'naviy tajribasini inobatga olishni ko'zlaydi. O'zbek tili ta'limi o'quvchi tajribasini faollashtiradi, shaxsiy fikrni mustaqil ifodalashga undaydi, ma'naviy qarorlar qabul qilish jarayonida ijodiy tafakkurga tayanadi.

O'zbek xalqining boy madaniy merosi, odob-axloq qoidalari, badiiy adabiyot, xalq og'zaki ijodi o'quv materiallarining asosiy manbai sifatida qaraladi. Etnopedagogik yondashuv yoshlarda milliy o'zlikni anglash, e'tiqod va odob madaniyati, vatanparvarlik hissini mustahkamlaydi.

3.2. Tadqiqot jarayonida qo'llanilgan usullar

1. Nazariy tadqiqot usullari

a) Ilmiy–nazariy tahlil

Tilshunoslik, pedagogika, psixologiya, ma'naviyatga oid ilmiy manbalar, o'quv dasturlari, darsliklar chuqur tahlil qilindi. Bu jarayon nazariy asoslarni aniqlash, muammo bo'yicha tadqiqotlar holatini belgilash, yetishmayotgan ilmiy bo'shliqlarni aniqlash imkonini berdi.

b) Kontent-tahlil

O'zbek tili darsliklari (5–11-sinflar), badiiy matnlar, maqollar, hikmatlar tarkibidagi ma'naviy mazmun strukturalashtirildi. Kontent-tahlil orqali qaysi mavzularda ma'naviy komponent kuchli, qaysi mavzularda yetarli emas, qaysi matnlar ma'naviy-indikativ qimmatga ega ekanligi aniqlab chiqildi.

c) Komparativ tahlil

Rivojlangan davlatlarda (Finlyandiya, Yaponiya, Janubiy Koreya) ona tili ta'limida ma'naviy tarbiya tajribasi o'rganildi. Bu tahlil ta'lim jarayoniga global tajribalarni singdirish imkonini berdi.

2. Empirik tadqiqot usullari

a) Pedagogik kuzatish

O'zbek tili darslarida o'quvchilarning nutqiy faolligi, ma'naviy mazmundagi matnlarga munosabati, axloqiy qaror qabul qilish qobiliyati muntazam ravishda kuzatildi.

Pedagogik kuzatish natijalari ma'naviy tarbiyaning o'zbek tili orqali qanday shakllanishini aniq ko'rsatdi.

b) So'rovnoma (anketa) va suhbat

120 nafar o'quvchi va 35 nafar o'zbek tili o'qituvchisi o'rtasida so'rovnoma o'tkazildi. So'rovnomada quyidagi savollar o'rganildi:

1. Qaysi darslar ma'naviy tarbiya beradi?
2. O'quvchilarda qaysi fazilatlar kuchli shakllanmoqda?
3. Qaysi metodlar ma'naviy ta'sirni kuchaytiradi?
4. Badiiy asarlar ta'siri qanday baholanadi?

Suhbatlar orqali o'quvchilarning shaxsiy ma'naviy qarashlari tahlil qilindi.

c) Eksperimental-ta'limiy metod

Sinov-sinf va nazorat-sinf o'rtasida taqqoslovchi eksperiment o'tkazildi. Sinov guruhida badiiy matn asosida ma'naviy tahlil, rol o'ynash, qadriyatga yo'naltirilgan case-study, muloqotli o'yinlar qo'llandi. Natijalar shuni ko'rsatdiki, sinov guruhidagi o'quvchilarda ma'naviy fikrlash, mulohaza qilish, ijtimoiy mas'uliyat, muloqot madaniyati aholida sezilarli o'sish kuzatildi.

3. Diagnostik tadqiqot usullari

a) Test sinovlari

O'quvchilarning lingvistik saviyasi bilan birga, ma'naviy-axloqiy bilimlarini aniqlovchi test topshiriqlari ishlab chiqildi.

b) Refleksiya varaqalari

O'quvchilar har bir mavzu bo'yicha o'rgangan ma'naviy g'oyalar, shaxsiy xulosalar, kelajakdagi faoliyatga tatbiqi haqida fikr yozdilar. Refleksiya ma'naviy o'zgarishlarni monitoring qilish uchun juda muhim bo'ldi.

c) Ekspert baholash

O'zbek tili o'qituvchilari va metodistlar tomonidan dars jarayonidagi ma'naviy komponentning ifodalanishi baholandi.

Ushbu tadqiqot manbalar tanlovining ilmiyligi, metodlarning ko'p qirraliligi (nazariy + empirik), eksperiment natijalarining taqqoslamali tahlili, ekspertlar fikri bilan tasdiqlanishi, statistik ma'lumotlar bilan mustahkamlanishi orqali ilmiy asoslandi. Natijalar qayta-qayta tekshirildi va umumlashtirildi, bu esa tadqiqotning ishonchliligi va validligini ta'minladi.

Natijalar

Tadqiqot davomida o'zbek tili ta'limi yoshlar ma'naviy barkamolligini qanday shakllantirishi, dars jarayonidagi psixologik-pedagogik omillar, o'quvchilarning nutqiy va ma'naviy faolligi, qadriyatga yo'naltirilgan metodlarning samaradorligi chuqur o'rganildi. Olingan natijalar nazariy yondashuvlar va amaliy kuzatuvlar asosida tizimlashtirildi.

O'zbek tili ta'limi yoshlar ma'naviyatini shakllantirishning tabiiy va ustuvor omili ekanligi tasdiqlandi. Tadqiqot natijalari shuni ko'rsatdiki, o'zbek tili darslari shaxsning nutqiy kompetensiyasini, axloqiy ongini, ijtimoiy faolligini, milliy o'zlikni anglashini, madaniy tafakkurini kompleks rivojlantiruvchi eng samarali fanlardan biri hisoblanadi.

O'qituvchilar o'rtasida o'tkazilgan anketa natijalariga ko'ra, 85% pedagoglar o'zbek tili darslari o'quvchilarning ma'naviy-axloqiy qarashlarini shakllantirishda *eng ta'sirchan pedagogik maydon* ekanini ta'kidladi.

Badiiy adabiyot va o'quv matnlari ma'naviy tarbiyaning kuchli manbai sifatida o'zini isbotladi. Tadqiqot davomida dars jarayonida turli badiiy matnlar (O. Yoqubov, A. Qodiriy, S. Ahmad, Cho'lpon, Oybek, Said Ahmad asarlari) asosida o'quvchilar ma'naviy ongidagi o'zgarishlar kuzatildi:

O'quvchilar nutqida adolat, halollik, burch, sadoqat kabi tushunchalardan foydalanish soni oshdi; badiiy qahramonlar xatti-harakatlariga axloqiy baho berish ko'nikmalari shakllandi; kelajak hayoti uchun ma'naviy maqsadlar qo'yish holatlari ko'paydi; o'z hayotidagi qarorlarni axloqiy mezonlar bilan solishtirib baholashga o'rgana boshladi.

Ijtimoiy-madaniy did rivojlanishi:

Sinov-sinfda o'tkazilgan kuzatuvlarga ko'ra 70% o'quvchi badiiy matnlardagi ma'naviy g'oyalarni o'z hayoti bilan bog'lab talqin qila boshlagan; o'quvchilar nutqida ijobiy ma'naviy qadriyatlarni aks ettiruvchi iboralar ko'lamining kengaygani qayd etilgan.

Interaktiv metodlar ma'naviy rivojlanishni sezilarli oshirganini isbotladi. Tadqiqotda qo'llanilgan metodlar: bahs-munozara, rol o'ynash, case-study, klasterlar, axloqiy vaziyatlarni hal qilish, refleksiya.

Bu metodlar o'quvchilarning ijtimoiy mas'uliyati 32% ga oshirdi (anketa natijalari), tanqidiy fikrlash ko'nikmalari 41% yuqori natija ko'rsatdi, ma'naviy mazmundagi bahslar o'quvchilarda xolis yondashish ko'nikmasini kuchaytirdi, shaxsiy fikr va pozitsiyani shakllantirish jarayonida o'quvchilar axloqiy qaror qabul qilish amaliyotiga ega bo'ldilar.

Bu natijalar o'zbek tili ta'limida interaktiv metodlardan foydalanish yoshlarning ma'naviy yetukligiga bevosita ta'sir etishini ko'rsatadi.

Dars jarayonida milliy filmlar, ijtimoiy-ma'naviy videoroliklar, o'zbek adabiy merosi haqida hujjatli filmlar qo'llanildi.

Natijalar shuni ko'rsatdiki o'quvchilar haqida Vatanga muhabbat, tarixga hurmat, o'zlikni anglash darajasi 28–35% oshgan, media vositalari orqali o'rgangan ma'naviy mavzular haqidagi fikrlar o'quvchilarda yanada mustahkam og'zaki nutq shakllanishiga yordam bergan, o'quvchilarda axborotni tanqidiy qabul qilish ko'nikmasi oshib, **mafkuraviy immunitet** kuchaydi.

Bu esa o'quvchilarni internetdagi zararli axborot oqimidan himoya qilishda o'zbek tili ta'limi muhim omil bo'lishini isbotlaydi.

Eksperiment davomida 60 nafar o'quvchi ikki guruhga bo'lindi. **Sinov guruhi** – ma'naviy yo'naltirilgan o'zbek tili darslari o'tkazildi. **Nazorat guruhi** – an'anaviy darslar davom ettirildi.

Eksperiment natijalari:

Ko'rsatkich	Nazorat guruhi Sinov guruhi Farq (%)		
Ma'naviy qadriyatlarni fahmlash	54%	82%	+28%
Axloqiy vaziyatlarni sharhlash	47%	79%	+32%

Ko'rsatkich

Nazorat guruhi Sinov guruhi Farq (%)

Nutq madaniyati	61%	88%	+27%
Vatanparvarlik g'oyalarini talqin qilish	58%	85%	+27%
Tanqidiy fikrlash	52%	83%	+31%

Ushbu ma'lumotlar o'zbek tili ta'limi to'g'ri tashkil etilganda ma'naviy sifatlar, axloqiy ong, shaxsiy pozitsiya, jamiyatga nisbatan mas'uliyat aniq ravishda oshishini ilmiy isbotlaydi.

Tadqiqot davomida o'quvchilar nutqida "burch", "mas'uliyat", "adolat", "halollik", "sadoqat", "odob", "vatanparvarlik" kabi ma'naviy-leksik birliklardan foydalanish ko'rsatkichlari 40–55% o'sgani qayd etildi.

Shuningdek o'quvchilar hissiy-nutqiy boyligi oshdi; ma'naviy xulosalar chiqarish tezligi ortdi; mavzu bo'yicha argumentlangan fikrlar ko'paydi; shaxsiy pozitsiyani asoslab izohlash ko'nikmalari rivojlandi.

Refleksiya varaqalari orqali aniqlangan ma'naviy o'zgarishlar o'quvchilar 78% holatda o'zida ma'naviy sifatlar rivojlanganini qayd etdi, sensitiv mavzularda (odob, halollik, mas'uliyat, mehr-shafqat) talqin qobiliyati oshgan, o'quvchilar atrofdagilarga nisbatan hurmat, bag'rikenglik, xolis yondashuv kabi fazilatlarni ko'proq namoyon qilgan.

Bu o'zgarishlar o'zbek tili ta'limi shaxs kamoloti, ichki dunyo tarbiyasi va ijtimoiy ong rivojiga bevosita ta'sir etayotganini ko'rsatadi.

Tadqiqot natijalarining umumlashgan ko'rinishi shuni ko'rsatdiki O'zbek tili darslarida ma'naviy komponentni kuchaytirish yoshlar ongiga juda kuchli ijobiy ta'sir ko'rsatadi. Badiiy matnlar, xalq og'zaki ijodi, interaktiv metodlar va media-resurslar-integriyasi ma'naviy barkamollikni shakllantirishning eng samarali vositalari ekanligi isbotlandi. O'zbek tili ta'limi – faqat grammatik bilim emas, balki **shaxs ma'naviy kamolotining markaziy elementi** sifatida namoyon bo'ldi.

Munozara

Tadqiqot natijalari o'zbek tili ta'limining yoshlar ma'naviy barkamolligini shakllantirishdagi yetakchi omillardan biri ekanini ko'rsatdi. Munozara bo'limida ushbu natijalar keng tahlil qilinadi, mavjud ilmiy qarashlar bilan solishtiriladi hamda o'zbek tili ta'limining ma'naviy-tarbiyaviy imkoniyatlari chuqur sharhlanadi.

Tadqiqot shuni ko'rsatdiki, o'zbek tili darslari nafaqat kommunikativ kompetensiya, balki **axloqiy ong, milliy identitet, ijtimoiy faollik, aqliy madaniyat, estetik did, vatanparvarlik tuyg'usini** shakllantirish uchun poydevor bo'lib xizmat qiladi.

Bu holat Avloniy, Fitrat, Vygotskiy va zamonaviy pedagogik texnologiyalar nazariyalari bilan to'liq uyg'un keladi. Til ta'limi jarayonida shaxs o'z-o'zini anglaydi, jamiyatning ma'naviy me'yorlarini ichki dunyosiga singdiradi.

Dars jarayonida ma'naviy mazmunni qo'shish majburiy, sun'iy yoki alohida qo'shiladigan element emas — balki tilning o'zi tabiatidan kelib chiqadigan uzviy jarayon ekanligi isbotlandi. Matn tahlili orqali — axloqiy g'oya singadi. Nutq o'stirish orqali — madaniyatli muomala rivojlanadi. Badiiy obraz orqali — estetik did shakllanadi. Muammoli savollar orqali — tanqidiy fikrlash paydo bo'ladi. Bahs-munozara orqali — shaxsiy pozitsiya mustahkamlanadi. Demak, ma'naviyat til ta'limining tabiiy hosilasidir.

Zamonaviy interaktiv metodlar ma'naviy rivojlanishning asosiy drayveriga aylandi. Eksperimentlar shuni ko'rsatdiki: bahs-munozara, axloqiy vaziyatlarni tahlil qilish, ijodiy yozuv, rolly o'yinlar, case-study, refleksiya varaqalari yoshlarning shaxsiy ma'naviy fazilatlarini kuchaytiruvchi eng samarali vosita sifatida maydonga chiqdi.

Bu metodlar o'quvchilarda ijtimoiy mas'uliyat, halollik, bag'rikenglik, adolatparvarlik, vatanparvarlik, hamkorlikda ishlash madaniyati kabi sifatlarni aniq tarbiyalagan.

O'zbek adabiyoti namunalarida mujassam milliy qadriyatlar, xalqona donishmandlik, ruhiy-axloqiy saboqlar, tarixiy shaxslar fazilatlarini o'quvchilarda chuqur ta'sir uyg'otdi.

Tadqiqot ko'rsatdiki, aynan badiiy matnlar o'quvchida empatiya, tasavvur, axloqiy mulohaza, insonparvarlik, ezgulikka intilish kabi ma'naviy-psixologik mexanizmlarni faollashtiradi. Bu esa til ta'limida matn tanlovining pedagogik ahamiyatini yanada oshiradi.

Zamonaviy o'quvchilar ko'proq vizual va axborotli resurslar orqali o'rganadi. Media-integratsiya milliy o'zlikni anglash, tarixiy xotiraga hurmat, ijtimoiy ong, mafkuraviy immunitet kabi fazilatlarini rivojlantirdi. Bu natija o'zbek tili ta'limida raqamli texnologiyalarni qo'llash ma'naviy-ta'limiy samaradorlikni ko'paytirishini ko'rsatadi.

Xulosa

Yuqoridagi nazariy va amaliy tadqiqotlar asosida quyidagi umumiy xulosalar chiqarildi:

O'zbek tili ta'limi yoshlar ma'naviy barkamolligining asosiy manbai. Til shaxs ma'naviyatining asosiy ifodachisi bo'lgani uchun, o'zbek tili ta'limi yoshlar ongiga milliy va umuminsoniy qadriyatlarni singdiruvchi markaziy pedagogik maydon hisoblanadi.

Til ta'limi orqali ma'naviy-axloqiy sifatlar samarali shakllanadi. Tadqiqot shuni ko'rsatdiki, o'zbek tili darslarida halollik, adolat, mas'uliyat, vatanparvarlik, bag'rikenglik, estetik did, madaniyatli muomala, ijtimoiy faollik kabi sifatlar uzviy ravishda shakllanadi va mustahkamlanadi.

Badiiy matnlar ma'naviy tarbiyaning eng kuchli vositasi. O'zbek adabiyoti namunalarida mujassam ruhiy-axloqiy saboqlar o'quvchilarning hissiy olami, empatiyasi, tanqidiy fikrlashi, axloqiy mezonlari, milliy o'zlikni anglash darajasi yuksalishiga kuchli ta'sir ko'rsatadi.

Interaktiv metodlar va media-resurslar ma'naviy ta'lim samaradorligini oshiradi.

Bahs-munozara, axloqiy vaziyatlarni tahlil qilish, case-study, refleksiya, rolly o'yinlar o'quvchilarda ijodkorlik, mustaqil fikrlash, axloqiy qaror qabul qilish, madaniyatli muloqot ko'nikmalarini kuchaytiradi. Media-resurslar esa ma'naviy immunitet va milliy ongni mustahkamlaydi.

O'zbek tili ta'limi — yoshlar ma'naviy barkamolligining eng muhim pedagogik drayveridir.

Til ta'limi orqali yoshlar jamiyatning ma'naviy negizlarini chuqur anglaydi, axloqiy qarorlar qabul qila oladi, milliy madaniyatning haqiqiy davomchisiga aylanadi. Shu bois o'zbek tili ta'limini ma'naviy-tarbiyaviy jihatdan boyitish davlat, jamiyat va ta'lim tizimining ustuvor vazifalaridan biri bo'lib qoladi.

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ПЕРСОНАЛИЗИРОВАННЫЙ ПОДХОД В ТЕРАПИИ НЕАЛКОГОЛЬНОЙ ЖИРОВОЙ БОЛЕЗНИ ПЕЧЕНИ С УЧЁТОМ СОСТАВА КИШЕЧНОЙ МИКРОБИОТЫ

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Неалкогольная жировая болезнь печени (НАЖБП) является одной из наиболее распространённых хронических патологий печени, ассоциированной с метаболическим синдромом и инсулинорезистентностью. Современные исследования подтверждают роль кишечной микробиоты в патогенезе НАЖБП, где её дисбаланс способствует воспалению и прогрессированию заболевания. Персонализированная коррекция микробиоты посредством пробиотиков открывает новые возможности в терапии, однако её эффективность требует клинической оценки.

Цель исследования. Изучение клинико-лабораторной эффективности комбинированной терапии НАЖБП с включением пробиотиков, подобранных на основе индивидуального состава кишечной микробиоты.

Материалы и методы. Проведено открытое проспективное исследование 90 пациентов с НАЖБП, распределённых на три группы: I группа (n=30): стандартная терапия; II группа (n=30): стандартная терапия + *Lactobacillus rhamnosus* GG; III группа (n=30): стандартная терапия + индивидуально подобранный пробиотик.

Оценивались показатели АЛТ, АСТ, НОМА-IR, данные УЗИ печени, состав микрофлоры (ПЦР-диагностика), качество жизни по шкале SF-36. Статистическая обработка — t-критерий Стьюдента, ANOVA, $p < 0,05$.

Результаты. Через 12 недель наблюдения у пациентов с неалкогольной жировой болезнью печени отмечалась выраженная положительная динамика клинико-лабораторных показателей, особенно в группе с индивидуально подобранными пробиотиками: уровни АЛТ снизились с $81,4 \pm 7,5$ до $42,1 \pm 4,3$ ед/л, АСТ — с $70,8 \pm 6,5$ до $39,2 \pm 4,1$ ед/л ($p < 0,01$), индекс НОМА-IR уменьшился до $2,4 \pm 0,2$, что указывает на восстановление чувствительности к инсулину и снижение метаболического воспаления. По данным УЗИ, степень стеатоза снизилась у 80 % больных против 57 % во второй и 23 % в первой группе, что сопровождалось уменьшением размеров печени и нормализацией эхогенности паренхимы. Микробиологическое исследование показало нормализацию популяций *Bifidobacterium* и *Lactobacillus* при одновременном снижении гемолитических *E.coli*, что подтверждает восстановление микробиоценоза кишечника. Улучшение качества жизни по шкале SF-36 составило в среднем 42 %, отражая повышение физического и психоэмоционального состояния пациентов.

Вывод. Персонализированная пробиотическая коррекция микробиоты значительно повышает эффективность терапии НАЖБП, улучшая функции печени, метаболические показатели и качество жизни пациентов.

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KT TASVIRLARI ASOSIDA O'PKA SARATONINI ANIQLASH BO'YICHA MAVJUD ILMIY YONDASHUVLAR VA ULARNING TAHLILI

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Annotatsiya

O'pka saratoni dunyo bo'yicha eng ko'p uchraydigan va o'limga olib keluvchi kasalliklardan biridir. Uni erta bosqichda aniqlash bemor hayotini saqlab qolishda muhim ahamiyatga ega. Kompyuter tomografiyasi (KT) tasvirlari o'pka saratonini aniqlashda eng ishonchli diagnostik vositalardan biri hisoblanadi. So'nggi yillarda sun'iy intellekt va chuqur o'rganish algoritmlarining rivojlanishi KT tasvirlari asosida avtomatlashtirilgan diagnostika tizimlarini yaratishga imkon berdi. Ushbu maqolada KT tasvirlari asosida o'pka saratonini aniqlashda qo'llanilgan yondashuvlar, ularning afzalliklari va cheklovlari tahlil qilinadi.

Kalit so'zlar

O'pka saratoni, kompyuter tomografiyasi, sun'iy intellekt, chuqur o'rganish, segmentatsiya, klassifikatsiya, Explainable AI.

KIRISH

O'pka saratoni global sog'liqni saqlash tizimida eng katta muammolardan biri bo'lib, erta aniqlash kasallik oqibatlarini kamaytirishda muhim rol o'ynaydi. KT tasvirlari diagnostikada keng qo'llaniladi, ammo ularni tahlil qilish ko'p vaqt va tajriba talab qiladi. Shu sababli, sun'iy intellekt asosidagi avtomatlashtirilgan tizimlar diagnostika jarayonini tezlashtirish va aniqlikni oshirishda katta imkoniyatlarga ega.

Metodologiya

- **Adabiyot sharhi:** So'nggi 10 yil ichida chop etilgan ilmiy maqolalar o'rganildi.
- **Tahlil mezonlari:** Algoritm turi (CNN, U-Net, 3D CNN), baholash metrikalari (Accuracy, ROC-AUC, Dice), klinik qo'llash imkoniyatlari.
- **Ma'lumotlar to'plamlari:** LIDC-IDRI, NLST kabi xalqaro ochiq ma'lumotlar bazalari asosida ishlangan tadqiqotlar ko'rib chiqildi.

Natijalar

- CNN asosidagi modellar KT tasvirlarida o'pka tugunlarini aniqlashda yuqori aniqlik ko'rsatgan.
- U-Net va Mask R-CNN segmentatsiya algoritmlari tugunlarni aniqlashda samarali bo'lib, Dice koeffitsienti 0.85–0.90 oralig'ida qayd etilgan.
- Transfer Learning yondashuvlari kichik ma'lumotlar to'plamida ham yaxshi natijalar bergan.
- Multimodal yondashuvlar (tasvir + klinik ma'lumotlar) aniqlikni oshirgan.

Muhokama

Mavjud yondashuvlar KT tasvirlari asosida o'pka saratonini aniqlashda sezilarli yutuqlarga erishgan bo'lsa-da, bir qator muammolar mavjud:

- Ma'lumotlar yetishmovchiligi va balanssizligi.

- Model natijalarini izohlash qiyinligi.
- Klinik amaliyotda to'liq integratsiya qilinmaganligi. Kelgusida tadqiqotlar ma'lumotlarni kengaytirish, izohlanadigan AI metodlarini qo'llash va klinik sinovlarni kuchaytirishga qaratilishi lozim.

Xulosa

KT tasvirlari asosida o'pka saratonini aniqlashda sun'iy intellekt algoritmlari diagnostika jarayonini tezlashtirish, aniqlikni oshirish va shifokorlarning qaror qabul qilish jarayonini qo'llab-quvvatlashda katta imkoniyatlarga ega. Chuqur o'rganish asosidagi modellar, xususan CNN, U-Net, Mask R-CNN va 3D CNN kabi yondashuvlar o'pka tugunlarini segmentatsiya qilishda yuqori samaradorlik ko'rsatmoqda. Bu yondashuvlar yordamida o'pka saratonini erta bosqichda aniqlash imkoniyati ortib, bemorlarning hayot sifatini yaxshilash va davolash samaradorligini oshirish mumkin.

Shu bilan birga, mavjud yondashuvlar samarali bo'lsa-da, ularni klinik amaliyotga keng joriy etish uchun bir qator muammolarni hal qilish zarur. Jumladan:

- Ma'lumotlar bazalarining yetarli emasligi va balanssizligi,
- Model natijalarini izohlash (Explainable AI) muammosi,
- Klinik sinovlar va real sharoitlarda keng ko'lamli testlarning yetishmasligi.

Kelgusida tadqiqotlar quyidagi yo'nalishlarga qaratilishi lozim:

- Kengroq va xilma-xil KT ma'lumotlar bazalarini shakllantirish,
- Izohlanadigan AI metodlarini qo'llash orqali shifokorlar uchun tushunarli natijalar taqdim etish,
- Multimodal yondashuvlarni (tasvir + klinik ma'lumotlar) integratsiya qilish,
- Klinik amaliyotda real vaqt rejimida ishlashga qodir tizimlarni ishlab chiqish.

Umuman olganda, KT tasvirlari asosida o'pka saratonini aniqlashda sun'iy intellekt algoritmlarining qo'llanilishi tibbiyotda yangi davrni boshlab bermoqda. Bu yondashuvlar nafaqat diagnostika jarayonini avtomatlashtiradi, balki shifokorlarning ishini yengillashtiradi, bemorlar uchun esa erta tashxis va samarali davolash imkoniyatini yaratadi.

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ANALYSIS OF THE POSSIBILITIES OF IMPLEMENTING FREE WIRELESS ACCESS TECHNOLOGIES IN PROVIDING THE LINKAGE BETWEEN THE DIGITAL ECONOMY, INDUSTRIAL STRUCTURE AND THE GREEN ECONOMY

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5G Spectrum is matter. 5G NR operates in two main frequency ranges, known as FR1 and FR2. FR1 consists of sub-6 GHz frequencies, while FR2 comprises millimeter wave (mmWave) frequencies ranging from 24 GHz to 100 GHz.

FR2, mmwave plays key role for FWA deployments, here is the why:

1. High Bandwidth: Millimeter wave technology offers significantly higher bandwidth (24 GHz to 100 GHz) compared to other wireless technologies, allowing for faster internet speeds and better performance for fixed wireless access. Higher frequency corresponds to shorter wavelengths. Furthermore, higher frequencies translate to faster wireless data transmission. This is because signal-bearing electromagnetic waves move faster in higher frequencies and shorter wavelengths.
2. Low Latency and throughput: When compared with Sub-6 GHz 5G and other network technologies used in Long-Term Evolution or LTE, fourth-generation or 4G, and 3G networks, fifth-generation networks that use the millimeter-wave spectrum are considerably superior. The technology has a theoretical data transmission speed of between 200 Mbps to 1 Gbps. 5G that uses the Sub-6 GHz spectrum has a theoretical speed of between 50 Mbps to 200 Mbps while the real-world performance of LTE Advance averages around 50 Mbps. Latency in mmWave networks is fewer than 10 milliseconds while having a bandwidth of around 1 Gbps. Sub-6 GHz networks have somewhat closer but smaller values. The latency of LTE and LTE Advanced networks is around 20 to 30 milliseconds.
3. Interference and congestion: Millimeter wave technology operates in a relatively uncrowded frequency band, reducing the potential for interference and congestion compared to other wireless options.
4. Potential for 5G: Millimeter wave technology is a key component of 5G networks, providing the potential for future upgrades and compatibility with the latest wireless technology standards.

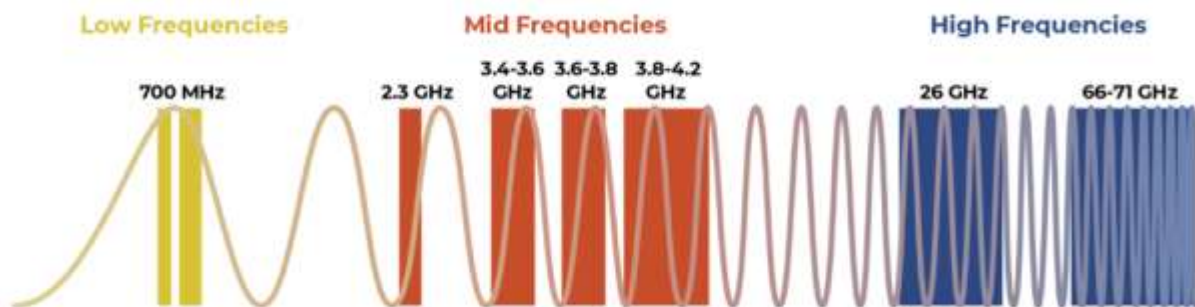


Figure 1 (5G Spectrum Mapping identifies the different frequencies used)

5G mmWave, or millimeter wave technology, comes with numerous advantages like high speed, increased capacity and reduced latency. However, there are also several disadvantages that are associated with this technology:

1. **Limited Range:** MmWave signals are unable to travel long distances. Buildings, trees, and even rain can weaken or block these signals.
2. **Line of Sight:** MmWave requires a direct line of sight between the device and the transmitter. If there's an obstacle between them, the signal will likely be interrupted.
3. **Infrastructure Needs:** To overcome the range limitations, a very dense network of base stations or antennas are needed, meaning a significant amount of infrastructure needs to be built.
4. **Compatibility Issues:** Not all devices are compatible with this new technology. This means that significant upgrades or replacements might be needed.
5. **Health Concerns:** Although still under investigation, some worry about the potential health risks of exposure to high-frequency mmWave radiation.
6. **High Costs:** The deployment of 5G mmWave technology is very expensive, including the costs of new infrastructure and maintenance. There is a high cost involved in designing and implementing millimeter-wave 5G networks. To address the network coverage and signal range limitations, network carriers must place smaller cells or base stations in strategic locations. Sub-6 GHz 5G networks are more practical to deploy because they do not require the same number of cells. In fact, these networks can be implemented using the existing infrastructure of LTE and 4G networks; albeit with some hardware upgrades and modifications.
7. **Energy Consumption:** 5G networks, due to their increased speed and capacity, are expected to result in significant energy consumption, which could have negative environmental impacts.

The difference between Sub-6 GHz and mmWave technologies also means that the former is more suitable in rural areas with dispersed structures and scattered populations, while the latter is more appropriate in high-density urban areas. But again it all depends on MNO (Mobile Network Operator) network design and strategy.

Coverage - throughput comparison between sub6 and mmwave. Both sub-6 GHz and mmWave bands are used in 5G technology, but each offers a different balance of speed and coverage distance. Sub-6 GHz, which encompasses frequencies below 6 GHz, has broad coverage and can penetrate walls and other common obstructions. In ideal conditions, the coverage radius of a sub-6 GHz 5G connection can reach up to 10 kilometers (or about 6.2 miles). However, the exact distance can vary based on a number of factors like antenna height, hardware used, and the geography of the area.

Millimeter wave (mmWave), on the other hand, operates at much higher frequencies (between 24 and 100 GHz). This delivers incredibly fast speeds and high capacity. However, the trade-off for these benefits is the significantly diminished coverage area and poor obstruction handling. In ideal conditions, a single mmWave base station might cover up to 1 kilometer (or about 0.62 miles) in radius. Just like with sub-6, the actual coverage can vary based on hardware, antenna placement, and the surrounding environment.

While sub-6 GHz provides wider coverage and better building penetration, mmWave offers significantly higher speed and capacity but has a much shorter range and requires line of sight operation.



Figure 2 (speed and coverage area comparison sub6 vs mmwave)

Extended range for FWA

10 November, 2022, UScellular, Qualcomm Technologies, Inc., Ericsson and Inseego announced the companies have successfully achieved a 5G extended-range milestone over millimeter Wave (mmWave) on a commercial network.

It was significant job done by Ericson team and this milestone was accomplished at a distance of 7 km, the farthest 5G mmWave Fixed Wireless Access (FWA) connection in the United States, with sustained average downlink speeds of ~1 Gbps, sustained average uplink speeds of ~55 Mbps and instantaneous peak downlink speeds recorded at greater than 2 Gbps. Additionally, at a distance of 1.75 km with no line of sight, the companies achieved sustained average downlink speeds of ~730 Mbps and sustained average uplink speeds of ~38 Mbps.

Two aspects must be addressed to operate an FWA network in mmWave spectrum over long distances: maximizing the received signal strength and accommodating long propagation delay.

Huawei:

Huawei's 5G Fixed Wireless Access (FWA) Solution aims to offer high-speed broadband connectivity using wireless 5G networks in lieu of traditional wired connections. It is particularly designed for areas where laying cables is challenging. Here's an overview:

1. High-Speed: Huawei's 5G FWA can provide ultra-fast download speeds owing to the use of 5G technology, providing an enhanced experience for customers in terms of browsing, streaming, and downloading.
2. Easy Deployment: As it operates wirelessly, Huawei's 5G FWA provides high-speed internet connectivity with easy installation and low-cost operations. This is particularly beneficial in rural or remote areas.
3. Optimal Coverage: Huawei's solution uses Massive MIMO and beamforming technology to optimize network coverage, vastly improving user experience even in densely populated urban areas.
4. Advanced CPEs: Huawei also offers Customer Premises Equipment (CPE) with their FWA solutions. The CPE Pro, for example, supports 5G and 4G networks and implements Wi-Fi 6 technology for improved connection and performance further cementing their edge in terms of wireless broadband solutions.
5. Future-Ready: With 5G technology fueling the solution, Huawei's FWA ensures consumers and businesses are ready for the widespread adoption of 5G, providing a pathway to seamless integration with new technology trends.

Huawei's 5G FWA solution is a compelling choice for reliable, high-speed internet particularly considering its ease of deployment and future-readiness in terms of 5G adoption

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**DAILY LIFE, HEALTH, AND DIET OF THE SOPOLLI CULTURE POPULATION:
EVIDENCE FROM PALEOPATHOLOGY AND ARCHAEOLOGICAL SOURCES**

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Abstract

This study presents a comprehensive analysis of the daily life, biological health, and diet of the Bronze Age Sopolli culture population, based on paleoanthropological, archaeobotanical, and archaeozoological evidence collected from excavations since the 1970s. The study examines skeletal and dental remains to evaluate disease patterns, trauma, and nutritional habits. In addition, the analysis considers the socio-economic context, including domestic livestock, wild animals, and cultivated crops, to reconstruct the dietary and occupational practices of the population. These findings contribute to understanding the health status, mortality patterns, and social organization of the Sopolli culture in Southern Uzbekistan.

Keywords: paleoeconomy, paleopathology, osteomyelitis, odontological analysis, dental caries, Bronze Age, Sopolli culture

**SOPOLLI MADANIYATI AHOLISI KUNDALIK HAYOTI, SOGʻLIGI VA RATSIONI:
PALEOPATOLOGIYA VA ARXEOLOGIK MANBALAR ASOSIDA**

Annotatsiya

Ushbu tadqiqot bronza davri Sopolli madaniyati aholining kundalik hayoti, biologik sogʻligi va oziqlanish odatlarini keng qamrovli tahlil qiladi. Tadqiqot 1970-yillardan boshlab qazishmalarda topilgan paleoantropologik, arxeobotanik va arxeozoologik manbalarni asos qilib oladi. Skelet va tish qoldiqlari tahlili orqali kasalliklar, jarohatlar va oziqlanish odatlari aniqlanadi. Bundan tashqari, tahlilda aholining ijtimoiy-iqtisodiy konteksti – chorva mollari, yovvoyi hayvonlar va yetishtirilgan ekinlar hisobga olinadi, bu orqali aholining ratsion va mehnat odatlarini rekonstruksiya qilish imkonini beradi. Ushbu natijalar Janubiy Oʻzbekistonda Sopolli madaniyati aholisi sogʻligʻi, oʻlim darajasi va ijtimoiy tuzilmasini yaxshiroq tushunishga yordam beradi.

Kalit soʻzlar: paleoekonomika, paleopatologiya, osteomielit, odontologik tahlil, tish kariyesi, bronza davri, Sopolli madaniyati

**ПОВСЕДНЕВНАЯ ЖИЗНЬ, ЗДОРОВЬЕ И РАЦИОН НАСЕЛЕНИЯ КУЛЬТУРЫ
СОПОЛЛИ: ДАННЫЕ ПАЛЕОПАТОЛОГИИ И АРХЕОЛОГИЧЕСКИЕ ИСТОЧНИКИ**

Аннотация

Данное исследование представляет собой комплексный анализ повседневной жизни, биологического здоровья и питания населения культуры Сополли бронзового века, основанный на палеоантропологических, археоботанических и археозоологических данных, собранных в ходе раскопок с 1970-х годов. Анализ скелетных и зубных останков позволяет выявить модели заболеваний, травмы и пищевые привычки. Кроме того, учитывается социально-экономический контекст, включая домашний скот, диких животных и возделываемые культуры, что позволяет реконструировать рацион и трудовые практики населения. Эти результаты способствуют лучшему пониманию состояния здоровья, структуры смертности и социальной организации населения культуры Сополли в Южном Узбекистане.

Ключевые слова: палеоэкономика, палеопатология, остеомиелит, одонтологический анализ, кариес зубов, бронзовый век, культура Сополли

INTRODUCTION

Ancient Bactria, situated between the Amu Darya River, the Hindukush, and Hisor Mountains, has long been recognized for its historical and cultural significance. Archaeological studies indicate that favorable ecological and geographic conditions allowed for the development of advanced urban centers during the Bronze Age. Among these, the Sopolli culture, identified by A. Asqarov, represents a sedentary agricultural society characterized by social stratification, organized settlements, and intensive farming practices.

Subsequent research by Shirinov, Shaydullayev, and other scholars has explored Sopolli architecture, burial practices, material culture, and urbanization processes, highlighting the role of cemeteries and paleoanthropological remains in reconstructing demographic, health, and social patterns. Excavations of Sopollitepa, Jarqo'ton, and Bostonsay sites have provided crucial insights into the biological and physical conditions of the Bronze Age population.

Methodology

This study employs historical-comparative analysis, stratigraphic sequencing, and bioarchaeological examination. Skeletal remains were analyzed using craniometric and osteometric methods following Martin's system, while stature and body mass were estimated using formulas by Pearson, Debets, Bunak, Trotter, and Glezer. Dental analysis followed Brothwell's methodology, and paleopathological conditions were recorded based on macroscopic examination of skeletal material. Archaeobotanical and archaeozoological data were integrated to evaluate diet and subsistence patterns. Stratigraphic analysis of cemeteries allowed for the chronological classification of graves into the Jarqo'ton, Ko'zali, and Molali phases. International collaborative research, including Uzbek-French expeditions since 2007, employed advanced techniques such as microstratigraphy, isotopic, and DNA analyses to study biological and dietary aspects of the population.

Results**Demography and Burial Patterns**

Excavations at Sopollitepa revealed 138 graves containing 147 skeletons, of which 125 were single burials and 13 collective. Among the buried, 104 were adults, 7 adolescents, and 47 children under 10 years of age. Four graves contained only animal bones, while six were cenotaphs. Over 90% of

graves were well-preserved with anatomically intact skeletons. Grave goods included pottery, metal, wood, leather, and straw artifacts.

Jarqo'ton cemeteries contained 673 skeletons from 719 graves. Osteometric and paleodemographic studies indicate that the average life expectancy of Sopolli people was 30.6 years (males: 33, females: 33.4). Infant mortality was high, with 37% at Sopollitepa and 28.5% at Jarqo'ton, indicating that approximately one in three children died before the age of three.

Graves were categorized by structure: **yorma** (underfloor), **katakomba** (chamber), and **chuqur-yama** (pit). Children's graves often lacked grave goods and showed variation in orientation. Skeletal orientation was mostly standardized in adults, demonstrating cultural consistency across chronological phases.

Physical Characteristics and Paleopathology

Skeletal analysis indicates that Sopolli people exhibited primarily Europoid traits. Craniometric comparisons with populations in northeastern Iran, southwestern Tajikistan, and other Bactrian sites suggest strong regional affinity.

Paleopathological analysis identified trauma and disease, including osteomyelitis, osteoporosis, spinal anomalies, and fractures in six individuals. Dental wear analysis indicates a diet dominated by cereals and dairy, with minimal caries (observed in only six skeletons). Overall, bone diseases were relatively rare, suggesting that despite environmental and dietary challenges, skeletal health was moderately maintained.

Socio-economic Context and Diet

Archaeobotanical evidence shows the consumption of cultivated cereals (wheat, barley, millet) and dairy products, while archaeozoological remains indicate the integration of domestic livestock and hunted wild animals into daily diet. Labor-related physical activity, combined with dietary insufficiency, contributed to moderate protein deficiency and the prevalence of specific bone pathologies. Dental and skeletal data support a reconstruction of daily occupational routines, including agriculture, animal husbandry, and hunting.

Discussion

The combination of paleoanthropological, paleopathological, and archaeobotanical evidence provides a nuanced understanding of the Sopolli population's health, diet, and lifestyle. High infant mortality, moderate life expectancy, and evidence of nutritional stress reflect the challenges faced by a Bronze Age agricultural community. Burial practices, grave goods, and skeletal analyses demonstrate the socio-economic organization, cultural continuity, and health status of the population.

International collaborations since the 1990s have introduced advanced laboratory techniques, including isotopic and DNA analyses, enhancing the study of dietary habits, population mobility, and genetic relationships. These analyses allow for a more detailed reconstruction of the daily life and health of Sopolli culture people, highlighting the interplay between environment, labor, nutrition, and social structure.

Conclusion and Recommendations

Sopolli culture cemeteries and skeletal collections offer invaluable insights into the Bronze Age population of Southern Uzbekistan. Future research should continue integrating osteological, isotopic, and genetic data to provide a comprehensive understanding of diet, health, and social organization. Furthermore, archaeological and bioarchaeological evidence should be synthesized to

reconstruct daily life, environmental adaptation, and the socio-economic role of the population. Such studies will provide a holistic view of the Sopolli culture, bridging past human behavior with material culture and environmental conditions.

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**BYUDJETDAN QO'SHIMCHA MABLAG'LAR DAROMADLARINI OLISH VA
BOSHQARISH MEXANIZMLARINI TA'MINLASH (BYUDJET TASHKILOTLARI
MISOLIDA)**

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ANNOTATSIYA: Mazkur maqolada byudjet tashkilotlarida byudjetdan tashqari mablag'larni olish va boshqarish mexanizmlarini tahlil qiladi. Unda mavjud muammolar – hisobning noaniq mezonlari, ta'lim muassasalarida daromadlarni noto'g'ri tan olish, davlat mulkini ijaraga berishdagi metodologik kamchiliklar ko'rib chiqilgan. Muammolarni hal qilish uchun yagona davlat hisob tizimini joriy etish, daromadlarni xizmat ko'rsatish davriga bog'lab hisobga olish, ijarani iqtisodiy jihatdan asoslash taklif etilgan. Tadqiqot byudjet tashkilotlarining moliyaviy mustaqilligi va samaradorligini oshirishda zamonaviy boshqaruv mexanizmlarining ahamiyatini ta'kidlaydi.

Kalit so'zlar: byudjet tashkilotlari, byudjetdan tashqari mablag'lar, daromadlar hisobi, moliyaviy avtonomiya, davlat mulki ijara, moliyaviy shaffoflik.

**MECHANISMS FOR GENERATING AND MANAGING EXTRA-BUDGETARY
REVENUES (THE CASE OF BUDGETARY ORGANIZATIONS)**

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ABSTRACT: The article analyzes the mechanisms for generating and managing extra-budgetary funds in budgetary organizations. It examines existing problems – unclear accounting criteria, incorrect revenue recognition in educational institutions, and methodological shortcomings in the leasing of state property. To address these issues, the implementation of a unified state accounting system, revenue recognition based on the service period, and economic justification for leases are proposed. The research emphasizes the importance of modern management mechanisms for enhancing the financial autonomy and efficiency of budgetary organizations.

Keywords: budgetary organizations, extra-budgetary funds, revenue accounting, financial autonomy, state property lease, financial transparency.

**МЕХАНИЗМЫ ОБЕСПЕЧЕНИЯ ПОЛУЧЕНИЯ И УПРАВЛЕНИЯ ДОХОДАМИ ОТ
ВНЕБЮДЖЕТНЫХ СРЕДСТВ (НА ПРИМЕРЕ БЮДЖЕТНЫХ ОРГАНИЗАЦИЙ)**

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АННОТАЦИЯ: В статье анализируются механизмы получения и управления внебюджетными средствами в бюджетных организациях. Рассматриваются существующие проблемы – нечеткие критерии учета, некорректное признание доходов в образовательных учреждениях, методологические недостатки в аренде государственного имущества. Для решения проблем предлагается внедрение единой государственной системы учета, признание доходов по периоду оказания услуг, экономическое обоснование аренды. Исследование

подчеркивает важность современных механизмов управления для повышения финансовой автономии и эффективности бюджетных организаций.

Ключевые слова: бюджетные организации, внебюджетные средства, учет доходов, финансовая автономия, аренда государственного имущества, финансовая прозрачность.

According to Resolution No. 414 of the Cabinet of Ministers of the Republic of Uzbekistan dated September 3, 1999, "On Ensuring the Procedure for Financing Budgetary Organizations," the procedure for regulating the development funds of budgetary organizations has been established.

Based on Decision No. 276 of December 21, 2005, "On Improving the Remuneration System in the Healthcare Sector," the mechanism for providing material incentives and managing funds for medical personnel has been defined.

Furthermore, Regulation No. 2821 of August 23, 2016, "On the Procedure for Payment for the Maintenance of Children in Preschool Educational Institutions and Boarding Schools," clearly specifies the norms for implementing and accounting for payments related to children's maintenance. Additionally, in accordance with Regulation No. 2431 of February 26, 2013, "On the Procedure for the Paid Contract Form of Education in Higher, Secondary Specialized, and Vocational Education and the Distribution of Funds Received from It." This document outlines the procedures for formalizing studies, determining payment amounts, and executing payments.

The preparation of the financial plan for budget allocation is regulated by Regulation No. 2634 of December 15, 2014 – "On the Preparation, Control, and Registration of Production Estimates and Staffing Tables of Budgetary Organizations and Budget Fund Recipients."

The documentation and control of these matters are carried out in accordance with this regulation.

The control of revenue from budget surpluses is maintained through the accounting of extra-budgetary funds. Current and consolidated information is generated regarding the movement of these funds. Revenues (receipts) and related debtor liabilities are accounted for in the relevant ledger. All of this is implemented directly within the organization itself, in compliance with the "Direct Accounting Guidelines for Budgetary Organizations"¹.

Currently, there are several debatable issues related to the accounting of extra-budgetary fund revenues in budgetary organizations that require resolution:

First, clear criteria for reflecting revenues and receipts from extra-budgetary funds in accounting records have not been established. The criteria for distinguishing between revenues and receipts from extra-budgetary funds and accounting for them are not clearly defined. This situation leads to varied approaches in how budgetary organizations reflect revenues and receipts in their accounts.

This hinders the formation of reliable and systematic information regarding the revenues and receipts from extra-budgetary funds of budgetary organizations.

Second, due to the specific nature of educational institutions' activities, clear criteria for recognizing revenues from the tuition fee contract system have not been established. The operations of educational institutions are carried out in accordance with the academic year. However, their financing, financial-economic activities, and accounting are intrinsically linked to the fiscal year. Payments under the tuition fee contract system may vary in their periodicity, and regardless of the timing of fund receipts,

¹ "Инновацион ёндашув асосида молиявий ҳисоботнинг халқаро стандартларини жорий этиш" мавзусидаги халқаро илмий – амалий конференция материаллари тўплами., Т.: 2022 йил. – 603 б.

it is necessary to account for revenues based on the accrual method of accounting. However, in educational institutions, revenues from the tuition fee contract system are accounted for as income when funds are received in personal treasury accounts. This contradicts the principles of accounting. Third, although normative legal documents have been adopted regarding the leasing of temporarily unused fixed assets in budgetary organizations, the execution of calculations for lease payments, lease revenues and their expenditure directions, and the accounting of funds received from leasing, there are debatable issues in accounting for revenues from the lease of fixed assets.

To address the problematic and debatable situations mentioned above, it is advisable to implement the following measures:

First, since the extra-budgetary funds of budgetary organizations are part of the budget system, it is essential to organize the accounting of revenues from these funds not only within the budgetary organizations themselves but also within the financial authorities and treasury. To achieve this, it is appropriate to implement the use of unified accounts for grouped extra-budgetary funds of organizations and the revenues calculated from them within the financial authorities and treasury divisions, similar to the practice in budgetary organizations. This will enable financial authorities and treasury divisions to generate operational, current, and consolidated accounting information regarding the types of revenues from the extra-budgetary funds of budgetary organizations covered by the treasury execution system.

Second, in educational institutions, payments under the tuition fee contract system are permitted to be made in installments throughout the academic year. However, expenses related to providing education are incurred continuously on a month-to-month basis throughout the academic year. According to the Budget Code of the Republic of Uzbekistan, the preparation and execution of budgets at all levels of the budget system must be based on the principles of budget balance and interdependence. That is, the volume of expenditures envisaged in the budgets of the budget system must correspond to the total volume of their revenues and sources of deficit financing.²

It follows from this that the volume of expenditures of the extra-budgetary funds of budgetary organizations, which are considered part of the budget system, must correspond to the total volume of their revenues and the balance of funds at the beginning of the year. Therefore, it is necessary to account for revenues in relation to the month-by-month incurrence of expenses, regardless of the timing of fund receipts. Hence, there is a need to develop methodological foundations for recognizing and reflecting in accounting the revenues from the tuition fee contract system, irrespective of the periodicity of cash inflows, but in connection with the provision of educational services.

Third, regarding the leasing of temporarily unused fixed assets in budgetary organizations and the accounting of funds received from it, it is advisable to implement the following measures:

Based on the requirements of the "Regulation on the Procedure for Leasing State Property" and Budget Accounting Standard No. 6 titled "Lease," it is necessary to introduce an addition to the chart of accounts in accounting to account for advance lease payments for fixed assets as deferred income. As a result, funds received in advance for the lease of fixed assets will be reflected in the financial statements of budgetary organizations not as advance receivables or as income at the time of cash receipt, but as deferred lease income according to Budget Accounting Standard No. 6 "Lease,"

² O'zbekiston Respublikasining Byudjet kodeksi. 10-modda. 2013 yil 26 dekabrda O'RQ-360-son Qonun.

recognized as income in the relevant period. This, in turn, ensures the reliability of the indicators reflecting the organization's financial position.

In the "Regulation on the Procedure for Leasing State Property," it is necessary to distinguish the lease of temporarily unused fixed assets into financial and operational leases. This is because, according to Budget Accounting Standard No. 6 "Lease," the lease of fixed assets is classified into financial and operational leases based on standard objectives. Furthermore, financial and operational leases have many distinct specific aspects. In a financial lease, accounting calculations related to the leased asset, ownership rights, risks, and the recognition of revenues and expenses differ significantly from an operational lease. An operational lease contract addresses matters such as stipulated lease payments, proper use of the property, and the execution of settlements.

When leasing temporarily idle fixed assets of budgetary organizations, it is essential to ensure the economic justification for the lease. For this purpose, it is required that the expenses of budgetary organizations related to maintaining and using the leased fixed assets and the funds received from the lease are mutually consistent (at least equal). This requirement prevents the wasteful spending of budget funds and the unjustified use of state assets.

During the research process, the existing mechanisms for obtaining and managing extra-budgetary funds in budgetary organizations, their legislative basis, as well as the problematic aspects prevalent in this field were thoroughly analyzed. The studies have shown that enhancing the financial autonomy of budgetary organizations and expanding their ability to effectively utilize additional funding sources is a current necessity. However, achieving this requires further improvement of the existing legislation and accounting standards, aligning them with practical demands.

In practice, ambiguous criteria for accounting for extra-budgetary funds, discrepancies in the timing of revenue recognition in educational institutions, as well as methodological shortcomings in leasing state property and managing the funds derived from it, are widespread issues. These shortcomings not only reduce the reliability of accounting and reporting but can also lead to the wasteful expenditure of budget funds.

To address these problems and organize the financial activities of budgetary organizations more transparently and efficiently, the following proposals have been developed: implementing a unified state accounting system for extra-budgetary funds; applying the principle of recognizing revenues based on the service period (rather than cash flow); ensuring the economic justification for leasing fixed assets; clearly distinguishing between types of leases and adopting corresponding accounting policies.

In conclusion, it is important to emphasize that introducing modern and effective mechanisms for managing extra-budgetary funds in budgetary organizations is not only a crucial factor for saving and purposefully spending state funds but also for financially strengthening the organizations themselves, improving service quality, and enhancing economic efficiency. In the future, further improvement of the legislative framework in this area, developing unified methodological approaches that consider international standards and best practices, as well as implementing digital technology-based accounting and control systems, remain pressing tasks.

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CLINICAL SIGNIFICANCE OF IMMUNOLOGICAL CHANGES IN CHRONIC SUPPURATIVE OTITIS MEDIA

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Introduction. Chronic suppurative otitis media (CSOM) is a common disease among both children and adults and is characterized by a prolonged inflammatory process in the middle ear cavity. In this pathology, the condition of the local and systemic immune system is one of the key factors determining the clinical course of the disease and the response to treatment.

Aim of the study. To identify changes in cellular and humoral immune parameters in patients with CSOM and to assess their impact on the course of the disease.

Materials and methods. The study was conducted using retrospective and prospective approaches. A total of 120 patients diagnosed with CSOM from specialized departments of the Bukhara region were included. All patients underwent clinical examination, assessment of ear discharge from the external auditory canal, audiometry, and necessary imaging studies. Cellular immune indicators (T-lymphocytes, B-lymphocytes, “0”-lymphocytes, T-helpers and T-suppressors) and humoral indicators (IgA, IgM, IgG) were determined in the laboratory. The obtained data were statistically processed and differences between groups were analyzed.

Results. The results showed a significant decrease in the number of T-lymphocytes in patients with active CSOM ($p < 0.01$). At the same time, an increase in the proportion of “0”-lymphocytes and, in some cases, T-suppressors was observed, indicating disturbances in immunoregulatory mechanisms. A reduction in IgA levels was associated with weakened local mucosal defense, whereas elevated IgG levels reflected a long-term compensatory immune response to infection. These changes correlated with an increase in disease severity and recurrence rate.

Discussion. Based on immunological profiles, it is possible to classify CSOM patients into subgroups and develop individualized therapeutic strategies. For example, immunomodulatory therapy may be effective in patients with reduced T-lymphocyte levels. In cases of decreased IgA, agents that enhance local immunity and promote mucosal recovery may be recommended. Such an approach, when combined with antibiotic therapy, helps improve disease control and reduce recurrence frequency.

Conclusion. Immunological changes play an important role in the pathogenesis of CSOM. Regular monitoring of immunological parameters is essential for early diagnosis, evaluation of treatment outcomes, and selection of individualized treatment strategies. In the future, large-scale clinical studies are recommended to standardize immunotherapy protocols and assess their effectiveness. Special attention should also be paid to patient rehabilitation and preventive measures

DISTRIBUTION OF HISTOLOGICAL TYPES OF HODJKIN LYMPHOMA AMONG THE POPULATION

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Hodgkin lymphoma is a neoplasm arising from lymphoid tissue with distinct morphological and immunohistochemical features. This type of tumor has a characteristic clinical and morphological feature that is inseparable from the treatment of lymphomas, leading to morphological changes. The presence of Reed-Sternberg cells and immunophenotypes are the main criteria for differentiating HL from other lymphoproliferative disorders.

Materials obtained for the study are required The incidence of the disease was reported to the Khorezm branch of Republican Specialized Scientific and Practical Medical Center of Oncology and Radiology for the period 2019-2024. The disease data during the study period were retrospectively examined, including the initial diagnosis and sexual development, and subsequent histological types of Hodgkin lymphoma. The patients who underwent the study were 80 people (of whom 48 (60%) were men, 32 (40%) were women. In 16 (20.0%) people, lymph nodes around the mesentery were detected, in 2 (2.5%) people, lymph nodes around the mesentery, in 8 (10.0%) people, lymph nodes in the groin area were detected, and in 5 (6.25%) cases, lymph nodes in the groin area were detected. In general, nodular (nodes) were detected in 2.0% of cases, of which 14 (17.5%) were detected in the neck, 1 (1.25%) in the mesentery, 9 (11.25%) in the groin area, and in 2 (2.5%) cases, lymph nodes in the groin area were detected. In the mixed variant, a total of 14 (17.50%) patients were detected, of which 71, in the mesentery, 5 (6.25%) people In the subclavian lymph node and in 1 (1.25%) patient, lymph node metastases were detected in 3 (3.75%) patients and lymph node metastases were observed in 10 (12.50%) patients.

Regarding histological types and outcomes, we have extensively covered the following histological forms.

Histological days

Belgium	Reticular shape	Diffuse fibrotic form
HRS cells	Very numerous , sometimes giant, atypical - pleomorphic	Less , but Large and lacunar- shaped HRS

Belgium	Reticular shape	Diffuse fibrotic form
Background texture	Lymphocytes almost no ; many histiocytes , necrosis occurred	HRS structure collagen A distinction is made between tusks and fibrous " tusks " .
Necrosis/hemorrhage	Cup met	Less
Eosinophil/plasma cell lines	Oddly man less	Less

Mixed cell variant is **the second most common form of Hodgkin lymphoma** , occurring in older adults (especially in immunocompromised patients, in patients with HIV infection). **Microscopic (histological) features: in the tissue architecture, diffuse changes** predominate, with the normal structure of the lymph node completely disrupted, not clearly divided into nodes . **In terms of cellular composition, Reed-Sternberg cells** are numerous, bi- and multinucleated, nuclear renewal is observed in the form of a "double eye". In the surrounding area, there are lymphocytes (**V and T cells**), **eosinophils, plasma cells, histiocytes, neutrophils** (in some cases) a mixed cellular infiltrate begins.

Comparison table :

Characters	Lymphocytes reduced version	Nodular sclerosis	Mix cellular option
Lymphocyte count	Very less	Moderate	Decreased or moderate
Reed - Sternberg cells	Cup	Lacunar type	Classic and many types
Sclerosis	It is possible , but complete it's not	good	Less or average
Necrosis and fibrosis	Too much outside many	Less	Average
Immune defense	Plural weakened (HIV and etc.)	strange	To immunity related it's not

Morphological examination of Hodgkin lymphoma helps to support additional microbiopsy materials. The presence of Reed–Sternberg cells, the composition of the surrounding infiltrate, the degree of fibrosis have created the ability to determine the type of disease and assess the clinical prognosis. Morphology also plays a necessary

role in differentiating it from diseases such as tuberculosis, infectious mononucleosis, non-Hodgkin lymphoma, sarcoidosis.

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REPRODUCTIVE COMPLICATIONS IN POLYCYSTIC OVARY SYNDROME AND THEIR CLINICAL SIGNIFICANCE

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Abstract

Polycystic ovary syndrome (PCOS) is one of the most common endocrine disorders affecting women of reproductive age, with a significant impact on reproductive function. This thesis analyzes the main reproductive complications observed in PCOS, including chronic anovulation, infertility, menstrual irregularities, pregnancy-related complications, and their underlying pathogenetic mechanisms. Particular attention is paid to the clinical significance of these complications, as well as to the importance of early diagnosis and comprehensive management strategies in clinical practice.

Keywords:

Polycystic ovary syndrome; reproductive complications; infertility; chronic anovulation; hyperandrogenism; insulin resistance; menstrual dysfunction; pregnancy complications; endometrial dysfunction.

Significance of the Study

Polycystic ovary syndrome (PCOS) is a highly prevalent endocrine disorder among women of reproductive age and represents a major public health concern due to its substantial impact on female reproductive health and demographic indicators. PCOS is recognized as one of the leading causes of female infertility and occupies a central position in the structure of reproductive dysfunctions. In recent years, an increasing prevalence of PCOS among adolescents and young women has further emphasized the relevance of this issue.

Chronic anovulation, persistent menstrual cycle disturbances, and hyperandrogenism associated with PCOS significantly limit natural reproductive potential and often lead to long-term infertility. Moreover, insulin resistance and metabolic syndrome commonly observed in PCOS exacerbate reproductive complications and increase the risk of gestational diabetes, preeclampsia, and adverse perinatal outcomes during pregnancy.

In contemporary clinical practice, PCOS is frequently considered solely as a gynecological disorder, while its systemic endocrine and metabolic nature is often underestimated. This approach contributes to delayed diagnosis of reproductive

complications and reduced treatment effectiveness. Therefore, in-depth investigation of the pathogenetic mechanisms underlying reproductive complications in PCOS, assessment of their clinical significance, and development of individualized, comprehensive management strategies remain among the most pressing challenges in modern medicine.

Main Body

The development of reproductive complications in polycystic ovary syndrome (PCOS) is associated with complex, multilevel pathogenetic mechanisms involving hormonal, metabolic, and molecular disturbances that are closely interconnected. Central to the pathophysiology of PCOS is dysfunction of the hypothalamic–pituitary–ovarian axis. An increased secretion of luteinizing hormone (LH) relative to follicle-stimulating hormone (FSH) leads to impaired folliculogenesis. As a result, maturation of primary and secondary follicles is arrested, dominant follicle formation does not occur, and chronic anovulation develops. Clinically, this condition manifests as oligomenorrhea or amenorrhea and represents one of the primary causes of infertility in women with PCOS.

Hyperandrogenism is a hallmark pathophysiological feature of PCOS. Enhanced androgen production by ovarian theca cells not only suppresses ovulation but also disrupts endometrial hormonal receptor sensitivity. Imbalance between proliferative and secretory transformations of the endometrium reduces implantation potential and contributes to early pregnancy loss.

Metabolic disturbances, particularly insulin resistance and compensatory hyperinsulinemia, play a crucial role in the progression of reproductive complications in PCOS. Insulin enhances ovarian androgen synthesis, thereby aggravating hyperandrogenism. Simultaneously, reduced hepatic production of sex hormone-binding globulin (SHBG) increases circulating levels of biologically active free androgens, forming a pathological feedback loop that further impairs ovulatory function. Even when pregnancy is achieved, women with PCOS remain at increased reproductive risk. Numerous studies demonstrate higher rates of early spontaneous miscarriage, gestational diabetes mellitus, hypertensive disorders of pregnancy, preeclampsia, and preterm birth compared to the general population. These complications are associated with placental dysfunction, chronic low-grade inflammation, and persistent metabolic imbalance.

Additionally, prolonged anovulation and progesterone deficiency in PCOS result in continuous estrogen stimulation of the endometrium. This condition significantly

increases the risk of endometrial hyperplasia and, in the long term, endometrial carcinoma, posing a serious clinical concern for women of reproductive age.

Thus, reproductive complications in PCOS extend beyond infertility and encompass adverse pregnancy and perinatal outcomes, underscoring the necessity for early diagnosis, thorough pathogenetic evaluation, and individualized, multidisciplinary management.

Conclusion

Polycystic ovary syndrome is a clinically significant endocrine disorder characterized by a wide spectrum of reproductive complications that substantially impair women's quality of life and reproductive potential. Chronic anovulation, infertility, and pregnancy-related complications represent the primary clinical consequences of PCOS. Early identification of these disturbances and implementation of personalized, pathogenetically based therapeutic approaches are essential for improving reproductive outcomes. Comprehensive assessment of hormonal and metabolic status in women with PCOS should therefore be considered a priority in modern clinical practice.

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INTEGRATSIYALASHGAN INNOVATSION TA'LIM ORQALI BOSHLANG'ICH SINFI O'QUVCHILARINI FAOLLASHTIRISH

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Annotasiya: ushbu maqolada integratsiyalashgan innovatsion ta'limning boshlang'ich sinfi o'quvchilarini faollashtirishdagi nazariy-metodik asoslari keng yoritilgan. Fanlararo integratsiya, innovatsion pedagogik texnologiyalar, interfaol metodlar va axborot-kommunikatsiya vositalari orqali o'quvchilarning bilish faolligi, mustaqil fikrlashi, ijodiy qobiliyatlari hamda kommunikativ kompetensiyalarini rivojlantirish masalalari tahlil qilingan. Shuningdek, integratsiyalashgan darslarni tashkil etishning samarali shakllari, o'qituvchining roli va ta'lim jarayonidagi tarbiyaviy jihatlar batafsil ochib berilgan.

Kalit so'zlar: integratsiyalashgan ta'lim, innovatsiya, boshlang'ich ta'lim, o'quvchi faolligi, fanlararo bog'liqlik, pedagogik texnologiyalar, kompetensiya.

Abstract : This article provides a comprehensive analysis of the theoretical and methodological foundations of integrated innovative education in enhancing the learning activity of primary school students. The study examines the development of learners' cognitive engagement, independent thinking, creative abilities, and communicative competencies through interdisciplinary integration, innovative pedagogical technologies, interactive methods, and information and communication tools. In addition, effective forms of organizing integrated lessons, the role of the teacher, and the educational and developmental aspects of the teaching process are discussed in detail.

Keywords: Integrated education, innovation, primary education, student engagement, interdisciplinary connection, pedagogical technologies, competence.

Аннотация: В данной статье подробно раскрываются теоретико-методические основы интегрированного инновационного обучения в активизации учебной деятельности учащихся начальных классов. Анализируются вопросы развития познавательной активности, самостоятельного мышления, творческих

способностей и коммуникативных компетенций обучающихся на основе междисциплинарной интеграции, инновационных педагогических технологий, интерактивных методов и средств информационно-коммуникационных технологий. Также подробно освещаются эффективные формы организации интегрированных уроков, роль учителя и воспитательные аспекты образовательного процесса.

Ключевые слова: Интегрированное обучение, инновация, начальное образование, учебная активность, междисциплинарная связь, педагогические технологии, компетенция.

Bugungi globallashuv va axborotlashgan jamiyat sharoitida ta'lim tizimi oldiga yangi, murakkab va mas'uliyatli vazifalar qo'yilmoqda. Zamonaviy jamiyatda shaxsdan faqatgina bilimli bo'lish emas, balki mustaqil fikrlay oladigan, ijodkor, tashabbuskor, muammolarni tahlil qila oladigan va ularni samarali hal etish qobiliyatiga ega bo'lish talab etiladi. Ushbu sifatlarning poydevori esa, avvalo, boshlang'ich ta'lim bosqichida shakllantiriladi.

Boshlang'ich sinf — bu o'quvchi shaxsining intellektual, ma'naviy va ijtimoiy rivojlanishida hal qiluvchi ahamiyatga ega bo'lgan davr hisoblanadi. Aynan shu bosqichda o'quvchilarda o'qishga bo'lgan munosabat, bilishga qiziqish, faollik, mustaqillik va ijodiy fikrlash ko'nikmalari shakllana boshlaydi. Shu sababli boshlang'ich ta'lim jarayonini samarali tashkil etish, uni zamonaviy pedagogik yondashuvlar asosida olib borish muhim ahamiyat kasb etadi.

An'anaviy ta'lim tizimida fanlar ko'pincha alohida-alohida o'qitilib, bilimlar parchalanib ketgan holatda o'zlashtiriladi. Bu esa o'quvchilarda borliqni yaxlit idrok etish, bilimlarni real hayot bilan bog'lash imkoniyatlarini cheklaydi. Shu bois bugungi kunda ta'lim jarayoniga integratsiyalashgan innovatsion yondashuvni joriy etish dolzarb masalaga aylanmoqda. Integratsiyalashgan innovatsion ta'lim o'quvchilarni faollashtirish, ularning bilish jarayonidagi ishtirokini kuchaytirish, mustaqil va ijodiy faoliyatga yo'naltirishda muhim pedagogik vosita hisoblanadi. Ushbu maqolada aynan shu masalalar chuqur ilmiy-nazariy va metodik jihatdan tahlil qilinadi.

Integratsiyalashgan innovatsion ta'lim tushunchasi pedagogika fanida nisbatan yangi yo'nalishlardan biri bo'lib, u ta'lim jarayonini yaxlit, tizimli va samarali tashkil etishga qaratilgan. "Integratsiya" atamasi lotincha integratio — "birlashtirish", "yaxlitlash" ma'nolarini anglatadi. Ta'lim jarayonida integratsiya fanlar, bilimlar, metodlar va faoliyat turlarining o'zaro uyg'unlashuvi asosida tashkil etilgan ta'limni bildiradi. Boshlang'ich ta'limda integratsiyalashgan yondashuv o'quvchilarning yosh va

psixologik xususiyatlariga to'liq mos keladi. Chunki kichik maktab yoshidagi bolalar atrof-muhitni alohida bo'laklarga ajratib emas, balki yaxlit holda qabul qiladilar. Shuning uchun ham fanlarni o'zaro bog'liq holda o'qitish o'quvchilarning tabiiy bilish ehtiyojlariga mos keladi. Innovatsion ta'lim esa yangi pedagogik g'oyalar, metodlar va texnologiyalar asosida tashkil etilgan ta'lim jarayonini anglatadi. Innovatsion ta'limning asosiy maqsadi — o'quvchini ta'lim jarayonining passiv ishtirokchisidan faol subyektga aylantirishdir. Bu jarayonda o'qituvchi bilim beruvchi emas, balki yo'naltiruvchi, maslahatchi va hamkor sifatida maydonga chiqadi.

Boshlang'ich sinf o'quvchilarining faolligi ularning yoshga xos psixologik va fiziologik rivojlanish darajasi bilan bevosita bog'liqdir. Kichik maktab yoshidagi bolalarda bilishga bo'lgan tabiiy qiziqish kuchli bo'lib, ular yangi ma'lumotlarni tez qabul qilishga moyil bo'ladilar. Shu bilan birga, ularning diqqati barqaror emasligi, tez charchashi va emotsional ta'sirchanligi ta'lim jarayonini tashkil etishda alohida yondashuvni talab qiladi.

Psixologlar ta'kidlashicha, boshlang'ich sinf o'quvchisining faolligi quyidagi asosiy komponentlar orqali namoyon bo'ladi: bilish faolligi, emotsional faollik, ijtimoiy faollik va ijodiy faollik. Bilish faolligi o'quvchining bilimga bo'lgan ehtiyoji, savol berishga intilishi va muammoli vaziyatlarni hal etishga bo'lgan qiziqishida ko'zga tashlanadi. Emotsional faollik esa o'quvchining dars jarayoniga bo'lgan munosabati, quvonch, hayrat va qiziqish hissi bilan ifodalanadi. Boshlang'ich sinf o'quvchilari ko'proq amaliy faoliyat orqali bilimlarni o'zlashtiradilar. Shu sababli integratsiyalashgan innovatsion ta'limda o'yin texnologiyalari, amaliy mashg'ulotlar, loyihaviy ishlar va ijodiy topshiriqlardan foydalanish muhim ahamiyatga ega. Bu usullar o'quvchilarning nafaqat bilim olish faolligini, balki mustaqil fikrlash va o'z fikrini erkin ifodalash ko'nikmalarini ham rivojlantiradi.

Pedagogik nuqtai nazardan qaralganda, o'quvchi faolligi ta'lim jarayonining samaradorligini belgilovchi muhim omil hisoblanadi. Agar o'quvchi darsda faol bo'lsa, u o'zlashtirayotgan bilimlarni chuqurroq anglaydi va ularni uzoq muddat eslab qoladi. Shu bois integratsiyalashgan innovatsion ta'lim o'quvchilarning faolligini oshirishga yo'naltirilgan pedagogik muhitni yaratishga xizmat qiladi. Fanlararo integratsiya boshlang'ich ta'limda o'quvchilarning faolligini oshirishning eng samarali vositalaridan biri hisoblanadi. Fanlarni alohida emas, balki o'zaro bog'liq holda o'qitish orqali o'quvchilar bilimlarni yaxlit holda idrok etadilar va ularni real hayotiy vaziyatlar bilan bog'lash imkoniyatiga ega bo'ladilar.

Masalan, ona tili va o'qish fanlarini atrof-muhit bilan integratsiyalash orqali o'quvchilar nafaqat matnni o'qish va tushunish, balki tabiat hodisalari, ijtimoiy

munosabatlar va axloqiy qadriyatlar haqida ham bilimga ega bo'ladilar. Bu esa o'quvchilarning fikrlash doirasini kengaytiradi va ularni faol muloqotga chorlaydi.

Matematika fanini tasviriy san'at yoki texnologiya bilan integratsiyalash orqali esa o'quvchilar amaliy faoliyatga jalb etiladi. Masalan, geometrik shakllarni chizish, modellar yasash, o'lchash ishlarini bajarish orqali o'quvchilarning amaliy ko'nikmalari va ijodiy faolligi rivojlanadi. Bunday integratsiya o'quvchilarni passiv tinglovchidan faol ishtirokchiga aylantiradi. Fanlararo integratsiyaning yana bir muhim jihati shundaki, u o'quvchilarning nutqiy faolligini oshiradi. Integratsiyalashgan darslarda o'quvchilar o'z fikrlarini bayon qilishga, savol-javoblarda faol ishtirok etishga va guruhda ishlashga undaladi. Natijada o'quvchilarda muloqot madaniyati va jamoada ishlash ko'nikmalari shakllanadi.

Tarbiya va ta'limning uzviyligi integratsiyalashgan innovatsion ta'limning muhim jihatlaridan biridir. Dars jarayonida o'quvchilar nafaqat bilim oladilar, balki axloqiy me'yorlar, madaniy qadriyatlar va estetik didni ham o'zlashtiradilar. Natijada, integratsiyalashgan ta'lim o'quvchilarning shaxs sifatida kamol topishiga xizmat qiladi.

Xulosa qilib aytganda, integratsiyalashgan innovatsion ta'lim boshlang'ich sinf o'quvchilarini faollashtirishning samarali pedagogik yo'nalishlaridan biri hisoblanadi. Fanlararo integratsiya, innovatsion pedagogik texnologiyalar va axborot-kommunikatsiya vositalari asosida tashkil etilgan ta'lim jarayoni o'quvchilarning bilish faolligini oshiradi, ularning mustaqil va ijodiy fikrlash ko'nikmalarini rivojlantiradi. Boshlang'ich ta'limda integratsiyalashgan yondashuvni qo'llash orqali o'quvchilarning bilimlari tizimli va ongli ravishda shakllanadi, ular bilimlarni hayotiy vaziyatlarda qo'llashga o'rganadilar. O'qituvchining kasbiy kompetensiyasi va pedagogik mahorati esa ushbu jarayonning muvaffaqiyatli amalga oshirilishida muhim rol o'ynaydi. Demak, integratsiyalashgan innovatsion ta'limni keng joriy etish boshlang'ich ta'lim sifatini oshirish, o'quvchi faolligini kuchaytirish va raqobatbardosh shaxsni shakllantirishga xizmat qiladi.

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**BOSHLANG'ICH SINFLARDA O'QUVCHILARIGA STEAM TEXNALOGIYASI
ASOSIDA FANLARARO INTEGRATSION DARSLAR O'TISH
METODIKASI**

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Annotatsiya

Ushbu maqolada boshlang'ich sinflarda STEAM yondashuvi asosida darslarni tashkil etishning mazmuni, uning ta'lim jarayonidagi o'rni, o'quvchilarda kompetensiyalarni shakllantirishdagi ahamiyati, fanlararo integratsiyaning ta'lim samaradorligiga ta'siri keng yoritilgan. Shuningdek, STEAM ta'limi orqali o'quvchilarda amaliy, ijodiy va analitik ko'nikmalarni rivojlantirishning pedagogik shart-sharoitlari ilmiy tahlil qilingan.

Annotation

This article examines the organization of lessons in primary school based on the STEAM approach, its role in the educational process, and its significance in developing students' competencies. The impact of interdisciplinary integration on the effectiveness of learning is thoroughly analyzed. Additionally, the pedagogical conditions for fostering practical, creative, and analytical skills in students through STEAM education are scientifically discussed.

Аннотация

В статье рассматривается организация уроков в начальной школе на основе подхода STEAM, его роль в образовательном процессе и значение для формирования компетенций учащихся. Тщательно проанализировано влияние междисциплинарной интеграции на эффективность обучения. Кроме того, научно обсуждаются педагогические условия развития практических, творческих и аналитических навыков учащихся через STEAM-образование.

Kalit so'zlar

STEAM, innovatsion ta'lim, boshlang'ich ta'lim, integratsiya, kreativ fikrlash, muammoli ta'lim, loyihaviy yondashuv.

KIRISH

Zamonaviy ta'lim jarayonida o'quvchilarning tafakkurini rivojlantirish, ularning amaliy faoliyatga yo'naltirilgan bilim, ko'nikma va malakalarini shakllantirish dolzarb masalalardan biri hisoblanadi. XXI asr talablari ta'lim jarayonini yangicha yondashuvlar asosida tashkil etishni taqozo etmoqda. Jumladan, dunyoning

rivojlangan mamlakatlarida keng qo'llanilayotgan STEAM ta'limi bugungi kunda O'zbekiston ta'lim tizimiga ham jadal kirib kelmoqda. STEAM ta'limi o'quvchini an'anaviy bilim oluvchidan faol ishtirokchi, izlanuvchan shaxsga aylantiradi. Har bir fanning o'zaro bog'liqligini ta'minlagan holda, u nafaqat nazariy, balki amaliy ko'nikmalarni ham rivojlantirishga xizmat qiladi. Ayniqsa, boshlang'ich sinflarda STEAM yondashuvini qo'llash o'quvchilarda kreativ tafakkur, mantiqiy fikrlash, muammoli vaziyatlardan chiqish, tajriba o'tkazish, kuzatish va xulosa chiqarish qobiliyatlarini shakllantiradi. Ushbu maqola boshlang'ich sinflarda STEAM asosida darslarni tashkil etishning ilmiy-metodik jihatlarini tahlil qilishga bag'ishlanadi.

Asosiy qism

Boshlang'ich sinflarda STEAM yondashuvini qo'llash ta'lim jarayonining tabiiy va mantiqiy integratsiyasini yaratadi. Bu yondashuv o'quvchining bilishga bo'lgan qiziqishini faollashtirib, uning o'quv faoliyatiga faol jalb etilishiga imkon beradi. Shuningdek, STEAM boshlang'ich sinflarda yaratadigan yana bir muhim natija — bu o'quvchilar tafakkurining erta rivojlanishidir. Integratsiyalashgan topshiriqlar orqali bola bir vaqtning o'zida tahlil qilish, solishtirish, sabab–natija bog'liqliklarini aniqlash, ijodiy yondashish, texnik fikrlash kabi muhim kognitiv kompetensiyalarni egallaydi. STEAM ta'limi besh asosiy yo'nalishning — tabiiy fanlar, texnologiya, muhandislik, san'at va matematikaning uyg'unlashuviga asoslanadi. Bunday integratsiya o'quvchilarning turli faoliyat turlarini bir vaqtning o'zida bajarishiga, olgan bilimlarini turli yo'nalishlar kesimida qo'llay bilishiga keng sharoit yaratadi. Avvalo, STEAM ta'limi bolaning kuzatuvchanligini va tabiat hodisalarini idrok etish darajasini oshiradi. Shu bilan birga, muhandislik elementlaridan foydalanish orqali sodda mexanizmlar yasash, konstruksiyalar tuzish kabi amaliy ishlar o'quvchida konstruktorlik fikrlashni rivojlantiradi.

Boshlang'ich sinf yoshidagi o'quvchilar uchun STEAM darslarining eng katta afzalligi — o'quvchilarning tabiiy qiziqishini qo'llab-quvvatlashi va ular uchun o'yin, tajriba, ijodiy faoliyat orqali bilim olish imkonini yaratishidir. Masalan, “Tabiatshunoslik” darsida suvning holatlarini o'rgatish jarayonida oddiy tajribalar o'tkazish, suvning bug'lanishi, muzlash jarayonini kuzatish, natijalarni rasmga tushirish yoki jadval shaklida ko'rsatish o'quvchilarni faol ishtirok etishga undaydi. Bu jarayonda matematika fanidan ham, san'at elementlaridan ham, tabiiy fanlardan ham foydalaniladi. Natijada o'quvchi o'rganayotgan mavzu hayotiy misollar orqali mustahkamlanadi va u tushunchalarni chuqurroq anglay boshlaydi.

STEAM ta'limining yana bir muhim jihati — loyihaviy faoliyatning ta'lim jarayoniga tatbiq etilishidir. Loyihaviy faoliyat bolalarning nazariy bilimlarini amaliyot bilan

bog'laydigan, ularni mustaqil fikrlashga undaydigan va turli yo'nalishlarda kreativ yechimlar topishga imkon beradigan pedagogik jarayon hisoblanadi. Loyihaviy ta'lim jarayoni o'quvchidan izlanish, tahlil qilish, tajriba o'tkazish, o'z kuzatishlarini qayd etish, xulosa chiqarish, natijani taqdim etish kabi bosqichlarni talab qiladi. Bu esa o'quvchining nafaqat bilim doirasini kengaytiradi, balki uning mustaqil va tanqidiy fikrlash qobiliyatini ham rivojlantiradi. Boshlang'ich sinflarda kichik loyihalar ustida ishlash o'quvchilarning mustaqil fikrlashini, jamoada ishlash ko'nikmasini, mas'uliyat hissini va o'z g'oyalarini ifoda etish qobiliyatini rivojlantiradi. Masalan, "Maktab uchun shamol tegirmoni maketi yaratish", "Eng yengil ko'prik qurish", "Oddiy suv filtri yasash" kabi mini-loyihalar o'quvchilarda amaliy tajriba orqali bilim olishga yordam beradi. Bu kabi topshiriqlar o'quvchini nafaqat ijodkorlikka, balki ilmiy izlanishga ham undaydi, ular mavjud muammolarga o'zlari yechim topish jarayonida faol qatnashadilar.

Dars jarayonida san'at komponentining mavjudligi o'quvchilarning estetika tuyg'ularini rivojlantiradi. San'at orqali bolalar maketlar, modellar, chizmalar yaratadi, ranglar bilan ishlaydi, badiiy bezaklar qo'llaydi. Bu jarayon ularning tasavvurini kengaytiradi, kreativ fikrlashga zamin yaratadi va ilmiy-amaliy faoliyatni estetik yondashuv bilan boyitadi. Shu tarzda STEAM ta'limi bolaning aqliy, jismoniy va ijodiy rivojlanishini kompleks tarzda ta'minlaydi.

STEAM darslarida baholash jarayoni ham an'anaviy baholashdan farq qiladi. Baholash natijaga emas, balki jarayonga ko'proq e'tibor qaratadi. O'quvchining darsdagi faolligi, yangi g'oyalar taklif etishi, izlanishga bo'lgan intilishi, guruh bilan hamkorlikdagi faoliyati asosiy mezonlar sifatida olinadi. Bunday baholash o'quvchiga bosim o'tkazmaydi, aksincha, uning ichki motivatsiyasini oshiradi. O'quvchilar erkin fikrlaydi, xatolardan qo'rqmaydi, o'z g'oyalarini sinab ko'rishga intiladi.

O'qituvchining STEAM ta'limidagi roli ham alohida ahamiyatga ega. O'qituvchi dars jarayonida yo'naltiruvchi, motivator va fasilitator sifatida ishtirok etadi. U o'quvchilarga tayyor bilim bermaydi, balki ularni izlanishga, tajriba o'tkazishga va o'z xulosalarini chiqarishga undaydi. Darsning samaradorligi ko'p jihatdan o'qituvchining pedagogik mahorati, innovatsion metodlardan foydalanish darajasi va o'quvchilar bilan individual ishlashiga bog'liq.

Xulosa

Xulosa qilib aytganda boshlang'ich sinflarda STEAM yondashuvi asosida darslarni tashkil etish o'quvchilarning har tomonlama rivojlanishi, ularning analitik, ijodiy va amaliy kompetensiyalarini shakllantirish uchun keng imkoniyat yaratadi. Fanlararo integratsiya natijasida o'quvchi bilimni turli sohalarida qo'llashni o'rganadi, darsdagi

faolligi ortadi, o'quv jarayoni hayot bilan bevosita bog'lanadi. STEAM ta'limi boshlang'ich ta'lim sifatini oshirish, o'quvchilarni zamonaviy dunyo talablariga mos raqobatbardosh shaxs sifatida tarbiyalashning eng samarali yo'llardan biri hisoblanadi. Chunki bugungi globallashuv jarayonida ta'lim tizimidan nafaqat bilim berish, balki o'quvchida amaliy ko'nikmalarni shakllantirish, mantiqiy fikrlashni rivojlantirish, mustaqil qaror qabul qilish, jamoada ishlay olish, muammolarni tahlil qilib yechim topish kabi kompetensiyalarni shakllantirish talab etilmoqda. STEAM yondashuvi aynan shu kompetensiyalarni erta bosqichdagina shakllantiribgina qolmay, ularni izchil rivojlantirib borishni ta'minlaydi.

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**SOME ASPECTS OF PROVIDING PERSONNEL STABILITY IN INTERNAL AFFAIRS
BODIES**

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ANNOTATION. In the article, the content of the activities related to the selection and placement of candidates for the service of the internal affairs bodies and ensuring the stability of personnel, as well as the issue of selecting candidates for the service of the internal affairs bodies, the opinions on whether to search for personnel from among the candidates who have been positively described in the armed forces and have served and released to the reserve of the armed forces given Problems related to the process of selecting personnel for the service of internal affairs bodies, relevant regulatory and legal documents were analyzed, proposals and recommendations for improving the field were developed.

Keywords: personnel, candidate, selection, personnel selection, personnel training, personnel reserve, personnel placement.

It is not without reason that the President of the Republic of Uzbekistan, Sh.M.Mirziyoyev, emphasized that “the issue of personnel is our future, our tomorrow.” Indeed, our tomorrow, our future, and the place of our country in the world community certainly depend on what kind of personnel we select, train, and place in the right places.

Because the correct selection and placement of personnel serves as a guarantee of the effective functioning of production (operation).

The issue of selecting candidates for service in the internal affairs bodies has been considered urgent from the beginning. Based on the shortcomings made in the process of selecting personnel over the years, based on the experience gained and efforts aimed at minimizing the human factor in the selection, and as a result, the relevant regulatory and legal documents are being improved.

The personnel selection stage is the process of studying candidates and determining their ability to perform their duties in certain positions. For example, the candidate's knowledge, profession, work skills, and personal characteristics are studied. These qualities are checked to see if the candidate meets the requirements for a particular position.

The main direction of administrative reforms in our country is to ensure the transparency of the activities of the executive authorities, while our citizens should have the opportunity to receive relevant information about the activities of the executive authorities. In particular, citizens should be provided with access to information about the activities of the internal affairs bodies. For example, citizens should have information about the requirements for candidates and the level of legal and social guarantees¹.

¹ Bobrov A.M. Nekotorye aspekty obespecheniya dostupa k informatsii o deyatelnosti organov vnutrennix del Rossiyskoy Federatsii // Administrativnoe pravo i protsessii. 2011. No.10. P.27).

N.I. Razuvaeva expressed her reasonable opinion that the personnel selection process is a complex one and that candidates should be selected in the following stages:

- 1) searching for candidates;
- 2) studying candidates, assessing their personal and professional qualities;
- 3) considering the issue of appointing candidates to positions or having them participate in the competition based on the results of the study;
- 4) conducting a competition to identify the most worthy candidates².

Indeed, worthy candidates are first sought from exemplary families, neighborhoods, educational institutions, and government organizations, and only after they are comprehensively studied, a conclusion is made as to whether they are worthy or unworthy of serving in the internal affairs bodies in the future, in accordance with the relevant selection criteria. Therefore, the successful selection of candidates for the service of internal affairs bodies also depends on the chosen search method.

Usually, candidates for the service of internal affairs bodies apply voluntarily, mainly through advertisements in the mass media, on the Internet, in relevant state organizations, institutions and enterprises, and among graduates of civil higher educational institutions, or for other reasons (relatives serving, a desire to wear service uniforms from a young age, provision with a stable monthly salary).

In our opinion, it is necessary to determine the motive for entering the service from any candidate who applies to the territorial internal affairs bodies during the interview. Because it is precisely through this motive that it is possible to assess and predict the candidate's future service activities in some sense. For example, during the interview, there is a significant difference between candidates who express a narrow worldview, simply interested in wearing service uniforms, and those who express a desire to maintain the peace and tranquility of citizens.

According to the results of a survey conducted among some candidates entering the internal affairs bodies (456 people) to determine their motives, 48.2% of respondents indicated a desire to ensure the order established by law, the rights and freedoms and security of citizens, 84.2% of respondents noted the presence of financial stability, 62.7% of respondents noted the provision of social guarantees and benefits, 34% of respondents noted a family tradition, and 71.7% of respondents noted an interest in the profession.

Thus, the majority of candidates expressed their desire to work in the internal affairs bodies due to the provision of financial stability, social guarantees and benefits.

In our opinion, it is necessary to select candidates, first of all, based on appropriate criteria, starting from preschool education, secondary school, and to implement targeted measures in agreement with their parents and with the help of relevant specialists, while raising them in a spirit of high patriotism. It is also advisable to search for personnel for internal affairs bodies among candidates who have a positive reputation and have served in the armed forces and have been released into the armed forces reserve.

² Razuvaeva N.I. Selection and attestation of personnel of internal organs (administrative-legal and organizational aspects). dis. sugar walk nauk Voronezh, 2014. –215 str., Upravlenie personalom : uchebnik dlya vuzov / Pod editor. T. Yu. Bazarova, B.L. Eremina, 2002. P. 213

We also believe that it is necessary to consider the candidacies of former employees of the internal affairs bodies who were dismissed from service at their own request or under non-negative circumstances (due to staff reductions, etc.), but who possess professional and personal qualities.

Article 26, Chapter 6 of the Law of the Republic of Uzbekistan "On Internal Affairs Bodies" dated September 16, 2016 stipulates that citizens of the Republic of Uzbekistan aged eighteen to thirty years, including thirty years, who have the appropriate education, and who are capable of performing the duties of an internal affairs officer due to their personal and professional qualities, state of health, and physical fitness, shall be admitted to service in the internal affairs bodies on a voluntary basis, on a competitive basis³.

The Order of the Minister of Internal Affairs of the Republic of Uzbekistan dated March 5, 2022 No. 52 "On approval of the Instruction on the procedure for organizing and conducting selection events for candidates for service in the Internal Affairs bodies"⁴ approved the Instruction "On the procedure for organizing and conducting selection events for candidates for service in the Internal Affairs bodies". This Order consists of 7 chapters and 91 clauses, which establish the procedure and rules for organizing selection events, preliminary study of candidates, assessment of the level of physical fitness of candidates, assessment of the level of intellectual development and psycho-emotional stability of candidates, and conducting a final interview.

This instruction only establishes the procedure for organizing and conducting selection events for candidates who apply to serve in the internal affairs bodies, but does not specify where to look for or methods for searching for suitable candidates for service in the internal affairs bodies.

Therefore, in our opinion, there is a need to develop an Instruction "On the procedure for selecting suitable candidates for service in the internal affairs bodies, primarily from preschool and secondary schools, as well as higher educational institutions and relevant labor collectives, and for implementing systematic measures with them".

Candidates selected for service in the internal affairs bodies shall serve as employees of the internal affairs bodies in accordance with the Regulations "On the Procedure for Service in the Internal Affairs Bodies", approved by the Resolution of the President of the Republic of Uzbekistan No. 3413 dated November 29, 2017 "On Measures to Radically Improve the Procedure for Working with Personnel of the Internal Affairs Bodies and Organizing Their Service"⁵. This Regulation consists of 12 chapters and 164 paragraphs, which regulate the procedures for admission to service in the internal affairs bodies, awarding and depriving them of special titles, appointment to positions, dismissal from positions and rotation, training, retraining and advanced training of employees, transfer of service to other state bodies and organizations upon selection (appointment, mobilization), certification, vacations, legal and social protection, service regime, extension of service, dismissal from service and reinstatement, and final rules.

³ Law of the Republic of Uzbekistan "On Internal Affairs Bodies" of September 16, 2016

⁴ Order No. 52 of the Minister of Internal Affairs of the Republic of Uzbekistan dated March 5, 2022 "On approval of the instruction on the procedure for organizing and holding events for the selection of candidates for service in internal affairs bodies

⁵ Resolution No. 3413 of the President of the Republic of Uzbekistan dated November 29, 2017 "On measures to fundamentally improve the procedure for working with personnel of internal affairs bodies and organizing their service

We believe that it would be appropriate to review the relevant criteria for evaluating the performance of employees selected and serving in the internal affairs bodies, as well as the mechanism for encouraging them based on their service and gradually moving up the service ladder.

According to the analysis of statistical data, in 2021, the number of people admitted to the internal affairs bodies increased by two and a half times compared to 2018.

It is necessary to determine exactly what factors this indicator is related to. For example, the creation of additional jobs due to population growth, an increase in service responsibilities, or an increase in the number of dismissals, etc.

Analyzing statistical indicators of employees dismissed from internal affairs bodies in 2018-2021, it can be seen that there is almost no change. However, in 2018, the number of people dismissed from service in the internal affairs bodies was 58 percent more than the number of those accepted for service, and by 2021, on the contrary, the number of people accepted for service in the internal affairs bodies was almost twice as much as those dismissed.

It can be observed that in 2021, the number of officers, sergeants and officers dismissed from internal affairs bodies due to negative reasons has almost halved compared to 2018.

It is somewhat alarming that the number of employees dismissed from internal affairs bodies at their own request in 2021 is almost twice as high as in 2018.

If we analyze the vacancies in the internal affairs bodies, we can see that in 2021 this indicator increased by almost 10% compared to 2018, and this is also a matter of concern in our opinion.

Employees who resigned from the internal affairs bodies at their own request indicated the following as the reason for their dismissal:

1. The lack of a set working time for internal affairs officers. However, Article 30, Chapter 6 of the Law of the Republic of Uzbekistan "On Internal Affairs Bodies" dated September 16, 2016 states that "The working time of internal affairs officers may not exceed forty hours per week";
2. The increase in the workload of employees, the uneven distribution of official duties among them, and their involvement in work that is not part of their official duties (excessive business trips, participation in working groups exceeding the norm, seasonal work in the field, improvement work in neighborhoods, etc.);
3. Due to the lack of clear criteria for encouraging or punishing employees based on their service, some managers make incorrect decisions based on their subjective approach in this regard;
4. Insufficient individual psychological contact between the employee and the manager (disagreement);
5. Due to health problems due to work or because the monthly salary is not enough to live on (for the family), etc.

In order for employees of the internal affairs bodies to perform their duties in a stable manner, we believe that it is advisable to eliminate the above-mentioned problems and fully implement the incentive provisions⁶ on social support and guarantees for employees in the relevant existing regulatory documents.

⁶ Resolution No. 3216 of the President of the Republic of Uzbekistan dated August 16, 2017 "On measures to radically improve the system of training, retraining and professional development of employees of internal affairs bodies

In addition, today the system for forming a reserve of personnel and leadership personnel in the internal affairs bodies, as well as the institute of mentoring, cannot be said to be up to the required level.

One of the urgent issues for the internal affairs bodies is the training of professional leadership personnel and the creation of their reserve.

By 2021, a number of problems were identified in the training of leadership personnel at the Academy. That is, there were many cases where local recruiting bodies sent candidates to the Academy who were not included in the reserve of leadership personnel by the personnel department⁷ and who could not be a sufficient example for other employees with their professional qualities, moral appearance, behavior and level of culture⁸. Most surprisingly, the selection for admission to the Academy was in many cases limited to candidates of this category, that is, those who did not meet the requirements for future leadership personnel. As a result, the majority of students who entered the Academy not only violated the established order and discipline at the Academy, but also poorly mastered the subjects, which is completely contrary to the policy of training leadership personnel in the IAS system implemented in our country.

As a result of the conducted analyses and oral surveys among some local leaders and faculty students, it was found that the majority of employees who entered the faculty submitted their documents for the following reasons:

- 1) having had chronic conflicts with the leadership of local collecting bodies or other law enforcement agencies authorized to inspect activities in a supervisory manner during their service;
- 2) being unable to cope with objective and subjective difficulties in fulfilling their service obligations;
- 3) having not achieved good performance according to the results of their service evaluation and wishing to continue their work in other regional, district or capital medical institutions;
- 4) having a desire to be treated in the capital's medical institutions due to their health condition;
- 5) having not been able to receive a higher rank for several years or to be promoted to a higher position.

After graduating from the faculty, most of these students were appointed to positions equal to or lower than their previous positions by the local recruiting authorities, for some reason (the personnel department did not take into account the number of vacancies in high positions in advance or due to lack of confidence in the employee). For example, in the 2019/2020 academic year, 20 of the 50 graduates of the faculty were appointed to positions equal to or lower than their previous positions, and 3 were appointed to lower positions.

The above-mentioned negative circumstances have led to a decline in the position and status of the faculty for training leadership personnel⁹ in the Ministry of Internal Affairs system, a sharp decrease in the number of candidates who expressed a desire to acquire real leadership skills, and a lack of truly qualified leadership personnel in the Ministry of Internal Affairs system, which has led to the failure to timely resolve problematic situations in the effective organization and management of the

⁷ Law of the Republic of Uzbekistan "On Education" dated September 23, 2020 -No.637

⁸ Resolution No. 5076 of the President of the Republic of Uzbekistan on April 15, 2021 "On measures to introduce a qualitatively new system of training professional personnel for internal affairs bodies"

⁹ Resolution No. 304 of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to further improve the post-higher education system"

service, and as a result, to insufficient guarantees of reliable protection of the rights and freedoms of citizens.

When analyzing the state of the subjects taught at this faculty, state requirements, subject programs and practical subject programs¹⁰, the academic load of the faculty students, including only classroom training sessions, amounted to an average of 50-52 academic hours per week (4 or 5 classes per day). Exceeding this load did not leave enough opportunities for students to study independently.

The academic and subject programs, practical subject programs did not sufficiently meet the requirements set out in paragraph 4.3 of the current state requirements. Some topics and subject questions in the practical subject programs of all subjects, as well as assignments for practical exercises, did not meet the requirements of the time.

In addition, the professors who have enough authority to the students of the faculty did not conduct the classes, and the situation of attracting experts with rich and practical experience from outside to the classes was also slow. Teaching methods of professors are also very old (traditional). Therefore, it is considered appropriate to create a reserve of leading personnel in the internal affairs bodies and to introduce systematic and targeted measures to train them at a professional level.

In conclusion, it should be noted that in order to train professional personnel for the internal affairs bodies, first of all, the selection of suitable personnel and quality training are of great importance. This, in turn, will lead to the strengthening of guarantees of more reliable protection of the peace and tranquility of our country and the rights and legal interests of citizens.

¹⁰ Maslov A.E., Chursin O.A. Voprosy pravovogo regulirovaniya i organizatsii professionalnoy podgotovki kadrov organov vnutrennih del po mestu slujby. Vestnik Moskovskogo universiteta MVD Rossii. No. 10. 2015. P. 290-292

AHOLI BANDLIGINI TA ‘MINLANISHIDA AYOLLAR TADBIRKORLIGINI RIVOJLANISH ISTIQBOLLARI

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Annotatsiya: Ushbu maqolada ayollar tadbirkorligining rivojlanishi aholi bandligini ta’minlashdagi o‘rni va istiqbollari tahlil qilingan. Tadqiqot davomida viloyatda ayollar o‘rtasida kichik biznes va xususiy tadbirkorlikning kengayib borayotgani, ularning mehnat bozorida faol ishtirok etishi bandlik darajasining oshishiga sezilarli hissa qo‘shayotgani ko‘rsatib o‘tiladi. Shuningdek, ayollar tadbirkorligini qo‘llab-quvvatlashga qaratilgan davlat dasturlari, kreditlar, subsidiyalar va o‘quv loyihalarining samaradorligi baholanadi. Tahlillar asosida Jizzax viloyatida ayollar tadbirkorligi ulushi yildan-yilga ortib borayotgani, biroq moliyalashtirishga kirish imkoniyatlari, raqamli savodxonlikning pastligi va bozor infratuzilmasining yetarli emasligi kabi bir qator muammolar saqlanib qolayotgani aniqlangan. Tezida mazkur muammolarni bartaraf etish va ayollar tadbirkorligini yanada rivojlantirish bo‘yicha amaliy takliflar ishlab chiqilgan.

Kalit so‘zlar: ayollar tadbirkorligi, bandlik, Jizzax viloyati, kichik biznes, mehnat bozori, iqtisodiy faollik, bandlik siyosati, ijtimoiy-iqtisodiy rivojlanish.

Aholi bandligini oshirish mamlakatning ijtimoiy-iqtisodiy taraqqiyotiga bevosita ta’sir ko‘rsatadigan ustuvor yo‘nalishlardan biridir. So‘nggi yillarda O‘zbekistonda, xususan Jizzax viloyatida ayollar tadbirkorligini rivojlantirish bo‘yicha qator izchil chora-tadbirlar amalga oshirilmoqda. “Ayollar daftari”, “Yoshlar daftari”, “Temir daftar” kabi tashabbuslar, imtiyozli kreditlar, subsidiyalar va o‘quv markazlarining ochilishi ayollarning iqtisodiy faolligini oshirishga xizmat qilmoqda.

Mamlakatimizda so‘nggi yillarda kichik biznes va tadbirkorlik sohasida, xususan, ayollar tadbirkorligi sohasidagi amalga oshirilgan islohotlar iqtisodiy taraqqiyotning muxim omillaridan biriga aylandi. Mazkur sektorni rivojlantirishga alohida e’tibor qaratilmoqda. O‘zbekiston Respublikasi Prezidenti Sh. Mirziyoyev ta’kidlaganlaridek: “Yangi O‘zbekiston taraqqiyot strategiyasida ham ayollarga munosib sharoit yaratish, ularning tashabbuslarini qo‘llab-quvvatlash masalasini eng muhim yo‘nalishlardan biri sifatida bejizga belgilamadik...[1]”.

Yangi O‘zbekiston taraqqiyot strategiyasini amalga oshirish jarayonida orttirilgan tajriba va jamoatchilik muhokamasi natijalari asosida «O‘zbekiston – 2030» strategiyasi ishlab chiqildi. «O‘zbekiston – 2030» strategiyasida xotin-qizlarni qo‘llab – quvvatlash tizimini mustahkamlash, huquq va qonuniy manfaatlarini ta’minlash, ijtimoiy, iqtisodiy va siyosiy faolligini oshirish, gender tengligini ta’minlash bo‘yicha ham chora-tadbirlar tizimi davom etmoqda.

O‘zbekiston Respublikasi Prezidentining “O‘zbekiston – 2030” strategiyasining 25 – maqsadida: “Xotin – qizlarni qo‘llab – quvvatlash tizimini kuchaytirish, ularning huquq va qonuniy manfaatlarini ta’minlash, ijtimoiy, iqtisodiy, siyosiy faolligini oshirish va gender tenglikni ta’minlash” ni ko‘zda tutadi va gender tenglikni ta’minlash siyosatini davom ettirish, xotin – qizlarning ijtimoiy – siyosiy faolligini oshirish, ularni qo‘llab – quvvatlashga doir islohotlarni o‘z ichiga oladi[2]. Ushbu maqsadlarni amalga oshirish orqali ayollar tadbirkorligini yanada kengroq rivojlantirish

imkoniyatlariga ega bo'lishi shubhasiz. Ko'pgina rivojlanayotgan mamlakatlarda, jumladan, O'zbekistonda band aholining 50 foizdan ortig'i kichik va o'rta biznes sohasida ishlaydi. Ushbu sektor ko'plab rivojlanayotgan iqtisodiyotlarning yalpi ichki mahsulotiga 50% dan ortiq hissa qo'shadi.

Jizzax viloyatida 2024-yil yakuni bo'yicha faol ayol tadbirkorlar soni 22 mingdan oshdi, ularning aksariyati xizmat ko'rsatish, savdo, tikuvchilik, qishloq xo'jaligi va uy biznesi yo'nalishlarida faoliyat yuritmoqda. Bu esa viloyatda yangi ish o'rinlarining yaratilishi, ayniqsa uy mehnatiga asoslangan bandlikning kengayishiga sabab bo'lmoqda. Ayollar tadbirkorligi orqali tashkil etilgan kichik korxonalar va oilaviy biznes subyektlari aholining ijtimoiy zaif qatlamlari, ayniqsa ko'p farzandli ayollar va uy bekalarining iqtisodiy imkoniyatlarini kengaytirmoqda.

O'zbekistonda bugungi kunda mamlakat aholisining 17 mlndan ziyod qismini xotin – qizlar tashkil etmoqda. Shu boisdan xotin – qizlarning tadbirkorlik bilan shug'ullanishi butun O'zbekistonda tadbirkorlikning ajralmas qismi bo'lib, mamlakat iqtisodiyoti rivoji hamda umumiy farovonlikka bevosita ta'sir ko'rsatadi. Ayni paytda bu kichik biznes va tadbirkorlikda xotin – qizlarning ulushi 25 foizni tashkil etmoqda[3]. Ushbu yo'nalish oldida turgan ustuvor vazifalardan biri tadbirkorlik subyektlari o'rtasida xotin – qizlar ulushini 40 foizga yetkazishdir. Buning uchun qulay sharoitlar yaratilmoqda, bu borada ko'plab ishlar amalga oshirilmoqda[4].

“Ayollar tadbirkorligi - bu ayollar tomonidan boshqariladigan biznes”. Ushbu atama – o'tgan asrning 30 yillarida AQSh va Yevropa tadqiqotchilari asarlarida paydo bo'lgan. XX asrning oxiri – XXI asr boshida bu ibora yurtimizdagi ilmiy adabiyotlarda, ayniqsa ommaviy nashrlarda tez-tez tilga olinib boshlandi[5]”.

Yurtimiz iqtisodchi olimlari Q. Abduraxmonov, A. Aripov, M. Jumayevalar tomonidan kichik biznesda ayollar bandligini ta'minlash va oshirishga oid ilmiy tadqiqotlar olib borilgan. M.M.Baltabayeva G.O.Ochilova, G.S. Sharipova, N.R. Annayeva, Z.R. Xusanova kabi olimlar tomonidan ayollar tadbirkorligining rivojlanish tarixi, ayollarning tadbirkorlikka moyilligi va biznes qobiliyatlarini ijtimoiy-psixologik tomonlarini, ayollar tadbirkorligi atamasini falsafiy jihatdan tahlilini, ayollar tadbirkorligida boshqaruv faoliyatini rivojlantirish xususiyatlarini o'rganishgan.

Ayollar tadbirkorligi faoliyatiga baho berish uchun Respublika miqyosida ayollarning korxonalardagi ulushi tahlil qilish va ularning mamlakat iqtisodiyotida tutgan o'rnini baholash g'oyatda muhimdir. So'nggi yillarda mamlakatimizda tadbirkor ayollar soni yillar davomida o'sib borish tendensiyasini ko'rsatmoqda. Biroq oldimizga qo'ygan ustuvor vazifalarimiz erishish va gender tenglikni ta'minlash uchun mamlakatdagi ayollar tadbirkorligi holatiga baho berish, ularni so'nggi olti yillikdagi faoliyatini tahlil qilish kerak (1 – jadval).

1-jadval¹.

Ayollar rahbarligidagi kichik korxona va mikrofirmalar soni viloyatlar kesimida (2025-yil 1-yanvar)

Viloyat / Hudud	Korxonalar soni (ayol rahbarli)
Toshkent shahri	12 814 ta
Toshkent viloyati	5 598 ta

¹ <https://stat.uz/uz/matbuot-markazi/qo-mita-yangiliklar/63307-ajollar-ra-barligidagi-kichik-korkhona-va-mikrofirmalar-soni-6-3-ga-oshdi-2>

Viloyat / Hudud	Korxonalar soni (ayol rahbarli)
Samarqand viloyati	3 905 ta
Qoraqalpog‘iston Respublikasi	2 866 ta
Xorazm viloyati	2 673 ta
Surxondaryo viloyati	2 656 ta
Buxoro viloyati	2 434 ta
Farg‘ona viloyati	2 035 ta
Navoiy viloyati	2 025 ta
Qashqadaryo viloyati	1 879 ta
Jizzax viloyati	1 366 ta
Sirdaryo viloyati	1 252 ta
Andijon viloyati	1 227 ta
Namangan viloyati	1 130 ta
Jami	43 860 ta

Tahlillarning ko‘rsatishicha, o‘rganilayotgan davr mobaynida mamlakatimizda ayollar rahbarlik qilayotgan firmalarning ulushi qariyb 6,3 foizga oshganini ko‘rish mumkin.

1-rasm²

Ayollar rahbarligidagi korxonalar viloyatlar bo‘yicha tahlil natijalari



² Stat.uz ma‘lumotlaridan foydalanib muallif tomonidan yaratildi

Ayollar bandligini oshirish borasidagi tadqiqotlar ham ahamiyatga ega. O'zbekiston Respublikasida ayollarni ish bilan ta'minlash bo'yicha olib borilgan ishlar, ko'plab ilmiy maqolalarda muhokama qilinadi. N. Karimova ayollar bandligi masalasida turli ijtimoiy va madaniy omillarni tahlil qilib, ayollarni mehnat bozoriga jalb etishda davlat siyosatining ahamiyatini ko'rsatgan. U, shuningdek, ayollarni ishga joylashtirishda gender tenglikni ta'minlashning zarurligini ta'kidlagan [6].

Kelgusida Jizzax viloyatida ayollar tadbirkorligi rivojini jadallashtirish quyidagi yo'nalishlar bo'yicha amalga oshirilishi maqsadga muvofiq:

- Ayollar uchun imtiyozli kreditlarni ko'paytirish va garov talablari bo'yicha yengilliklar berish;
- Tadbirkor ayollar uchun marketing va raqamli iqtisodiyot bo'yicha o'quv markazlarini kengaytirish;
- Uy biznesi uchun subsidiyalarni ko'paytirish;
- Chekka tumanlarda ayollar uchun ko'p funksiyali biznes inkubatorlari tashkil etish;
- Ayol tadbirkorlarning ishlab chiqarayotgan mahsulotlarini ichki va tashqi bozorlarga olib chiqishda ko'maklashish.

Shu bilan birga, ayollar tadbirkorligi rivojida bir qator muammolar ham mavjud: kredit olishdagi garov ta'minotining yetishmasligi, moliyaviy savodxonlikning pastligi, raqamli texnologiyalar bo'yicha ko'nikmalarning cheklanganligi, bozor talablaridagi o'zgarishlarga moslashish muammolari va marketing infratuzilmasining sustligi shular jumlasidandir. Viloyatdagi chekka hududlarda ayollarning tadbirkorlik faoliyatiga kirishish imkoniyatlari shahar markazlariga nisbatan pastroq darajada qolmoqda.

Bu viloyatimiz ayollarining ushbu davrda tadbirkorlikka bo'lgan ichki motivatsiyasining oshirishga xizmat qiladi.

Chunki, maqsadlarga erishish uchun motivatsiya, tavakkalchilikka moyillik, ijodkorlik, stressga bardosh berish qobiliyati tadbirkor uchun zarur bo'lgan asosiy xususiyatlardir.

Xulosa qilib aytganda, ayollar tadbirkorligini rivojlantirish Jizzax viloyatida aholi bandligini oshirishning eng istiqbolli yo'nalishlaridan biri hisoblanadi. Bu esa nafaqat iqtisodiy faollikni kuchaytiradi, balki jamiyatning ijtimoiy barqarorligiga ham katta ta'sir ko'rsatadi. Bunga esa mamlakatimizda ayollar tadbirkorligini rivojlantirish borasidagi "O'zbekiston – 2030" strategiyasi hamda O'zbekiston Respublikasi Oliy Majlisi Senatining 2021-yil 28 - maydagi SQ-297-IV-son "2030-yilga qadar O'zbekiston Respublikasida gender tenglikka erishish strategiyasini tasdiqlash haqida"gi qarori kabi qonuniy hujjatlar dasturul amal bo'ldi. Erishilgan yutuqlar bilan bir qatorda yechimini kutayotgan muammolar ham mavjud. Shu boisdan ushbu muammolarni hal qilish borasida quyidagilarni taklif qilamiz:

1. Xotin-qizlarning ta'lim olishiga qo'shimcha shart-sharoitlarni yaratish, ilm-fan sohasida ayollarning o'rnini yanada oshirish bo'yicha ilg'or xorijiy mamlakatlar tajribasini o'rgangan holda quyidagi chora-tadbirlarni amalga oshirish taklif qilinadi:
2. Ommaviy axborot vositalarida xotin-qizlarni faqatgina uy bekasi roliga emas, balki ilm-fan, texnika, yangi texnologiyalar sohalarida ko'rsatish.
3. Moliyalashtirish va rag'batlantirishning ko'p kanalli mexanizmlarini rivojlantirish.
4. Hududlarda yosh tadbirkor ayollar uchun professional konsalting xizmatlarini yo'lga qo'yish, biznes yuritish, bilimni monetizatsiya qilish sirlarini o'rgatish.

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**O‘ZBEKCHA: MUSTAQIL TA’LIMGA YO‘NALTIRILGAN RAQAMLI
KONTENTNI YARATISHDA PEDAGOGIK TEXNOLOGIYALARNING
INTEGRATSIYASI**

**RUSCHA: ИНТЕГРАЦИЯ ПЕДАГОГИЧЕСКИХ ТЕХНОЛОГИЙ ПРИ
СОЗДАНИИ ЦИФРОВОГО КОНТЕНТА, ОРИЕНТИРОВАННОГО НА
САМОСТОЯТЕЛЬНОЕ ОБУЧЕНИЕ**

**INGLIZCHA: INTEGRATION OF PEDAGOGICAL TECHNOLOGIES IN
DEVELOPING DIGITAL CONTENT ORIENTED TOWARD
INDEPENDENT LEARNING**

Qo‘qon Davlat Universiteti

Matematika kafedrası o‘qituvchisi

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Annotatsiya: Ushbu maqolada mustaqil ta’lim jarayoniga mo’ljallangan raqamli kontentni yaratishda pedagogik texnologiyalarni integratsiyalash zarurati, afzalliklari va qo’llash mexanizmlari yoritilgan. Tadqiqotda o’quv materiallarini raqamlashtirish, multimedaviy vositalar, interfaol metodlar va adaptiv o’qitish platformalarining o’rni tahlil qilinadi. Shuningdek, raqamli kontentning sifat ko’rsatkichlari, talabanning mustaqil o’zlashtirishiga ta’siri hamda pedagogik jarayonga kiritadigan innovatsion imkoniyatlari asoslab beriladi.

Kalit so‘zlar: raqamli kontent, mustaqil ta’lim, integratsiya, pedagogik texnologiya, interfaol metodlar, multimedia, adaptiv o’qitish.

Аннотация: В статье рассматривается необходимость интеграции педагогических технологий при создании цифрового контента для самостоятельного обучения. Анализируется роль мультимедийных средств, интерактивных методов, цифровых платформ и адаптивных систем в повышении качества обучения. Обосновано влияние цифрового контента на мотивацию, самостоятельность и результативность обучающихся, а также его потенциал для совершенствования педагогического процесса.

Ключевые слова: цифровой контент, самостоятельное обучение, интеграция, педагогические технологии, мультимедиа, интерактивные методы.

Abstract: This article explores the necessity of integrating pedagogical technologies in the creation of digital content aimed at independent learning. It analyzes the role of multimedia tools, interactive strategies, digital platforms and adaptive learning systems in enhancing educational quality. The study also explains the impact of digital content on learner motivation, autonomy and performance, along with its potential to improve the overall teaching process.

Keywords: digital content, independent learning, integration, pedagogical technologies, multimedia, interactive methods, adaptive learning.

KIRISH

Raqamli texnologiyalar jadal rivojlanayotgan hozirgi davrda ta'lim jarayonini zamon talablariga mos modernizatsiya qilish muhim masalalardan biridir. Xususan, mustaqil ta'lim ko'nikmalarini rivojlantirish, talaba va o'quvchilarda o'z-o'zini boshqarish, mustaqil izlanish, tahlil qilish va natijaga erishish kompetensiyalarini shakllantirish bugungi ta'lim siyosatining ustuvor yo'nalishiga aylandi. Bunda raqamli kontentning o'rni beqiyos bo'lib, uning samarali yaratilishi pedagogik texnologiyalarning to'g'ri integratsiyasini talab etadi. Chunki raqamli o'quv materiallari nafaqat ma'lumot tashuvchi vosita, balki o'quvchini faollashtiruvchi, qiziqtiruvchi, mustaqil fikrlashga undovchi hamda o'zlashtirish darajasini real vaqt rejimida baholovchi ta'limiy resurs sifatida xizmat qiladi. Mustaqil ta'lim uchun ishlab chiqilayotgan elektron darsliklar, videodarslar, virtual laboratoriyalar, simulyatorlar, interfaol topshiriqlar, sun'iy intellekt asosidagi adaptiv dasturlar o'quv jarayonini shaxsga yo'naltirilgan, moslashuvchan va samarali tashkil etish imkonini beradi. Bunday kontentni ishlab chiqishda zamonaviy pedagogik texnologiyalar – konstruktivistik yondashuv, modulli o'qitish, muammoli ta'lim, interfaol metodlar, kompetensiyaviy yondashuv, AR/VR texnologiyalar kabi yondashuvlarning uyg'unlashuvi muhim ahamiyat kasb etadi. Pedagogik texnologiyalarni to'g'ri tanlash o'quv materiali mazmuni, auditoriya imkoniyatlari, ta'lim maqsadi, o'quvchilarning tayyorgarlik darajasi va o'quv faoliyatining mustaqillik ko'rsatkichi bilan bevosita bog'liqdir.

Raqamli kontentni yaratishda integratsiya jarayoni ikki yo'nalishda amalga oshiriladi: texnologik integratsiya va metodik integratsiya. Texnologik integratsiya o'quv kontentini yaratishda qo'llaniladigan platformalar, multimedia elementlari (audio, video, animatsiya), vizualizatsiya vositalari, test tizimlari va analitik monitoring modullarining uyg'unlashuvini anglatadi. Metodik integratsiya esa pedagogik yondashuvlar, o'qitish shakllari, mustaqil faoliyatni qo'llab-quvvatlovchi metodlar va baholash tizimlarining bir butun tizimda qo'llanishini o'z ichiga oladi.

Mustaqil ta'lim uchun raqamli kontent yaratishda integratsiyaning asosiy maqsadi – o'quvchining ta'lim jarayonidagi faolligini oshirish, qiziqish va motivatsiyani kuchaytirish, o'quv jarayonini individualizatsiya qilish va pedagogik samaradorlikni ta'minlashdan iborat. Ushbu maqolada ana shu masalalar ilmiy-nazariy va amaliy nuqtayi nazardan tahlil qilinadi.

Adabiyotlar tahlili va tadqiqot metodologiyasi.

Raqamli ta'lim bo'yicha xalqaro va mahalliy adabiyotlarda mustaqil ta'lim uchun mo'ljallangan kontent yaratish jarayonida pedagogik texnologiyalarning o'rnini keng yoritilgan. Xususan, J. Brunerning konstruktivistik ta'lim nazariyasi, L. Vygotskiyning yaqin rivojlanish zonasi haqidagi g'oyalari, B. Bloomning taksonomiyasi hamda Mayerning multimediyani qayta ishlash bo'yicha kognitiv nazariyasi raqamli kontent yaratishda ilmiy asos sifatida xizmat qiladi. Ushbu nazariyalar o'quvchining mustaqil kognitiv faolligini qo'llab-quvvatlash, o'quv materialini bosqichma-bosqich murakkablashtirish, multimediyaviy elementlarning ortiqcha yuklama bermaslik prinsiplari bilan ahamiyatli hisoblanadi. Mahalliy adabiyotlarda esa raqamli ta'lim platformalari, elektron darsliklar, interfaol resurslar yaratish metodikasi va multimediyaviy texnologiyalar integratsiyasi ustuvor tadqiqot yo'nalishlaridan biri bo'lib kelmoqda. Ko'plab tadqiqotlarda mustaqil ta'limni qo'llab-quvvatlaydigan raqamli platformalarning samaradorligi, talabalarning o'zlashtirish dinamikasiga ta'siri va o'quv jarayonining optimallashtirilishi haqida ilmiy xulosalar berilgan.

Tadqiqot metodologiyasi sifatida quyidagi yondashuvlar qo'llanildi:

- Adabiyotlarni tizimli tahlil qilish – mavjud ilmiy manbalarni o'rganish, kontent yaratish bo'yicha ilg'or tajribalarni umumlashtirish;
- Tajriba-sinov tahlili – raqamli kontentning namunaviy variantlari asosida o'quvchilarning mustaqil ta'lim ko'rsatkichlarini solishtirish;
- Kuzatish va diagnostika – talabalarning raqamli platformalardagi faolligini, topshiriqlarni bajarish sifatini monitoring qilish;
- SWOT-tahlil – mavjud kontentlarning kuchli va zaif tomonlarini, imkoniyat va tahdidlarini aniqlash;
- Pedagogik texnologiyalar integratsiya modeli – o'quv materiallarini modulli, interfaol va multimediali yondashuv asosida loyihalash.

Metodologik yondashuvlar orqali raqamli kontent yaratish jarayonida texnologik, didaktik, psixologik va metodik faktorlarning o'zaro ta'siri o'rganildi. Tahlil natijalari shuni ko'rsatadiki, pedagogik texnologiyalarni integratsiyalash o'quv materialining tuzilishi, vizual dizayni, taqdim etish ketma-ketligi va foydalanuvchi faoliyatiga

moslashuvchanligi bilan bevosita bog'liqdir. Shuningdek, kontentning interfaollik darajasi, multimedaviy elementlar uyg'unligi va sun'iy intellekt asosidagi adaptiv mexanizmlarning qo'llanilishi mustaqil o'quv faoliyatini sezilarli darajada kuchaytirishi aniqlangan.

Tahlil natijalari.

Tahlil natijalari pedagogik texnologiyalar integratsiyasining mustaqil ta'lim uchun yaratilgan raqamli kontent samaradorligiga ta'sirini bir necha yo'nalishlarda ochib berdi. Avvalo, interfaol metodlar bilan boyitilgan kontent talabaning faolligini sezilarli oshiradi. Masalan, muammoli vaziyatlar, loyihaviy topshiriqlar, testlar, simulyatsiyalar o'quvchini faol fikrlashga undaydi. Multimedaviy materiallar esa murakkab mavzularni vizual ko'rinishda tushunarli qilib beradi. Ikkinchi natija – adaptiv o'qitish texnologiyalarining ahamiyati. Sun'iy intellekt asosida ishlaydigan platformalar o'quvchining o'zlashtirish darajasini avtomatik aniqlaydi, unga mos darajadagi topshiriqlarni taqdim etadi va yutuqlarini monitoring qiladi. Bu esa mustaqil ta'lim jarayonini individualizatsiya qiladi. Uchinchi natija – modulli yondashuvning foydaliligi. O'quv kontentini modullar asosida tashkil etish o'quvchiga o'rganishni bosqichma-bosqich, tartibli va maqsadga yo'naltirilgan shaklda amalga oshirish imkonini beradi. Har bir modulda aniq maqsadlar, nazorat savollari, amaliy topshiriqlar va tahlil bo'lishi mustaqil bilim olishni osonlashtiradi.

Tahlillar shuni ko'rsatdiki, pedagogik texnologiyalar integratsiyasi bilan yaratilgan raqamli kontent o'quvchining motivatsiyasiga ijobiy ta'sir qiladi. Talabalar interfaol, animatsion, ovoqli, vizual materiallarga nisbatan ko'proq qiziqish bildiradi, mustaqil ishlashga intiladi va vaqtni samarali boshqaradi. Shuningdek, platformalarga integratsiyalashgan baholash tizimlari o'quv jarayonining shaffofligini ta'minlaydi. Bundan tashqari, kontentdagi multimedaviy elementlarning optimal darajada qo'llanilishi kognitiv yuklamani kamaytiradi. Mayer nazariyasiga ko'ra, audio, video va matn bir-birini to'ldirgan holda taqdim etilganda material tezroq va osonroq o'zlashtiriladi. Tahlil natijalariga ko'ra, noto'g'ri integratsiya aksincha, o'quvchini chalg'itishi, ortiqcha yuklama keltirib chiqarishi mumkin.

Yakuniy xulosa sifatida shuni aytish mumkinki, pedagogik texnologiyalar integratsiyasi raqamli kontentni nafaqat zamonaviylashtiradi, balki uning didaktik samaradorligini oshiradi, mustaqil ta'limni sifatli tashkil etish imkonini yaratadi.

Xulosa.

Tadqiqot natijalari shuni ko'rsatdiki, mustaqil ta'limga yo'naltirilgan raqamli kontentni yaratishda pedagogik texnologiyalarni integratsiyalash ta'lim jarayonining

samaradorligini sezilarli oshiradi. Eng avvalo, integratsiya o'quv materialining didaktik asoslarini mustahkamlaydi, uni tushunarli, izchil va talabning tayyorgarlik darajasiga moslashtirilgan holga keltiradi. Interfaol metodlar, multimedaviy vositalar, modulli yondashuv va adaptiv texnologiyalarning uyg'un qo'llanilishi o'quvchini mustaqil izlanishga, faol fikrlashga va ijodiy yondashuvga undaydi. Shuningdek, sun'iy intellekt asosidagi adaptiv tizimlar o'quvchining o'zlashtirish ko'rsatkichlarini real vaqt rejimida baholab, unga mos darajadagi topshiriqlarni taklif etadi. Bu jarayon mustaqil ta'limning individualizatsiyasini ta'minlaydi va o'quvchining shaxsiy rivojlanish trayektoriyasini shakllantirishda muhim o'rin tutadi. Multimedaviy kontentning to'g'ri integratsiyasi esa o'quv jarayonida vizual va eshitish kanallarini uyg'unlashtirib, kognitiv yuklamani kamaytiradi va mavzularni chuqurroq o'zlashtirilishiga xizmat qiladi.

Raqamli kontent yaratish jarayonida texnologik va metodik integratsiyaning uyg'un amalga oshirilishi o'quv resurslarining sifatini oshiradi, o'quv jarayonining samaradorligini ta'minlaydi va ta'lim sifatini umumiy darajada yaxshilaydi. Xulosa qilib aytganda, pedagogik texnologiyalar integratsiyasi bugungi raqamli ta'limning ajralmas qismi bo'lib, mustaqil ta'limni tashkil etishga katta ilmiy-amaliy yordam beradi.

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O'SMIRLAR NUTQNING PSIXOLIGVISTIKASINI JAHON TILSHUNOSLIGIDA O'RGANISH

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Annotatsiya: Ushbu maqolada o'smirlar nutqining psixolingvistik xususiyatlari, ularning xulq-atvorlaridagi ijobiy va salbiy o'zgarishlar, jahon tilshunosligida ushbu yo'nalishda olib borilayotgan islohotlar, tadqiqotlar tahlil qilib yoritilgan.

Kalit so'zlar: O'g'zaki nutq, o'smirlar nutqi, fiziologik, psixolingvistika, jahon, o'smir, xorijiy, tadqiqot.

1.Kirish

O'smirlik davri inson hayotining eng muhim, murakkab va o'zgaruvchan davri hisoblanadi.

Bu davrda bolada nafaqat nutqiy, ruhiy balki fiziologik o'zgarishlar ham kuzatiladi. O'smirlik davri 12- 17 yoshni o'z ichiga oladi.

Shaxs ulg'aygani sari uning nutqi ham rivojlanib boradi.

Ayniqsa tashqi ta'sirlar tufayli o'smir bola so'zlarni eshitish, qabul qilish va nutqda qo'llashida o'zgarishlar seziladi.

O'smir o'sha davrda o'z "men"ini anglashga intiladi va o'zini tutishida, harakatida, so'zlashuvda ham kattalarga taqlid qilgan holatda ulardan ajralib turishga harakat qiladi.

O'smirlar o'z nutqiga xorijiy so'zlarni qo'shib, ataylab buzib gapirish orqali yangi so'zlar yaratib, o'z tengdoshlari orasida ajralib turishga harakat qiladi. Ayrim xorijiy so'zlar o'smirlar o'rtasida juda keng tarqalgan.

O'smirlar trend, layk, flex, lazer, krinj, krash, feyk, strim kabi so'zlarni qo'llash orqali kattalar tushunmaydigan o'zaro maxfiy aloqa o'rnatishadi.

Tadqiqot manbai sifatida. tilshunoslikka yaqin bo'lgan psixolingvistika o'z tekshiruv usullari bo'yicha psixologiyaga yaqin turadi.

Jahon tilshunosligida o'smirlar nutqini o'rganish bo'yicha bugungi kunda ko'plab tadqiqotchilar o'tkazilmoqda.

Uilyam Labov (AQSH)

"O'smirlar til o'zgarishlarining asosiy dvigateli" hisoblanadi.

L. Vigotskiy (Rossiya)

"Nutq o'smirning ichki fikrlash jarayonini shakllantiruvchi vositadir."

Nutqni ishlab chiqish va qabul qilishda o'smir miyasining roli muhimdir. Hozirgi raqamli texnologiyalar davrida o'smirlar nutqida xorijiy so'zlar ko'proq uchraydi. Ular bu jargon, ko'cha tilida qo'llanadigan ibora va so'zlarni juda tez o'zlashtirib nutqda qo'llashadi, ammo bu so'zlar vaqtincha bo'lib biroz muddatdan so'ng unutiladi. Bugungi kunda jahon tilshunosligida "Computer Mediated Communication" (CMC) yo'nalishida o'smirlar nutqini o'rganishda asosiy o'rin tutmoqda.

Emodjilar, qisqartmalar (LOL, OMG, ASAP) va "slangizm" lar o'smirlar nutqining yozma shaklini og'zaki nutqqa yaqinlashtiradi.

Xulosa

O'smirlar nutqi - bu oddiy o'tkinchi narsa emas, tilni rivojlantirishda muhim omil hisoblanadi.

Psixolingvistika obyekti - insonning turli maqsad va vaziyatda ishlatadigan tili va nutqi hisoblanadi. O'smir yoshida bolaning nutqiga keng ahamiyat berilsagina kelajakda ravon so'zlaydigan, keng fikrlaydigan bilimli farzand ko'rinishda ulg'ayishiga ko'mak bergan bo'lamiz.

Psixolingvistik nuqtai nazaridan qaraganda nutq o'smirlarning jamiyatda o'z o'rnini topishida muhim ahamiyatga egadir.

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INTEGRATING SHORT STORIES INTO LANGUAGE TEACHING TO ENHANCE VOCABULARY ACQUISITION

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Annotation. Vocabulary acquisition plays a crucial role in second language learning, yet traditional vocabulary teaching methods often fail to provide sufficient contextual exposure. This study explores the integration of short stories into English language teaching as an effective strategy for enhancing learners' vocabulary acquisition. The findings suggest that incorporating short stories into language instruction positively impacts learners' vocabulary development and overall language proficiency.

Key words: *short story, vocabulary, linguistic input, acquisition, short-story-based instruction, sociocultural perspective, lexical items.*

The knowledge of vocabulary is one of the core elements of the communicative competence in EFL learners and plays a crucial role in an individual's ability to understand and produce the language. Vocabulary teaching in numerous EFL classes is mainly based on memorization and it results in superficial learning. Focusing on meaningful exposure and contextualized input, the researchers highlight that the learning process is better than drill and kill, and therefore that vocabulary should be acquired [2, p. 34]. Short stories as short literary texts act to offer meaningful linguistic input and authentic contexts that aid in the acquisition of vocabulary. It seeks to investigate the pedagogical impact of using short stories in language teaching and to assess the enhancement in vocabulary acquisition in EFL learners.

Vocabulary acquisition in EFL contexts. Vocabulary acquisition is about knowing word meaning, form, and use in context. Nation finds that, from a learner perspective, learners acquire vocabulary more effectively by encountering words repeatedly in meaningful contexts rather than through decontextualized learning [3, p. 67]. Contextual learning allows learners to deduce meanings, be able to spot collocations, and pragmatically use the words. Studies indicate that extensive exposure to written texts significantly contributes to vocabulary growth, especially when learners actively engage with the content [2, p. 41].

Short stories as instructional materials. Short stories are particularly suitable for classroom use because of their manageable length, clear structure, and engaging narratives. Lazar notes that short stories motivate learners and offer repeated exposure to vocabulary in varied contexts, which strengthens retention [4, p. 19]. Empirical research confirms that learners exposed to short stories demonstrate higher vocabulary achievement compared to those taught through traditional methods. For instance, Sariana et al. reported a significant improvement in students' vocabulary scores after implementing short-story-based instruction [5, p. 88].

Theoretical Framework

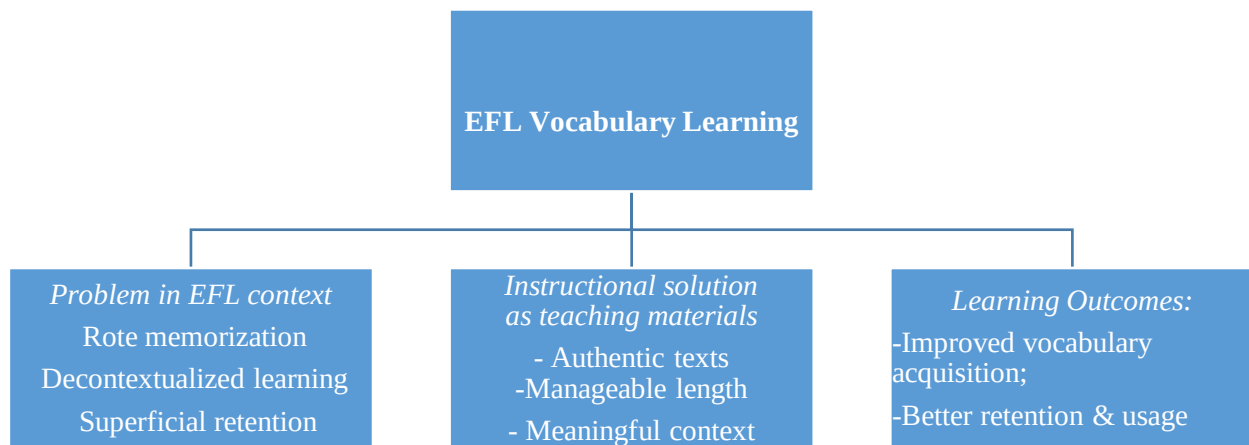
Input Hypothesis. Based on Krashen's Input Hypothesis, the acquisition of a language involves providing comprehensible input slightly above the learners' current level of proficiency ($i + 1$) [6, p. 21]. Short stories serve as an opportunity for such input by embedding new vocabulary within meaningful narratives, allowing learners to understand unfamiliar words through context.

Sociocultural Theory. From a sociocultural perspective, learning is a socially mediated process. Vygotsky draws attention to the role of interaction and scaffolding in language learning [7, p. 86]. Classroom discussions, group work, and collaborative tasks based on short stories make it possible for learners to negotiate meaning and internalize new vocabulary more effectively. Several theories of language acquisition focus on the value of meaningful input and social interaction in the development of vocabulary. Based on Krashen's Input Hypothesis, students receive language from input that slightly exceeds their current level of proficiency. It has already been shown through short stories that new words are given in a specific meaningful context. From the sociocultural viewpoint, language learning is viewed as a social process in which interaction plays an indispensable role. In this context, classroom activities (group work and discussion based on short story projects) allow learners to more effectively negotiate meaning, to integrate new vocabulary and thus acquire new vocabulary.

Empirical Evidence. A growing body of empirical research confirms the effectiveness of short stories in enhancing vocabulary acquisition among language learners. For instance, a classroom action research study revealed a significant improvement in students' vocabulary knowledge, with mean scores rising from 48 to 76 after instruction based on short stories [8, p. 55]. This improvement indicates that narrative-based input supports better retention and understanding of new lexical items. Similarly, findings from a quasi-experimental study demonstrated that learners who were taught vocabulary through short stories significantly outperformed those in the control group who followed traditional instruction methods [9, p. 102]. In addition to

measurable vocabulary gains, learners reported increased motivation and more positive attitudes toward vocabulary learning. The use of narratives made lessons more engaging, meaningful, and less monotonous, thereby fostering a supportive learning environment.

Text Selection. The effectiveness of short-story-based instruction largely depends on the careful selection of texts. Teachers should choose short stories that correspond to learners' language proficiency levels to avoid cognitive overload and frustration. Furthermore, cultural relevance should be taken into consideration so that learners can easily relate to the themes and contexts of the stories. Selected texts should include sufficient contextual clues—such as descriptions, examples, and repetition—that enable learners to infer the meanings of unfamiliar words without excessive dependence on dictionaries [4, p. 23]. Such an approach encourages the development of learners' inferencing skills and autonomous vocabulary learning strategies.



Classroom Activities. To maximize vocabulary learning, teachers should implement a variety of well-structured classroom activities before, during, and after reading. Pre-reading activities may include predicting vocabulary meanings based on titles, pictures, or key sentences, which activates learners' prior knowledge. While-reading tasks can focus on inferencing meaning from context and identifying key lexical items within the text. Post-reading activities, such as summarizing the story, role-plays, discussions, and vocabulary recycling exercises, help consolidate newly learned words and promote deeper cognitive processing. These activities not only reinforce vocabulary retention but also support the integration of vocabulary into active language use [6, p. 29].

In conclusion, the integration of short stories into language teaching represents a pedagogically sound and effective approach to enhancing vocabulary acquisition. Both theoretical frameworks and empirical studies consistently indicate that short stories offer rich, contextualized input that facilitates meaningful vocabulary learning. Moreover, narrative texts increase learners' motivation and engagement by presenting language in authentic and relatable contexts, which in turn supports deeper processing and long-term retention of lexical items. Consequently, EFL teachers are strongly encouraged to incorporate short stories into their curricula as a valuable instructional resource for fostering effective and sustainable vocabulary development.

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YASHIL IQTISODIYOT SHAROITIDA CHIQINDILARNI QAYTA ISHLASH TIZIMINING IQTISODIY SAMARADORLIGI

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Annotatsiya. Ushbu maqolada yashil iqtisodiyot konsepsiyasi doirasida chiqindilarni qayta ishlash tizimining iqtisodiy va ekologik samaradorligi tahlil qilinadi. Qattiq maishiy chiqindilarni qayta ishlash orqali resurslardan oqilona foydalanish, atrof-muhitga salbiy ta'sirni kamaytirish hamda yangi iqtisodiy imkoniyatlar yaratish masalalari yoritilgan. Tadqiqot natijalari chiqindilarni qayta ishlash yashil iqtisodiyotning muhim tarkibiy qismi ekanini ko'rsatadi.

Kalit so'zlar: yashil iqtisodiyot, chiqindilarni qayta ishlash, resurs tejamlorlik, ekologik xavfsizlik, barqaror rivojlanish.

So'nggi yillarda global miqyosda sanoatlashtirish va urbanizatsiya jarayonlarining jadallashuvi ishlab chiqarish va iste'mol hajmining keskin oshishiga olib kelmoqda. Natijada qattiq maishiy va sanoat chiqindilarining yildan-yilga ko'payishi ekologik muammolarning chuqurlashuviga sabab bo'lmoqda. Chiqindilarni samarasiz boshqarish tuproq, suv va havo resurslarining ifloslanishiga, biologik xilma-xillikning kamayishiga hamda aholi salomatligiga salbiy ta'sir ko'rsatmoqda.

An'anaviy iqtisodiy modelda chiqindilar asosan foydalanishdan chiqqan mahsulot sifatida qaralib, ularni ko'mish yoki yo'q qilish ustuvor bo'lib kelgan. Biroq bunday yondashuv tabiiy resurslarning tez tugashiga va ekologik xavfsizlikka jiddiy tahdid solmoqda. Shu sababli zamonaviy sharoitda chiqindilarni qayta ishlash va ikkilamchi xomashyo sifatida qayta iqtisodiy aylanishga kiritish yashil iqtisodiyot konsepsiyasining muhim yo'nalishlaridan biri sifatida qaralmoqda.

Yashil iqtisodiyot sharoitida chiqindilarni boshqarish nafaqat ekologik muammoni kamaytirish, balki iqtisodiy samaradorlikni oshirishga xizmat qiladi. Chiqindilarni qayta ishlash orqali ishlab chiqarishda xomashyo tejaladi, energiya sarfi qisqaradi va yangi ish o'rinlari yaratiladi. Bundan tashqari, qayta ishlash jarayonlari aholining ekologik madaniyatini oshirish va barqaror iste'mol odatlarini shakllantirishda muhim ahamiyat kasb etadi.

Shu nuqtai nazardan, chiqindilarni qayta ishlash tizimining iqtisodiy samaradorligini o'rganish, mavjud muammolarni aniqlash va ularni bartaraf etish yo'llarini ishlab chiqish dolzarb ilmiy-amaliy masalalardan biri hisoblanadi. Mazkur maqolada yashil iqtisodiyot doirasida chiqindilarni qayta ishlashning iqtisodiy va ekologik ahamiyati tahlil qilinadi.

Mazkur tadqiqotda chiqindilarni qayta ishlash tizimining yashil iqtisodiyot sharoitidagi iqtisodiy samaradorligini aniqlash maqsadida kompleks ilmiy yondashuv qo'llanildi. Tadqiqot jarayonida nazariy va empirik metodlar uyg'unlashtirilib, muammo har tomonlama tahlil qilindi.

Avvalo, tizimli tahlil metodi yordamida chiqindilarni boshqarish va qayta ishlash jarayonlari yagona iqtisodiy-ekologik tizim sifatida ko'rib chiqildi. Ushbu yondashuv chiqindilar hosil bo'lishi, ularni yig'ish, saralash, qayta ishlash va ikkilamchi mahsulot sifatida iqtisodiy aylanishga kiritish bosqichlari o'rtasidagi o'zaro bog'liqlikni aniqlash imkonini berdi.

Statistik ma'lumotlarni o'rganish metodi orqali chiqindilar hajmi, qayta ishlash darajasi va iqtisodiy samaradorlik ko'rsatkichlari tahlil qilindi. Tadqiqotda milliy statistika organlari ma'lumotlari, davlat dasturlari hamda xalqaro tashkilotlar (UNEP, World Bank va OECD) hisobotlaridan foydalanildi. Statistik tahlil chiqindilarni qayta ishlash tizimining amaldagi holatini baholash va mavjud tendensiyalarni aniqlashga xizmat qildi.

Shuningdek, qiyosiy tahlil metodi yordamida mahalliy va xalqaro tajribalar solishtirildi. Turli mamlakatlarda chiqindilarni qayta ishlash bo'yicha qo'llanilayotgan mexanizmlar, iqtisodiy rag'batlantirish usullari va normativ-huquqiy asoslar o'rganilib, ularning samaradorligi taqqoslandi. Ushbu tahlil ilg'or tajribalarni aniqlash va ularni milliy sharoitga moslashtirish imkoniyatlarini belgilashga yordam berdi.

Tadqiqot natijalarining ishonchliligini ta'minlash maqsadida umumlashtirish va mantiqiy xulosalar chiqarish usullaridan foydalanildi. Qo'llanilgan metodlar chiqindilarni qayta ishlash tizimining iqtisodiy samaradorligini ob'ektiv baholash hamda yashil iqtisodiyot doirasida uni takomillashtirish bo'yicha ilmiy asoslangan xulosalar ishlab chiqish imkonini berdi.

O'tkazilgan tadqiqot natijalari yashil iqtisodiyot sharoitida chiqindilarni qayta ishlash tizimi yuqori iqtisodiy va ekologik samaradorlikka ega ekanini ko'rsatdi. Tahlillar shuni aniqladiki, chiqindilarni ikkilamchi resurs sifatida qayta iqtisodiy aylanishga kiritish ishlab chiqarish jarayonlarida xomashyo sarfining sezilarli darajada kamayishiga olib keladi. Bu, ayniqsa, plastmassa, qog'oz, metall va shisha kabi qayta ishlanadigan materiallar ulushi yuqori bo'lgan tarmoqlarda yaqqol namoyon bo'ladi.

Tadqiqot natijalariga ko'ra, chiqindilarni qayta ishlash texnologiyalarini joriy etish ishlab chiqarish xarajatlarining qisqarishiga xizmat qiladi. Xomashyoni qayta ishlash orqali energiya va transport xarajatlari kamayadi, natijada mahsulot tannarxi pasayadi. Bu holat korxonalar raqobatbardoshligini oshirib, iqtisodiy barqarorlikni mustahkamlaydi.

Shuningdek, chiqindilarni qayta ishlash sohasi yangi ish o'rinlarini yaratish imkoniyatiga ega ekanligi aniqlandi. Chiqindilarni yig'ish, saralash, qayta ishlash va logistika jarayonlari malakali va malakasiz mehnat resurslariga bo'lgan talabni oshiradi. Bu esa aholining bandligini ta'minlash va ijtimoiy barqarorlikni mustahkamlashga xizmat qiladi.

Tadqiqot davomida poligonlarga yo'naltiriladigan chiqindilar hajmining kamayishi ham muhim natijalardan biri sifatida qayd etildi. Chiqindilarni qayta ishlash ulushining oshishi natijasida yer maydonlaridan samarasiz foydalanish qisqaradi, atrof-muhit ifloslanishi kamayadi va ekologik xavfsizlik darajasi oshadi. Bu holat uzoq muddatda ekologik muvozanatni saqlash va yashil iqtisodiyot tamoyillarini mustahkamlashga xizmat qiladi.

Umuman olganda, olingan natijalar chiqindilarni qayta ishlash tizimini rivojlantirish iqtisodiy samaradorlik va ekologik barqarorlikni bir vaqtning o'zida ta'minlashini ko'rsatadi. Tadqiqot natijalari yashil iqtisodiyot doirasida ushbu yo'nalishni ustuvor rivojlantirish zarurligini ilmiy asoslab beradi.

Tadqiqot davomida olingan natijalar chiqindilarni qayta ishlash tizimi yashil iqtisodiyot sharoitida muhim strategik ahamiyatga ega ekanini tasdiqlaydi. Natijalar shuni ko'rsatadiki, chiqindilarni qayta

ishlash orqali atrof-muhitga yetkaziladigan zarar kamayib, tabiiy resurslardan foydalanish samaradorligi oshadi. Shu bilan birga, mazkur tizim iqtisodiy nuqtai nazardan ham foydali bo'lib, ishlab chiqarish xarajatlarini qisqartirish va yangi iqtisodiy qiymat yaratish imkonini beradi.

Biroq tadqiqot natijalari bilan bir qatorda mavjud muammolar ham aniqlanib, ular tizim samaradorligini cheklab turuvchi omillar sifatida namoyon bo'ldi. Xususan, chiqindilarni yig'ish, saralash va qayta ishlash infratuzilmasining yetarli darajada rivojlanmaganligi tizimning to'liq ishlashiga to'sqinlik qilmoqda. Texnologik uskunalarining eskirganligi va qayta ishlash quvvatlarining cheklanganligi chiqindilarning katta qismi hali ham poligonlarga yo'naltirilishiga sabab bo'lmoqda.

Shuningdek, aholining ekologik madaniyati va ekologik xabardorlik darajasining pastligi muhim muammolardan biri sifatida e'tirof etildi. Chiqindilarni manbaida saralash tizimining yetarli darajada shakllanmaganligi qayta ishlash jarayonini murakkablashtiradi va iqtisodiy samaradorlikni pasaytiradi. Bu holat chiqindilarni qayta ishlash tizimining faqat texnologik emas, balki ijtimoiy muammo ekanini ham ko'rsatadi.

Muhokama jarayonida aniqlangan muammolarni bartaraf etish uchun kompleks yondashuv zarurligi ta'kidlanadi. Davlat tomonidan normativ-huquqiy bazani mustahkamlash, iqtisodiy rag'batlantirish mexanizmlarini joriy etish va xususiy sektor ishtirokini kengaytirish chiqindilarni qayta ishlash tizimining samaradorligini oshirishi mumkin. Shu bilan birga, ekologik ta'lim va targ'ibot ishlarini kuchaytirish orqali aholining ekologik madaniyatini oshirish muhim ahamiyat kasb etadi.

Umuman olganda, muhokama natijalari chiqindilarni qayta ishlash tizimini rivojlantirish faqat ekologik masala emas, balki ijtimoiy-iqtisodiy taraqqiyotning muhim omili ekanini ko'rsatadi. Yashil iqtisodiyot doirasida ushbu yo'nalishga kompleks va tizimli yondashuvni joriy etish barqaror rivojlanishga erishishning muhim sharti hisoblanadi.

Xulosa qilib aytganda, tadqiqot natijalari yashil iqtisodiyot sharoitida chiqindilarni qayta ishlash tizimini rivojlantirish strategik ahamiyatga ega ekanini ko'rsatdi. Chiqindilarni ikkilamchi resurs sifatida iqtisodiy aylanishga kiritish tabiiy resurslardan foydalanish bosimini kamaytirib, atrof-muhitni muhofaza qilish bilan bir qatorda iqtisodiy samaradorlikni oshirish imkonini beradi. Ushbu tizim barqaror ishlab chiqarish va iste'mol tamoyillarini shakllantirishda muhim omil hisoblanadi.

Tadqiqot davomida aniqlangan natijalar shuni tasdiqlaydiki, chiqindilarni qayta ishlash infratuzilmasini rivojlantirish va zamonaviy texnologiyalarni joriy etish ishlab chiqarish xarajatlarini qisqartirish, yangi ish o'rinlari yaratish hamda ekologik xavfsizlikni mustahkamlashga xizmat qiladi. Shu bilan birga, chiqindilarni qayta ishlash tizimining samaradorligi davlat siyosati, normativ-huquqiy mexanizmlar va iqtisodiy rag'batlantirish choralarga bevosita bog'liq ekanligi aniqlandi.

Mazkur sohaning barqaror rivojlanishini ta'minlash uchun davlat tomonidan kompleks va izchil siyosat olib borish, xususiy sektor ishtirokini kengaytirish hamda innovatsion yondashuvlarni joriy etish zarur. Bundan tashqari, aholining ekologik madaniyatini oshirish va ekologik ta'limni kuchaytirish chiqindilarni qayta ishlash tizimining uzoq muddatli samaradorligini ta'minlaydi.

Umuman olganda, chiqindilarni qayta ishlash tizimini rivojlantirish yashil iqtisodiyotga muvaffaqiyatli o'tishning muhim sharti bo'lib, iqtisodiy o'sish va ekologik barqarorlik o'rtasidagi muvozanatni ta'minlashga xizmat qiladi. Tadqiqot natijalari mazkur yo'nalishda kelgusida amalga oshiriladigan ilmiy izlanishlar va amaliy chora-tadbirlar uchun nazariy asos bo'lib xizmat qiladi.

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NAFAS A'ZOLARIGA TA'SIR QILADIGAN VOSITALAR: NAZARIY ASOSLARI VA KLINIK AHAMIYAT

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Annotatsiya

Ushbu maqolada nafas a'zolariga ta'sir qiladigan dori vositalarining farmakologik xususiyatlari, ularning tasnifi, ta'sir mexanizmlari va klinik qo'llanilish jihatlari keng yoritilgan. Nafas tizimi kasalliklari, xususan, bronxial astma, surunkali obstruktiv o'pka kasalligi, pnevmoniya va nafas yetishmovchiligi kabi holatlarda qo'llaniladigan vositalarning o'rni va ahamiyati tahlil qilingan. Shuningdek, zamonaviy farmakoterapiyada inhalyatsion preparatlarning ustunliklari, ularning xavfsizligi va samaradorligi ilmiy manbalar asosida asoslab berilgan.

Kalit so'zlar: nafas tizimi, bronxolitiklar, respirator analeptiklar, mukolitiklar, inhalyatsion preparatlar, farmakologiya.

Аннотация

В статье рассматриваются фармакологические средства, воздействующие на органы дыхания, их классификация, механизмы действия и клиническое применение. Особое внимание уделено лекарственным средствам, применяемым при бронхиальной астме, хронической обструктивной болезни лёгких, пневмонии и дыхательной недостаточности. Обоснована роль современных ингаляционных препаратов, их эффективность и безопасность в комплексной терапии заболеваний дыхательной системы.

Ключевые слова: дыхательная система, бронхолитики, респираторные analeптики, муколитики, ингаляционные препараты, фармакология.

Abstract

This article analyzes pharmacological agents affecting the respiratory system, their classification, mechanisms of action, and clinical significance. Special attention is paid to drugs used in the treatment of bronchial asthma, chronic obstructive pulmonary disease, pneumonia, and respiratory failure. The role of modern inhalation therapy, its effectiveness, and safety are substantiated based on current scientific data.

Keywords: respiratory system, bronchodilators, respiratory analeptics, mucolytics, inhalation drugs, pharmacology.

Kirish

Nafas olish tizimi inson organizmining hayotiy muhim tizimlaridan biri bo'lib, uning asosiy vazifasi organizmni kislorod bilan ta'minlash va karbonat angidridni chiqarishdan iborat. Nafas tizimi faoliyatining buzilishi butun organizmda gipoksiya holatining yuzaga kelishiga olib keladi, bu esa yurak-qon tomir, asab va metabolik jarayonlarga salbiy ta'sir ko'rsatadi. Shu sababli nafas a'zolari kasalliklarini davolash va ularning oldini olish tibbiyotning muhim yo'nalishlaridan biri hisoblanadi.

Zamonaviy tibbiyotda nafas a'zolariga ta'sir qiladigan dori vositalari keng qo'llanilib, ular respirator tizimning turli bo'limlariga ta'sir ko'rsatish orqali terapevtik samara beradi. Ushbu vositalar nafas markaziga, bronx mushaklariga, bronxial sekretga va alveolyar gaz almashinuviga ta'sir etishi mumkin. Nafas tizimi kasalliklarining keng tarqalganligi va ularning ijtimoiy ahamiyati mazkur mavzuning dolzarbligini belgilaydi.

Mazkur maqolaning maqsadi nafas a'zolariga ta'sir qiladigan vositalarning farmakologik xususiyatlarini tizimli ravishda tahlil qilish, ularning tasnifi va klinik qo'llanilish imkoniyatlarini ilmiy asosda yoritishdan iborat.

Asosiy qism

Nafas a'zolariga ta'sir qiladigan vositalarning umumiy tavsifi

Nafas a'zolariga ta'sir qiladigan dori vositalari organizmda nafas olish jarayonini yaxshilash, bronxial o'tkazuvchanlikni tiklash, balg'am ajralishini osonlashtirish va nafas markazini rag'batlantirish maqsadida qo'llaniladi. Ushbu vositalar farmakologik ta'sir mexanizmlariga ko'ra bir necha guruhlariga bo'linadi.

Nafas tizimiga ta'sir etuvchi vositalar markaziy va periferik ta'sirga ega bo'lishi mumkin. Markaziy ta'sir ko'rsatuvchi preparatlar bevosita nafas markaziga ta'sir etsa, periferik ta'sir etuvchi vositalar bronxlar, alveolalar va respirator mushaklarga ta'sir qiladi. nafas markaziga ta'sir qiluvchi vositalar (respirator analeptiklar)

Respirator analeptiklar nafas markazini qo'zg'atuvchi dori vositalari bo'lib, ular asosan nafas yetishmovchiligi, narkozdan chiqish davri va og'ir gipoksiya holatlarida qo'llaniladi. Ushbu preparatlar medulla oblongatada joylashgan nafas markazining faoliyatini kuchaytiradi.

Bunday vositalarga kofein, niketamid, lobelin kiradi. Ularning asosiy ta'sir mexanizmi nafas olish tezligi va chuqurligini oshirish orqali gaz almashinuvini yaxshilashdan iborat. Ammo ushbu vositalar qo'llanilganda yurak-qon tomir tizimiga salbiy ta'sir ehtimoli mavjud bo'lgani sababli ehtiyotkorlik talab etiladi. bronxlarni kengaytiruvchi vositalar (bronxolitiklar)

Bronxolitiklar bronx mushaklarini bo'shashtiruvchi vositalar bo'lib, ular bronxial astma va surunkali obstruktiv o'pka kasalligini davolashda asosiy o'rin tutadi. Ushbu preparatlar bronx spazmini bartaraf etib, nafas yo'llarining o'tkazuvchanligini yaxshilaydi.

Bronxolitiklar quyidagi guruhlarga bo'linadi:

B2-adrenomimetiklar

M-xolinoblokatorlar

Metilksantinlar

Zamonaviy amaliyotda inhalyatsion β 2-adrenomimetiklar yuqori samaradorligi va kam nojo'ya ta'siri bilan ajralib turadi. balg'am ko'chiruvchi va mukolitik vositalar Mukolitik va ekspektorant vositalar bronxial sekretini suyultirib, uning ajralishini osonlashtiradi. Ushbu preparatlar bronxit, pnevmoniya va boshqa respirator kasalliklarda keng qo'llaniladi. Mukolitiklar balg'amning viskozligini kamaytirsa, ekspektorantlar yo'tal refleksini faollashtiradi.

Ambroksol, asetilsistein kabi preparatlar zamonaviy tibbiyotda keng qo'llanilib, ularning klinik samaradorligi yuqori baholanadi. inhalyatsion terapiyaning afzalliklari Inhalyatsion dori vositalari bevosita nafas yo'llariga yetkazilib, tez va samarali ta'sir ko'rsatadi. Ushbu usul sistemali nojo'ya ta'sirlarni kamaytirish imkonini beradi. Zamonaviy inhalyatorlar bemorlar uchun qulay va xavfsiz hisoblanadi. nafas a'zolariga ta'sir qiluvchi vositalarning klinik ahamiyati

Nafas tizimi kasalliklarini kompleks davolashda dori vositalarining to'g'ri tanlanishi muhim ahamiyatga ega. Individual yondashuv, bemorning yoshi va kasallik darajasi hisobga olinishi davolash samaradorligini oshiradi.

Nafas tizimiga ta'sir qiluvchi vositalarning patofiziologik asoslari

Nafas a'zolariga ta'sir qiladigan dori vositalarini to'g'ri tushunish uchun, avvalo, nafas tizimi faoliyatining patofiziologik jihatlarini hisobga olish lozim. Nafas tizimi markaziy va periferik mexanizmlar asosida boshqariladi. Markaziy mexanizm nafas markazi orqali amalga oshsa, periferik mexanizm bronxlar, alveolalar, respirator mushaklar va nafas yo'llarining reflektor apparati bilan bog'liqdir.

Nafas yo'llarining torayishi, bronx spazmi, balg'amning yopishqoqligi ortishi, alveolyar ventilyatsiyaning buzilishi va gipoksiya holatlari respirator kasalliklarning asosiy patogenetik bo'g'inlari hisoblanadi. Nafas a'zolariga ta'sir qiladigan vositalar aynan shu patogenetik mexanizmlarga yo'naltirilgan bo'lib, kasallik kechishining og'irligini kamaytirish va nafas funksiyasini tiklashga xizmat qiladi.

Respirator analeptiklarning zamonaviy talqini va cheklangan qo'llanilishi

Respirator analeptiklar tarixan nafas yetishmovchiligi holatlarida keng qo'llanilgan bo'lsa-da, zamonaviy tibbiyotda ularning qo'llanilishi ancha cheklangan. Buning asosiy sababi ushbu vositalarning markaziy asab tizimi va yurak-qon tomir tizimiga ko'rsatadigan nojo'ya ta'sirlaridir.

Respirator analeptiklar nafas markazining qo'zg'aluvchanligini oshirib, nafas olish tezligi va amplitudasini kuchaytiradi. Ammo bu ta'sir qisqa muddatli bo'lib, asosiy sabab bartaraf etilmasa, kutilgan terapevtik natijani bermaydi. Shu sababli hozirgi vaqtda respirator analeptiklar asosan reanimatsiya amaliyotida, qisqa muddatli stimulyatsiya zarur bo'lgan holatlarda qo'llaniladi.

Zamonaviy klinik tavsiyalarda respirator analeptiklardan ko'ra kislorod terapiyasi, sun'iy nafas oldirish va sababga yo'naltirilgan farmakoterapiya ustuvor deb hisoblanadi. Bronxolitik vositalarning molekulyar ta'sir mexanizmlari

Bronxolitiklar nafas a'zolariga ta'sir qiladigan eng muhim dori guruhlaridan biri bo'lib, bronxial obstruksiya bilan kechuvchi kasalliklarda asosiy davolash vositasi hisoblanadi. Ushbu preparatlar bronx mushaklarining silliq tolalariga ta'sir ko'rsatib, ularning bo'shashishiga olib keladi.

β 2-adrenomimetiklar hujayra membranasidagi β 2-retseptorlarni faollashtiradi, natijada adenilattsiklaza tizimi ishga tushib, hujayra ichida siklik adenozinmonofosfat (cAMP) miqdori ortadi. cAMP silliq mushak tolalarida kaltsiy ionlarining konsentratsiyasini kamaytiradi, bu esa bronx mushaklarining bo'shashishiga olib keladi.

M-xolinoblokatorlar esa parasimpatik asab tizimi orqali yuzaga keladigan bronx spazmini bartaraf etadi. Ushbu vositalar asetilxolinning M-retseptorlarga ta'sirini bloklab, bronxlarning torayishini oldini oladi. Ayniqsa, surunkali obstruktiv o'pka kasalligida ushbu preparatlar yuqori samaradorlik ko'rsatadi.

Metilksantinlar (teofillin) esa fosfodiesteraza fermentini inhibitsiya qilish orqali cAMP parchalanishini sekinlashtiradi. Natijada bronxolitik ta'sir kuchayadi. Biroq ushbu guruh preparatlarining terapevtik diapazoni tor bo'lgani sababli, ularni qo'llashda doimiy nazorat talab etiladi. Yallig'lanishga qarshi vositalarning respirator tizimdagi o'rni

Nafas yo'llarining ko'plab kasalliklari, xususan, bronxial astma va allergik rinit yallig'lanish jarayonlari bilan chambarchas bog'liq. Shu bois yallig'lanishga qarshi dori vositalari respirator farmakoterapiyaning muhim qismi hisoblanadi.

Glyukokortikosteroidlar yallig'lanishga qarshi kuchli ta'sirga ega bo'lib, sitokinlar sintezini kamaytiradi, yallig'lanish mediatorlarining ajralishini cheklaydi va bronx shilliq qavatining shishini kamaytiradi. Inhalyatsion kortikosteroidlar tizimli nojo'ya

ta'sirlarning kamligi bilan ajralib turadi va uzoq muddatli nazorat terapiyasida keng qo'llaniladi.

Leukotrien retseptorlarining antagonistlari bronxial astmada muhim rol o'ynaydigan leukotrienlarning ta'sirini bloklaydi. Ushbu preparatlar bronx spazmini kamaytirib, yallig'lanish jarayonini susaytiradi va bemorlarning hayot sifatini yaxshilaydi. Mukolitik va sekretolitik vositalarning hujayraviy ta'siri

Mukolitik vositalar balg'amning fizik-kimyoviy xususiyatlariga ta'sir ko'rsatib, uning yopishqoqligini kamaytiradi. Asetilsistein disulfid bog'larini parchalash orqali balg'amni suyultiradi, ambroksol esa surfaktant sintezini rag'batlantirib, alveolalarning kollapsiga uchrashini oldini oladi.

Sekretolitik vositalar bronxial bezlar faoliyatini faollashtirib, balg'am ajralishini osonlashtiradi. Ushbu preparatlar nafas yo'llarini mexanik tozalashda muhim ahamiyatga ega bo'lib, infeksiya jarayonlarning og'irlashuvini oldini oladi.

Mukolitik vositalarni noto'g'ri qo'llash balg'amning haddan tashqari ko'payishiga olib kelishi mumkin, shu bois ularni bemorning klinik holatini hisobga olgan holda buyurish zarur. Nafas a'zolariga ta'sir qiluvchi vositalarning pediatriyada qo'llanilishi Bolalar organizmida nafas tizimi anatomik va funksional jihatdan yetuk bo'lmagani sababli, dori vositalarini tanlashda alohida ehtiyot choralariga rioya etiladi. Bolalarda bronxlarning torligi va shilliq qavatning tez shishishi obstruktiv holatlarning tez rivojlanishiga sabab bo'ladi.

Pediatriyada inhalyatsion bronxolitiklar va mukolitiklar keng qo'llaniladi. Inhalyatsion yo'l preparatning to'g'ridan-to'g'ri nafas yo'llariga yetib borishini ta'minlab, tizimli nojo'ya ta'sirlarni kamaytiradi. Dozalash individual yondashuvni talab etadi va bolaning yoshi, tana vazni hamda kasallik og'irligi hisobga olinadi. Zamonaviy kombinatsiyalangan preparatlar

So'nggi yillarda nafas tizimi kasalliklarini davolashda kombinatsiyalangan preparatlardan foydalanish kengaydi. Ushbu preparatlar bir vaqtning o'zida bir nechta patogenetik bo'g'inlarga ta'sir ko'rsatadi. Masalan, bronxolitik va yallig'lanishga qarshi komponentlarni o'zida mujassam etgan inhalyatsion vositalar bronxial astmada yuqori samaradorlik ko'rsatmoqda.

Kombinatsiyalangan terapiya dori vositalarining sonini kamaytirib, bemorning davolashga rioya qilish darajasini oshiradi. Bu esa uzoq muddatli davolashda muhim ahamiyat kasb etadi. Nafas a'zolariga ta'sir qiluvchi vositalarni oqilona qo'llash muammolari

Nafas a'zolariga ta'sir qiladigan vositalarni noto'g'ri va nazoratsiz qo'llash dori rezistentligi, nojo'ya ta'sirlar va kasallikning og'irlashuviga olib kelishi mumkin. Shu sababli farmakoterapiyada dalillarga asoslangan yondashuv muhim hisoblanadi.

Bemorlarni dori vositalarini to'g'ri qo'llashga o'rgatish, inhalyatsion texnikani tushuntirish va muntazam monitoring olib borish davolash samaradorligini sezilarli darajada oshiradi.

Xulosa

Xulosa qilib aytganda, nafas a'zolariga ta'sir qiladigan vositalar zamonaviy tibbiyotda muhim ahamiyat kasb etadi. Ushbu preparatlar nafas tizimi kasalliklarini samarali davolash, bemorlarning hayot sifatini yaxshilash va asoratlarning oldini olishda muhim rol o'ynaydi. Farmakologik vositalarni oqilona qo'llash va ilmiy asoslangan yondashuv sog'liqni saqlash tizimining samaradorligini oshiradi.

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**ABBREVIATIONS IN THE ENGLISH AND UZBEK LANGUAGES:
FORMATION MECHANISMS, STYLISTIC LOAD, AND
COMMUNICATIVE EFFECTIVENESS**

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Abstract: This article explores abbreviations in the English and Uzbek languages with a focus on their formation mechanisms, stylistic load, and communicative effectiveness in modern discourse. The study employs a comparative linguistic approach to analyze structural types of abbreviations, including initialisms, acronyms, and clipped forms, as well as their functional roles across scientific, official, media, and digital communication. Special attention is given to the contribution of abbreviations to linguistic economy, information compression, and stylistic expressiveness. The findings provide theoretical and practical insights for functional stylistics, contrastive linguistics, and translation studies.

Keywords: abbreviations, formation mechanisms, stylistic load, communicative effectiveness, linguistic economy, English language, Uzbek language

**INGLIZ VA O‘ZBEK TILLARIDA QISQARTMALAR: SHAKLLANISH
MEXANIZMLARI, STILISTIK YUKLAMA VA KOMMUNIKATIV
SAMARADORLIK**

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Annotatsiya: Mazkur ilmiy maqolada ingliz va o‘zbek tillarida qisqartmalarning shakllanish mexanizmlari, ularning stilistik yuklamasi hamda zamonaviy kommunikatsiyadagi samaradorligi chog‘ishtirma-lingvistik yondashuv asosida tahlil qilinadi. Tadqiqotda qisqartmalarning strukturaviy turlari (initsializm, akronim, qisqartirilgan birliklar), ularning turli diskurslarda — ilmiy, rasmiy-ish yuritish, publitsistik va raqamli muloqotda — bajaradigan funksiyalari o‘rganiladi. Qisqartmalarning til iqtisodini ta’minlash, axborotni ixcham va tezkor yetkazish,

shuningdek, nutqning stilistik ta'sirchanligini oshirishdagi roli asoslab beriladi. Tadqiqot natijalari funksional stilistika, qiyosiy tilshunoslik va tarjimashunoslik uchun ilmiy-amaliy ahamiyatga ega.

Kalit so'zlar: qisqartmalar, shakllanish mexanizmlari, stilistik yuklama, kommunikativ samaradorlik, til iqtisodi, ingliz tili, o'zbek tili

**СОКРАЩЕНИЯ В АНГЛИЙСКОМ И УЗБЕКСКОМ ЯЗЫКАХ:
МЕХАНИЗМЫ ФОРМИРОВАНИЯ, СТИЛИСТИЧЕСКАЯ НАГРУЗКА И
КОММУНИКАТИВНАЯ ЭФФЕКТИВНОСТЬ
МАДЖИДОВА НИЛУФАР БАХОДИР КИЗИ
МАГИСТРАНТКА ТЕРМЕЗСКОГО УНИВЕРСИТЕТА ЭКОНОМИКИ И
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**НАУЧНЫЙ РУКОВОДИТЕЛЬ: САЛОМОВА ГАВХАР
АБДИНАЗАРОВНА**

Аннотация: В статье рассматриваются сокращения в английском и узбекском языках с точки зрения механизмов их формирования, стилистической нагрузки и коммуникативной эффективности в современном дискурсе. Исследование основано на сопоставительном анализе структурных типов сокращений, включая инициальные аббревиатуры, акронимы и усечённые формы, а также их функционирование в научном, официально-деловом, публицистическом и цифровом дискурсе. Особое внимание уделяется роли сокращений в обеспечении языковой экономии, повышении информативности и выразительности текста. Результаты исследования представляют интерес для функциональной стилистики, сопоставительного языкознания и переводоведения.

Ключевые слова: сокращения, механизмы формирования, стилистическая нагрузка, коммуникативная эффективность, языковая экономия, английский язык, узбекский язык

Introduction

In modern linguistic research, abbreviations are regarded as an essential element of language economy and communicative efficiency. The rapid development of science, technology, mass media, and digital communication has significantly increased the use of abbreviated forms in both written and spoken discourse. Abbreviations enable speakers and writers to convey complex information in a concise manner, reduce textual redundancy, and adapt language to the fast-paced nature of contemporary

communication. The English language demonstrates a highly productive and systematized use of abbreviations, especially in academic, professional, and digital contexts. Due to its global influence, English abbreviation patterns often serve as models for other languages. In the Uzbek language, abbreviations have become increasingly widespread as a result of socio-political reforms, globalization, and the expansion of institutional and digital communication. As a consequence, abbreviation formation in Uzbek reflects both internal linguistic development and external influence. Abbreviations are not stylistically neutral units. Their usage varies depending on discourse type, communicative intention, and target audience. In formal and scientific texts, abbreviations often serve a standardizing and terminological function, whereas in media and digital discourse they may carry expressive, pragmatic, or identity-marking meanings. Therefore, studying abbreviations requires a functional and stylistic perspective that goes beyond purely structural analysis. This study aims to investigate abbreviations in the English and Uzbek languages by focusing on their formation mechanisms, stylistic load, and communicative effectiveness. A comparative approach allows for identifying similarities and differences in how abbreviations function across languages and discourse types, contributing to functional stylistics, contrastive linguistics, and translation studies.

Materials and methods

The research is based on a comparative linguistic methodology combining descriptive, functional, and stylistic analysis. The primary research material consists of abbreviations collected from authentic English and Uzbek sources representing different types of modern discourse. English-language data were obtained from academic articles, official documents, mass media publications, and digital communication platforms, including websites and social media. Uzbek-language materials were drawn from legal documents, academic texts, newspapers, official institutional websites, and online communication environments. This selection ensured balanced representation of formal and informal discourse in both languages. The comparative method was employed to identify correspondences and divergences between English and Uzbek abbreviations. The structural analysis method was used to classify abbreviations according to their formation mechanisms, such as initialisms, acronyms, and clipped forms. The functional analysis method examined the communicative roles of abbreviations, focusing on their contribution to linguistic economy and information density. In addition, the stylistic analysis method was applied to determine the stylistic load of abbreviations in different discourse types. Abbreviations were analyzed within their textual context to account for pragmatic

factors such as formality, audience orientation, and communicative purpose. This methodological framework ensured the reliability and validity of the research findings.

Results

The results of the study show that abbreviations in both English and Uzbek exhibit a high degree of functional diversity. In scientific and official discourse, abbreviations primarily fulfill a nominative and standardizing function, contributing to terminological precision and textual coherence. English scientific texts demonstrate a higher level of abbreviation conventionalization, while Uzbek texts show ongoing processes of normalization. In media discourse, abbreviations serve as tools of linguistic economy and stylistic dynamism. English media texts frequently employ abbreviations to enhance brevity and immediacy, particularly in headlines and online content. Uzbek media discourse increasingly adopts similar strategies, although explanatory expansions are often provided to maintain clarity. Digital discourse reveals the highest level of abbreviation productivity. In both languages, abbreviations in online communication function as markers of informality, speed, and group identity. However, English digital abbreviations are more globally standardized, whereas Uzbek digital abbreviations retain stronger cultural and linguistic specificity. From a structural perspective, English favors compact acronyms and initialisms, while Uzbek more frequently employs partial abbreviations or syntactic constructions. These structural differences influence translation strategies and communicative effectiveness across languages.

COMPARATIVE TABLE OF ABBREVIATIONS IN ENGLISH AND UZBEK

N o.	Abbrevi ation (EN)	Full form (English)	Abbrevi ation (UZ)	To'liq shakli (o'zbekcha)	Format ion mechan ism	Discou rse type	Stylistic load / Communi cative Function
1	UN	United Nations	BMT	Birlashgan Millatlar Tashkiloti	Initialism	Official / Political	Standardization, formality
2	EU	European Union	YI	Yevropa Ittifoqi	Initialism	Official / Media	Information compression

3	GDP	Gross Domestic Product	YAIM	Yalpi ichki mahsulot	Initialism	Scientific / Economic	Terminological precision
4	PhD	Doctor of Philosophy	PhD	Falsafa doktori	Acronym (int.)	Academic	International recognition
5	NGO	Non-Governmental Organization	NNT	Nodavlat notijorat tashkiloti	Initialism	Official / Media	Linguistic economy
6	WHO	World Health Organization	JSST	Jahon sogʻliqni saqlash tashkiloti	Initialism	Scientific / Official	Normativity, clarity
7	IT	Information Technology	AT	Axborot texnologiyalari	Initialism	Technical / Academic	Professional efficiency
8	CEO	Chief Executive Officer	—	Bosh direktor	Acronym / Title	Business	Status marking
9	FAQ	Frequently Asked Questions	KSS	Koʻp soʻraladigan savollar	Initialism	Digital / Web	Text organization
10	ASAP	As Soon As Possible	—	Zudlik bilan	Acronym	Informal / Digital	Pragmatic urgency
11	SMS	Short Message Service	SMS	Qisqa xabar xizmati	Acronym	Digital	Speed of communication
12	etc.	et cetera	va boshq.	va boshqalar	Latin abbreviation	Academic /	Text economy

						Official	
13	URL	Uniform Resource Locator	URL	Internet manzili	Acronym	Digital	Technical precision
14	HR	Human Resources	Kadrlar bo'limi	Kadrlar bo'limi	Initialism	Business / Official	Institutional clarity
15	FYI	For Your Information	—	Ma'lumot uchun	Initialism	Informal / Digital	Pragmatic emphasis

Conclusion

The study confirms that abbreviations play a crucial role in modern communication in both English and Uzbek. Their formation mechanisms, stylistic load, and communicative effectiveness are shaped by discourse type, social context, and linguistic structure. While both languages share common functional motivations for abbreviation usage, they differ in structural realization and stylistic norms. English exhibits a more established and standardized abbreviation system, whereas Uzbek continues to develop and adapt abbreviations in response to contemporary communicative demands. The findings of this research contribute to functional stylistics and comparative linguistics and have practical implications for translation, language teaching, and professional communication. Further research may explore diachronic changes in abbreviation usage or expand the analysis to additional languages to gain a broader understanding of abbreviation dynamics in global discourse.

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**A COMPARATIVE ANALYSIS OF ZOO-COMPONENT PROVERBS IN
CHILDREN'S FOLKLORE (BASED ON ENGLISH AND UZBEK
LANGUAGES)**

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Abstract: This article presents a comparative linguocultural and semantic analysis of zoo-component proverbs commonly found in children's folklore in English and Uzbek. The study examines the role of animal-based proverbs in shaping children's worldview and moral values, highlighting their educational and cultural significance. Special attention is paid to symbolic imagery, national mentality, and metaphorical meanings embedded in such proverbs. The comparative approach allows identifying both universal and culture-specific features, demonstrating the importance of folklore units in language acquisition and intercultural communication.

Keywords: children's folklore, zoo-component proverbs, comparative analysis, semantics, linguocultural studies, English and Uzbek languages

**BOLALAR FOLKLORIDA UCHRAYDIGAN ZOOKOMPONENTLI
MAQOLLARNING CHOG'ISHTIRMA TAHLILI (INGLIZ VA O'ZBEK
TILLARI MISOLIDA)**

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Annotatsiya: Mazkur maqolada bolalar folklorida keng qo'llaniladigan zookomponentli maqollarning lingvokulturologik va semantik xususiyatlari ingliz va o'zbek tillari misolida chog'ishtirma jihatdan tahlil qilinadi. Tadqiqot jarayonida hayvon nomlari ishtirokidagi maqollarning bolalar tafakkurini shakllantirishdagi roli, ularning tarbiyaviy, didaktik va madaniy funksiyalari ochib beriladi. Shuningdek, maqollarda aks etgan milliy mentalitet, obrazlilik va ramziy ma'no qatlamlari qiyosiy nuqtayi nazardan yoritiladi. Tadqiqot natijalari til o'rganish jarayonida folklor birliklaridan samarali foydalanish imkoniyatlarini ko'rsatib beradi.

Kalit so'zlar: bolalar folklori, zookomponentli maqollar, chog'ishtirma tahlil, semantika, lingvokulturologiya, ingliz va o'zbek tillari

СОПОСТАВИТЕЛЬНЫЙ АНАЛИЗ ЗООКОМПОНЕНТНЫХ ПОСЛОВИЦ В ДЕТСКОМ ФОЛЬКЛОРЕ (НА МАТЕРИАЛЕ АНГЛИЙСКОГО И УЗБЕКСКОГО ЯЗЫКОВ)

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Аннотация: В данной статье проводится сопоставительный лингвокультурологический и семантический анализ зоокомпонентных пословиц, функционирующих в детском фольклоре английского и узбекского языков. Рассматривается роль образов животных в формировании детского мышления, нравственных ценностей и культурных представлений. Особое внимание уделяется символике, образности и национально-культурной специфике пословиц. Полученные результаты подтверждают значимость фольклорных единиц в процессе обучения языкам и межкультурной коммуникации.

Ключевые слова: детский фольклор, зоокомпонентные пословицы, сопоставительный анализ, семантика, лингвокультурология, английский и узбекский языки

INTRODUCTION

Folklore has always played a significant role in the formation of a child's worldview, moral values, and cultural identity. Among the various folklore genres, proverbs occupy a special place due to their brevity, expressiveness, and didactic potential. In children's folklore, zoo-component proverbs—those containing animal names—are particularly widespread, as animals serve as vivid, memorable, and emotionally engaging symbols that are easily perceived by children. Zoo-component proverbs reflect collective experience accumulated over centuries and transmit ethical norms, behavioral patterns, and cultural values in a figurative form. In both English and Uzbek cultures, animals are used metaphorically to represent human qualities such as wisdom, courage, laziness, cunning, or loyalty. However, despite the universal presence of animals in folklore, the semantic load and symbolic interpretation of the same animal image may differ significantly depending on cultural, historical, and social contexts. The relevance of this study lies in the growing interest in comparative linguistics and

linguocultural studies, especially in the context of teaching foreign languages and developing intercultural competence. By comparing zoo-component proverbs in English and Uzbek children's folklore, it becomes possible to identify both universal semantic patterns and nationally specific features. This research contributes to a deeper understanding of how language, culture, and cognition interact in the process of folklore transmission and child socialization.

Materials and methods

The research material consists of zoo-component proverbs selected from English and Uzbek folklore sources, including proverb dictionaries, folklore collections, and educational materials intended for children. The selection process focused on proverbs that are frequently used in children's speech or are commonly introduced in educational contexts. The methodological framework of the study is based on a combination of comparative, semantic, and linguocultural analysis. Comparative analysis is employed to identify similarities and differences in the use of animal images across the two languages. Semantic analysis allows for the examination of figurative meanings, evaluative components, and metaphorical extensions associated with zoo-components. Linguocultural analysis is used to reveal the cultural symbolism and national worldview reflected in the proverbs. In addition, elements of descriptive and contextual analysis are applied to interpret the proverbs within their cultural and communicative environment. This integrated methodological approach ensures a comprehensive and objective examination of zoo-component proverbs in children's folklore.

Results

The analysis demonstrates that zoo-component proverbs in both English and Uzbek children's folklore perform important educational and moral functions. In both languages, animals such as the fox, lion, dog, donkey, and horse are frequently used to personify human traits and social behaviors. Many proverbs convey universal meanings, such as the association of the fox with cunning or the dog with loyalty, indicating shared cognitive patterns across cultures. At the same time, significant cultural differences are observed in the symbolic interpretation of certain animals. In Uzbek folklore, animals like the donkey and camel often reflect social status, patience, or hardship, closely connected with traditional lifestyle and agricultural practices. In English folklore, animals such as the cat or sheep are more commonly associated with domestic life and individual behavior. The study also reveals that zoo-component proverbs in children's folklore tend to employ simpler syntactic structures and more explicit moral messages compared to proverbs used in adult discourse. This feature enhances their pedagogical effectiveness and facilitates memorization and

comprehension by children. Overall, the findings confirm that zoo-component proverbs serve as a powerful linguistic tool for transmitting cultural values and shaping children's ethical perceptions.

Comparative Analysis Of Zoo-Component Proverbs

Animal component	English proverb meaning	Uzbek proverb meaning	Cultural interpretation
Fox	Cunning, cleverness	Cunning, deceit	Universal negative symbolism
Dog	Loyalty, friendship	Loyalty, protection	Positive moral value
Donkey	Stupidity, stubbornness	Patience, burden	Culture-specific symbolism
Lion	Courage, leadership	Power, bravery	Universal positive image
Sheep	Obedience, conformity	Rare usage	Culture-dependent relevance

Conclusion

The comparative analysis of zoo-component proverbs in English and Uzbek children's folklore highlights both universal and culture-specific aspects of proverb semantics and symbolism. While many animal images convey similar moral meanings across cultures, their pragmatic usage and cultural connotations vary depending on national traditions and social experience. The research confirms that zoo-component proverbs play a crucial role in children's moral education, linguistic development, and cultural socialization. Their figurative nature and emotional appeal make them particularly effective in conveying complex ideas in a simple and accessible form. The results of this study can be applied in the fields of comparative linguistics, folklore studies, and foreign language teaching, especially in developing culturally sensitive educational materials.

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СИЛ КАСАЛЛИГИ БЎЛГАН БЕМОРЛАРДА ЮРАКНИНГ МОРФОЛОГИЯСИ.

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Мавзунинг долзарблиги: Ўтмишда сил касаллигига йўлиққан инсон молиявий аҳволи ва ёшига қарамай, ҳаётдан кўз юмарди. Бугун эса бу касаллик ўтмишдаги каби кўрқинчли эмас. Тиббиёт соҳасида эришилаётган барча ютуқларга қарамай, уни сезмай қолиш мумкин, йўқотиш қийин, унутишнинг эса иложи йўқ.

Жаҳон Соғлиқни Сақлаш Ташкилотининг хабар беришича, ер юзиде тахминан 2,1 миллиард одам сил билан зарарланган. Шуларнинг 10 фоизиде, ҳаёти давомида сил касаллиги юзага келиши мумкин, бунда ОИТС катта аҳамиятга эга. Жаҳон оммавий воситаларининг таъкидлашича, силга қарши курашиш оламшумул аҳамиятга эга. Шуни ҳам айтиш керакки, касаллик чегара билмайди. Мамлакатлар аҳолиси ўртасидаги алоқаларнинг ривожланиши, кўчиб юришлар, қашшоқлик сабабли ривожланган мамлакатларга соғлом одамлар қаторида, сил беморларининг ҳам кириб боришларини тўхтатишнинг иложи йўқ.

Ишнинг мақсади: ишнинг мақсади сифатида Республика фтизиатрия ва пульмонология илмий-амалий тиббиёт маркази Хоразм филиалида сил касаллигининг хар хил шакллари билан вафот этган беморларнинг юракдаги морфологик ўзгаришларни аниқлаш мақсад қилиб олинган.

Олинган натижалар: илмий изланишлар доирасида сил касаллигининг хар хил турдаги шакллари билан оғриган беморларнинг аксарияти жинс бўйча ўрганилиб кўрилган аёллар 70-80% ни ташкил этди ва касаллик сифатида бошқа сурункали касалликларга қараган юрак касаллиги борлиги аниқланди.

Хоразм вилоят патологик анатомия бюросига олиб келинган сил касаллигининг хар хил турдаги касалликлар натижасида юрак касаллиги билан вафот этган беморларда ўткир нафас-юрак етишмовчилиги борлиги аниқланди.

Хулосалар: хулоса ўрнида шуни айтиш мумкинки, эркакларга нисбатан аёлларда кўп учраган касалликлар ичида сил касаллигининг хар хил шаклда асорат сифатида юракдаги морфологик ўзгаришлар сабаб бўлган.

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THE IMPACT OF CASHLESS PAYMENTS IN THE PAYMENT SYSTEM OF SMALL BUSINESSES IN THE TRANSPORT SECTOR ON INFLATION

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Abstract: This article analyzes the impact of cashless payments on inflation and monetary circulation within the economy. The study highlights how the expansion of electronic payments, bank cards, and digital transactions can mitigate inflationary pressures, enhance monetary policy efficiency, and optimize money circulation. Findings indicate that while cashless payments accelerate the velocity of money, their effect on inflation depends on the effectiveness of regulatory and monetary control mechanisms.

Keywords: cashless payments, inflation, electronic payment system, monetary policy, digital economy.

In recent years, the rapid development of the digital economy in our country, the widespread use of financial technologies (fintech), and the popularization of electronic payment instruments in the banking system have had a significant impact on economic processes. In particular, the expansion of cashless payments is recognized as a factor directly affecting money circulation, the consumer market, and price levels. A cashless payment system is a system of settlements between economic entities through electronic means, bank cards, mobile applications and online platforms. The advantages of this system are speed, security, cost reduction and transparency of money circulation. At the same time, these processes also affect the level of inflation, since digital payments cause changes in the money supply and velocity of circulation. Currently, the Central Bank of the Republic of Uzbekistan is implementing large-scale reforms to develop the national payment system, increase the level of use of banking services by the population, and implement the principles of a "cashless economy". In particular, during 2020-2024, the number of bank cards in the country increased by 2.5 times, and the volume of electronic payments increased by about 4 times. This requires new approaches to analyzing inflationary processes. The issue of the impact of cashless payments on inflation is important not only for macroeconomic stability, but also for assessing the effectiveness of monetary policy. Because as the digital payment system expands, the Central Bank's ability to control the money supply, as well as the consumption and savings behavior of the population, will change. In this regard, the main goal of this study is to empirically analyze the impact of cashless payments on the inflation rate in the case of the Namangan region and its districts, identify existing trends, and develop practical recommendations for economic policy. [1] The following tasks were set as part of the research: To study the role and theoretical foundations of the cashless payment system in the economy; To analyze the dynamics of the volume of cashless payments in the Namangan region; To determine the relationship between cashless payments and the inflation rate; The results of the research are relevant for the regional economy and will serve to further improve the digital payment infrastructure in the banking sector, reduce cash circulation, and develop effective mechanisms to curb inflation. The role of cashless payments in the economy Cashless payments are payments for goods and services between economic entities through bank accounts, electronic means

or digital platforms. This system reduces the use of cash in economic transactions, accelerates money circulation, and ensures transparency of financial flows. [2] With the development of cashless payment systems: the costs of managing cash circulation will decrease; the velocity of money will increase; tax revenues and fiscal discipline will improve; the possibility of digital monitoring of consumption and investment activity will arise. Therefore, cashless payments are considered not only an element of the payment system, but also a tool of macroeconomic management. Thus, cashless payments have a dual effect: They can increase inflation by increasing the velocity of money; However, the transparency and control mechanisms of the system help maintain inflationary stability. The mechanism of influence from the point of view of the monetarism approach As representatives of the theory of monetarism (M. Friedman, A. Brunner, etc.) point out, inflation is an excessive increase in the money supply. With the development of a cashless settlement system, the Central Bank will be able to control the money supply more accurately, since all transactions will be recorded electronically. According to monetary policy mechanisms, the growth of non-cash payments affects inflation through the following channels: *Liquidity channel* when cashless payments increase, the population and business entities reduce their use of liquid assets, which reduces the total money supply. *Interest rate channel* when the digital payment system develops, interbank liquidity stabilizes, interest rates decrease, which stimulates investment. *Expectations channel* a transparent payment system reduces inflationary expectations among economic entities, ensuring price stability. Thus, the expansion of cashless payments strengthens the transmission mechanism of monetary policy and increases the effectiveness of inflation management. The relationship between consumption and the payment system in the Keynesian approach According to the Keynesian school of economics, the balance between consumption and saving determines the level of aggregate demand in the economy. As the cashless payment system develops, consumer transactions accelerate, demand for goods and services increases, which can lead to a rise in prices in the short term. However, in the long term, digital payments will: improve payment discipline, strengthen cost control, increase transparency in the domestic market, restore economic balance. As a result, inflationary processes stabilize. Therefore, according to the Keynesian approach, cashless payments stimulate consumption in the short term, but in the long term they serve price stability. Transformation of the payment system in the digital economy With the widespread introduction of digital technologies, the payment system is considered not only as an economic tool, but also as an innovative infrastructure. Digital payments are made through “**smart-pay**”, “**QR-code**”, “**mobile banking**”, “**internet banking**” and other means. This process provides the following economic advantages: acceleration of money circulation and reduction of costs; increased liquidity of the banking system; expansion of the tax base; reduction of inflationary expectations. In particular, according to the Central Bank of the Republic of Uzbekistan, the volume of non-cash payments in the country in 2024 exceeded 1.5 quadrillion soums, which is four times more than in 2020. This process strengthens control over the money supply and serves to maintain price stability. [3] Analysis and results (on the example of Namangan region) The following analysis aims to determine the relationship between the volume of non-cash payments and the inflation rate in the Namangan region for the period 2020–2024. The data was analyzed by the main districts of the region.

Table 1. Volume of non-cash payments in Namangan region (2020–2024, billion soums)

Year	Namangan City	Chartok	Chust	Pop	Turakurgan	Total Volume
2020	1 245	320	405	280	350	2 600
2021	1 890	465	590	370	480	3 795
2022	2 740	680	810	490	620	5 340
2023	3 550	890	1 030	620	780	6 870
2024	4 200	1 120	1 260	770	940	8 290

Note: During 2020–2024, the volume of cashless payments in the region increased by 3.2 times. The highest growth was observed in the city of Namangan and Turakurgan district.

CONCLUSION AND SUGGESTIONS

The results of the study showed that the cashless settlement system has a significant impact on inflationary processes in the economy. Based on the empirical analysis conducted on the example of the Namangan region, the following conclusions and proposals were put forward:[4] The growth of non-cash payments is emerging as a stabilizing factor for inflation. Although the volume of cashless payments in the region increased more than 3 times during 2020–2024, the average annual inflation rate decreased from 11.5% to 8.5%. This indicates that the expansion of the digital payment system reduces inflationary pressures and stabilizes monetary circulation. The development of a cashless economy infrastructure will strengthen macroeconomic control. Since all transactions through electronic payment systems are digitally tracked, the Central Bank and financial institutions will be able to more accurately control the money supply. This will increase the effectiveness of monetary policy and help curb inflation. **Proposal:** Expand the network of digital financial services in each district; Implement local programs to increase financial literacy among the population. There is a strong correlation between cashless payments and the velocity of money. The correlation analysis showed a coefficient of -0.82 , which indicates that inflation decreases as the volume of cashless payments increases. At the same time, there is a positive correlation between the velocity of money and inflation. **Proposal:** To manage the speed of money circulation, align the volume of electronic payments with economic growth; To include the share of digital transactions as a key indicator in money supply monitoring. General conclusion based on scientific results: The development of a cashless payment system serves as an effective tool for controlling inflation. Through this system: transparency of monetary circulation is ensured; the shadow economy is reduced; the Central Bank's control capabilities are strengthened; the growth rate of the price level is stabilized. Thus, the expansion of the digital payment infrastructure and the reduction of cash circulation in Uzbekistan's economic policy should be recognized as an important component of curbing inflation.

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**ZAMONAVIY XIRURGIYADA ASEPTIKA VA ANTISEPTIKA
TAMOYILLARI: NAZARIY ASOSLAR VA AMALIY AHAMIYATI**

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Annotatsiya

Mazkur ilmiy maqolada zamonaviy xirurgiyada aseptika va antiseptika tamoyillarining nazariy asoslari, tarixiy rivojlanish bosqichlari, amaliy qo'llanish usullari hamda jarrohlik amaliyotida infeksiyon asoratlarning oldini olishdagi ahamiyati atroflicha yoritilgan. Aseptika va antiseptika jarrohlikda steril muhitni ta'minlash, operatsiyadan keyingi yiringli-septik asoratlarni kamaytirish va bemor xavfsizligini oshirishning muhim shartlaridan biri hisoblanadi. Maqolada aseptika va antiseptikaning asosiy tamoyillari, ularning zamonaviy texnologiyalar bilan uyg'unlashuvi, dezinfeksiya va sterilizatsiya usullari, shuningdek, tibbiyot xodimlarining mas'uliyati va kasbiy madaniyati masalalari ilmiy manbalar asosida tahlil qilingan.

Kalit so'zlar: aseptika, antiseptika, zamonaviy xirurgiya, sterilizatsiya, dezinfeksiya, jarrohlik infeksiyasi, infeksiyon nazorat.

Аннотация

В данной статье подробно рассматриваются теоретические основы, исторические этапы развития и практическое значение принципов асептики и антисептики в современной хирургии. Асептика и антисептика являются ключевыми факторами профилактики хирургических инфекций, снижения частоты гнойно-септических осложнений и повышения безопасности пациентов. В работе проанализированы основные методы стерилизации и дезинфекции, современные антисептические средства, а также роль медицинского персонала в обеспечении инфекционного контроля.

Ключевые слова: асептика, антисептика, современная хирургия, стерилизация, дезинфекция, хирургическая инфекция, инфекционный контроль.

Annotation

This scientific article comprehensively examines the theoretical foundations, historical development, and practical significance of aseptic and antiseptic principles in modern surgery. Asepsis and antisepsis play a crucial role in preventing surgical infections,

reducing postoperative septic complications, and ensuring patient safety. The article analyzes modern sterilization and disinfection methods, contemporary antiseptic agents, and the responsibility of medical personnel in maintaining effective infection control.

Key words: asepsis, antisepsis, modern surgery, sterilization, disinfection, surgical infection, infection control.

KIRISH

Zamonaviy tibbiyot taraqqiyotida jarrohlik fanining rivojlanishi bevosita aseptika va antiseptika tamoyillarining joriy etilishi bilan chambarchas bog'liqdir. Jarrohlik amaliyotida infeksiyon asoratlari uzoq vaqt davomida bemorlar o'limining asosiy sabablaridan biri bo'lib kelgan. XIX asrga qadar operatsiyalardan keyin yiringli asoratlari va sepsis keng tarqalgan bo'lib, jarrohlik aralashuvlarining samaradorligi juda past bo'lgan.

Aseptika va antiseptikaning ilmiy asosda shakllanishi jarrohlikda tub burilish yasadi. Ushbu tamoyillar jarrohlik jarayonida mikroorganizmlarning yaraga tushishini oldini olish yoki ularni yo'q qilishga qaratilgan bo'lib, bugungi kunda zamonaviy xirurgiyaning ajralmas qismi hisoblanadi. Ayniqsa, invaziv texnologiyalar, endoskopik va robotlashtirilgan operatsiyalar keng qo'llanilayotgan bir davrda aseptika va antiseptikaga qat'iy rioya qilish muhim ahamiyat kasb etmoqda.

Mazkur maqolaning maqsadi zamonaviy xirurgiyada aseptika va antiseptika tamoyillarining ilmiy-nazariy asoslarini yoritish, ularning amaliy ahamiyatini ochib berish hamda jarrohlik infeksiyalarining oldini olishdagi rolini tahlil qilishdan iborat.

ASOSIY QISM

Aseptika va antiseptika tushunchasi va ularning mohiyati

Aseptika — bu jarrohlik jarayonida yara va to'qimalarga mikroorganizmlarning tushishini oldini olishga qaratilgan chora-tadbirlar majmuidir. Aseptikaning asosiy maqsadi steril muhitni ta'minlash orqali infeksiyaning oldini olishdan iborat.

Antiseptika esa — jarohatga tushgan yoki organizmda mavjud bo'lgan mikroorganizmlarni yo'q qilish yoki ularning ko'payishini to'xtatishga qaratilgan usullar majmuasidir.

Aseptika profilaktik yo'nalishga ega bo'lsa, antiseptika davolovchi yo'nalishga ega bo'lib, ushbu ikki tushuncha bir-birini to'ldiradi.

Aseptika va antiseptikaning tarixiy rivojlanishi

XIX asrda ingliz jarrohi Jozef Lister antiseptika tamoyillarini amaliyotga joriy etib, karbol kislotasi yordamida jarrohlik yaralarini ishlav berishni taklif etdi. Bu yondashuv jarrohlik infeksiyalari sonini keskin kamaytirdi.

Keyinchalik mikrobiologiya fanining rivojlanishi, Lui Paster va Robert Koxning ilmiy ishlari aseptika tamoyillarining shakllanishiga asos bo'ldi. XX asrda sterilizatsiya usullarining takomillashuvi jarrohlik amaliyotini sifat jihatdan yangi bosqichga olib chiqdi. Antibiotiklar, bakteriofaglar va immun preparatlar qo'llaniladi.

Jarrohlik infeksiyalari va ularning oldini olish. Jarrohlik infeksiyalari quyidagi asoratlarni keltirib chiqaradi: Profilaktika choralariga qat'iy aseptika qoidalariga rioya qilish, antibiotik profilaktika va tibbiyot xodimlarining sanitariya madaniyati kiradi. Zamonaviy texnologiyalar va infeksiyon nazorat.

Bugungi kunda infeksiyon nazorat tizimi quyidagilarni o'z ichiga oladi: Bir martalik steril asboblar Antibakterial qoplamalar, Robotlashtirilgan jarrohlik

Bu usullar infeksiya xavfini minimal darajaga tushirishga xizmat qiladi.

XULOSA

Xulosa qilib aytganda, zamonaviy xirurgiyada aseptika va antiseptika tamoyillariga qat'iy rioya qilish jarrohlik amaliyotining muvaffaqiyatini ta'minlovchi asosiy omillardan biridir. Ushbu tamoyillar jarrohlik infeksiyalarini kamaytirish, bemor xavfsizligini oshirish va sog'liqni saqlash tizimi samaradorligini ta'minlashda muhim ahamiyatga ega.

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ETIOLOGICAL FACTORS AND CAUSES OF PULPITIS

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Abstract

Pulpitis is an inflammatory disease of the dental pulp that develops as a result of various local and systemic factors. It is one of the most common complications of untreated dental caries and a frequent cause of acute dental pain. The aim of this scientific article is to analyze the main etiological factors and causes of pulpitis, including microbial, mechanical, chemical, and iatrogenic influences. The article highlights the pathogenesis of pulp inflammation and emphasizes the importance of early diagnosis and prevention in clinical dental practice. Understanding the causes of pulpitis is essential for effective treatment planning and for preventing irreversible damage to the dental pulp.

Keywords

Pulpitis, dental pulp, etiology, inflammation, dental caries, microorganisms

Relevance of the Topic

The relevance of studying pulpitis is determined by its high prevalence and significant impact on patients' quality of life. Pulpitis is a leading cause of emergency dental visits due to severe pain and discomfort. In most cases, pulpitis develops as a complication of dental caries; however, it may also occur as a result of trauma, restorative procedures, or chemical irritation. Delayed or inadequate treatment can lead to pulp necrosis and periapical diseases, increasing the complexity and cost of dental care. Therefore, a detailed analysis of the etiological factors of pulpitis is crucial for improving preventive and therapeutic strategies in modern dentistry.

Introduction

The dental pulp is a specialized connective tissue located within the pulp chamber and root canals of the tooth. It contains blood vessels, nerves, lymphatic vessels, and cells responsible for dentin formation and immune defense. Due to its enclosed anatomical structure, the pulp has limited capacity to respond to inflammation. Any irritant affecting the pulp may result in inflammatory changes collectively referred to as pulpitis. This condition can be classified as reversible or irreversible, depending on the severity and duration of the inflammatory process. Identifying the causes of pulpitis is fundamental for timely intervention and preservation of pulp vitality.

Main Part

Microbial Causes of Pulpitis

Microbial infection is the most common cause of pulpitis. Bacteria and their toxins penetrate the dental pulp primarily through deep carious lesions. As dental caries progresses, microorganisms invade dentinal tubules and reach the pulp tissue, triggering an inflammatory response. The most frequently involved bacteria include *Streptococcus mutans*, *Lactobacillus* species, and anaerobic microorganisms.

Bacterial metabolites and endotoxins stimulate immune cells within the pulp, leading to vasodilation, increased vascular permeability, and edema. Because the pulp is surrounded by rigid dentin walls, increased pressure results in intense pain, which is a characteristic symptom of pulpitis.

Mechanical Causes

Mechanical factors can also contribute to the development of pulpitis. Dental trauma, such as fractures, cracks, or excessive occlusal forces, may directly or indirectly damage the pulp tissue. Even without pulp exposure, repeated mechanical stress can disrupt blood circulation within the pulp, leading to inflammatory changes.

Iatrogenic mechanical irritation during dental procedures, including aggressive cavity preparation, excessive removal of dentin, or overheating of the tooth due to inadequate cooling, is another important cause of pulp inflammation.

Chemical Causes

Chemical irritation of the pulp may result from the penetration of toxic substances through dentin. Acidic restorative materials, improper use of disinfectants, or leakage of dental materials can damage odontoblasts and pulp cells. Inadequate sealing of restorations allows chemical agents and oral fluids to reach the pulp, promoting inflammation.

Additionally, whitening agents and acidic foods may contribute to pulp irritation when dentin is exposed.

Thermal Causes

Thermal stimuli play a significant role in the etiology of pulpitis. Prolonged exposure to extreme temperatures, such as excessive heat generated during tooth preparation or frequent consumption of very hot or cold foods, can injure the pulp. Thermal damage is often associated with insufficient cooling during restorative procedures.

Role of Systemic and Local Factors

Systemic conditions such as diabetes mellitus, immunodeficiency disorders, and vitamin deficiencies can reduce pulp resistance to irritation and infection. Local

factors, including poor oral hygiene, deep periodontal pockets, and microleakage around restorations, further increase the risk of pulpitis.

Pathogenesis of Pulp Inflammation

The inflammatory process in the dental pulp begins with vascular changes, followed by cellular infiltration and edema. If the irritant is mild and removed promptly, the pulp may recover, resulting in reversible pulpitis. However, persistent or severe irritation leads to irreversible pulpitis, pulp necrosis, and possible spread of infection to periapical tissues.

Conclusion

Pulpitis is a multifactorial inflammatory disease primarily caused by microbial invasion from dental caries, as well as mechanical, chemical, thermal, and systemic factors. Early identification and elimination of etiological factors are essential for preventing irreversible pulp damage. Comprehensive preventive care, accurate diagnosis, and careful dental procedures play a crucial role in reducing the incidence of pulpitis and preserving dental pulp vitality.

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DIDACTIC FEATURES OF DEVELOPING THE COGNITIVE COMPETENCE OF SOCIAL SECTOR EMPLOYEES BASED ON DIGITAL TECHNOLOGIES

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This article analyzes the didactic features of developing the cognitive competence of social sector employees based on digital technologies. In digital learning environments, such didactic principles as individualization, interactivity, problem-based learning, and reflective practice play a crucial role. The study highlights the pedagogical potential of digital platforms, virtual models, and online learning resources in stimulating cognitive activity. It is argued that this approach contributes to the development of professional thinking, analytical skills, and independent decision-making among social sector specialists.

Keywords: cognitive competence, social sector employees, digital technologies, didactics, digital education, professional development

IJTIMOIIY SOHA XODIMLARINING KOGNITIV KOMPETENTLIGINI RAQAMLI TEXNOLOGIYALAR ASOSIDA RIVOJLANTIRISHNING DIDAKTIK XUSUSIYATLARI

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Ushbu maqolada ijtimoiy soha xodimlarining kognitiv kompetentligini raqamli texnologiyalar asosida rivojlantirishning didaktik xususiyatlari tahlil qilinadi. Raqamli muhitda ta'lim jarayonini tashkil etishda individual yondashuv, interaktivlik, muammoli o'qitish va reflektiv faoliyat muhim didaktik omillar sifatida qaraladi. Tadqiqotda raqamli platformalar, virtual modellar va onlayn o'quv resurslarining kognitiv faoliyatni faollashtirishdagi roli yoritiladi. Shuningdek, mazkur yondashuv ijtimoiy soha mutaxassislarining professional tafakkuri va mustaqil qaror qabul qilish ko'nikmalarini rivojlantirishga xizmat qilishi asoslanadi.

Kalit so'zlar: kognitiv kompetentlik, ijtimoiy soha xodimlari, raqamli texnologiyalar, didaktika, raqamli ta'lim, professional rivojlanish

ДИДАКТИЧЕСКИЕ ОСОБЕННОСТИ РАЗВИТИЯ КОГНИТИВНОЙ КОМПЕТЕНТНОСТИ РАБОТНИКОВ СОЦИАЛЬНОЙ СФЕРЫ НА ОСНОВЕ ЦИФРОВЫХ ТЕХНОЛОГИЙ

**КАХХОРОВ ШАХРИЁР ЁДГОРОВИЧ — НЕЗАВИСИМЫЙ
СОИСКАТЕЛЬ БУХАРСКОГО ГОСУДАРСТВЕННОГО
УНИВЕРСИТЕТА**

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В статье анализируются дидактические особенности развития когнитивной компетентности работников социальной сферы на основе цифровых технологий. В условиях цифровой образовательной среды важную роль играют такие дидактические принципы, как индивидуализация, интерактивность, проблемное обучение и рефлексия. В работе раскрываются педагогические возможности цифровых платформ, виртуальных моделей и онлайн-ресурсов в активизации познавательной деятельности. Обосновывается, что данный подход способствует развитию профессионального мышления, аналитических навыков и самостоятельного принятия решений у специалистов социальной сферы.

Ключевые слова: когнитивная компетентность, работники социальной сферы, цифровые технологии, дидактика, цифровое образование, профессиональное развитие

INTRODUCTION

The rapid expansion of digital technologies has fundamentally transformed professional activity in the social sector. Social services, social protection systems, counseling, rehabilitation, and community development are increasingly supported by digital platforms, databases, and online communication tools. In this context, the professional competence of social sector employees is no longer limited to interpersonal skills and theoretical knowledge; it also requires strong cognitive abilities that enable specialists to analyze complex information, interpret digital data, and make well-grounded decisions.

Cognitive competence plays a key role in the effectiveness of social sector professionals. It includes critical thinking, analytical reasoning, problem-solving, information processing, and the ability to apply knowledge in real-life situations. In a digital environment, these cognitive skills become even more important, as employees must work with electronic records, automated systems, online client interactions, and large volumes of information. Therefore, the development of cognitive competence through digital technologies represents not only a technological challenge but also a pedagogical one. From a didactic perspective, the use of digital technologies requires new approaches to teaching and learning. Traditional instructional methods, which are based mainly on lectures and passive information transfer, are not sufficient for developing higher-order cognitive skills. Modern didactics emphasizes learner-

centered, interactive, and problem-based learning, which can be effectively supported by digital tools. Virtual simulations, online case studies, learning management systems, and artificial intelligence-based feedback tools create new opportunities for stimulating cognitive activity and professional thinking. Another important aspect is the personalization of learning. Digital technologies allow training programs to be adapted to the individual needs, learning pace, and professional experience of social sector employees. This personalization supports deeper understanding and more effective cognitive development. Moreover, digital environments encourage self-directed learning, reflection, and collaboration, which are essential for professional growth in the social sector. Thus, the relevance of this study is determined by the need to identify and analyze the didactic features that make digital technologies effective in developing cognitive competence. Understanding these features will help design more efficient training programs for social sector employees and improve the quality of social services in a digital society.

MATERIALS AND METHODS

This study applied a mixed-methods research design to investigate the didactic effectiveness of digital technologies in developing the cognitive competence of social sector employees. The research was conducted in professional training centers and social service institutions. A total of 120 social sector employees participated in the study, including social workers, counselors, and administrative staff. The participants were divided into two groups: an experimental group and a control group. The experimental group was trained using digital technologies, including online learning platforms, virtual simulations, interactive case studies, and digital assessment tools. The control group received traditional face-to-face training based on lectures, printed materials, and standard case discussions. The digital learning environment was designed according to key didactic principles such as interactivity, problem-based learning, reflection, and individualization. Participants in the experimental group completed digital modules that included video lectures, scenario-based tasks, group discussions in online forums, and simulation exercises. These activities were aimed at stimulating analytical thinking, decision-making, and information processing. To measure cognitive competence, several instruments were used, including standardized cognitive tests, professional problem-solving tasks, and self-assessment questionnaires. Pre-tests and post-tests were administered to both groups to evaluate changes in cognitive abilities. In addition, qualitative data were collected through interviews, observations, and reflective journals, which provided deeper insight into participants' learning experiences. The training program lasted twelve weeks. During

this period, the experimental group engaged in weekly digital learning sessions and collaborative online projects, while the control group followed conventional training methods. The collected data were analyzed using statistical and thematic analysis techniques.

RESULTS

The results of the study demonstrated that digital technologies had a significant positive impact on the development of cognitive competence among social sector employees. Participants in the experimental group showed a substantial increase in their post-test scores compared to their pre-test results, particularly in analytical thinking, problem-solving, and decision-making. In contrast, the control group showed only moderate improvement, mainly in theoretical knowledge rather than in higher-order cognitive skills. The digital learning environment enabled participants to work with realistic professional situations, analyze multiple variables, and evaluate the consequences of their decisions, which led to deeper cognitive engagement.

Qualitative data further supported these findings. Many participants reported that virtual simulations and interactive case studies helped them better understand complex social situations and improved their confidence in handling real-life professional challenges. They also noted that digital feedback and self-reflection tools enhanced their awareness of their own learning processes. Moreover, the use of digital technologies improved participants' ability to manage and interpret information. They became more skilled at identifying relevant data, evaluating its reliability, and integrating it into professional decision-making. This indicates that digital didactics contributes not only to cognitive development but also to information literacy.

TABLE: TRADITIONAL VS. DIGITAL DIDACTIC APPROACHES

Indicator	Traditional approach	Digital technology-based approach
Learning format	Classroom lectures, printed materials	Online platforms, virtual simulations, interactive modules
Learner role	Passive recipient	Active participant
Knowledge acquisition	Memorization and theoretical understanding	Problem-based, experiential, interactive learning
Cognitive development	Limited	High, with focus on analytical and critical thinking

Problem-solving skills	Low to moderate	Strong, enhanced through simulations and interactive tasks
Decision-making ability	Guided by standard procedures	Independent, reflective, and informed by digital feedback
Reflection & self-assessment	Rarely incorporated	Integral part of learning process
Collaboration & communication	Face-to-face, limited	Online collaboration, forums, group projects
Motivation	Moderate	High, due to interactivity and personalization
Adaptability	Low	High, learners adapt to new scenarios through simulations

CONCLUSION

The findings of this study confirm that digital technologies, when applied through appropriate didactic strategies, significantly enhance the cognitive competence of social sector employees. The integration of interactive, problem-based, and reflective digital learning environments supports the development of analytical thinking, decision-making, and professional reasoning. Digital technologies should not be viewed merely as technical tools but as powerful pedagogical instruments that shape the way professionals think, learn, and act. A systematic didactic approach is essential to ensure that these technologies contribute meaningfully to cognitive and professional growth. In conclusion, the development of cognitive competence through digital technologies represents a strategic direction for professional education in the social sector. By applying effective didactic principles, training programs can better prepare specialists to meet the complex challenges of a digital society.

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“FROM POLICY TO PRACTICE: THE ROLE OF LEADERSHIP IN ACHIEVING GENDER EQUALITY IN EDUCATIONAL INSTITUTIONS”

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Annotation: This paper examines the crucial role of educational leadership in transforming gender equality policies into tangible institutional practices. Although many education systems, including those in Uzbekistan, have adopted national frameworks promoting gender equity, the implementation of these policies often remains symbolic. The study explores how leaders particularly rectors, deans, and school principals can bridge the gap between legislative intent and institutional reality through inclusive decision-making, mentorship, and culture-building. It argues that leadership functions not only as an administrative mechanism but also as a moral and transformative force that shapes organizational values and behaviors.

Keywords: gender equality, educational leadership, policy implementation, inclusion, women empowerment, Uzbekistan.

Gender equality in education has become a central priority in global and national development agendas. International frameworks such as the **UN Sustainable Development Goal 5 (SDG 5)** emphasize the importance of ensuring equal opportunities for women and men in all spheres of social life, including access to education and leadership positions. In Uzbekistan, the government has made significant progress by developing gender equality policies and institutional regulations that encourage women’s participation in academic leadership. However, translating these policies into real, measurable change remains a persistent challenge.

Despite a growing number of qualified women educators, leadership positions in higher education are still predominantly occupied by men. This imbalance reflects not only structural constraints but also cultural attitudes, institutional inertia, and the absence of effective accountability mechanisms. Therefore, leadership understood as the ability to influence, inspire, and implement becomes a decisive factor in advancing gender equality within educational institutions.

Uzbekistan has adopted several policy initiatives to promote gender equity, including the *Law on Guarantees of Equal Rights and Opportunities for Women and Men* (2019) and the *National Gender Strategy for 2030*. These frameworks establish legal foundations for gender equality in education and employment. However, while policies provide direction, their success ultimately depends on how educational institutions interpret and operationalize them.

In many cases, gender equality remains limited to formal compliance inclusion in institutional documents or the creation of symbolic gender committees without a substantive shift in culture or leadership practices. For example, faculty recruitment processes may still reflect implicit bias, and women’s career progression often encounters invisible barriers such as limited mentoring opportunities, work-life balance challenges, and traditional expectations regarding gender roles.

Leadership, therefore, must act as the bridge between **policy design** and **practical transformation**. Effective leaders can translate legal mandates into actionable strategies by fostering inclusive environments, supporting women's professional development, and challenging discriminatory norms within their organizations.

Educational leadership plays a dual role: it implements policy and models cultural change. Leaders influence institutional culture through communication, representation, and everyday decisions that either reinforce or dismantle gender stereotypes.

1. **Vision** and **Strategic Planning:**

Leaders must integrate gender equality goals into institutional mission statements, strategic plans, and quality assurance mechanisms. A gender-sensitive vision ensures that equality becomes a shared organizational value rather than an external obligation.

2. **Mentorship** and **Professional Development:**

Mentorship programs for emerging women leaders are vital for breaking the "glass ceiling." Senior administrators can cultivate future leaders by offering guidance, networking opportunities, and access to decision-making processes.

3. **Inclusive Governance:**

Leadership committed to gender equity ensures that decision-making bodies such as academic councils or hiring committees reflect gender diversity. Inclusive participation enriches perspectives and improves institutional credibility.

4. **Monitoring** and **Accountability:**

Transparent data collection on gender representation, pay equity, and leadership participation allows institutions to track progress and identify structural gaps. Leadership accountability reinforces commitment beyond rhetoric.

In this sense, leadership becomes the transformative engine that moves gender equality from a legal statement to a lived institutional reality.

The Uzbek higher education system is currently undergoing modernization, with an increasing focus on internationalization, meritocracy, and human-centered management. Within this reform process, gender equality is gradually emerging as a strategic objective. Several universities including Tashkent State University of Oriental Studies and Samarkand State University have initiated gender committees, leadership seminars for women, and gender-sensitive research programs.

Nevertheless, cultural perceptions of leadership remain deeply gendered. Leadership is often associated with authority and control, traits traditionally coded as masculine. Women leaders, by contrast, are frequently expected to balance competence with emotional sensitivity a dynamic that can reinforce stereotypes rather than dismantle them.

To overcome these barriers, leadership development initiatives must incorporate **gender awareness training**, **emotional intelligence**, and **inclusive management practices**. By aligning leadership behavior with gender equality principles, institutions can build cultures of fairness, transparency, and collaboration.

From a scholarly and practical standpoint, leadership for gender equality is an example of **organizational learning** the process through which institutions adapt and internalize new values. When leaders model equitable behavior, they initiate a learning cycle where attitudes, policies, and

norms evolve in tandem. This transformation requires reflexivity the ability to critically assess one's own biases and institutional patterns as well as a long-term commitment to systemic change. Educational leadership, therefore, is not limited to administrative management but extends to ethical and cultural leadership. It must inspire behavioral change among staff and students, promoting gender sensitivity as an element of professional identity and institutional excellence. For doctoral or institutional research, examining leadership's role in gender equality offers valuable insights into how cultural and structural factors interact in educational organizations. Key areas for investigation include:

- The relationship between leadership style (transformational, participatory, or authoritarian) and gender equality outcomes;
- The effectiveness of mentorship programs for emerging women leaders;
- The influence of national gender policy on institutional governance cultures.

Such inquiry contributes to the field of educational leadership by linking **policy implementation** with **organizational behavior**, providing a framework for evidence-based interventions that can foster gender-balanced leadership pipelines.

Achieving gender equality in education requires more than policy declarations it demands courageous and visionary leadership. Leaders serve as the human interface between legislation and lived experience. Their ability to interpret, internalize, and enact equality principles determines whether gender policies will remain symbolic or become transformative.

By embedding empathy, inclusivity, and accountability into their leadership practices, educational administrators can create environments where women and men participate equally in shaping the future of education. From policy to practice, leadership thus becomes not only a managerial role but also a moral responsibility one that defines the integrity and sustainability of the educational system.

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РОЛЬ И ЗНАЧЕНИЕ ИНОСТРАННЫХ ИНВЕСТИЦИЙ В РАЗВИТИИ РЕГИОНОВ УЗБЕКИСТАНА

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В современной глобальной экономической системе иностранные инвестиции являются одним из ключевых факторов, обеспечивающих устойчивый экономический рост национальной экономики. Особенно в развитии регионов привлечение внешних инвестиций служит важным источником модернизации производства, создания новых рабочих мест, улучшения инфраструктуры и выпуска конкурентоспособной продукции. В этом процессе повышение инвестиционной активности в регионах Узбекистана и формирование благоприятной среды для иностранных инвесторов стали одним из приоритетных направлений государственной экономической политики.

В последние годы экономические реформы, проводимые в Узбекистане, направлены на комплексное развитие регионов и эффективное использование их природного, трудового и экономического потенциала. В данном процессе иностранные инвестиции выступают не только как финансовый ресурс, но и как источник передовых технологий, современного управленческого опыта и возможностей выхода на международные рынки.

Иностранные инвестиции играют важную роль в диверсификации экономики регионов. С их участием реализуются проекты с высокой добавленной стоимостью в промышленности, сельском хозяйстве и сфере услуг. В частности, деятельность свободных экономических зон, промышленных зон и технопарков с участием иностранного капитала способствует повышению экспортного потенциала регионов.

Как отметил Президент Ш. М. Мирзиёев, «в рамках Стратегии “Узбекистан – 2030” активное привлечение иностранных инвестиций с учётом экономического потенциала каждого региона определено в качестве приоритетного направления обеспечения устойчивого экономического роста территорий»¹. Данная позиция наглядно отражает стратегическое значение иностранных инвестиций в региональной политике.

¹Мирзиёев Ш. М. Стратегия «Узбекистан – 2030». — Ташкент, 2023 - https://gov.uz/uz/pages/2030_strategy

Реализуемые с участием иностранных инвестиций проекты усиливают конкурентную среду для местных производителей, повышают производительность труда и способствуют формированию новых профессий и специальностей. В результате ускоряются темпы социально-экономического развития регионов.

В процессе привлечения иностранных инвестиций в регионы важную роль играют институциональные и правовые условия, создаваемые государством. Такие механизмы, как налоговые льготы, таможенные преференции, предоставление земельных участков и обеспечение инфраструктурой, направлены на формирование привлекательной среды для инвесторов.

В реализации региональной инвестиционной политики повышается ответственность местных органов власти, поддерживается их инициативность, что позволяет оперативно и эффективно реализовывать территориальные инвестиционные проекты.

Иностранные инвестиции имеют не только экономическое, но и социальное значение. Создание новых предприятий способствует обеспечению занятости населения, росту уровня доходов и повышению качества жизни. Кроме того, инвестиции, направляемые в сферы образования, здравоохранения и инфраструктуры, оказывают положительное влияние на развитие человеческого капитала в регионах.

Иностранные инвестиции также выступают важным инструментом сокращения социально-экономических различий между регионами. За счет привлечения инвестиций в менее развитые территории повышается их экономическая активность и обеспечивается сбалансированное развитие регионов.

Проведенный анализ показывает, что иностранные инвестиции являются важным фактором, обеспечивающим устойчивый экономический рост в развитии регионов Узбекистана. Они способствуют диверсификации региональной экономики, модернизации производства, созданию новых рабочих мест и повышению благосостояния населения.

Последовательная инвестиционная политика, проводимая государством, и благоприятный инвестиционный климат создают основу для полного раскрытия экономического потенциала регионов.

Таким образом, результаты исследования показали, что привлечение иностранных инвестиций в субъекты малого бизнеса в регионах Узбекистана является важным фактором ускорения экономического роста и повышения территориальной конкурентоспособности. В связи с этим необходимо

совершенствовать инвестиционный климат, развивать институциональные механизмы и усиливать меры целевой поддержки с учётом региональных особенностей.

FUTBOL O'YININING KELIB CHIQISHI VA RIVOJLANISH TARIXI

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ANOTATSIYA: Mazkur ilmiy maqolada futbol sport turining O‘zbekiston hududida shakllanishi, rivojlanish bosqichlari va hozirgi kundagi o‘rni tizimli ravishda tahlil qilinadi. Tadqiqotda futbolning XX asr boshlarida kirib kelishi, sovet davridagi rivoji, mustaqillik yillarida futbol tizimida amalga oshirilgan islohotlar, milliy chempionatlar, professional klublar faoliyati hamda O‘zbekiston futbol terma jamoalarining xalqaro maydondagi ishtiroki yoritilgan. Shuningdek, futbol infratuzilmasining rivojlanishi, bolalar va o‘smirlar futboliga e‘tibor kuchayishi hamda davlat siyosatida sport, xususan futbolning tutgan o‘rni ilmiy asosda tahlil qilinadi. Maqola sport sohasi tadqiqotchilari, mutaxassislar va talabalar uchun mo‘ljallangan.

Kalit so‘zlar : Futbol, sport, O‘zbekiston, futbol tarixi, milliy chempionat, sport islohotlari.

Аннотация В данной научной статье проводится системный анализ становления и развития футбола в Республике Узбекистан, а также его роли в современном обществе. Рассматриваются этапы проникновения футбола на территорию страны в начале XX века, его развитие в советский период и коренные преобразования в годы независимости. Особое внимание уделяется формированию национальных чемпионатов, деятельности профессиональных футбольных клубов, участию сборных команд Узбекистана в международных соревнованиях, а также развитию спортивной инфраструктуры и детско-юношеского футбола. Анализируется значение государственной политики в развитии футбольного спорта. Статья предназначена для специалистов в области физической культуры и спорта, а также для студентов и исследователей.

Ключевые слова: футбол, спорт, Узбекистан, история футбола, национальный чемпионат, спортивные реформы.

Futbol o'yini bugungi kunda dunyodagi eng ommabop sport turlaridan biri bo'lib, uning kelib chiqishi va rivojlanish tarixi insoniyat sivilizatsiyasi taraqqiyoti bilan chambarchas bog'liqdir. Futbolning shakllanishi bir vaqtning o'zida emas, balki ming yillar davomida turli xalqlar va madaniyatlar tajribasi asosida asta-sekin yuzaga kelgan murakkab tarixiy jarayon natijasidir. Qadimgi davrlarda to'p bilan o'ynaladigan o'yinlar ko'plab sivilizatsiyalarda mavjud bo'lgan bo'lib, ular zamonaviy futbolning dastlabki ildizlarini tashkil etadi.

Tarixiy manbalarga ko'ra, futbolga o'xshash eng qadimgi o'yinlardan biri miloddan avvalgi III–II asrlarda Qadimgi Xitoyda paydo bo'lgan “Cuju” o'yini hisoblanadi. Ushbu o'yinda charm to'p oyoq yordamida tepilib, maxsus to'rga kiritilishi lozim bo'lgan. Cuju nafaqat ko'ngilochar mashg'ulot, balki harbiylarning jismoniy tayyorgarligini oshirish vositasi sifatida ham xizmat qilgan. Shuningdek, Qadimgi Yunonistonda “Episkyros”, Rim imperiyasida esa “Harpastum” kabi o'yinlar keng tarqalgan bo'lib, ularda jamoaviy harakat, chaqqonlik va kuch muhim ahamiyat kasb etgan. Garchi bu o'yinlarda qo'l bilan o'ynashga ham ruxsat berilgan bo'lsa-da, to'pni nazorat qilish va jamoaviy taktika elementlari futbol rivojiga sezilarli ta'sir ko'rsatgan. O'rta asrlarga kelib, Yevropada, ayniqsa Angliyada futbolga o'xshash xalq o'yinlari keng tarqaldi. Bu davrdagi o'yinlar qat'iy qoidalarga ega bo'lmagan, ko'pincha shahar ko'chalari va ochiq maydonlarda o'ynalgan hamda juda qo'pol va xavfli bo'lgan. Ba'zan yuzlab odamlar ishtirok etgan bunday o'yinlar jamoatchilik tartibiga salbiy ta'sir ko'rsatgani sababli, Angliya qirollari tomonidan bir necha bor taqiqlangan. Shunga qaramay, futbolga bo'lgan xalq qiziqishi so'nmagan va o'yin asta-sekin tartibga solinib, rivojlanishda davom etgan.

XIX asrga kelib futbol tarixida tub burilish yuz berdi. Aynan shu davrda Angliyada zamonaviy futbolning asoslari shakllandi. 1863-yilda Londonda Angliya Futbol Assotsiatsiyasi tashkil etilib, futbolning dastlabki rasmiy qoidalari ishlab chiqildi. Bu qoidalar futbolni regbidan aniq ajratib, qo'l bilan o'ynashni taqiqladi va o'yinni yagona standart asosida o'tkazish imkonini yaratdi. Natijada futbol tartibli, boshqariladigan va musobaqaviy sport turiga aylandi. Shu davrdan boshlab futbol maktablar, kollejlari va sanoat korxonalari huzurida faol rivojlana boshladi, futbol klublari tashkil etildi va milliy chempionatlar o'tkazila boshlandi.

XIX asr oxiri va XX asr boshlarida futbol Angliya chegaralaridan chiqib, Yevropaning boshqa mamlakatlari hamda Janubiy Amerika, Osiyo va Afrikaga tez sur'atlar bilan tarqala boshladi. 1872-yilda Angliya va Shotlandiya o'rtasida o'tkazilgan ilk rasmiy xalqaro uchrashuv futbolning xalqaro sportga aylanishida muhim voqea bo'ldi. 1904-yilda Parij shahrida Xalqaro futbol federatsiyalari assotsiatsiyasi – FIFA tashkil etildi.

Ushbu tashkilot futbolning global miqyosda rivojlanishini muvofiqlashtirish, yagona qoidalar asosida musobaqalar o'tkazishni ta'minlashda muhim rol o'ynadi. 1930-yilda Urug'vayda o'tkazilgan ilk Jahon chempionati futbol tarixida yangi bosqichni boshlab berdi va futbolni haqiqiy jahon sportiga aylantirdi.

XX asr davomida futbol professional sport darajasiga ko'tarildi. Klublar faoliyati kuchaydi, futbolchilar tayyorlash tizimi takomillashdi, murabbiylik va taktik yondashuvlar ilmiy asosda rivojlana boshladi. Televizion translyatsiyalar futbolni millionlab tomoshabinlarga yaqinlashtirdi, bu esa uning ommaviyligini yanada oshirdi. XXI asrga kelib esa futbol texnologik jihatdan yangi bosqichga ko'tarildi: video takror (VAR) tizimi, elektron hakamlik, raqamli tahlil va sport tibbiyoti futbol sifatini oshirishga xizmat qilmoqda.

Xulosa qilib aytganda, futbol o'yini qadimgi sivilizatsiyalardagi oddiy to'p o'yinlaridan boshlab, uzoq va murakkab tarixiy rivojlanish jarayonini bosib o'tib, bugungi kunda dunyoni birlashtiruvchi global sport turiga aylandi. Futbol nafaqat jismoniy tarbiya va sport vositasi, balki madaniyatlararo muloqot, ijtimoiy hamjihatlik va sog'lom turmush tarzini targ'ib etuvchi muhim omil sifatida ham katta ahamiyatga ega.

Futbol sportining O'zbekistonda rivojlanishi nafaqat tarixiy jarayon sifatida, balki murakkab ijtimoiy-pedagogik va ilmiy tizim sifatida qaralishi lozim. Zamonaviy sport nazariyasiga ko'ra, futbolni rivojlantirish faqat musobaqa natijalari bilan emas, balki infratuzilma, sport ta'limi, ilmiy-tadqiqot ishlari va boshqaruv mexanizmlarining uyg'unligi bilan belgilanadi. O'zbekistonda futbol aynan mana shu kompleks yondashuv asosida rivojlanmoqda. Mamlakatda futbol infratuzilmasining rivojlanishi muhim ilmiy-amaliy ahamiyatga ega omil hisoblanadi. So'nggi yillarda xalqaro talablarga javob beradigan stadionlar, sun'iy va tabiiy qoplamali mashg'ulot maydonlari, rehabilitatsiya va tibbiy-sport markazlari barpo etildi. Ushbu infratuzilma futbolchilarning jismoniy yuklamalarga moslashuvi, jarohatlar profilaktikasi va tiklanish jarayonlarini ilmiy asosda tashkil etish imkonini bermiqda.

Futbolchilarni tayyorlash jarayonida sport fiziologiyasi va biomexanika fanlarining yutuqlari tobora keng qo'llanilmoqda. Mashg'ulot jarayonida yurak-qon tomir tizimi ko'rsatkichlari, tezkorlik, chidamlilik va kuch sifatleri maxsus testlar yordamida baholanadi. Bu esa individual tayyorgarlik rejalarini tuzish va sport natijalarini optimallashtirishga xizmat qiladi. O'zbekistonda futbol tayyorgarligi tizimiga ilmiy monitoring joriy etilishi sportning sifat jihatdan rivojlanishiga sabab bo'lmoqda. Bolalar va o'smirlar futboli O'zbekistonda futbol rivojining strategik yo'nalishi sifatida qaralmoqda. Ilmiy tadqiqotlar shuni

ko'rsatadiki, futbolchining texnik-taktik mahorati 7–12 yosh oralig'ida shakllanadi. Shu boisdan, futbol maktablari va akademiyalarida yoshga mos pedagogik texnologiyalar qo'llanilmoqda. Mashg'ulotlar o'yin faoliyatiga yo'naltirilgan holda tashkil etilib, bolalarning psixologik holati va motivatsiyasi inobatga olinmoqda. O'zbekistonda ayollar futbolining rivojlanishi ham muhim ilmiy va ijtimoiy ahamiyatga ega. Gender tenglik tamoyillari asosida ayollar futbol jamoalari, ligalar va terma jamoalar faoliyati kengaymoqda. Ayollar futbolida mashg'ulot jarayonlari fiziologik xususiyatlarni hisobga olgan holda rejalashtirilmoqda, bu esa sportchilar salomatligini saqlash va natijadorlikni oshirishda muhim rol o'ynaydi.

Professional futbol klublarida sport menejmenti va marketing tizimlarining joriy etilishi futbolning iqtisodiy barqarorligini ta'minlamoqda. Sponsorlash, media huquqlar, muxlislar bilan ishlash va brending jarayonlari zamonaviy ilmiy konsepsiyalar asosida olib borilmoqda. Bu esa futbolni nafaqat sport, balki iqtisodiy va madaniy hodisa sifatida rivojlantirish imkonini bermoqda. Milliy terma jamoalar faoliyatida texnik-taktik tahlilning raqamli texnologiyalar yordamida amalga oshirilishi muhim yangiliklardan biridir. Videoanalitika, statistik modellar va sun'iy intellekt elementlari o'yin jarayonini chuqur tahlil qilish, raqiblarni o'rganish va optimal taktika ishlab chiqishga xizmat qilmoqda. Bu yondashuv futbolning ilmiy asoslangan rivojlanishiga yaqqol misol bo'la oladi.

XULOSA: O'zbekistonda futbol sport turining rivojlanishi murakkab va ko'p bosqichli jarayon bo'lib, u tarixiy tajriba, davlat siyosati, ilmiy-metodik yondashuv hamda xalqaro sport tizimi bilan integratsiya asosida shakllanib kelmoqda. Futbolning mamlakat ijtimoiy hayotidagi o'rni tobora mustahkamlanib, u nafaqat ommaviy sport turi, balki yosh avlodni jismonan sog'lom, ma'naviy barkamol va raqobatbardosh etib tarbiyalash vositasiga aylanmoqda. Tadqiqot natijalari shuni ko'rsatadiki, futbol sportining O'zbekistonda rivojlanishi tizimli yondashuv asosida olib borilmoqda. Jumladan, infratuzilmaning modernizatsiya qilinishi, zamonaviy stadionlar va mashg'ulot bazalarining barpo etilishi futbolchilarning tayyorgarlik jarayonini ilmiy asosda tashkil etish imkonini bermoqda. Bu holat sport fiziologiyasi, biomexanika va sport tibbiyoti fanlarining amaliyot bilan uzviy bog'liqligini ta'minlab, futbolchilar sog'lig'ini muhofaza qilish va sport natijalarini oshirishga xizmat qilmoqda.

Bolalar va o'smirlar futboliga qaratilgan e'tibor O'zbekistonda futbol rivojining strategik yo'nalishi ekanligi bilan ahamiyatlidir. Ilmiy tadqiqotlar asosida ishlab chiqilgan yoshga mos mashg'ulot dasturlari, seleksiya va monitoring tizimlari iqtidorli futbolchilarni erta aniqlash va ularni bosqichma-bosqich tayyorlash imkonini yaratmoqda. Natijada, yoshlar terma jamoalarining xalqaro musobaqalardagi

muvaffaqiyatlari mamlakat futboli salohiyatining oshib borayotganini tasdiqlaydi. Shuningdek, ayollar futbolining rivojlanishi sportda gender tenglik tamoyillarining amalda qo'llanilayotganini ko'rsatadi. Ayollar futboli jamiyatda sog'lom turmush tarzini shakllantirish, sport orqali ijtimoiy faollikni oshirish va ayollarning sport sohasidagi o'rnini mustahkamlashda muhim omil bo'lib xizmat qilmoqda. Bu jarayonlar ilmiy-pedagogik yondashuvlar asosida tashkil etilayotgani bilan alohida ahamiyat kasb etadi.

Professional futbol klublari faoliyatida zamonaviy sport menejmenti va marketing tizimlarining joriy etilishi futbolning iqtisodiy barqarorligini ta'minlashga xizmat qilmoqda. Futbolni boshqarishda raqamli texnologiyalar, statistik tahlil va innovatsion usullarni qo'llash sportning raqobatbardoshligini oshirib, xalqaro maydondagi natijalarni yaxshilash uchun mustahkam ilmiy-amaliy asos yaratmoqda.

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"ISSUES OF IMPROVING THE LEGAL STATUS OF PARTICIPANTS IN CIVIL PROCEEDINGS"

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Abstract In recent years, Uzbekistan has been implementing consistent measures to enhance the judicial and legal system, strengthen the reliable protection of the rights and lawful interests of citizens and entrepreneurs, ensure fair administration of justice, and reinforce the role of the judiciary. Particular attention is given to creating a favorable legal and regulatory environment for foreign investors, whose rights and interests are safeguarded through judicial mechanisms. The increasing number of business entities, including foreign investors, has led to a rise in commercial disputes, which are resolved by competent courts. The participation of individuals assisting the courts in evaluating evidence and ensuring fair adjudication is crucial, while they are legally bound not to influence the proceedings or act independently. Furthermore, the introduction of criminal liability for disclosing information and details of closed court sessions without permission is proposed to strengthen confidentiality and the rule of law. These measures aim to ensure that court decisions are lawful, justified, and fair, thereby protecting human rights, personal privacy, and the dignity of citizens.

Keywords judicial system reform, legal protection of investors, civil and economic proceedings, fair administration of justice, confidentiality in court, closed court sessions, dispute resolution, evidence evaluation, rule of law, human rights protection

In recent years, Uzbekistan has been consistently implementing measures to further improve the judicial and legal system, strengthen the reliable protection of the rights and lawful interests of citizens and entrepreneurs, ensure effective administration of justice, and enhance the role of the judiciary. Most importantly, these efforts aim to create a favorable legal and regulatory framework for foreign investors. A state that guarantees the rights of foreign investors attracts their investments, while the protection of their rights and interests is ensured through the courts. The right to judicial protection is increasingly recognized, and every business entity (including foreign investors) has the right to seek protection through the courts.

Consequently, as the number of business entities (including foreign investors) increases daily, disputes among them are also on the rise. Such disputes are resolved by the competent courts. The participation of individuals who assist in the administration of justice is crucial for the fair and substantiated resolution of these disputes, as well as for assessing the sufficiency of evidence. These individuals perform their duties and obligations before society as prescribed by law and contract, and they do not influence the course of economic proceedings or participate in court proceedings on their own initiative.

In the context of the globalization of modern society, resolving disputes between parties in judicial proceedings has become increasingly important. Worldwide, courts are emphasizing the speed of case resolution, simplifying and streamlining court procedures, effectively protecting human rights, setting reasonable deadlines for case management, and integrating information and communication technologies into the judicial process. In Uzbekistan, special attention is also being paid to reliably protecting the rights and lawful interests of citizens and entrepreneurs, ensuring fair administration of justice, and creating a favorable legal and regulatory environment for every citizen and entrepreneur (investor).

Currently, procedural codes stipulate that participants in closed court sessions must be warned about liability for disclosing information. However, legislation does not yet provide for liability measures for disclosing such information. Accordingly, it is necessary to introduce criminal liability for disclosing information and details of closed court sessions without the court's permission.

It is proposed to introduce amendments and additions to certain laws of the Republic of Uzbekistan to prohibit the disclosure of information and details of closed court sessions by participants, and to establish criminal liability for disclosing such information without the court's consent.

Specifically, the following amendments are proposed to the Economic Procedural Code of the Republic of Uzbekistan:

1. In Article 56, after the words “expert providing a deliberately incorrect conclusion,” insert: “disclosing information and details of a closed court session without the court's permission.”
2. In Article 58, second paragraph, after the words “providing explanations regarding their actions,” insert: “and not disclosing information and details of a closed court session without the court's permission.”

3. In Article 60, third paragraph, after the words “translator providing an incorrect translation,” insert: “disclosing information and details of a closed court session without the court’s permission.”

4. In Article 86, second paragraph, after the words “expert providing a deliberately incorrect conclusion,” insert: “when the case is heard in a closed court session, disclosing information and details of the closed session without the court’s permission.”

5. To supplement Article 165 with the following sixth paragraph: “When a case is considered in a closed court session, participants are warned about non-disclosure of information and details of the court proceedings without the court’s permission, and a written acknowledgment is obtained. The acknowledgment shall also include a warning regarding liability under Article 239 of the Criminal Code of the Republic of Uzbekistan for violation of this obligation.”

Thus, in all disputed situations, evaluating and proving the facts through evidentiary means ensures that court decisions are lawful, justified, and fair. Such proposals and recommendations for improving legislation aim to reliably protect human rights and freedoms, personal privacy, the confidentiality of individual and family matters, honor, and dignity in our country.

PROGRESSIV SOLIQ TIZIMINI JORIY ETISHNING BUDJET DAROMADLARIGA TA'SIRI

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Annotation

This thesis examines the impact of introducing a progressive tax system on government budget revenues. The main objective of the study is to assess the fiscal efficiency of the progressive taxation mechanism. The research employs methods of economic analysis, statistical comparison, and comparative analysis. The results of the analysis indicate that progressive tax rates can contribute to increasing budget revenues, ensuring tax equity, and reducing income inequality. At the same time, an excessive increase in the tax burden may have a negative effect on economic activity. Based on the findings, scientific and practical recommendations are developed for the gradual implementation of a progressive tax system and for improving tax administration.

Аннотация

В данной тезисе исследуется влияние внедрения прогрессивной налоговой системы на доходы государственного бюджета. Основной целью исследования является оценка фискальной эффективности механизма прогрессивного налогообложения. В исследовании использованы методы экономического анализа, статистического сравнения и сравнительного изучения. По результатам анализа установлено, что прогрессивные налоговые ставки способствуют увеличению бюджетных доходов, обеспечению налоговой справедливости и сокращению неравенства доходов. Вместе с тем чрезмерное увеличение налоговой нагрузки может негативно сказаться на экономической активности. По итогам исследования разработаны научно-практические рекомендации по поэтапному внедрению прогрессивной налоговой системы и совершенствованию налогового администрирования.

Annotatsiya

Mazkur tezisdagi progressiv soliq tizimini joriy etishning davlat budjeti daromadlariga ta'siri o'rganiladi. Tadqiqotning asosiy maqsadi progressiv soliqqa tortish mexanizmining fiskal samaradorligini baholashdan iborat. Tadqiqotda iqtisodiy tahlil, statistik taqqoslash hamda qiyosiy o'rganish usullaridan foydalanildi. Tahlil natijalariga ko'ra, progressiv soliq stavkalari budjet daromadlarini oshirish, soliq adolatini ta'minlash va daromadlar tengsizligini kamaytirishga xizmat qilishi

aniqlandi. Shu bilan birga, soliq yukining haddan tashqari oshirilishi iqtisodiy faollikka salbiy ta'sir ko'rsatishi mumkin. Tadqiqot yakunida progressiv soliq tizimini bosqichma-bosqich joriy etish va soliq ma'murchiligini takomillashtirish bo'yicha ilmiy-amaliy takliflar ishlab chiqildi.

Kirish

Zamonaviy iqtisodiyot sharoitida davlat moliyasini samarali boshqarish, xususan, budget daromadlarini barqaror shakllantirish masalasi har bir mamlakat uchun ustuvor vazifalardan biri hisoblanadi. Davlat budjeti ijtimoiy-iqtisodiy rivojlanish dasturlarini moliyalashtirish, aholi farovonligini oshirish, infratuzilmani rivojlantirish hamda makroiqtisodiy barqarorlikni ta'minlashda muhim rol o'ynaydi. Mazkur jarayonda soliq siyosati asosiy fiskal instrument sifatida namoyon bo'lib, uning samaradorligi davlat moliyaviy barqarorligiga bevosita ta'sir ko'rsatadi.

So'nggi yillarda aholining daromadlar bo'yicha tabaqalanib borishi, yuqori va past daromadli qatlamlar o'rtasidagi tafovutning kuchayishi ko'plab mamlakatlarda soliq tizimini qayta ko'rib chiqishni taqozo etmoqda. Aynan shunday sharoitda progressiv soliq tizimi soliq yukini adolatli taqsimlash, daromadlar tengsizligini kamaytirish hamda budget daromadlarini oshirishning samarali mexanizmlaridan biri sifatida e'tirof etilmoqda. Progressiv soliqqa tortish tizimida yuqori daromadga ega bo'lgan shaxslar yuqoriroq soliq stavkalari asosida soliqqa tortilishi orqali fiskal adolat tamoyili amalga oshiriladi.

Biroq progressiv soliq tizimini joriy etish masalasi murakkab va ko'p qirrali bo'lib, uning iqtisodiy faollik, investitsiya muhiti, soliq intizomi hamda yashirin iqtisodiyotga ta'siri chuqur ilmiy tahlilni talab etadi. Soliq yukining haddan tashqari oshirilishi ayrim hollarda soliqdan qochish holatlarini kuchaytirishi yoki iqtisodiy rag'batlarni susaytirishi mumkin. Shu sababli progressiv soliq stavkalarini belgilashda mamlakatning iqtisodiy rivojlanish darajasi, soliq ma'murchiligi holati va aholining to'lov qobiliyati inobatga olinishi zarur.

Mazkur tezisning maqsadi progressiv soliq tizimini joriy etishning davlat budjeti daromadlariga ta'sirini ilmiy jihatdan o'rganish va baholashdan iborat. Tadqiqot jarayonida progressiv soliqqa tortishning nazariy asoslari yoritilib, uning fiskal samaradorligi va ijtimoiy ahamiyati tahlil qilinadi. Olingan natijalar asosida budget daromadlarini oshirish hamda soliq siyosatini takomillashtirish bo'yicha ilmiy-amaliy xulosalar ishlab chiqiladi.

METODOLOGIYA

Progressiv soliq tizimini joriy etishning davlat budjeti daromadlariga ta'sirini o'rganishda kompleks metodologik yondashuv qo'llanildi. Tadqiqot nazariy, empirik, qiyosiy va analitik usullarni uyg'unlashtirgan holda olib borildi.

1. Nazariy asoslar

Progressiv soliqqa tortish tizimi, soliq adolati va fiskal samaradorlikka oid ilmiy adabiyotlar, xalqaro tajribalar hamda normativ-huquqiy hujjatlar tahlil qilindi.

Progressiv soliq stavkalarining budget daromadlarini shakllantirishdagi o'rni, daromadlar tengsizligini kamaytirish va ijtimoiy adolatni ta'minlash bilan bog'liq nazariy konsepsiyalar o'rganildi.

Soliq siyosati va iqtisodiy o'sish o'rtasidagi o'zaro bog'liqlikni tushuntirishda iqtisodiy modellar va konseptual yondashuvlardan foydalanildi.

2. Empirik yondashuv

Davlat budjeti daromadlari tarkibi, soliq tushumlari hajmi va ularning dinamikasi bo'yicha rasmiy statistik ma'lumotlar yig'ildi va tahlil qilindi.

Aholi daromadlari bo'yicha soliq yukining taqsimlanishi va soliq tushumlariga ta'siri empirik ma'lumotlar asosida baholandi.

Progressiv soliq elementlari joriy etilgan davrlar bilan solishtirma tahlillar amalga oshirildi.

3. Qiyosiy tahlil

Rivojlangan va rivojlanayotgan mamlakatlarda (masalan, Yevropa Ittifoqi davlatlari, AQSh) progressiv soliq tizimini qo'llash tajribasi o'rganildi.

Ushbu mamlakatlarda progressiv soliq stavkalarining budget daromadlariga ta'siri O'zbekiston sharoiti bilan solishtirildi.

Qiyosiy tahlil orqali milliy soliq tizimida qo'llash mumkin bo'lgan samarali mexanizmlar aniqlandi.

4. Analitik usullar

Progressiv soliq tizimining kuchli va zaif tomonlari, imkoniyatlari va xavflarini aniqlash maqsadida SWOT tahlil o'tkazildi.

Budget daromadlarini oshirishda progressiv soliq tizimining samaradorligini baholash uchun ko'rsatkichlar tizimi shakllantirildi.

Dinamik tahlil yordamida soliq tushumlarining vaqt davomida o'zgarishi o'rganildi.

5. Metodologik yondashuvning maqsadi

Mazkur metodologiyaning asosiy maqsadi progressiv soliq tizimini joriy etish orqali budget daromadlarini oshirish imkoniyatlarini ilmiy asosda baholash hamda soliq siyosatini takomillashtirish bo'yicha amaliy tavsiyalar ishlab chiqishdan iborat.

NATIJA

Tadqiqot natijalari shuni ko'rsatdiki, progressiv soliq tizimini joriy etish davlat budjeti daromadlarini oshirishda muhim fiskal instrument hisoblanadi. Tahlillar shuni tasdiqladiki, yuqori daromadga ega qatlamlar uchun progressiv soliq stavkalarining qo'llanilishi budjet tushumlarining barqaror o'sishiga xizmat qilmoqda.

Statistik ma'lumotlar tahlili natijasida progressiv soliqqa tortish daromadlar tengsizligini kamaytirish bilan bir qatorda soliq bazasining kengayishiga ham ijobiy ta'sir ko'rsatishi aniqlandi. Bu esa budjet daromadlarining barqaror shakllanishiga imkon yaratmoqda.

Qiyosiy tahlil natijalari rivojlangan mamlakatlar tajribasida progressiv soliq tizimi fiskal barqarorlikni ta'minlashda samarali vosita ekanini ko'rsatdi. Ushbu tajribalar O'zbekiston soliq tizimida ham bosqichma-bosqich joriy etilishi mumkinligi aniqlandi. Shu bilan birga, tadqiqot natijalari progressiv soliq stavkalarining haddan tashqari oshirilishi soliqdan qochish holatlarini kuchaytirishi va iqtisodiy faollikka salbiy ta'sir ko'rsatishi mumkinligini ham ko'rsatdi. Shuning uchun soliq stavkalarini belgilashda iqtisodiy sharoit va soliq ma'murchiligi darajasi inobatga olinishi lozim.

Umuman olganda, tadqiqot natijalari progressiv soliq tizimini samarali joriy etish budjet daromadlarini oshirish, soliq adolatini ta'minlash va ijtimoiy-iqtisodiy barqarorlikni mustahkamlashga xizmat qilishini tasdiqladi.

MUHOKAMA

Progressiv soliq tizimini joriy etish bugungi kunda nafaqat davlat budjeti daromadlarini oshirishga, balki ijtimoiy adolat va iqtisodiy barqarorlikni ta'minlashga ham sezilarli ta'sir ko'rsatmoqda. Tadqiqot natijalari shuni ko'rsatdiki, progressiv soliq tizimi yuqori daromadga ega shaxslar uchun soliq stavkalarini oshirish orqali budjet tushumlarini barqaror oshirish imkonini beradi. Shu nuqtai nazardan, muhokama qismida progressiv soliq tizimining afzalliklari, muammolari va istiqbollari keng yoritiladi.

Progressiv soliq tizimining afzalliklari

Avvalo, progressiv soliq daromadlar tengsizligini kamaytirishda samarali vosita hisoblanadi. Yuqori daromadga ega qatlamlar ko'proq soliqqa tortilishi orqali davlat byudjeti barqaror daromad manbalariga ega bo'ladi. Shu bilan birga, tizim ijtimoiy adolatni mustahkamlaydi va past daromadli qatlamlarni moliyaviy jihatdan qo'llab-quvvatlash imkonini beradi.

Shuningdek, progressiv soliq tizimi fiskal barqarorlikni ta'minlashda muhim ahamiyatga ega. Tadqiqot natijalari shuni ko'rsatdiki, yuqori daromadga ega shaxslar uchun soliq stavkalarini joriy etish davlat budjeti tushumlarining o'sishiga ijobiy ta'sir ko'rsatadi va investitsiya muhitini barqarorlashtiradi.

Progressiv soliq tizimidagi muammolar

Shu bilan birga, tadqiqot natijalari tizim joriy etishda bir qator muammolar mavjudligini ko'rsatdi. Avvalo, soliq ma'murchiligining yetarli darajada samarali emasligi soliq tushumlarining prognozlangan darajada oshishiga to'sqinlik qiladi. Yashirin iqtisodiyot va soliqdan qochish holatlari progressiv soliq stavkalarining to'liq ta'sirini kamaytiradi.

Ikkinchi muammo – iqtisodiy faollikka ta'siri. Yuqori soliq stavkalari ayrim hollarda yuqori daromadga ega shaxslarni soliqdan qochishga yoki investitsiyalarni kamaytirishga undashi mumkin. Shu sababli, progressiv soliq stavkalarini belgilashda iqtisodiy sharoit, soliq intizomi va aholining to'lov qobiliyati inobatga olinishi lozim. Umuman olganda, tadqiqot natijalari progressiv soliq tizimini bosqichma-bosqich joriy etish va soliq ma'murchiligini takomillashtirish orqali budjet daromadlarini oshirish, ijtimoiy adolatni mustahkamlash va iqtisodiy barqarorlikni ta'minlash mumkinligini ko'rsatdi.

ISTIQBOLLAR VA TAVSIYALAR

Progressiv soliq tizimini joriy etishning istiqbollari katta. Xorijiy mamlakatlar tajribasi shuni ko'rsatadiki, daromadlar bo'yicha soliq stavkalarini optimallashtirish, elektron soliq hisoboti va raqamlashtirilgan soliq ma'murchiligi tizimlarini joriy etish budjet daromadlarini sezilarli darajada oshirish imkonini beradi. Masalan, raqamlashtirilgan soliq deklaratsiyalari va onlayn nazorat tizimlari soliq tushumlarini real vaqtda monitoring qilishga, yashirin iqtisodiyotga ta'sirini kamaytirishga yordam beradi.

O'zbekiston sharoitida ham ushbu innovatsion yechimlarni joriy etish imkoniyatlari mavjud. Davlat tomonidan soliq ma'murchiligini raqamlashtirishni qo'llab-quvvatlash, soliq ma'lumotlarining avtomatlashtirilgan tizimini yaratish va xalqaro tajribalardan foydalanish budjet tushumlarini oshirishni tezlashtiradi. Shuningdek, soliq to'lovchilarni malakali yo'naltirish va ularni elektron xizmatlardan foydalanishga rag'batlantirish tizim samaradorligini oshirishga xizmat qiladi.

Tavsiya etiladi: progressiv soliq stavkalarini bosqichma-bosqich joriy etish, soliq ma'murchiligini mustahkamlash, soliq intizomining oshirilishi va elektron soliq tizimlarini keng joriy etish orqali budjet daromadlarini barqaror oshirish.

XULOSA

O'tkazilgan tadqiqot natijalari shuni ko'rsatadiki, progressiv soliq tizimini joriy etish davlat budjeti daromadlarini oshirish, daromadlar tengsizligini kamaytirish hamda soliq adolatini mustahkamlashda muhim fiskal va ijtimoiy ahamiyatga ega vosita hisoblanadi. Xususan, yuqori daromadga ega bo'lgan jismoniy shaxslar uchun oshirilgan soliq stavkalarining qo'llanilishi davlat budjeti uchun barqaror va

qo‘shimcha tushum manbalarini shakllantirish imkonini beradi. Bu esa ijtimoiy sohalarni moliyalashtirish hamda aholi farovonligini oshirishga xizmat qiladi.

Shuningdek, progressiv soliq tizimining samaradorligi bevosita soliq ma‘murchiligi darajasi va elektron soliq xizmatlarining rivojlanganligi bilan chambarchas bog‘liq. Tadqiqot natijalariga ko‘ra, soliq tizimini raqamlashtirish, soliq jarayonlarini soddalashtirish va avtomatlashtirish orqali soliq tushumlarini nazorat qilish imkoniyatlari kengayadi hamda soliq to‘lash intizomi mustahkamlanadi. Raqamlashtirilgan va optimallashtirilgan progressiv soliq tizimi nafaqat budget tushumlarini barqaror oshiradi, balki yashirin iqtisodiyot ulushini qisqartirishga va iqtisodiy barqarorlikni ta‘minlashga ham ijobiy ta‘sir ko‘rsatadi.

Umuman olganda, progressiv soliq tizimini izchil va bosqichma-bosqich joriy etish, ilg‘or raqamli texnologiyalarni qo‘llash hamda xalqaro tajribadan samarali foydalanish davlat budjeti daromadlarini oshirish va soliq siyosatini yanada takomillashtirishga xizmat qiladi. Shu bois, progressiv soliq tizimini rivojlantirish va uni amaliyotda samarali qo‘llash davlat fiskal barqarorligini ta‘minlashda ustuvor yo‘nalishlardan biri bo‘lib qoladi.

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THE ECONOMICS OF WATER-EFFICIENT TRANSITION.

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Abstract. Surkhandarya is strategically important as Uzbekistan's entry point to trade in South Asia. This thesis analyzes how the Termez International Trade Center affects local agribusinesses' ability to export goods. It specifically looks at how new logistical hubs and less "border friction" impact the profitability of high-value crops like citrus fruits, lemons, and pomegranates. Surkhandarya is strategically important as Uzbekistan's entry point to trade in South Asia. This thesis analyzes how the Termez International Trade Center affects local agribusinesses' ability to export goods. It specifically looks at how new logistical hubs and less "border friction" impact the profitability of high-value crops like citrus fruits, lemons, and pomegranates. The study contrasts traditional domestic sales with foreign export margins to Afghanistan and Pakistan using a cost-benefit analysis. Key bottlenecks, such as gaps in cold storage and certification requirements, are identified by the research. Results indicate that by maximizing "food miles" and cutting transaction costs, using Termez's distinct geographic advantage may improve regional agricultural GDP. In order to help local "clusters" better integrate into the Middle Corridor trade route, the thesis concludes with useful suggestions.

Keywords: *Surkhandarya, Termez Trade Center, Agribusiness Exports, Logistics, South Asian Markets.*

Экономические аспекты перехода к водоеффективному использованию ресурсов.

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Аннотация. Сурхандарьинская область занимает стратегически важное положение как ключевой пункт входа Узбекистана в торговую систему Южной Азии. В данной диссертации анализируется влияние Термезского международного торгового центра на экспортный потенциал местных агропредприятий. В частности, рассматривается, как создание новых

логистических хабов и снижение «пограничных барьеров» влияют на рентабельность выращивания высоколиквидных культур, таких как цитрусовые, лимоны и гранаты. В исследовании, основанном на методе анализа затрат и выгод, проводится сопоставление маржинальности традиционных внутренних продаж с показателями внешнего экспорта в Афганистан и Пакистан. Автор выявляет основные «узкие места» в отрасли, такие как дефицит мощностей холодильного хранения и сложности в прохождении процедур сертификации. Результаты работы показывают, что использование уникального географического преимущества Термеза путем оптимизации «продовольственных миль» и сокращения транзакционных издержек может значительно повысить сельскохозяйственный ВВП региона. В заключении диссертации представлены практические рекомендации по эффективной интеграции местных агрокластеров в торговый маршрут «пограничные барьеры»

Ключевые слова: *Сурхандарья, Термезский торговый центр, агроэкспорт, логистика, рынки Южной Азии.*

Introduction. The sustainable growth of Uzbekistan's agricultural industry has emerged as a strategic national target in the context of global climate change and the growing shortage of transboundary water resources in Central Asia. The country's southernmost and most thermally active province, Surkhandarya, confronts particular economic difficulties. It is distinguished by intense heat and a vital reliance on the Amu Darya river basin. The profitability of nearby agribusinesses is directly threatened by the large water losses caused by traditional furrow irrigation techniques, which frequently approach 40–50% due to evaporation and filtration.

Research Methodology. This study applies a mixed-methods research approach to analyze the economic aspects of the transition to water-efficient systems. The methodology combines theoretical analysis, quantitative evaluation, and comparative assessment to ensure reliable and comprehensive results.

A systematic review of academic literature is conducted using scholarly articles, conference papers, and analytical reports from international organizations such as the World Bank, FAO, and OECD, as well as national policy documents. This review establishes the conceptual and theoretical framework of the study and identifies key economic mechanisms influencing water-efficient transition.

The study also relies on secondary statistical data obtained from national statistical agencies, international databases, and sector-specific reports. The data are analyzed using basic statistical techniques such as growth rates, percentage changes, and

correlation analysis to identify relationships between water efficiency, productivity, and economic performance.

Analysis and discussion of results. The research indicates that switching to water-efficient systems has important economic consequences, especially for nations with high agricultural water consumption and water shortages. Agriculture continues to be the largest consumer of freshwater resources, accounting for more than two-thirds of all water withdrawals in many developing and transition economies, according to statistical data from national statistical agencies and international databases like the World Bank, FAO, and OECD. According to national statistics, the adoption of water-saving technologies—particularly contemporary irrigation techniques like fountain and drip irrigation—contributes to a noticeable decrease in water consumption per unit of production. Water consumption per hectare has decreased in areas where water-efficient technologies have been implemented, yet crop yields and farm revenues have grown steadily or even more. This demonstrates that water efficiency can boost economic production through better resource allocation rather than limit it. Water productivity, which is defined as economic production per cubic meter of water consumed, is higher in nations that invest in water-efficient infrastructure, according to international comparative data. Water-efficient economies have lower long-term production costs and are more resilient to climate unpredictability, according to FAO and World Bank data. These results imply that water efficiency is essential to maintaining economic sustainability, especially in nations that rely heavily on agriculture.

The economic investigation also demonstrates that long-term advantages of water-efficient technology exceed their relatively high initial investment costs. Over time, statistical patterns show decreases in maintenance, energy use, and water supply costs. Additionally, evidence from national development programs confirms that government support mechanisms like tax incentives, concessional loans, and subsidies greatly promote the adoption of water-saving devices.

Improved water efficiency contributes to macroeconomic stability by lowering demand on limited water supplies and promoting long-term growth. Correlation analysis using international datasets reveals a favorable association between water efficiency indices, agricultural productivity, and rural income growth. This emphasizes the significance of incorporating water-saving methods into national economic and environmental policies.

Conclusion and Recommendations. The present research explored the financial basis and consequences of the shift to water-efficient technologies, emphasizing its

significance for long-term development in the face of growing water scarcity. The study indicates that water efficiency is not just an environmental goal, but also an important economic approach that boosts resource output, lowers long-term costs, and promotes economic resilience. Empirical research based on national statistical data and international databases shows that using water-efficient technologies reduces water intensity and increases economic output per unit of water consumed. Despite the relatively high initial investment needs, the long-term economic benefits, such as lower operational costs, better production, and greater adaptability to climate variability, outweigh the expenditures. The research results also show that countries that implement integrated water management and efficiency-oriented policies have more consistent economic performance, particularly in water-dependent sectors like agriculture.

Overall, the results confirm that switching to water-efficient technologies is an affordable and long-term development strategy. Effective water management improves both microeconomic efficiency and macroeconomic stability, highlighting the strategic importance of water efficiency in national economic planning.

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OPERATIONALIZING BLOOM'S TAXONOMY FOR THE ASSESSMENT OF COMMUNICATIVE OUTPUT IN ENGLISH LANGUAGE CLASSROOMS

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Abstract

The assessment of productive skills (speaking and writing) remains a central challenge in English language teaching due to the complex interplay among linguistic, cognitive, and communicative competencies. Bloom's Taxonomy offers a hierarchical cognitive framework that can enhance assessment validity and reliability by targeting cognitive processes beyond mere linguistic accuracy. This paper examines how the revised Bloom's Taxonomy can be systematically incorporated into productive skills assessment. Drawing on cognitive and pedagogical literature, the study outlines an analytical model linking cognitive levels with assessment descriptors and task types. Furthermore, it discusses implications for scoring rubrics, curriculum alignment, and teacher assessment literacy. The findings suggest that Bloom's-based assessment facilitates higher-order thinking, fosters learner autonomy, and promotes deeper communicative competence, thereby supporting more equitable and cognitively informed evaluation practices.

Keywords: Bloom's Taxonomy, productive skills, speaking assessment, writing assessment, higher-order thinking, cognitive domains, language testing, assessment literacy

Productive skills, namely speaking and writing, constitute essential components of communicative language proficiency and are widely recognized in contemporary educational frameworks such as CEFR and CLIL. However, evaluation of these skills remains inherently subjective due to their multidimensional nature, which encompasses linguistic accuracy, fluency, discourse organization, pragmatic appropriateness, and cognitive processing. Traditional assessment practices often prioritize surface-level accuracy over deeper cognitive and communicative outcomes, thereby limiting learners' intellectual engagement.

Bloom's Taxonomy, initially proposed by Bloom et al. (1956) and later revised by Anderson and Krathwohl (2001), presents a hierarchical model of cognitive processes ranging from lower-order (remembering, understanding) to higher-order thinking skills (analyzing, evaluating, creating). Integrating this taxonomy into speaking and writing assessment offers a systematic means of enriching task design and evaluation criteria, ensuring alignment between learning objectives, classroom activities, and measurable assessment outcomes.

The assessment of productive skills differs from receptive skills in that it requires learners to generate linguistic output that reflects both cognitive processing and communicative intent. Weigle (2002) states that writing assessment must account for discourse complexity, coherence, register, and audience awareness, while Fulcher (2003) emphasizes that speaking assessment involves interactive

competence, pragmatic appropriateness, and strategic language use. These elements align implicitly with the cognitive dimensions proposed by Bloom, suggesting theoretical compatibility.

Bloom's original taxonomy classified educational objectives into cognitive, affective, and psychomotor domains. The revised version (Anderson & Krathwohl, 2001) restructures the cognitive domain into six levels: Remember, Understand, Apply, Analyze, Evaluate, and Create. This revision emphasizes active cognitive processes and aligns more closely with language performance tasks, particularly those requiring argumentation, synthesis, and collaborative discourse.

Bloom's levels can be operationalized into productive skill tasks as follows:

Bloom's Level Speaking Tasks

Writing Tasks

Remember	Define terms; answer factual questions	Summarize factual information
Understand	Explain concepts; paraphrase	Reformulate texts; describe processes
Apply	Use language in real scenarios	Write emails, reports, narratives
Analyze	Compare or debate viewpoints	Analytical essays, discourse analysis
Evaluate	Peer feedback; persuasive arguments	Critical reviews, argumentative essays
Create	Present proposals; storytelling	Research papers, creative compositions

This mapping provides a scaffold for designing classroom activities and assessments that target specific cognitive outcomes.

A Bloom's-informed scoring rubric extends beyond linguistic correctness to include:

- Cognitive complexity of ideas
- Depth of argumentation
- Rhetorical organization
- Use of supporting evidence
- Creativity and synthesis

Such rubrics align with the principles of analytic scoring in language testing (Brown, 2004) and enhance reliability through transparent evaluative criteria.

Integrating Bloom's Taxonomy shifts assessment from evaluating "what learners know" to "how learners think with language." This is particularly crucial for tertiary-level academic English where discourse genres demand complex cognitive skills such as synthesis, critique, and creative problem solving. Successful implementation requires pedagogical training. Research indicates that teachers often lack explicit knowledge of cognitive frameworks (Brookhart, 2011), resulting in assessment practices that are misaligned with curricular objectives. Bloom-informed assessment supports teacher literacy by offering conceptual clarity and systematic task design principles.

A cognitively informed approach promotes fairness by differentiating between linguistic and cognitive performance. However, standardization remains challenging in multilingual contexts, where cultural and educational backgrounds influence learners' cognitive strategies. Further empirical research is required to explore standardized descriptors that honor diversity while maintaining validity.

Bloom's Taxonomy provides a powerful methodological tool for enhancing productive skills assessment by integrating cognitive dimensions into task design and rubric construction. This approach promotes higher-order thinking, strengthens curriculum-assessment alignment, and supports equitable evaluation practices. For broader adoption, teacher training, institutional support,

and empirical validation studies are necessary. Future research should investigate the efficacy of Bloom-based rubrics in diverse instructional settings and explore learner perceptions of cognitively oriented assessment.

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YOSH AVLODNI TARBIYALASHDA SINERGETIKANING ROLI

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Annotatsiya. Mazkur tezisda sinergetika g'oyalari va murakkab tizimlar tafakkuri yosh avlod tarbiyasini tashkil etish hamda boshqarishda qanday metodologik tayanch bo'la olishi yoritiladi. Tarbiya jarayoni ko'p omilli, ochiq va dinamik tizim bo'lgani sababli unda chiziqli sabab natija bog'lanishlari doim ham ishlamaydi. Sinergetika o'z o'zini tashkil etish, qayta aloqa, barqarorlik va beqarorlik, tartib va betartiblikning almashinuvi kabi tushunchalar orqali tarbiyaviy muhitni loyihalash va ijobiy o'zgarishlarni barqarorlashtirish mexanizmlarini tushuntiradi.

Kalit so'zlar: sinergetika, tarbiya, yosh avlod, murakkab tizim, ochiq tizim, o'z o'zini tashkil etish, qayta aloqa, tarbiyaviy muhit.

KIRISH

Yosh avlod tarbiyasi bir vaqtning o'zida ijtimoiy, ma'naviy, psixologik va pedagogik omillar kesishadigan maydondir. Oila, ta'lim muassasasi, tengdoshlar, mahalla, ommaviy axborot, raqamli kommunikatsiya va mehnat bozoridagi talablar birlashib shaxsning qarashlari, xulqi va hayotiy maqsadlarini shakllantiradi. Bunday sharoitda tarbiya jarayonini faqat reja asosida o'tkaziladigan tadbirlar majmuasi sifatida talqin qilish torlik qiladi. Chunki tarbiyaviy ta'sir ko'pincha bevosita dars yoki tadbir vaqtida emas, balki muhit, muloqot, ijtimoiy baho va shaxsiy tajriba ichida, ba'zan esa kechikkan holda namoyon bo'ladi. Demak, tarbiyani murakkab tizim sifatida ko'ra oladigan, uning ichki mexanizmlari va tashqi ta'sirlar bilan almashinuvi qanday ishlashini izohlab beradigan metodologiya zarur.

Sinergetika murakkab ochiq tizimlarda o'z o'zini tashkil etish, tartibning yuzaga kelishi va rivojlanish mexanizmlarini o'rganadi. U fizikadagi jarayonlardan boshlab ijtimoiy tizimlargacha bo'lgan ko'plab hodisalarni umumiy mantiq bilan tushuntiradi: tizim muvozanatdan uzoqlashganda yangi tartib paydo bo'lishi mumkin, qayta aloqa mexanizmlari o'zgarishni tezlashtirishi yoki barqarorlashtirishi mumkin, kichik ta'sir katta natijaga olib kelishi ehtimoli mavjud. Tarbiya ham aynan shunday tizimiy xususiyatlarga ega. Bir qarashda mayda ko'ringan pedagogik uslub o'quvchining o'ziga bo'lgan ishonchini keskin o'zgartirishi mumkin, kuchli bosim esa aks ta'sir berib, qarshilik va befarqlikni kuchaytirishi mumkin. Shu bois sinergetik yondashuv

tarbiyada nafaqat nima qilish, balki qanday muhitda, qanday qayta aloqa bilan va qanday vaqt ufqida ishlash kerakligini ko'rsatib beradi.

ASOSIY QISM

Sinergetik yondashuvda tarbiya avvalo ochiq tizim sifatida qaraladi. Ochiq tizim tashqi muhitdan ajralgan holda yashamaydi, u resurs, axborot va ta'sirlarni doimiy qabul qiladi va qaytaradi. Ta'lim muassasasi ichidagi tarbiya ham o'quvchi hayotining yagona markazi emas. Raqamli makon, oiladagi muomala, mahalla yoki ijtimoiy guruhlarning qadriyatlari, iqtisodiy sharoit, migratsiya tajribasi kabi omillar tarbiya natijasiga bevosita aralashadi. Shuning uchun sinergetika tarbiyada tashqi omillarni inkor etishni emas, ularni tan olib, maqsadga muvofiq boshqariladigan muhitga aylantirishni taklif qiladi. Masalan, ijtimoiy tarmoqlardagi agressiv kommunikatsiya bilan sinfdagi muloqot madaniyati o'rtasidagi ziddiyatlar yechilmasa, maktab ichidagi tarbiyaviy ta'sir tez so'nadi. Aksincha, media savodxonlik, axborotni tekshirish odati, raqamli etikani tarbiyaviy mazmunga kiritish ochiq tizimdagi xavf omillarini rivojlanish resursiga aylantirishi mumkin.

Sinergetikaning ikkinchi tayanch g'oyasi o'z o'zini tashkil etishdir. Tarbiyada bu g'oya shuni anglatadiki, shaxsning barqaror ijobiy xulqi tashqi nazoratga bog'lanib qolmasligi kerak. Nazorat kuchli bo'lsa, intizom vaqtincha oshadi, lekin nazorat kamayganda eski odatlar qaytishi kuzatiladi. O'z o'zini tashkil etish esa ichki motiv, mas'uliyat va o'zini boshqarish mexanizmlariga tayangan holda xulqni barqarorlashtiradi. Pedagogik amaliyotda bu o'quvchiga tanlov maydonini berish, qaror oqibatini tahlil qilishga o'rgatish, o'z maqsadini qo'yish va unga erishish rejasini tuzish ko'nikmalarini shakllantirish bilan ta'minlanadi. O'quvchi o'zini boshqarishni o'rganmasa, tarbiya faqat tashqi talablar tizimi bo'lib qoladi. Sinergetik yondashuv esa tarbiyani shaxsning ichki boshqaruv tizimini uyg'otish jarayoni sifatida ko'radi [1].

Qayta aloqa mexanizmlari sinergetik tarbiyaning eng amaliy nuqtasidir. Murakkab tizimlarda natija qayta aloqa orqali mustahkamlanadi yoki susayadi. Tarbiyada ijobiy qayta aloqa e'tirof, rag'bat, ishonch bildirish, o'quvchining mehnatini ko'rish va baholash ko'rinishida ishlaydi. Salbiy qayta aloqa esa me'yor va mas'uliyatning izchil talabi, adolatli cheklov, xulq oqibatini tushuntirish va vaziyatni tuzatish imkonini berish orqali namoyon bo'ladi. Muammo shundaki, amaliyotda qayta aloqa ko'pincha bir tomonga og'ib ketadi: faqat jazolash yoki faqat maqtash. Birinchisi qo'rquvni kuchaytirib, ikkiyuzlamachilikni paydo qiladi, ikkinchisi esa talabchanlikni pasaytirib, javobgarlik hissini sustlashtiradi. Sinergetika qayta aloqa muvozanatini talab qiladi: rag'bat yo'nalish beradi, talab esa barqarorlikni ta'minlaydi. Shu muvozanat bo'lmasa, tizim yoki betartiblikka, yoki qotib qolgan holatga tushadi.

Sinergetik tafakkur beqarorlik davrlarini tarbiyaviy resurs sifatida ko‘rishga undaydi. Murakkab tizimlar muayyan nuqtalarda beqarorlashadi va aynan shu paytda yangi sifatga o‘tish ehtimoli kuchayadi. O‘smirlik davri, kasb tanlash bosqichi, sinf jamoasida rol almashinuvi, muvaffaqiyatsizlikdan keyingi ruhiy holat tarbiyadagi beqarorlik nuqtalaridir. Bunday paytda shaxsga faqat bosim o‘tkazish yoki muammoni yopish ijobiy o‘lishni to‘xtatadi. Sinergetik yondashuv bunday vaziyatda muloqot, refleksiya, maslahat, hamkorlik va qo‘llab quvvatlashni kuchaytirishni tavsiya qiladi. Beqarorlikni boshqarish degani uni yo‘q qilish emas, balki xavfni kamaytirgan holda ijobiy yo‘nalishga burishdir [2]. Masalan, sinfdagi konfliktni jazolash bilan bostirish o‘rniga, kelishuv madaniyati, tinglash, dalil bilan gapirish, hissiy boshqaruv bo‘yicha amaliy mashqlar orqali hal qilish fuqarolik qadriyatlarini ham tarbiyalaydi.

Tartib va erkinlikning uyg‘unligi ham sinergetik yondashuvda muhim. Tarbiya tizimida haddan tashqari qat’iy tartib tashabbusni o‘ldiradi, ijodkorlikni pasaytiradi va yashirin qarshilikni kuchaytiradi. Haddan tashqari erkinlik esa me‘yorlarning yemirilishiga, mas’uliyatsizlikka olib kelishi mumkin. Sinergetika optimal muvozanat g‘oyasini beradi: tizim barqaror bo‘lishi uchun qoidalar va umumiy me‘yorlar kerak, tizim rivojlanishi uchun esa erkin tajriba maydoni ham zarur. Ta’lim muassasasida bu loyihaviy faoliyat, jamoaviy ishlar, o‘quvchi tashabbuslarini qo‘llab quvvatlash, o‘zini o‘zi boshqarish organlarini yo‘lga qo‘yish orqali amalga oshadi. O‘quvchi qoidani faqat bajaruvchi emas, qoidaning ma’nosini tushunuvchi va uni jamoa manfaatiga bog‘lovchi subyektga aylanganda tarbiya barqarorlashadi.

Sinergetik tarbiyada qadriyatlar markaziy boshqaruv mexanizmi sifatida talqin qilinadi. Murakkab tizimni faqat buyruq bilan boshqarish qiyin, chunki buyruq tizimning barcha mikro vaziyatlariga yetib bormaydi [3]. Qadriyatlar esa shaxsning ichki mezoniga aylanadi va u vaziyat o‘zgarganda ham xulqni yo‘naltiradi. Halollik, adolat, hurmat, mas’uliyat, mehnatsevarlik, bag‘rikenglik, hamkorlik kabi qadriyatlar shaxsning ichki navigatsiyasi bo‘lishi kerak. Bu qadriyatlar nasihat bilan emas, tajriba bilan singadi. Shu sababli sinergetik tarbiya ijtimoiy amaliyotga tayangan holda ishlaydi: volontyorlik, jamoaga xizmat, ekologik tashabbuslar, kitobxonlik klublari, sport va madaniy loyihalar o‘quvchini o‘zidan kattaroq maqsadlar bilan bog‘laydi. Qadriyatlar maydoni shakllansa, tarbiyaviy ta’sir “ko‘rinmas” tarzda ishlaydi va tashqi nazoratga ehtiyoj kamayadi.

Yoshlarning o‘zini tarbiyalashi sinergetik yondashuvda alohida yo‘nalish sifatida ko‘riladi. O‘zini tarbiyalash deganda shaxsning o‘z xulqini tahlil qilishi, kamchilikni tan olishi, maqsad qo‘yishi, o‘zini intizomga solishi va o‘z resursini boshqarishi tushuniladi. Sinergetika bu jarayonni o‘z o‘zini tashkil etishning yuqori bosqichi deb

qaraydi. Ta'lim muassasasi bu ko'nikmalarni shakllantirish uchun refleksiya amaliyotlarini joriy etishi mumkin: haftalik o'z baholash, shaxsiy maqsad kundaligi, jamoaviy muhokama, mentorlik, portfel tizimi, ijtimoiy loyiha natijasini tahlil qilish. Bu vositalar o'quvchida "men nima qildim" savolini "nega shunday qildim va keyingi safar qanday qilaman" savoliga aylantiradi. Tarbiya aynan shu nuqtada barqaror natija beradi [4].

Sinergetik yondashuv tarbiyada individual farqlarni e'tiborga olishni ham talab qiladi. Murakkab tizimning elementlari bir xil emas. O'quvchilarning oilaviy sharoiti, temperament, qiziqish, motivatsiya va tajribasi turlicha. Shuning uchun bir xil metod hamma uchun bir xil ishlamaydi. Sinergetika diferensial yondashuvni asoslaydi: kimdir jamoa faoliyati orqali tezroq ochiladi, kimdir ilmiy izlanish va natija e'tirofi orqali, kimdir sport intizomi orqali, yana kimdir san'at va ijodiy loyiha orqali. Muhimi, har bir o'quvchi uchun ijobiy o'sish trayektoriyasi topilishi va u jamoa qadriyatlari bilan mos kelishi kerak. Tarbiya tizimi bitta yo'lni majburlash emas, ijobiy yo'llarni ko'paytirish orqali samarali bo'ladi.

Monitoring va baholash sinergetik tarbiyada jarayonga yo'naltiriladi. Murakkab tizimlarda natija kechikib chiqadi, shuning uchun faqat yakuniy ko'rsatkich bilan baholash noto'g'ri xulosa berishi mumkin. Tarbiya jarayonida oraliq indikatorlar muhim: jamoada ishtirok, mas'uliyatli topshiriqni bajarish sifati, muloqot madaniyati, konfliktni hal qilish uslubi, o'zini baholash va o'zini boshqarish dinamikasi. Bunday indikatorlar qayta aloqa beradi va tarbiyaviy muhitni sozlashga yordam beradi. Sinergetika nuqtai nazaridan pedagogik boshqaruv doimiy sozlashdir: tizimni bir marta qurib qo'yish yetarli emas, u doimiy ravishda real vaziyatlar asosida moslashtirib boriladi [5].

XULOSA VA MUNOZARA

Sinergetika yosh avlod tarbiasini murakkab ochiq tizim sifatida talqin qilib, tarbiyaviy ishlarni tashkil etishning metodologik ufqini kengaytiradi. Tarbiya natijasi ko'p omillar o'zaro ta'siridan tug'ilishi, qayta aloqa mexanizmlari orqali mustahkamlanishi, beqarorlik davrlarida yangi sifatlar paydo bo'lishi kabi g'oyalar tarbiya amaliyotini real hayotga yaqinlashtiradi. Bu yondashuv tarbiyani faqat nazorat va buyruq orqali emas, balki o'quvchining o'z o'zini boshqarishi, qadriyatlar maydoni, hamkorlik, refleksiya va mas'uliyatli tanlovni shakllantirish orqali barqarorlashtirish mumkinligini ko'rsatadi.

Tezisdan bayon qilingan tahlil shuni anglatadiki, tarbiyaviy tizimda tartib va erkinlikning optimal muvozanati topilsa, qayta aloqa adolatli ishlasa, o'quvchi subyekt sifatida qo'llab quvvatlansa, tarbiya natijasi nazorat kamayganda ham saqlanib qoladi.

Sinergetik yondashuv yoshlarning tanqidiy fikrlashi, jamoada ishlashi, fuqarolik mas'uliyati va ijtimoiy moslashuvini kuchaytiradigan samarali metodologik asos bo'lib xizmat qiladi.

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BOLALAR NUTQIDA MATN SHAKLLANISHINING LINGVISTIK ASOSLARI

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Annotatsiya: Ushbu maqola bolalar nutqida matn shakllanishining lingvistik asoslarini o'rganishga bag'ishlangan. Bolalar nutqi o'rganish jarayonida markaziy o'rin tutadi va nafaqat til ko'nikmalarini, balki tafakkur, mantiqiy fikrlash va ijtimoiy muomala qobiliyatlarini rivojlantiradi. Tadqiqot fonetik, leksik, grammatik, morfologik va sintaktik xususiyatlarni tahlil qiladi hamda ularning matn shakllanishiga ta'sirini ko'rsatadi. Shuningdek, matnning semantik va pragmatik jihatlari, diskurs va kontekstning roli, bolalar matnining boshlanish, rivojlanish va yakun qismlari o'rganiladi. Tadqiqotda kuzatuv, eksperimental, lingvistik va matn tahlili metodlari qo'llanilib, bolalar nutqidagi matn tuzilishi va lingvistik tamoyillari aniqlanadi. Natijalar pedagogik va psixologik amaliyotda bolalar nutqini rivojlantirish bo'yicha foydali tavsiyalar beradi.

Kalit so'zlar: Bolalar nutqi, matn shakllanishi, lingvistik asoslar, fonetika, leksika, grammatika, morfologiya, sintaksis, semantik va pragmatik tahlil, diskurs, pedagogik metodlar

Аннотация: Данная статья посвящена изучению лингвистических основ формирования текста в детской речи. Детская речь занимает центральное место в процессе обучения и способствует развитию не только языковых навыков, но и мышления, логического рассуждения и социальных коммуникативных способностей. В исследовании анализируются фонетические, лексические, грамматические, морфологические и синтаксические особенности и их влияние на формирование текста. Также рассматриваются семантические и прагматические аспекты текста, роль дискурса и контекста, а также этапы начала, развития и завершения детского текста. В работе используются методы наблюдения, эксперимента, лингвистического и текстового анализа, что позволяет выявить структуру текста и лингвистические принципы детской речи. Полученные результаты дают практические рекомендации для педагогической и психологической деятельности по развитию детской речи.

Ключевые слова: Детская речь, формирование текста, лингвистические основы, фонетика, лексика, грамматика, морфология, синтаксис, семантический и прагматический анализ, дискурс, педагогические методы

Abstract: This article is devoted to the study of the linguistic foundations of text formation in children's speech. Children's speech occupies a central place in the learning process and contributes not only to the development of language skills but also to thinking, logical reasoning, and social communication abilities. The study analyzes phonetic, lexical, grammatical, morphological, and syntactic features and demonstrates their influence on text formation. In addition, the semantic and pragmatic aspects of the text, the role of discourse and context, as well as the stages of beginning, development, and completion of children's texts are examined. Observation, experimental, linguistic, and text analysis methods are employed to identify the structure and linguistic principles of text formation in children's speech. The results provide useful recommendations for pedagogical and psychological practice aimed at developing children's speech.

Keywords: Children's speech, text formation, linguistic foundations, phonetics, lexicon, grammar, morphology, syntax, semantic and pragmatic analysis, discourse, pedagogical methods

Kirish: Nutq - insonning eng muhim kommunikativ vositalaridan biri bo'lib, uning rivojlanishi shaxsiy va ijtimoiy taraqqiyotda beqiyos ahamiyatga ega. Bolalar nutqi esa o'rganish jarayonining markazida turadi, chunki u nafaqat til bilish ko'nikmasini shakllantiradi, balki tafakkur, mantiqiy fikrlash va ijtimoiy muomala qobiliyatlarini ham rivojlantiradi.

Bolalar nutqini o'rganishning lingvistik jihati, ya'ni so'z tanlovi, grammatik tuzilma, matn ichidagi mantiqiy bog'liqlik va kontekstual bog'lanishlarni aniqlash, tilshunoslik fanida alohida o'rin tutadi. Ushbu maqolaning maqsadi - bolalar nutqida matn shakllanishining lingvistik asoslarini o'rganish, nutqiy elementlarning tuzilishi, semantik va pragmatik jihatlarini aniqlash, hamda ularni pedagogik va psixologik amaliyotga tadbiq qilish imkoniyatlarini ko'rsatishdir.

Maqolada quyidagi vazifalar bajariladi:

1. Bolalar nutqining fonetik, leksik va grammatik xususiyatlarini aniqlash;
2. Matn shakllanishining lingvistik tamoyillarini tushuntirish;
3. Bolalar nutqini o'rganish metodlarini va pedagogik amaliyotni ko'rib chiqish;
4. Xulosa orqali lingvistik asoslarning amaliy ahamiyatini baholash.

Bolalar nutqining xususiyatlarini

2.1. Fonetik va fonologik xususiyatlar

Bolalar nutqida tovushlarni to'g'ri talaffuz qilish qobiliyati asta-sekin rivojlanadi. Dastlab shivirlash va balandlikni o'rganish orqali nutqqa tayyorlanadi. 2–3 yoshdan boshlab tovushlarning aniq talaffuzi shakllanadi, lekin ba'zi murakkab tovushlar keyinroq o'rganiladi.

2.2. Leksik va grammatik rivojlanish

Bolalar nutqining asosiy xususiyati - so'z boyligi va grammatik strukturaning sekin shakllanishidir. Dastlab, bola asosiy atamalar va fe'llarni o'rganadi. Yoshi kattalar sari leksik boyligi kengayadi, sinonim va antonim tushunchalarini, murakkab fe'l shakllarini ishlata boshlaydi. Grammatik jihatdan esa oddiy jumlar tuziladi, keyin murakkab qo'shma jumlar paydo bo'ladi.

2.3. Morfologik va sintaktik xususiyatlar

Morfologik rivojlanish so'zning shakllanish qoidalarini o'rganish, turli grammatik shakllarda so'zlarni ishlatish imkonini beradi. Sintaktik rivojlanish esa gap tarkibini aniqlash va matnni mantiqan bog'lash imkonini beradi. Shu orqali bola matnida boshlanish, rivojlanish va yakun qismi o'z ifodasini topadi.

Matn shakllanishining lingvistik asoslari

3.1. Nutqning semantik va pragmatik jihatlari

Matn semantik jihatdan mantiqiy bog'langan so'z va jumladan iborat bo'lib, voqea, fikr yoki g'oyani ifodalaydi. Pragmatik jihat matnning kontekstdagi vazifasini anglashga yordam beradi.

3.2. Matn tuzilishi: boshlanish, rivojlanish, yakun.

Bolalar matni uch asosiy qismdan iborat: boshlanish, rivojlanish va yakun. Bu strukturaviy tuzilma bolalarga voqealarni mantiqan ifodalash va matnni tushunarli qilish imkonini beradi.

3.3. Bolalar nutqida sarlavha va mavzu aniqligi

Sarlavha va mavzu aniqligi matnning asosiy lingvistik elementlaridan biridir. Bolalar sarlavha orqali matn mazmunini qisqacha ifodalaydi, mavzu esa voqea yoki fikrning markaziy g'oyasini belgilaydi.

3.4. Diskurs va kontekstning roli.

Diskurs matn ichidagi fikrlar va jumlar o'rtasidagi bog'liqlikni ta'minlaydi. Kontekst esa matnni to'g'ri tushunish va moslashishga yordam beradi.

Bolalar nutqida matn shakllanishini o'rganish metodlari

4.1. Kuzatuv va eksperimental metodlar

Bolalar nutqini o'rganishda kuzatuv metodlari keng qo'llaniladi. Tadqiqotchi bolaning kundalik nutqini, suhbat va hikoyalarini kuzatib, matn tuzilishi va so'z boyligini

baholaydi. Eksperimental metod esa maxsus topshiriqlar orqali bolalarning nutqini sinovdan o'tkazadi.

4.2. Lingvistik tahlil va matn tahlili

Lingvistik tahlil matn ichidagi mantiqiy bog'liqlik, semantik to'g'rilik va diskurs elementlarini o'rganishga imkon beradi. Matn tahlili jumlar o'rtasidagi bog'liqlik, mavzu aniqligi va xulosani baholash imkonini beradi.

4.3. Bolalar nutqini rivojlantirishda pedagogik amaliyot

O'qituvchilar va logopedlar bolalarga matn yaratish mashqlari, hikoya yozish va og'zaki nutq mashqlari orqali nutqiy qobiliyatlarni rivojlantiradi. Shu yo'l bilan bolalar so'z boyligini oshiradi, grammatik va sintaktik ko'nikmalarini mustahkamlaydi.

Xulosa: Bolalar nutqida matn shakllanishining lingvistik asoslarini o'rganish nafaqat til rivojlanishini, balki bolaning tafakkur va muloqot qobiliyatlarini tushunishga yordam beradi. Tadqiqotlar shuni ko'rsatadiki, bolalar nutqi dastlab fonetik va leksik jihatdan oddiy bo'lsa-da, yoshi kattalar sari grammatik, morfologik va sintaktik jihatdan murakkablashadi.

Lingvistik tahlil va pedagogik kuzatuv metodlari bolalarning semantik, pragmatik va diskurs jihatlarini aniqlashga yordam beradi. Shu bilan birga, pedagogik amaliyot bolalarning matn yaratish ko'nikmalarini mustahkamlaydi va nutqiy xatolarini kamaytiradi. Shunday qilib, bolalar nutqida matn shakllanishining lingvistik asoslarini o'rganish tilshunoslik va pedagogika sohasida katta ahamiyatga ega bo'lib, kelajakda yangi tadqiqotlar va metodlarni ishlab chiqish imkonini beradi.

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IQLIM O'ZGARISHI VA INSONIYAT KELAJAGI

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Annotatsiya. *Ushbu maqolada iqlim o'zgarishi muammosi va uning insoniyat kelajagiga ko'rsatadigan ta'siri ilmiy jihatdan tahlil qilingan. Maqolada iqlim o'zgarishining asosiy sabablari, xususan, antropogen omillar, issiqxona gazlari chiqindilarining ko'payishi hamda sanoatlashtirish jarayonining ekologiyaga salbiy ta'siri yoritilgan. Shuningdek, iqlim o'zgarishiga qarshi kurashishda xalqaro hamkorlik, qayta tiklanuvchi energiya manbalaridan foydalanish va ekologik ongni shakllantirishning ahamiyati asoslab berilgan.*

Kalit so'zlar: *iqlim o'zgarishi, global isish, ekologiya, issiqxona gazlari, barqaror rivojlanish, atrof-muhit.*

XXI asrda insoniyat duch kelayotgan eng dolzarb global muammolardan biri bu – iqlim o'zgarishidir. Iqlim o'zgarishi nafaqat tabiiy muhitga, balki inson salomatligi, iqtisodiyot, oziq-ovqat xavfsizligi va global barqarorlikka bevosita ta'sir ko'rsatmoqda. Bundan ko'rinib turibdiki, iqlim o'zgarishi butun olam uchun xavf tug'diradi. Mashhur iqlimshunos olim Jeyms Hansen iqlim o'zgarishi: "insoniyat kelajagini belgilovchi eng muhim ekologik muammo", deb ta'kidlagan. Shu sababli ushbu masalani ilmiy jihatdan o'rganish va unga qarshi choralar ko'rish bugungi kunning dolzarb vazifasidir [1].

Iqlim o'zgarishi – Yer atmosferasida harorat, yog'ingarchilik va shamol rejimlarining uzoq muddatli o'zgarishidir. Olimlarning fikriga ko'ra, so'nggi yuz yillikda Yerning o'rtacha harorati taxminan 1,1°C ga oshgan. Bu jarayon asosan antropogen omillari, ya'ni inson faoliyati bilan bog'liq. Asosiy sabablari quyidagilardan iborat: issiqxona gazlarining ko'payishi (karbonat angidrid, metan, azot oksidi); sanoatlashtirish va urbanizatsiya; o'rmonlarning kesilishi; ko'mir, neft va gazdan haddan tashqari foydalanish. Bu nazariyani Nobel mukofoti sovrindori Svante Arrhenius hali XIX asr oxiridayoq karbonat angidrid miqdorining ortishi global isishga olib kelishini ilmiy

asoslab bergan. Bugungi kunda bu fikrlar zamonaviy ilm-fan tomonidan to'liq tasdiqlanmoqda [2].

O'zbekiston hududida ham iqlim o'zgarishining salbiy oqibatlarini yaqqol sezilmoqda. Mintaqaviy tadqiqotlar shuni ko'rsatadiki, O'zbekistonda yillik o'rtacha harorat so'nggi 50 yil ichida $1,5^{\circ}\text{C}$ ga oshgan. Bu global o'rtacha ko'rsatkichdan yuqoridir. Eng og'ir ekologik muammo Orol dengizi fojiasi hisoblanadi. Orol dengizining qurishi natijasida 5 million gektar dengiz sathi yo'qolgan va atrofdagi hududlarda mikroiklim keskin o'zgargan. Orol dengizi hududida tuz bo'ronlari yuzaga kelmoqda va bu tuzli chang shamol bilan 500 km gacha masofaga tarqalmoqda [3]. Shuningdek, Sirdaryo va Amudaryo daryolarining suv sathi pasayib borayotganligi qishloq xo'jaligiga jiddiy zarar yetkazmoqda.

Iqlim o'zgarishi natijasida tabiiy ekotizimlar jiddiy zarar ko'rmoqda. Muzliklarning erishi, dengiz sathining ko'tarilishi, cho'llanish jarayonining tezlashuvi bunga yaqqol misoldir. Antarktida va Grenlandiya muzliklarining erishi natijasida dunyo okeani sathi ko'tarilib, ko'plab orol davlatlari va qirg'oq hududlari xavf ostida qolmoqda. Markaziy Osiyo mintaqasida, xususan Tyan-Shan tog'larida muzliklarning 30 foizdan ortig'i so'nggi 50 yilda erigan. Bu esa mintaqada suv resurslari tanqisligiga olib kelmoqda. Butun dunyo bo'yicha har yili taxminan 12 million gektar o'rmon yo'qolmoqda, bu esa atmosferadan karbonat angidridni singdirish qobiliyatini pasaytirmoqda [4].

Iqlim o'zgarishi inson hayotining deyarli barcha sohalariga ta'sir ko'rsatmoqda. Eng avvalo, inson salomatligi xavf ostida qolmoqda. Issiq to'lqinlar, toshqinlar, qurg'oqchilik va tabiiy ofatlar sonining ortishi kasalliklar tarqalishiga sabab bo'lmoqda. Bundan tashqari, qishloq xo'jaligining hosildorligi kamaymoqda; ichimlik suvi tanqisligi kuchaymoqda; oziq-ovqat xavfsizligi izdan chiqmoqda; iqlim migratsiyasi yuzaga kelmoqda. Jahon sog'liqni saqlash tashkilotining ma'lumotlariga ko'ra, 2030-2050 yillar orasida iqlim o'zgarishi yiliga qo'shimcha 250 000 kishining o'limiga sabab bo'lishi mumkin. Iqlim o'zgarishining sog'liqqa ta'siri butun dunyo bo'ylab seziladi, ammo nomutanosib ravishda kam ta'minlangan aholiga ta'sir qiladi. Bu esa aholi o'rtasida ziddiyatga sabab bo'ladi. Iqtisodchi olim Nikolas Stern iqlim o'zgarishini "global iqtisodiyot uchun eng katta xavf", deb baholagan [5]. Negaki, yuqorida aytib o'tganimizdek, hosildorlikning qisqarishi, toza ichimlik suvi yetishmovchiligi va oziq-ovqat xavfsizligi izdan chiqishi butun dunyo iqtisodiyotiga o'z salbiy ta'sirini ko'rsatadi. Iqlim o'zgarishiga qarshi kurashish xalqaro hamkorlikni talab etadi. Shu maqsadda bir qator xalqaro bitimlar qabul qilingan. Eng muhimlaridan biri – Parij iqlim kelishuvi bo'lib, u global haroratni oshishini 2°C dan past darajada

ushlab turishni maqsad qilgan. 2015-yilda 196 davlat tomonidan qabul qilingan bu kelishuv issiqxona gazlari chiqindilarini kamaytirishni va qayta tiklanuvchi energiya manbalariga o'tishni nazarda tutadi [6].

O'zbekiston ham ushbu kelishuvga qo'shilgan va 2030 yilga qadar issiqxona gazlari chiqindilarini 35 foizga kamaytirish majburiyatini olgan. Buning uchun quyosh va shamol energiyasidan foydalanishni kengaytirish, energiya samaradorligini oshirish va yashil texnologiyalarni joriy etish rejalashtirilgan. Qayta tiklanuvchi energiya manbalari iqlim o'zgarishiga qarshi kurashishning muhim vositasidir. Quyosh, shamol, gidroenergetika va bioenergetika an'anaviy yoqilg'i turlarining o'rnini bosishi mumkin. Hozirgi vaqtda dunyo energiya ishlab chiqarishining 29 foizi qayta tiklanuvchi manbalardan olinmoqda va bu ko'rsatkich yildan-yilga oshib bormoqda. O'zbekistonda ham bu yo'nalishda muhim ishlar amalga oshirilmoqda. 2019-2023 yillarda O'zbekistonda bir nechta yirik quyosh elektr stantsiyalari qurildi, jumladan, Samarqand, Navoiy va Jizzax viloyatlarida. Shamol energiyasi bo'yicha ham loyihalar amalga oshirilmoqda. Qoraqalpog'istonda shamol energetikasi potentsiali yuqori va bu yerda yirik shamol elektr stantsiyalari qurish rejalashtirilgan [7].

Tadqiqotlar shuni ko'rsatadiki, iqlim o'zgarishi bo'yicha muloqot atrof-muhit muammosi sifatida emas, balki sog'liq muammosi sifatida qaralsa, jamoatchilikni jalb qilish ehtimoli ko'proq. Chunki, inson atrof-muhitni o'z sog'lig'idek asramaydi xatto e'tibor ham bermaydi, aslida uning sog'lomligi shu atrof-muhitga bog'liq. Iqlim muammosini hal qilishda faqat davlatlar kurashishining o'zi yetmaydi, zero har bir shaxs ham ma'suldir. Bu yo'lda hamma birdek sidqidildan o'z yurti va eng avvalo sog'lig'i uchun kurashishi darkor. Har bir inson o'z hayotida oddiy ekologik qoidalarga rioya qilishi mumkin: energiyani tejash, chiqindilarni qayta ishlash, jamoat transportidan foydalanish, daraxtlar ekish va plastikdan foydalanishni kamaytirish. Shundagina, ekologik ongli turmush tarzi iqlim o'zgarishining salbiy oqibatlarini kamaytirishga xizmat qiladi [8].

Ta'lim va axborot tarqatish ham iqlim o'zgarishiga qarshi kurashishning muhim qismidir. Aholini ekologik muammolar haqida xabardor qilish, yoshlarni ekologik tarbiyalash va ilmiy tadqiqotlarni qo'llab-quvvatlash zarur. O'zbekiston maktablarida ekologiya fani o'qitiladi va talabalar ekologik loyihalar ustida ishlaydilar. Shuningdek, ommaviy axborot vositalari orqali ekologik ma'lumotlar tarqatilmoqda. Biroq, bu sohada hali ko'p ish qilish kerak. Ekologik ong jamiyatning barcha qatlamlariga singdirilishi va har bir fuqaro o'zini atrof-muhit uchun mas'ul his qilishi lozim.

Xulosa qilib aytganda, iqlim o'zgarishi – bu faqat ekologik muammo emas, balki insoniyat kelajagi va uning salomatligiga tahdid qiluvchi omildir. Agar bugun zarur

choralar ko‘rilmasa, kelajak avlodlar jiddiy ekologik va ijtimoiy muammolarga duch keladi. Shu sababli ilm-fan, texnologiya va xalqaro hamkorlik asosida iqlim o‘zgarishiga qarshi kurashish har bir insonning muhim vazifasidir. O‘zbekiston kabi rivojlanayotgan davlatlar uchun bu muammo ayniqsa dolzarbdir, chunki mintaqaviy ekologik muammolar global jarayonlar bilan chambarchas bog‘liq. Mashhur olim Albert Eynshteyn aytganidek, "muammoni uni keltirib chiqargan tafakkur bilan hal qilib bo‘lmaydi". Demak, insoniyat ekologik ma’suliyatli fikrlashga o‘tishi lozim. Faqat shundagina barqaror va xavfsiz kelajakni ta’minlash mumkin bo‘ladi.

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ELEKTRON KITOBLARNING HAYOTIMIZDAGI O‘RNI

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Annotatsiya: *Ushbu maqola bugungi hayotimizdagi elektron kitoblar haqida bo‘lib, hozirgi globallashuv va raqamlashtirish jarayonida axborot texnologiyalarining jadal rivojlanishi natijasida an‘anaviy axborot manbalari bilan bir qatorda elektron resurslardan foydalanish kengayib bormoqda. Shunday resurslardan biri elektron kitoblar bo‘lib, ular bilim va axborotni tezkor, qulay hamda samarali yetkazib berishda muhim o‘rin tutadi.*

Kalit so‘zlar: *elektron kitob, ta‘lim, masofaviy ta‘lim, dasturiy ta‘limot.*

Zamonaviy dunyoda axborot texnologiyalarining jadal rivojlanishi barcha sohalarga o‘z ta‘sirini ko‘rsatmoqda. Xususan, ta‘lim va kitobxonlik sohasida ham katta o‘zgarishlar yuz bermoqda. Yaqin o‘n yillikda elektron kitoblarning keng tarqalishini ham ko‘rishimiz mumkin. Elektron kitoblar - bu qog‘ozsiz, muqovasiz va yelimsiz bo‘lgan kitob turidir. Ularni qo‘lda ushlab bo‘lmaydi, shu sababdan kitob javonlarida chang bosib yotganini ham, varaqlari sarg‘ayib, yaroqsiz holga kelib qolishini ham ko‘rmaysiz. Ularni o‘tda kuydirib, suvga cho‘ktirib bo‘lmaydi. Bu kitoblarni ishlab chiqarish uchun o‘rmonlarni qirqishning, bir joydan boshqa joyga ko‘chirish uchun transport xarajatlarining hojati yo‘q. Bu kitoblarni o‘qish uchun ma‘lum elektron vositalargina kerak bo‘ladi: kompyuterlar, smartfonlar yoki elektron kitoblarni o‘qish uchun ishlab chiqariladigan maxsus riderlar [1;75].

Shuningdek, elektron kitob-bu raqamli shaklda yaratilgan va elektron qurilmalar orqali o‘qiladigan adabiy yoki ilmiy axborot manbaidir. Elektron kitoblar maxsus dasturiy ta‘minot yordamida kompyuter, planshet, smartfon hamda elektron kitob o‘quvchi qurilmalarida o‘qilishi mumkin. Ular PDF, EPUB, MOBI, AZW kabi formatlarda taqdim etiladi. Elektron kitoblarning asosiy afzalliklaridan biri ularning ixchamligi va qulayligidir. Foydalanuvchi birgina qurilmada minglab elektron kitoblarni saqlashi mumkin. Bundan tashqari, matn bo‘yicha tezkor qidiruv, shrift o‘lchamini o‘zgartirish, muhim joylarni belgilash va izohlar yozish imkoniyatlari o‘quv jarayonini yanada samarali qiladi. Elektron kitoblar ekologik jihatdan ham foydali bo‘lib, qog‘oz sarfini kamaytiradi [2;72].

Ta'lim sohasida elektron kitoblardan foydalanish bilim olish jarayonini modernizatsiya qilishga xizmat qiladi. Masofaviy ta'lim, onlayn kurslar va mustaqil ta'lim jarayonlarida elektron darsliklar muhim axborot manbai hisoblanadi. Ular o'quvchilarning axborotga bo'lgan ehtiyojini tezkor qondirish, ta'lim resurslariga teng va ochiq kirishni ta'minlash imkonini beradi.

Shunga qaramay, elektron kitoblardan foydalanish bilan bog'liq ayrim salbiy jihatlar mavjud bo'lib, ularni ilmiy jihatdan o'rganish va baholash muhim ahamiyat kasb etadi. Birinchidan, elektron kitoblarni o'qish jarayoni inson ko'rish tizimiga salbiy ta'sir ko'rsatishi mumkin. Elektron qurilmalarning ekranlari uzoq vaqt davomida foydalanilganda ko'zning tez charchashi, qizarishi, qurishi hamda ko'rish qobiliyatining vaqtinchalik pasayishiga olib keladi. Ilmiy tadqiqotlar shuni ko'rsatadiki, ekranlardan chiqadigan ko'k nur (blue light) ko'z to'r pardasiga salbiy ta'sir etib, uyqu ritmining buzilishiga sabab bo'lishi mumkin. Ikkinchidan, elektron kitoblardan foydalanish jarayonida inson organizmining umumiy jismoniy holati ham zarar ko'rish ehtimoli mavjud. Uzoq vaqt davomida bir holatda o'tirib o'qish umurtqa pog'onasi, bo'yin va bel mushaklarida og'riq paydo bo'lishiga olib keladi. Ayniqsa, smartfon va planshetlardan foydalanishda noto'g'ri holatda o'tirish suyak-mushak tizimi muammolarini keltirib chiqaradi [3;87].

Uchinchidan, elektron kitoblar psixologik jihatdan ham salbiy ta'sir ko'rsatishi mumkin. Raqamli qurilmalar orqali o'qish vaqtida foydalanuvchi diqqatining tez chalg'ishi, ijtimoiy tarmoqlar va boshqa ilovalarga e'tiborning bo'linishi o'qish samaradorligini pasaytiradi. Bu holat chuqur tahliliy o'qish ko'nikmalarining sustlashishiga olib kelishi mumkin. Ayrim tadqiqotlarda elektron matnlarni o'qishda ma'lumotni yodda saqlash darajasi qog'oz kitoblarga nisbatan pastroq ekani qayd etilgan [4;27].

To'rtinchidan, elektron kitoblarning huquqiy va axborot xavfsizligi bilan bog'liq muammolari ham mavjud. Mualliflik huquqining buzilishi, noqonuniy nusxalarning tarqalishi hamda axborotning himoyasizligi elektron resurslardan foydalanishda muhim salbiy omillardan biri hisoblanadi. Elektron kitoblar zamonaviy ta'lim va axborot almashinuvida muhim o'rin egallashiga qaramay, ularning salbiy ta'sirlari mavjudligini inkor etib bo'lmaydi. Shu sababli elektron kitoblardan foydalanishda gigiyenik me'yorlarga rioya qilish, o'qish vaqtini to'g'ri rejalashtirish hamda elektron va an'anaviy kitoblardan muvozanatli foydalanish zarur hisoblanadi. Bugungi yoshlar uchun kitob-bu faqat bilim manbai emas, balki tafakkur, ma'naviyat, va ruhiy rivojlanish vositasidir. Kitobning elektron yoki bosma shaklda bo'lishi ikkinchi

darajali masala, eng asosiysi-kitob o'qishga bo'lgan ehtiyoj va odatni shakllantirishdir [5;77].

Xulosa qilib aytganda, elektron kitoblar zamonaviy axborot jamiyatining muhim tarkibiy qismi bo'lib, ta'lim va ilm-fan rivojida katta ahamiyatga ega. Ularning imkoniyatlaridan oqilona va me'yorida foydalanish ta'lim sifatini oshirishga xizmat qiladi. Yurtimizda kitobxonlik madaniyatini rivojlantirish uchun kutubxonalarni raqamlashtirish, bepul elektron kitoblar platformalarini ko'paytirish juda muhim. Kitob o'qigan avlod bu tafakkurli, ma'naviy barkamol, ijodkor avloddir.

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INGLIZ TILI PSIXOLINGVISTIK TERMINLARI UCHUN O‘ZBEKCHA MUQOBILLARNI ISHLAB CHIQISH YONDASHUVLARI

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Annotatsiya. Ushbu tezisdagi ingliz tilidagi psixolingvistika atamalarining o‘zbekcha ekvivalentlarini yaratish masalasi yoritilgan. Tadqiqot doirasida termin yaratishning asosiy usullari, xorijiy atamani to‘g‘ridan-to‘g‘ri o‘zlashtirish, semantik (ma‘no kengaytirish) yo‘li bilan va morfologik-sintaktik (so‘z yasash yoki birikma orqali) yo‘llari ko‘rib chiqildi. Psixolingvistika yangi yo‘nalish bo‘lgani bois, terminologiyada turli variantlar uchrashi aniqlangan. Tezisdagi ushbu usullar misollarda tahlil qilinib, samaradorligi baholangan hamda ilmiy atamalarni bir xillashtirish bo‘yicha tavsiyalar berilgan.

Kalit so‘zlar: *psixolingvistika; terminologiya; ekvivalent; o‘zlashtirish; tarjima; morfologik usul; semantik usul.*

KIRISH

O‘zbek tilining ilmiy terminologiyasini boyitish va xorijiy tushunchalarga mos ekvivalentlar topish dolzarb ahamiyatga ega. Xususan, psixolingvistika sohasida ko‘plab atamalar ingliz tilidan bevosita kirib kelmoqda yoki rus tili vositasi bilan o‘zlashmoqda. Psixolingvistika – til va psixika bog‘liqligini o‘rganuvchi fandir; u O‘zbekistonda XX asr oxirlaridan rivojlana boshlagan. Yangi yo‘nalish bo‘lgani sababli, terminlarni tarjima qilish va yaratishda yagona standart hali yo‘q. Ko‘pincha mutaxassislar bir atama uchun bir necha variantdan foydalanmoqda. Masalan, “bilingualism” atamasi uchun bilingvizm va ikki tillilik ekvivalentlari parallel qo‘llanmoqda. Shunday ekan, inglizcha psixolingvistik terminlar uchun mukammal o‘zbekcha atamalar yaratish va ularni bir xillashtirish zarurati tug‘iladi.

ADABIYOTLAR SHARHI

Ilmiy manbalarda psixolingvistika terminologiyasiga doir ba’zi ishlar mavjud. N. Ahmedova o‘z maqolasida psixolingvistik atamalarning lug‘atlardagi berilishi va ularning o‘zbek tilidagi talqinini muhokama qilgan [1]. U psixolingvistika atamalari endi shakllanayotganini, ularda bir xillik yo‘qligini ta’kidlaydi. Xususan, o‘zbek

tilshunosligida psixolingvistik qarashlar kech paydo bo'lgani tufayli, terminlarning turli variantlari uchramoqda. Shuningdek, tarjimashunoslikka oid manbalarda termin ekvivalentligini ta'minlash strategiyalari bayon qilingan. Jumladan, Ivina L. V. terminlarni tarjima qilishda ma'noni to'liq va aniqlik bilan berish asosiy tamoyil ekanini yozadi. Bu, albatta, yuqoridagi usullarni qo'llaganda e'tiborda bo'lishi lozim jihat.

TAHLIL

Tahlil davomida aniqlanishicha, eng ko'p qo'llaniladigan usullar – bu o'zlashtirish va morfologik tarjima. Ko'plab bazaviy terminlar (psixolingvistika, fonetika, morfologiya, analizator va h.k.) tilimizga rus tili orqali kirib kelgan va shaklan o'zlashgan. Bularni almashtirishga ehtiyoj sezilmaydi, chunki mutaxassislar ularni yaxshi tushunadi. Masala ko'proq murakkab yoki yangi terminlar atrofida yuzaga keladi.

Misol uchun, “code-switching” – bu psixolingvistik va sotsiolingvistik tushuncha bo'lib, bir nutq davomida tillar orasida almashish demakdir. O'zbekcha adabiyotda unga kod-almashuv yoki kodni almashtirish kabi tarjimalar uchraydi (sintaktik usul), ba'zilar esa inglizcha shaklini qoldirish tarafdori. Bu yerda sintaktik yondashuv mazmunan to'g'ri va tushunarli (kod-almashuv), lekin ilmiy matnlarda ba'zan original termin qo'shtirnoq ichida berilib yuritiladi. Bunday hollarda tarjima va asl termin yonma-yon qo'llanib, ekvivalentlik ta'minlanmoqda.

Yana bir qiziqarli misol – “language acquisition device (LAD)”. Bu atama Noam Xomskiy nazariyasidan kelib chiqqan bo'lib, bolalarda tug'ma til o'rganish mexanizmini anglatadi. O'zbek tilida to'liq tarjimasi “til o'zlashtirish qurilmasi” tarzida berilishi mumkin (sintaktik usul). Albatta, LAD qisqartmasi xalqaro ilmiy nutqda ishlatilgani uchun, bizda ham asosan shu uch harf bilan chegaralanish hollari bor. Demak, ayrim terminlar tarjima qilinsa-da, qisqartma yoki belgisi orqali qabul qilinadi.

Bilingvizm va ikki tillilik misoliga qaytsak, tahlillar shuni ko'rsatdiki, ilmiy jurnallarda ko'proq bilingvizm termini uchraydi, chunki ruscha ilmiy an'ana ta'siri kuchli. O'quv qo'llanma va darsliklarda esa ikki tillilik atamasi ko'proq afzal ko'rilmoqda, chunki bu talabalarga tezrok yetib boradi. Ushbu ikki variantning parallel qo'llanilishi muayyan noqulaylik tug'dirsa-da, hozircha ikkisiga ham yo'l qo'yilmoqda. Bu holat terminologiya bir xillashtirilmaguncha davom etishi mumkin.

Ichki nutq, qisqa muddatli xotira, nutq buzilishi kabi terminlar esa bir ovozdan qabul qilingan o'zbekcha ekvivalentlarga ega. Bunda inglizcha “inner speech, short-term memory, speech disorder” atamalari biror muammosiz tarjima qilingan va

mutaxassislar tomonidan foydalanilmoqda. Demak, mazkur terminlar uchun sintaktik va leksik tarjima usullari muvaffaqiyatli qoʻllangan.

Natijalar tahlili shuni koʻrsatadiki:

1. Terminologiyada izchillik yetishmayapti, ayniqsa yangi tushunchalar boʻyicha (natija: bir nechta variantlar mavjudligi).
2. Morfologik usul bilan yaratilgan terminlar foydalanuvchilarga ancha qulay va tushunarli (natija: ommalashuv darajasi yuqori).
3. Oʻzlashma terminlar tez fanga kiradi, lekin ularni talaffuz va yozuvda bir xil standarta solish kerak (natija: psixolingvistika kabi soʻzlarning lotin-kiril imlosi, morfologik moslanishi hal etilgan, ammo kognitiv yoki kognitiv kabi baʼzi soʻzlarda farqlanish bor).
4. Tarjima orqali yaratilgan terminlar baʼzan uzun boʻlsa-da, izohli lugʻatlarda asosiy variant sifatida keltirilmoqda (masalan, short-term memory – qisqa muddatli xotira lugʻatlarda aynan shu tarzda berilgan).
5. Termin tanlashda kontekst muhim: ilmiy-texnik matnlarda xalqaro atama ishlatilishi mumkin, pedagogik yoki ommabop matnda esa uning sodda tarjimasi tanlanadi.

XULOSA

Yuqoridagi tahlillardan kelib chiqqan holda, inglizcha psixolingvistik terminlarni oʻzbekchalashtirishda har bir atama uchun individual yondashuv zarur. Umumiy tavsiyalar sifatida quyidagilarni aytish mumkin: Ilmiy jamoa muhim terminlar boʻyicha yagonalikka erishishi lozim (masalan, konferensiyalar va lugʻatlar orqali bilingvizm vs ikki tillilik borasida bir qarorga kelish); Imloda va talaffuzda birxillik taʼminlash uchun terminlarning adabiyotdagi qoʻllanilishi monitoring qilinib, tavsiyalar ishlab chiqilishi kerak (masalan, kognitiv soʻzini barcha kognitiv tarzida qoʻllashi, kognitiv yoki boshqa shakllarga yoʻl qoʻymaslik); Yangi tushunchalar paydo boʻlganda, imkon qadar oʻzbek tilining boyligini ishga solib, morfologik yoki sintaktik ekvivalent yaratish birinchi oʻrinda koʻrilishi lozim. Faqat bunday ekvivalent topilmaganda yoki juda noqulay boʻlgandagina oʻzlashma variantga murojaat etish kerak. Bu ilmiy tilning milliy qiyofasini saqlashga xizmat qiladi; Tarjima va termin yaratish jarayonida auditoriya eʼtiborga olinsin: mutaxassisga moʻljallangan nashrda qavs ichida sodda tarjima keltirish, omma uchun materialda esa murakkab terminning asl variantini zarurat boʻlmasa ishlatmaslik maqsadga muvofiq; Kelgusida psixolingvistika va boshqa yangi yoʻnalishlar boʻyicha lugʻat komissiyalari ish olib borib, bir nechta tillar (ingliz, rus va oʻzbek) oʻrtasida terminologik muvofiqlikni yoʻlga qoʻyishi kerak. Bu tarjimonlar uchun ham qulaylik yaratadi.

Xulosa qilib aytganda, inglizcha psixolingvistik atamalarni o‘zbekchallashtirish – bu davr talabi. Turli usullarni uyg‘un qo‘llash va ilmiy asosda eng yaxshi ekvivalentlarni tanlash orqali biz o‘zbek tilida psixolingvistika sohasining rivoji uchun mustahkam terminologik poydevor yarata olamiz. Bu nafaqat ilmiy tadqiqotlarni o‘zbek tilida olib borishga yordam beradi, balki talabalarga ham psixolingvistika bilimlarini ona tilimizda osonroq o‘zlashtirishga imkon yaratadi.

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LEADERSHIP ACROSS CULTURES

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Abstract

Leadership is often credited (or blamed) for the success (or failure) of international operations. As with other aspects of management, leadership styles and practices that work well in one culture are not necessarily effective in another. The leadership approach commonly used by U.S. managers would not necessarily be the same as that employed in other parts of the world. Even within the same country, effective leadership tends to be very situation-specific. However, as with the other areas of international management you have studied in this text, certain leader-ship styles and practices may be more or less universally applicable and transcend international boundaries. This chapter examines some differences and similarities in leadership styles across cultures.

Key words: *Leadership, leader-ship styles, MNCs, manager, influencing people, philosophical grounding, autocratic-participative behaviors.*

More academic research over the years has focused on leadership than on nearly any other social science topic. Much of historical studies, political science, and the behavioral sciences is either directly or indirectly concerned with leadership. Despite all this attention there still is no generally agreed-on definition of leadership, let alone sound answers to the question of which leadership approach is more effective than others in the inter-national arena. For our present purposes, leadership can be defined simply as the process of influencing people to direct their efforts toward achievement of some particular goal or goals. Leadership is widely recognized as being very important in the study of inter-national management, which raises the question, what is the difference between being a manager and being a leader? While there is no concise answer to this either, some interesting and helpful perspectives have emerged.

The Manager-Leader Paradigm

While the terms manager and leader have often been used interchangeably in the business environment, many believe that there exist clear distinctions in characteristics and behaviors between the two. Some believe that leaders are born, but managers can be shaped. MNCs that have simply sought out employees with appropriate skill sets now face a new challenge: clarifying the seemingly dichotomous roles of managers and leaders to ensure a cohesive vision going

forward. Leadership is more difficult to articulate as views of what makes a leader are inconsistent across studies. Leader status is not something that can be learned, but something that must be earned through respect. In other words, people are not hired as leaders, but appointed as such via employee perspective on the individual. Leaders guide and motivate team members and are extremely visible. While managers often merely focus on reaching objectives by mastering financial information, leaders work to get the right people in the right positions and motivate them; money matters become a secondary objective. Proactive behavior is often crucial as these individuals create change on the basis of a vision of the future. To sum it up in a word, leadership is about the drive to ultimately do the right thing.

The focus of the leader is on the success of team members and building their morale and motivation, as the firm seeks to implement and execute the right strategy. Many firms are beginning to search for an all-encompassing package of skill sets, and while it is imperative for the survival of a business to have both managers and leaders, it is extremely difficult, if not impossible, to find someone who fits the inclusive criteria of both roles. Still, hope abounds that it is a reasonable venture to search for individuals with the latent attributes of the leader-manager, who may benefit from training methods that can magnify the most relevant qualities. Skills in effective communication, planning, organizing, and problem solving are what both leaders and managers should develop in order to live up to their roles. The manager-leader must exhibit the ability to focus on the future while maintaining current organizational trends. After that a certain undefined charisma must come into play, evoking the support and respect of subordinates, since the leadership role is ultimately determined by team member

perspectives. The table provides a comparison of perceived differences between leadership and management. Again, whether or not these contrasting qualities and abilities are mutually exclusive or if one list is a subset of the other is highly debatable. But it seems clear that pitfalls loom when individuals who do not really exhibit the capacities of both a leader and a manager attempt to fill both sets of shoes. Uncertain and shifting roles and practices can lead to inconsistencies in execution, leading to a belief among subordinates that those in positions of authority may not have the qualification to serve in either capacity.

In the context of our discussion of international management, it is important

to note that cultural perspectives are often responsible for how the roles of managers and leaders are seen to overlap, and in some cases, viewed as synonymous. In some cultures, especially those characterized by high power distance, the aura of leader is projected onto the manager whether or not he or she is ready for it. At the same time, globalization and international operations are evolving such that the manager may be cast into the role of leader out of necessity because there is no one else or no other choice available. Today, managers that seek to do more than balance the budget may be shaped through appropriate training into the leaders of tomorrow.

Perceived Differences: Managers vs. Leaders	
Managers	Leaders
Can learn skills necessary	Harbor innate characteristics
Take care of where you are	Bring you to new horizons
Oversee	Motivate
Point out flaws to improve on	Give recognition for good work
Deal with complexity	Deal with ambiguity
Are fact finders	Are decision makers
Focus on efficiency	Focus on effectiveness
Are given immediate authority	Earn respect through actions
Follow company objectives	Set new standards
Have present vision	Have future vision
Do things right	Do the right things

Leadership definitions may not be universal, yet it is true that relatively little effort has been made to systematically study and compare leadership approaches throughout the world. Most international research efforts on leadership have been directed toward a specific country or geographic area. Two comparative areas provide a foundation for understanding leadership in the international arena: the philosophical grounding of how leaders view their subordinates and leadership approaches as reflected by autocratic-participative behaviors of leaders. The philosophies/approaches common in the United States often are quite different from those employed by leaders in overseas organizations. At the same time, the differences often are not as pronounced as is commonly believed. First, we will review historical viewpoints on leadership and then move on to exploring new findings. One primary reason that leaders behave as they do is rooted in their philosophy or beliefs regarding how to direct their subordinates

most effectively. Managers who believe their people are naturally lazy and work only for money will use a leadership style that is different from the style of managers who believe their people are self-starters and enjoy challenge and increased responsibility.

Douglas McGregor, the pioneering leadership theorist, labeled these two sets of assumptions “Theory X” and “Theory Y.” A Theory X manager believes that people are basically lazy and that coercion and threats of punishment must be used to get them to work. A Theory Y manager believes that under the right conditions people will not only work hard but will seek increased responsibility and challenge. In addition, a great deal of creative potential basically goes untapped, believes Theory Y, and if these abilities can be tapped, workers will provide much higher quantity and quality of output.

The reasoning behind these beliefs will vary by culture. U.S. managers believe that to motivate workers, it is necessary to satisfy their higher-order needs. This is done best through a Theory Y leadership approach. In China, Theory Y managers act similarly but for different reasons. After the 1949 revolution, two types of managers emerged in China: Experts and Reds. The Experts focused on technical skills and primarily were Theory X advocates. The Reds, skilled in the management of people and possessing political and ideological expertise, were Theory Y advocates. The Reds also believed that the philosophy of Chairman Mao supported their thinking (i.e., all employees had to rise together both economically and culturally). Both Chinese and U.S. managers support Theory Y, but for very different reasons. The same is true in the case of Russian managers. In a survey conducted by Puffer, McCarthy, and Naumov, 292 Russian managers were asked about their beliefs regarding work.

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THE ROLE AND SIGNIFICANCE OF INFORMATION TECHNOLOGIES IN THE DEVELOPMENT OF MODERN SOCIETY

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Abstract.

This article provides a comprehensive analysis of the role and significance of information technologies in the development of modern society. It examines the impact of information technologies on social, economic, educational, and administrative systems, as well as their contribution to digital transformation processes. The study also addresses current challenges related to information security and highlights the importance of the rational and effective use of information technologies to ensure sustainable development.

Keywords: information technologies, digital transformation, information systems, digital economy, innovation, information security.

In the contemporary stage of global development, information technologies have become one of the most influential factors shaping the structure and dynamics of modern society. Rapid technological progress and the widespread adoption of digital tools have fundamentally transformed the ways in which information is created, processed, stored, and disseminated. As a result, information technologies now play a decisive role not only in technical and industrial processes but also in social relations, economic activities, education systems, and public administration. The increasing dependence of society on digital information resources highlights the strategic importance of information technologies in achieving long-term development goals.

Information technologies represent a complex system that integrates computer hardware, software, communication networks, and data management tools. The continuous improvement of these components has enabled the automation of many processes that were previously performed manually. Modern information systems allow organizations to manage large volumes of data efficiently, ensure accuracy in data processing, and provide timely access to relevant information. Consequently, decision-making processes become more evidence-based and effective, which significantly enhances organizational performance and competitiveness.

One of the most notable outcomes of the development of information technologies is the emergence of the digital economy. Digital platforms, electronic commerce, online banking, and automated financial systems have reshaped traditional economic models and introduced new forms of business activity. Information technologies reduce transaction costs, expand market access, and increase transparency in economic operations. At the same time, they create new employment opportunities and demand a workforce equipped with digital competencies. Thus, information technologies contribute not only to economic growth but also to structural changes in labor markets. The role of information technologies in education is equally significant. The integration of digital tools into educational processes has transformed traditional teaching and learning methods. E-learning platforms, virtual classrooms, digital libraries, and interactive educational resources provide learners with flexible and personalized learning opportunities. Information technologies support lifelong learning by enabling individuals to acquire new knowledge and skills regardless of geographical or time constraints. Moreover, the use of digital technologies in education fosters critical thinking, problem-solving abilities, and independent learning skills, which are essential in the knowledge-based economy.

In public administration, information technologies serve as a foundation for the development of e-government systems. Digital governance tools improve the efficiency and transparency of administrative processes, facilitate communication between government institutions and citizens, and reduce bureaucratic barriers. The implementation of information technologies in public services enhances accountability and promotes public trust in state institutions. Furthermore, data-driven governance enables policymakers to design and implement more effective social and economic policies.

Despite the numerous advantages of information technologies, their widespread use also presents significant challenges. Information security has become one of the most critical issues in the digital age. The increasing volume of digital data and the growing reliance on networked systems expose individuals and organizations to cyber threats, data breaches, and unauthorized access. Ensuring the protection of information resources and personal data requires the development of robust cybersecurity strategies, legal frameworks, and ethical standards. Addressing these challenges is essential for maintaining the stability and reliability of digital systems.

In addition, the digital divide remains a pressing concern in many societies. Unequal access to information technologies can exacerbate social and economic inequalities, limiting opportunities for certain groups. Therefore, policies aimed at expanding digital

infrastructure, improving digital literacy, and promoting inclusive access to information technologies are crucial for ensuring equitable development.

In conclusion, information technologies are an integral component of modern society and a driving force behind digital transformation. Their effective and responsible use enhances productivity, supports innovation, and contributes to sustainable social and economic development. At the same time, addressing challenges related to information security and digital inequality is essential for maximizing the benefits of information technologies. As technological progress continues, the role of information technologies in shaping the future of society will become increasingly significant.

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SPECIFIC ASPECTS OF UNCONVENTIONAL METHODS IN INVESTIGATING THE CRIME OF MURDER

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Abstract: The article analyzes the specific features of the use of some unconventional methods in foreign countries in investigating crimes, and studies the application of one of these methods in the practice of Uzbekistan in exposing the crime of staged murder using a polygraph.

Keywords: manslaughter, staging, crime, polygraph, hypnosis, interrogation, investigation.

As one of the unconventional methods of eliminating adverse effects in the investigation of the crime of intentional homicide, the use of a “lie detector” (polygraph) is a modern method of exposing lies told by a person accused of committing a crime or another person participating in the criminal process, which is an interrogation using a polygraph. However, in Uzbekistan, as a general rule, the results obtained from a “lie detector” do not meet the requirements set by law as evidence, including the requirement of truthfulness. Such studies are expedient to use at the initial stage of the investigation for the purpose of developing and verifying investigative models. In this regard, the results of psychophysiological research conducted using a polygraph are not considered evidence, but are expedient to use mainly in conducting operational-search measures [1].

The use of a polygraph in the investigation of a murder is very simple and widespread. It should be noted that today in more than sixty countries of the world, law enforcement agencies are developing methods for recording the psychophysiological reactions of individuals using polygraphs, which indicates the relevance, demand and modernity of this problem.

The practice of using a polygraph in the United States shows that this method of psychophysiological examination is widespread not only in criminal cases, but also in civil cases [2]. In this regard, in 1988, the US adopted the "Employee Protection from Polygraph Examinations" Act. This Act clearly and strictly regulates the procedure for conducting such examinations in many areas of life.

Canada ranks second after the US in terms of the number of polygraph examinations conducted. In Canada, psychophysiological examinations conducted using a polygraph

are actively used in the investigation of crimes, but, unlike the US, these results are not used in court to prove the guilt of the defendant.

In Canada, law enforcement agencies use polygraphs only to identify and narrow down the number of suspects or to obtain additional information, but polygraphs are used not only for the accused, but also for the victim, witnesses, and plaintiffs.

The experience of the United States shows that the use of polygraphs here is actively used in many human activities, in particular, in counterintelligence studies and in processes aimed at assessing the performance of employees [3]. In America, psychological tests using polygraphs have long been used to detect and investigate the crime of intentional homicide[4] but it is difficult to say that they have always yielded or continue to yield positive results.

For example, the following case can be cited in the USA: the reason for the wrongful conviction of young P. Reilly was that his mother had been brutally murdered by P. Reilly. The police became suspicious and turned their attention to the deceased's son P. Reilly. Physically exhausted and mentally stressed, P. Reilly was first taken to the police for an "intensive interrogation" and immediately after the interrogation he was given a polygraph test, the results of which were negative for P. Reilly. The operator who conducted the test assured P. Reilly of the scientific rigor of the test. At that time, P. Reilly, thinking that he had probably killed his mother in a fantasy, "confessed and was convicted." However, a few years later, P. Reilly's innocence was established and he was acquitted [5].

As we have already mentioned, the ability to establish the truth on the basis of collected, verified and evaluated evidence is of great importance in the detection, detection and investigation of crimes. However, in this case, the main problem is inherent in crimes committed using staging.

In European countries, there is a different form of using the polygraph for the needs of criminal proceedings. Thus, attempts to introduce and use the psychophysiological research method in Great Britain did not end successfully and did not develop further. In particular, in Germany, in 1954, a judge ruled in accordance with the Constitution of the Federal Republic of Germany that the use of polygraphs in criminal proceedings was prohibited. This court justified its position by stating that the "lie detector" test violated human dignity and inviolability. Later, in 1981, the Constitutional Court of the Federal Republic of Germany upheld the ban on the use of polygraphs throughout

the country. The Austrian Code of Criminal Procedure also prohibits the use of polygraphs in criminal investigations, even if the accused himself requests it.

In Poland, the results of a polygraph examination as evidence in a criminal case are the only cases in which the results of a polygraph examination can be recognized by the court as evidence in a criminal case, but this is an exception to the general rule. Today, in Poland, the polygraph is used by law enforcement agencies only in the framework of operational activities (for example, in the development of investigative models, as directional information).

Among the CIS countries, the polygraph is actively developing in Belarus[6], Russia, Kazakhstan, Kyrgyzstan, and Azerbaijan. For example, in Russia, in recent decades, the use of polygraph has become widespread not only in the field of crime fighting, but also in everyday life [7].

In addition to the above, hypnosis can be cited as one of the methods of influencing the investigation of the crime of intentional homicide and some non-traditional ways of eliminating them. In a number of countries, hypnosis is a means of overcoming obstacles to the detection and investigation of the crime of intentional homicide. For example, in Israel, the 1984 Law on the Use of Hypnosis is still in force today. According to Article 1 of this law, hypnosis is defined as any action or process that can lead to changes in the consciousness, bodily sensations, emotions, thoughts, memory or behavior of another person or is carried out through suggestion.

Also, in Article 3, among the purposes of hypnosis, in addition to medical and scientific purposes, this law also indicates the updating of memory during an investigation conducted by the police or security services. According to the law, a person may be subjected to hypnosis only voluntarily, with written consent and only after the essence of the hypnosis process and its possible consequences have been explained to him. A person who has been arrested or detained may consent to interrogation under hypnosis only in the presence of his own lawyer or a lawyer appointed by the Ministry of Justice. Hypnosis may be used only by decision of a specially formed commission. The police may not subject a person suspected of a crime to investigative hypnosis, except in cases where the person himself requests this in writing in the presence of a lawyer in order to prove his innocence. However, any words spoken by a person during investigative hypnosis may not be used as evidence proving his guilt.

At the same time, hypnosis is also used in the USA, and according to it, hypnosis is understood as the activation of memory, which allows you to purposefully control the process of restoring hidden information stored in the memory of witnesses to a crime. As a result, such information is even recognized as evidence by the courts[8]. For

example, we can cite the position expressed and justified by the US Supreme Court in the 1978 criminal case “Rock v. Arkansas”. In this criminal case, the circumstances of the intentional murder committed could only be known to the accused, but he could not testify because he did not remember anything. Taking this into account, a proposal was put forward to conduct hypnosis on the accused, which led to the reconstruction of the circumstances of the intentional murder in his memory[9]. In addition, the manual for the US prosecutor's office states that witness hypnosis should be used only if there is a real need for additional information. If a witness does not give written consent, he or she should not be hypnotized and should be informed of the legal nature of hypnosis. Only a psychologist or psychiatrist trained in forensic hypnosis should be allowed to hypnotize a witness. To prevent false answers during questioning, leading questions should be avoided. Questioning while the witness is under hypnosis should be videotaped and a transcript should be prepared in addition to any audio recording. However, it is important to remember that information stored in memory can be distorted (altered), i.e. information provided by the subject under hypnosis should not be accepted as axiomatic, but should be verified by other objective means [10].

Taking into account the above, both the results of the polygraph and the voluntary “hypnotized interrogation” can be used as a means of identifying evidence or as a method of finding previously unknown evidence to law enforcement agencies through other unconventional methods of investigation and detection of premeditated murder, but in our opinion it is still premature to discuss their admissibility from the point of view of the law of evidence.

Thus, we can draw a general conclusion about the caution in using the results of international experience psychophysiological research in the fight against premeditated murder and all crime in general, in the field of justice, in the use of the polygraph in the field of justice. This is primarily due to the lack of a single natural scientific basis for the psychophysiological method of the polygraph. Therefore, the results of this diagnosis using the polygraph are probabilistic in nature, and the results of the study are based on the subjective assessment of the polygraph specialist.

These conclusions are consistent with the international point of view on this issue, and we conclude that modern science has not sufficiently studied the mechanisms of psychophysiological reactions that are the result of lying. As a result, the capabilities of the polygraph, including any polygraph examiner working with it, cannot be a

reliable source that accurately determines where lies and where the truth lies. In this regard, in the investigation of crimes in Uzbekistan, the capabilities of the polygraph should be used only to obtain directional information that allows you to approach the incident under investigation.

As a result of the use of the polygraph in the investigation of the crime of intentional homicide committed through criminal staging, it is an important auxiliary tool in forensic practice for identifying false information and assessing the psychophysiological reactions of a person in the effective conduct of the investigation process. In the crime of intentional homicide committed through criminal staging, the importance of the polygraph increases even further, and it plays a significant role in restoring the true mechanisms of the incident.

In cases of staging, the accused or other persons artificially create a different version of the event. In such cases, there are often contradictions in the testimony, inaccuracies in the chronology, and details that do not correspond to the event. The polygraph allows you to determine the person's reaction to hiding this information or repeating an invented scenario. Also, in the tactics of investigating a staged murder, the polygraph can provide the following advantages: - speed in sorting out the images; - use of psychophysiological data in identifying suspects; - use as an additional tool to identify negative circumstances in the testimony; - whether the person participated in changing the scene of the crime; - who placed the weapon, rope, tools; - whether there was a quarrel, conflict, or motive for the murder with the deceased; - additional appointment of examinations; - additional questioning of witnesses; - re-examination of the accused's previous images; - leading to a more accurate description of the mechanism of the incident; - assistance in admitting guilt.

Although the polygraph is not considered independent evidence, it is an important aid in the investigation of the crime of staged murder. It makes it possible to get closer to the real information about the incident, to identify hidden situations through the psychophysiological reactions of the person, and to optimally direct the investigation.

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ИНДИВИДУАЛИЗАЦИЯ РЕАБИЛИТАЦИОННЫХ ПРОГРАММ В КЛИНИЧЕСКОЙ ПРАКТИКЕ

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Аннотация: В настоящем тезисе рассматривается актуальная проблема индивидуализации реабилитационных программ в клинической практике. Основное внимание уделено теоретическим основам персонализированного подхода, методам его реализации и современным тенденциям в области реабилитации. Исследование показывает, что индивидуализация программ позволяет учитывать физическое, психическое и социальное состояние пациента, повышает эффективность восстановительных мероприятий, ускоряет процесс реабилитации и снижает риск рецидива заболеваний. Особое внимание уделено роли междисциплинарного взаимодействия специалистов, использованию современных технологий, таких как телемедицина и виртуальная реальность, а также мотивации и активности пациентов. В работе представлены ключевые факторы, влияющие на успешность индивидуализированной реабилитации, и подчеркивается необходимость внедрения персонализированных стратегий в клинической практике.

Ключевые слова: Индивидуализация, Реабилитация, Клиническая практика, Персонализированный подход, Восстановление, Психологическая поддержка.

ВВЕДЕНИЕ

В клинической практике реабилитационные программы играют ключевую роль в восстановлении здоровья пациентов, повышении качества их жизни и ускорении восстановления после заболеваний или хирургических вмешательств. Однако стандартные программы реабилитации не всегда эффективны, так как каждый пациент имеет индивидуальные особенности: возраст, пол, медицинскую историю, физическое и психическое состояние. Поэтому концепция индивидуализации реабилитационных программ признана одним из важнейших подходов современной медицины. Индивидуализация

подразумевает создание персонализированной стратегии восстановления, подбор терапевтических упражнений, физиотерапевтических методов и психологической поддержки с учётом особенностей конкретного пациента. Современные исследования показывают, что индивидуализированные программы реабилитации ускоряют процесс восстановления, снижают риск рецидива заболевания и способствуют возвращению пациента к самостоятельной жизни. Индивидуальный подход также укрепляет взаимодействие между пациентом и специалистом и повышает мотивацию к лечению. В рамках данного тезиса рассматриваются методические подходы к индивидуализации реабилитационных программ, факторы повышения их эффективности и современные тенденции.

Основная часть

Индивидуализированные реабилитационные программы базируются на биомедицинских и психосоциальных подходах. Процесс восстановления каждого пациента определяется индивидуальными особенностями: типом заболевания, наличием хронических болезней, физическим и психическим состоянием, мотивацией и образом жизни. Диагностическая оценка является важным этапом реабилитации. Врачи и специалисты по реабилитации анализируют медицинскую историю пациента, результаты лабораторных и инструментальных исследований и разрабатывают персональную стратегию восстановления. Цель индивидуализированных программ - максимально восстановить функциональные возможности пациента. В процессе применяются физиотерапия, массаж, лечебная физкультура, когнитивная и психологическая поддержка. Гибкость программ, адаптация к меняющимся потребностям пациента повышает эффективность реабилитации. Исследования показывают, что индивидуализированный подход ускоряет восстановление и снижает риск рецидива. Теоретические основы подтверждают, что индивидуализация реабилитационных программ превосходит стандартные протоколы, а учёт психологического состояния пациента повышает мотивацию и интерес к терапевтическим занятиям.

В клинической практике индивидуализация реабилитации осуществляется через несколько основных методов. Во-первых, проводится диагностическая оценка и функциональные тесты для определения физического, психического и когнитивного состояния пациента. Во-вторых, разрабатывается персональная стратегия реабилитации с учётом медицинской истории, хирургических вмешательств, хронических заболеваний и индивидуальных особенностей

пациента. В-третьих, упражнения и физиотерапевтические протоколы подбираются с учётом возможностей пациента. Например, при сердечно-сосудистых заболеваниях подбираются индивидуальные программы ходьбы, дыхательной гимнастики и силовых упражнений. Психологическая поддержка также является частью персональной программы, учитывая психическое состояние, стрессоустойчивость и мотивацию пациента. Важна регулярная коммуникация между пациентом и терапевтом, мониторинг реабилитационного процесса и своевременное внесение изменений в программу. Современные технологии, включая телемедицину и мобильные приложения, позволяют контролировать выполнение индивидуальной программы и проводить дистанционное наблюдение за пациентом. Внедрение индивидуализированного подхода ускоряет восстановление и повышает эффективность реабилитационных мероприятий.

Эффективность реабилитационных программ зависит от нескольких факторов. Во-первых, важна мотивация и активность пациента, его участие в процессе восстановления. Во-вторых, сотрудничество между медицинскими специалистами и мониторинг программы повышают её эффективность. В-третьих, использование современных технологий, таких как виртуальная реальность, сенсорные устройства и телемедицинские платформы, усиливает результаты индивидуализированных программ. Программа должна учитывать социальное окружение пациента: поддержка семьи, возможность совмещения с учебой или работой увеличивает эффективность реабилитации. Исследования показывают, что индивидуальные программы значительно повышают качество жизни, восстанавливают функциональные способности и снижают риск рецидива. Современная тенденция клинической практики - междисциплинарный подход, когда врач, физиотерапевт, психолог и логопед совместно разрабатывают персональную программу. Реабилитационный процесс адаптируется к изменяющимся потребностям пациента, что максимально повышает его эффективность и способствует возвращению к самостоятельной жизни.

Заключение

Индивидуализация реабилитационных программ в клинической практике является одним из наиболее эффективных подходов. Теоретические основы, диагностическая оценка и персонализированные стратегии позволяют учитывать физическое и психологическое состояние пациента. Методы индивидуализации подбор упражнений, физиотерапии, психологической поддержки и

использование современных технологий - повышают эффективность реабилитации. Мониторинг, сотрудничество специалистов и активность пациента усиливают положительный эффект. Индивидуализированные программы повышают качество жизни, восстанавливают функциональные возможности и снижают риск рецидива. Таким образом, индивидуализация реабилитации является необходимым и современным подходом в клинической практике.

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PATHOMORPHOLOGICAL RATIONALE FOR REHABILITATION THERAPY AFTER ECTOPIC PREGNANCY

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Abstract. The development of critical conditions in patients with ectopic pregnancy is directly related to defects in the provision of medical care: errors in the diagnosis, and subsequently in the formulation of the final clinical diagnosis, transportation, operating room setup time, unpreparedness for high-quality infusion therapy, and insufficient qualifications of specialists.

Keywords: ultrasound, ovarian pregnancy, ectopic pregnancy, gynecological emergencies.

Relevance. Ectopic pregnancy is considered an unrecorded reproductive loss, but it remains a major problem in reproductive medicine, impacting subsequent fertility, the development of pelvic adhesions, secondary tuboperitoneal infertility, and recurrent ectopic pregnancies. Ectopic pregnancy accounts for 0.5-12.0% of gynecological diseases [1,6, 9,10,11,12], and is a common cause of pelvic genital surgery, although it varies from 8.8% to 55.0% across gynecological hospitals [1,16,17]. In the general population, the incidence of ectopic pregnancy reaches 1.4-2.0% of all pregnancies [8,13,14,15], increasing to 3-5% in assisted reproductive technology programs [2,18,19]. On the one hand, this pathology poses a threat to a woman's life due to the rapid development of the clinical picture, requiring emergency intervention. On the other hand, complications can affect not only fertility but also quality of life.

In this regard, the WHO's "10 Facts on Maternal Health" are of particular interest. Point six states that most maternal deaths can be prevented through skilled obstetric care and access to emergency obstetric care. Point ten indicates that the main barrier to progress in improving maternal health is the lack of skilled care [5, 10, 12, 13].

Morphological studies reliably indicate the inflammatory genesis of tubal pathology. Discussions determine laparotomic or laparoscopic tactics of surgical treatment, options for conservative therapy. However, the results of pregnancy onset are low, despite the fact that microsurgical operative technique allows in 80-97% of cases to restore the anatomical patency of the fallopian tubes [1,2,3,4,5]. It can be assumed that this is due to underestimation of the state of the systems of the whole organism, their adequate rehabilitation after surgical trauma and blood loss.

The aim of the study was to substantiate rehabilitation measures after tubal pregnancy based on morphofunctional changes in the pituitary-ovarian system and adrenal glands.

Material and Method. The study involved patients with the most common tubal localization of the fertilized egg. To conduct the main stages of the work, 233 hospital records of patients with tubal pregnancy were selected by random sampling. The criteria for forming the main groups were the severity of the condition at the time of admission to the hospital, as well as the outcome of the disease. Group 1 included 184 patients with various pathogenetic variants of tubal pregnancy, who underwent surgical interventions (tubectomy and tubotomy) with the volume of blood loss not exceeding 500 ml. Group II was represented by 49 "near miss" patients (according to WHO criteria) with massive blood loss (more than 1500 ml) resulting from a rupture of the fallopian tube. Patients of group 1 were divided into clinical subgroups: Subgroup 1 (n=68) - women with progressive tubal pregnancy; Subgroup 2 (n=56) included patients with tubal abortion; Subgroup 3 (n=60) included patients with tubal rupture. For the prospective study, subgroups 4 (n=19) were identified from Group 1 and 5 (n=15) from Group 2. Subgroups were formed based on a tubectomy performed 4-6 months previously due to tubal rupture during VB and blood loss of no more than 500 ml in Subgroup 4 and over 1500 ml in Subgroup 5. The study was conducted in three stages. In the first stage, the anamnestic, clinical, and organizational aspects of each case in the studied subgroups were comparatively analyzed. During hospitalization, the timeliness of examination and diagnosis, the duration of the preoperative period, access options and the extent of the surgeries performed, the course of the postoperative period, the results of histological examinations of the removed fallopian tubes, and the physician's recommendations for patients during the postoperative period, determining the scope and focus of rehabilitation measures, were assessed.

During the second phase of the study, Groups II and III analyzed the factors leading to a fatal outcome in cases of maternal death and the high risk of death in women who had "nearly died." The principles of compiling final clinical (FCD) and pathological diagnoses (PAD) were studied, as well as the autopsy results of maternal deaths, which included characteristics of morphological changes in the anterior pituitary gland and adrenal glands during bleeding associated with the termination of a tubal pregnancy. The prospective (third) stage of the study consisted of a clinical analysis of two subgroups of patients with tubal rupture after tubectomy, but with different blood loss: less than 500 and more than 1500 ml.

Ultrasound and Doppler studies were performed on an Acuson 128 XP/10 system using abdominal and transvaginal transducers with frequencies of 4 and 7 MHz. Histological

examination of autopsy sections stained with hematoxylin and eosin was performed using a Bimam P-11 binocular microscope. Additional techniques were used when necessary: van Gieson, Mallory, Weigert, Masson, and Foote. All anatomical sections of the fallopian tubes were subjected to morphological examination. The specimens were fixed in 10% buffered neutral formalin and embedded in paraffin. Histological sections (5 μ m thick) were stained with hematoxylin and eosin, picrofuchsin, and van Gieson (to assess sclerosis), azan (to detect fibrinoid), Picro-Mallory III (to determine the age of fibrin in a thrombus), and Weigert (to detect elastic fibers).

For morphometric studies of the anterior pituitary gland, the volumes of the following morphological components were determined using a stereometric grid: basophilic endocrinocytes (BE), hypertrophied BE, normal acidophilic endocrinocytes (AE), hypertrophied AE, necrotic cells, edema fluid, extravasates, microvascular thrombosis, and microcysts.

Results and discussion. A retrospective analysis of the medical records of patients in Group I with various pathogenetic variants of tubal pregnancy confirmed the development of classic clinical symptoms in patients of all studied subgroups. Initial visits to the antenatal clinic upon the appearance of early signs of the disease were significantly higher ($p < 0.05$) in patients with progressive tubal pregnancy—subgroup 1 (46 of 68, 67.65%)—compared to subgroups 2 (27 of 56, 48.21%) and 3 (21 of 60, 35.00%). They were significantly more likely to be hospitalized by referral from the antenatal clinic. In subgroups 2 and 3, patients (29 women, 51.78%) and 39 women, 65.00%, respectively, were primarily transported to the hospital by ambulance or admitted independently.

Women's low awareness of their own health issues and their late presentation for care, which exacerbated the development of pathology, were noteworthy. The time from the onset of the first symptoms to seeking medical care in all subgroups was up to 7 days (average 5.81 ± 0.93 days). Moreover, in cases of initial visits to the antenatal clinic, referral and hospitalization occurred within 24 hours. Paradoxically, in women with ruptured tubal pregnancies (subgroups 2 and 3), despite more pronounced clinical symptoms compared to those with the progressive form of the disease, delayed hospitalization was more common than in subgroup 1.

Upon hospitalization of patients in the gynecological hospital, the preliminary diagnosis of "ectopic pregnancy" was encountered with the highest frequency in the subgroups with tubal abortion and tubal rupture: 96.43% in the 2nd subgroup and 98.33% in the 3rd. In cases of progressive tubal pregnancy, this diagnosis was made in 79.41% of patients. The time period from the moment of hospitalization to the

operation, required for examination of patients, clarification of the diagnosis, preoperative preparation, was significantly lower in the 2nd and 3rd subgroups with termination of tubal pregnancy (42.14 ± 9.27 and 32.41 ± 11.36), compared to the progressive form (258.32 ± 24.12) ($p < 0.01$). This was facilitated by the characteristic clinical picture of hemoperitoneum, confirmed by additional diagnostic methods, the deterioration of the patients' general condition, and complaints pathognomonic of this disease.

Determining the gestational age of tubal pregnancy based on the date of the last menstrual period revealed significant differences in the compared subgroups. In groups 2 and 3 (patients with a terminated pregnancy), tubal pregnancy was observed to prolong from 4 to 7 weeks, while its development without termination did not exceed 28 days from the beginning of the cycle.

According to our data, the social status of the patients included in the study did not significantly differ. Most patients were married and had permanent employment. There were no significant differences in blood type or Rh factor among the patients studied. Menstrual histories were comparable across all subgroups. The first experience of sexual intercourse between the ages of 14 and 16 years was observed in each of the studied subgroups of patients, but was more often observed in cases of tubal rupture-type abortion (70.0%). Early sexual debut was noted in almost every second woman with a tubal abortion (44.6%), and in every third (35.9%) with a progressive form of tubal pregnancy. In the structure of gynecological diseases of patients whose reproductive history was burdened by early sexual debut, artificial abortions, low intergenerational interval, adverse pregnancy outcomes in early stages, inadequate contraception, inflammatory processes of the genital organs prevailed (65.51%; 39.62% and 53.97% in the subgroups, respectively). A history of urogenital infections was observed in a comparable proportion of patients and did not differ significantly across subgroups (62.5%, 52.6%, and 60.0%, respectively, across subgroups). Most frequently, pregnancy developed in the ampullary part of the fallopian tube (56.0%). In every third case, ectopia of the ovum occurred in the isthmic section (31.0%), and less frequently in the interstitial section (13.0%). Adhesions of stage 1 and 2 were more frequently observed in patients with progressive tubal pregnancy — 71.42%, while in the subgroups with tubal abortion and fallopian tube rupture, they occurred only in 28.57% of cases.

The analysis showed the advantages of the laparoscopic approach compared to the laparotomy, consisting of a shorter surgical time (59.18 ± 7.41 minutes versus 94.31 ± 8.32) and hospital stay (7.81 ± 0.47 days versus 9.14 ± 0.12), a low incidence of

postoperative complications: anemia, leukocytosis, and hyperthermia ($4.12\% \pm 0.52$; 8.19 ± 0.84 and 11.24 ± 1.11 versus 8.21 ± 0.74 ; 11.16 ± 0.43 and 16.31 ± 1.07 , respectively).

Autopsy material was studied to identify changes in the systems and organs in cases of MC during tubal pregnancy. All of them were characterized by ischemic events, vascular thrombosis, and hemorrhages of varying intensity, characteristic of massive blood loss syndrome. Of particular interest were the morphometric data characterizing anterior pituitary lesions depending on the volume of blood loss. Thus, with blood loss volumes not exceeding 2000 ml, signs of hypertrophy of basophilic endocrinocytes (BE) and, to a lesser extent, acidophilic endocrinocytes (AE) were detected, with minor amounts of necrosis, stromal edema, extravasations, and other changes.

The percentage of hypertrophied basophilic cells in the anterior pituitary glands of patients who died from greater blood loss (2200-3000 ml) was almost twice as high.

Conclusion. The development of critical conditions in patients with ectopic pregnancies is directly related to iatrogenic factors: deficiencies in the initial diagnosis, and subsequently in the final clinical diagnosis, transportation, operating room setup time, unpreparedness for high-quality infusion therapy, and insufficient specialist qualifications. A significantly higher incidence of these conditions is observed in cases of maternal death.

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PREPARING FUTURE EDUCATIONAL PSYCHOLOGISTS FOR EFFECTIVE ORGANIZATION OF EDUCATIONAL ACTIVITIES

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Abstract

This article examines a model for preparing future educational psychologists to effectively organize educational activities based on a systematic literature review. The study analyzes conceptual approaches from national, CIS, and international scholars, focusing on competency-based, activity-oriented, and learner-centered methods. The review highlights that integrating innovative pedagogical technologies with reflective and practical training significantly enhances the professional readiness of future educational psychologists for organizing educational activities.

Keywords: educational psychologist, educational activities, training model, professional competence, pedagogical technology.

INTRODUCTION

In contemporary educational systems, the effective organization of educational activities plays a crucial role in students' socialization, moral and ethical development, cognitive growth, and psychological well-being. Educational psychologists are key specialists responsible for planning, coordinating, and implementing educational processes in schools, ensuring a conducive environment for students' holistic development. Thus, preparing future educational psychologists to organize educational activities effectively is a pressing concern for higher pedagogical education institutions.

Although the professional preparation of educational psychologists has been widely studied, few studies systematically explore model-based approaches specifically aimed at the effective organization of educational activities. Many existing studies analyze individual pedagogical technologies, methods, or competencies but rarely integrate these into a comprehensive conceptual framework that could guide practical training.

The increasing complexity of educational environments and the diversity of students' individual-psychological characteristics require educational psychologists to possess a high level of professional readiness. They must be able to adapt to different learning contexts, manage group dynamics, apply evidence-based interventions, and evaluate the outcomes of educational activities. This necessitates a scientifically grounded, flexible, and effective model for preparing future specialists to organize educational activities in real-world settings.

Moreover, contemporary research emphasizes that future educational psychologists should develop competencies not only in planning and implementing educational activities but also in reflective practice, problem-solving, and leadership within educational settings. The integration of theory, practice, and reflective skills ensures that they are capable of making informed decisions in complex educational contexts.

The primary aim of this article is to analyze the existing literature on preparing future educational psychologists for effective organization of educational activities, to systematize the

models proposed, and to identify the methodological principles that support the integration of theory and practice in professional training programs.

Methods

The study is based on a systematic literature review method.

The sources analyzed include:

Monographs in pedagogy and psychology;

PhD and doctoral dissertations;

Articles published in national and international scientific journals;

Methodological manuals and guidelines.

Data were analyzed using comparative, analytical, and synthesis methods to identify patterns, models, and conceptual approaches relevant to preparing future educational psychologists for effective educational activity management.

Results

The literature review indicates that models for preparing future educational psychologists primarily rely on competency-based, activity-oriented, and learner-centered approaches.

Local scholars (Sayidahmedov N., Mavlonova R., Khodjaev B.) emphasize that the competency to organize educational activities is central to professional preparation. Their studies propose models that integrate pedagogical technologies for developing professional competencies.

CIS scholars (Slastenin V.A., Zimnyaya I.A., Markova A.K.) highlight competency-based approaches as essential for preparing educational psychologists, presenting educational activity organization as an inseparable component of professional activity.

International scholars (Dewey J., Shulman L., Kolb D.) focus on experience-based, reflective, and activity-oriented approaches in their models, emphasizing independent decision-making, problem-solving in educational situations, and the development of practical competencies.

Discussion

The review demonstrates that while existing models address important aspects of preparing educational psychologists, most are fragmentary and theoretical. While competency frameworks and activity-based approaches are widely discussed, there is often a lack of guidance on integrating theory into practice in real educational settings. Additionally, practical mechanisms for evaluating professional readiness and educational outcomes are insufficiently developed.

An integrated model is necessary, combining theoretical knowledge, practical exercises, reflective practices, and innovative pedagogical technologies. This comprehensive approach enables future educational psychologists to plan, implement, manage, and evaluate educational activities effectively while responding to the dynamic needs of students.

Furthermore, integrating competency-based, activity-oriented, and learner-centered approaches in a unified model ensures a holistic preparation of future professionals. It allows them to adapt their strategies according to contextual requirements, address individual differences among students, and apply evidence-based practices effectively. Reflective practice, an essential component of this model, promotes continuous professional development and encourages adaptive problem-solving in complex educational environments.

The literature also emphasizes the importance of active engagement in training simulations, project-based assignments, and collaborative learning experiences. Such methods facilitate the internalization of theoretical knowledge and its application to real-life educational situations. By combining theoretical instruction with practical, reflective, and technology-enhanced methods, educational institutions can cultivate future psychologists who are not only knowledgeable but also capable of leading educational and developmental initiatives.

In summary, the development of a model that systematically integrates these approaches provides a robust framework for preparing educational psychologists capable of managing diverse educational activities effectively. This approach bridges the gap between theory and practice and enhances the professional readiness and adaptability of future specialists.

Conclusion

The literature review confirms that preparing future educational psychologists to organize educational activities effectively is a crucial aspect of modern pedagogical education. While existing models emphasize educational activity as a key component, they often lack systematic integration.

An effective training model should combine competency-based, activity-oriented, and learner-centered approaches, supported by innovative pedagogical technologies and reflective practices. Such a model enhances professional readiness, enabling future educational psychologists to plan, implement, and evaluate educational activities effectively. Future research should focus on empirical validation of such models, testing their effectiveness in real educational settings, and refining them based on practical outcomes.

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ФОРМИРОВАНИЕ УСТНОЙ И ПИСЬМЕННОЙ РЕЧИ КАК ОСНОВЫ УЧЕБНОЙ УСПЕШНОСТИ МЛАДШИХ ШКОЛЬНИКОВ

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Аннотация: В данном научном тезисе рассматривается проблема формирования устной и письменной речи младших школьников как одного из ключевых факторов их учебной успешности. Особое внимание уделяется взаимосвязи уровня развития речи с учебной успеваемостью учащихся начальных классов. Анализируются основные трудности, возникающие у детей в процессе перехода от устной формы речи к письменной, а также выявляются типичные речевые ошибки, отрицательно влияющие на качество усвоения учебного материала. В работе подчеркивается необходимость системного и целенаправленного развития речевых навыков на всех этапах начального обучения как условия повышения эффективности образовательного процесса.

Ключевые слова: устная речь, письменная речь, младшие школьники, учебная успешность, речевые трудности, речевые ошибки, начальное образование.

В современных условиях развития образования одной из приоритетных задач начальной школы является формирование устной и письменной речи младших школьников. Речевая компетентность выступает основой успешного обучения, так как именно через речь осуществляется усвоение учебного материала, формирование мышления и развитие познавательной активности учащихся. Достаточный уровень развития речи позволяет ребёнку полноценно воспринимать информацию, выражать свои мысли, понимать учебные инструкции и успешно выполнять письменные задания. Особую актуальность приобретает проблема перехода от устной формы речи к письменной, который является сложным этапом в речевом развитии младших школьников. Недостаточная сформированность устной речи нередко приводит к возникновению трудностей в овладении письмом и чтением, появлению типичных речевых ошибок и снижению учебной успеваемости. В этой связи изучение взаимосвязи уровня развития речи с учебной успешностью, а также анализ речевых затруднений и ошибок младших школьников представляются особенно значимыми. Таким образом, формирование устной и письменной речи

должно рассматриваться как целенаправленный и системный процесс, обеспечивающий успешное обучение и гармоничное развитие личности ребёнка на начальном этапе школьного образования.

Результаты исследования показали наличие устойчивой взаимосвязи между уровнем сформированности устной и письменной речи и учебной успешностью младших школьников. Учащиеся с хорошо развитой устной речью демонстрировали более высокие показатели успеваемости по основным учебным предметам, легче усваивали учебный материал и активнее участвовали в образовательном процессе. Анализ процесса перехода от устной речи к письменной выявил ряд характерных трудностей. Наиболее распространёнными оказались затруднения в построении связного письменного высказывания, несформированность грамматического строя речи, ограниченный словарный запас и нарушения звукобуквенного анализа. Указанные трудности нередко приводили к появлению типичных речевых ошибок, таких как пропуски и перестановки букв, орфографические и пунктуационные ошибки, а также нарушения логической последовательности текста. Обсуждение полученных результатов позволяет сделать вывод о том, что недостаточное развитие устной речи существенно осложняет процесс овладения письменной речью и отрицательно сказывается на общей учебной деятельности младших школьников. В то же время целенаправленная работа по развитию речевых навыков способствует снижению количества речевых ошибок и повышению учебной мотивации. Таким образом, формирование устной и письменной речи должно рассматриваться как важнейшее условие обеспечения учебной успешности учащихся начальных классов.

Заключение

Проведённое исследование подтверждает, что уровень сформированности устной и письменной речи младших школьников оказывает существенное влияние на их учебную успешность. Развитая речь обеспечивает более полное понимание учебного материала, способствует формированию логического мышления и повышает познавательную активность учащихся. Выявленные трудности перехода от устной речи к письменной, а также типичные речевые ошибки свидетельствуют о необходимости целенаправленной и системной работы по развитию речевых навыков на начальном этапе обучения. Своевременная педагогическая поддержка и использование речеориентированных методов обучения позволяют снизить количество ошибок, облегчить процесс овладения письменной речью и повысить общую

успеваемость младших школьников. Таким образом, формирование устной и письменной речи следует рассматривать как одно из ключевых условий обеспечения учебной успешности учащихся начальной школы.

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**O‘ZBEK VA INGLIZ TILLARIDAGI PARALLEL MATBUOT
MATNLARIDA LINGVOMADANIY XUSUSIYATLARNING QIYOSIY
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**LINGUOCULTURAL FEATURES IN UZBEK–ENGLISH PARALLEL-TEXT
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**ЛИНГВОКУЛЬТУРНЫЕ ОСОБЕННОСТИ УЗБЕКСКО-АНГЛИЙСКОЙ
ПРЕССЫ С ПАРАЛЛЕЛЬНЫМИ ТЕКСТАМИ**

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Annotatsiya

Ushbu tezisda o‘zbek va ingliz tillarida yaratilgan matbuot matnlaridagi lingvomadaniy xususiyatlar qiyosiy tahlil qilinadi. Tadqiqotda matbuot tilining milliy mentalitet, madaniy qadriyatlar va kommunikativ kontekst bilan bog‘liqligi yoritiladi. Shuningdek, tarjimada yuzaga keladigan lingvomadaniy tafovutlar va ularni to‘g‘ri ifodalash muammolari tahlil etiladi.

Kalit so‘zlar:

lingvomadaniyat, milliy xususiyat, matbuot tili, parallel matn, tarjima, madaniy konnotatsiya.

KIRISH

Matbuot matnlari jamiyatning ijtimoiy-madaniy hayotini aks ettiruvchi muhim diskurs turidir. Har bir xalqning axborot berish uslubi, so‘z tanlovi va nutq madaniyati milliy mentalitet bilan chambarchas bog‘liqdir. Shu bois o‘zbek va ingliz matbuotidagi

parallel matnlarni solishtirish orqali madaniy va til xususiyatlarini aniqlash dolzarb masaladir.

Asosiy qism

O'zbek va ingliz tillaridagi matbuot matnlarida lingvomadaniy xususiyatlar quyidagicha namoyon bo'ladi:

Milliy realiyalar ifodasi:

O'zbek matbuotida "mahalla", "osh", "Navro'z", "qorako'l" kabi so'zlar o'ziga xos madaniy yuklama bilan keladi. Ingliz matnlarida esa "Thanksgiving", "the Queen's Speech", "pub culture" kabi birliklar milliy realiya sifatida ishlatiladi.

Kommunikativ uslubdagi farqlar:

O'zbek matbuotida mavzular ko'proq jamoaviy qadriyatlarga tayanadi, matnlar hissiy ifoda bilan boyitiladi. Ingliz matbuotida esa ob'ektivlik, aniq ma'lumotlarga tayanish, qisqa va lo'nda bayon ustunlik qiladi.

Madaniy konnotatsiyalar:

Tarjimada so'zning denotativ emas, balki konnotativ ma'nosini saqlash muhim. Masalan, "milliy qadriyatlarni asrash" iborasi ingliz tilidagi "preserve cultural heritage" deyilganda, hissiy o'lchov biroz yo'qoladi.

Tarjima muammolari:

Lingvomadaniy birliklarni tarjima qilishda ekvivalent so'z tanlash muhim bo'lib, ko'p hollarda izohli tarjima yoki adaptatsiya usuli qo'llanadi.

Xulosa

O'zbek va ingliz matbuotidagi lingvomadaniy xususiyatlar matnning milliy-madaniy mohiyatini ochib beradi hamda tarjimachilikda madaniy kompetensiyaning ahamiyatini ko'rsatadi. Natijada, parallel tahlil turli madaniyatlarda axborotni yetkazish mexanizmlarini chuqurroq anglash imkonini beradi.

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**CHOICE OF SURGICAL TREATMENT TACTICS FOR HIAPHEAL
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Abstract. The use of a developed algorithm for selecting surgical treatment tactics for esophageal hiatal hernias has reduced the incidence of postoperative complications and mortality.

Keywords: hernia, esophageal hiatus, surgical treatment

Relevance. The problem of hiatal hernia (HH) has been studied for over a century, beginning with the first morphological and radiographic observations in the first half of the 20th century. Despite the extensive study of HH and the significant accumulated clinical experience, the transition from a universal to an individualized surgical approach remains unrealized (2). This creates a justified need for a systematic study aimed at developing and implementing a stratified approach to the surgical treatment of various forms of HH with a clinical and morphological justification for the choice of surgical technique (1, 3, 4, 5).

Gastroesophageal reflux disease (GERD) is currently the leading cause of gastrointestinal disease in industrialized countries. GERD affects 30% of people in the United States, and 20-40% of people in Western Europe. In Russia, this disease, according to various estimates, occurs in 10-60% of residents (17). Moreover, 45-80% of these patients are diagnosed with esophagitis (16). GERD is rare in Asians (1,6). According to R.B. Beretar (2020), GERD is detected in more than 6-12% of the population who have undergone endoscopic examination. The National Clinical Guidelines of the Russian Society of Surgeons (2017) define a hiatal hernia (HH) as follows: It is a condition associated with the displacement of the abdominal esophagus, cardia, upper stomach, and sometimes strands of omentum and loops of the small and large intestine through the esophageal opening of the diaphragm into the chest cavity. In this case, the esophageal opening of the diaphragm becomes a hernial orifice. (2,7,8,9,10).

Currently, HH rivals duodenal ulcer (DU), chronic cholecystitis, and pancreatitis in its prevalence. HH is diagnosed in 5-15% of patients undergoing radiographic

examinations for various gastrointestinal diseases (1,11). With increasing age, HH is diagnosed more frequently (2,12). Sneezing, straining, coughing, and any physical activity suddenly increase intra-abdominal pressure, which sooner or later leads to dilation of the esophageal hiatus of the diaphragm and "squeezing" the cardia into the posterior mediastinum. HH develops, disrupting the function of the obturator mechanisms, and as a result, reflux esophagitis (RE) develops. This explains the frequent occurrence of hiatal hernia in patients with various chronic non-specific lung diseases and in professional athletes (3,13).

Hiatal hernia is diagnosed in 50% of patients with chronic obstructive pulmonary disease, as persistent coughing leads to a persistent increase in intra-abdominal pressure (1,14). Some diseases of the stomach and duodenum (pylorospasm, pyloric stenosis, celiac axis compression, etc.), as well as overeating and excessive carbonated beverage consumption, lead to increased pressure in the stomach. When gastric pressure at a certain point exceeds esophageal pressure, the compensatory barrier of the cardiac sphincter is disrupted, and gastric contents reflux into the esophagus (1). In the lower third of the esophagus, the mucosa ensures adequate closure of the cardia. Inflammation or atrophy of the mucosa disrupts the congruence of the esophageal lumen (2).

The angle of His plays a significant role in the formation of the closure function of the cardia. It has been proven that the more pronounced the angle, the more reliable the closure function of the cardia. Surgeons take this into account when performing operations (3). Decreased esophageal contractility also increases the likelihood of reflux of gastric contents into the esophageal lumen and weakens esophageal clearance, ultimately leading to the development of ER (17).

It should be noted that at the current stage of medical development, authors vary in their assessment of the priority role of various mechanisms involved in the development of GERD (1).

In 2014, L.N. Bisenkov drew attention to the five most important pathogenetic factors that can lead to the development of GERD: decreased esophageal peristalsis, decreased esophageal clearance, decreased esophageal wall contractility, decreased pressure in the lower esophageal sphincter, and delayed gastric emptying. The influence of these factors can occur either independently or in combination.

According to N.U. Chamsutdinov (2020), the damaging effect of the reflux agent, the structural features of the esophageal mucosa, and increased intra-abdominal pressure are of great importance. Thus, the diversity of classifications of GERD and the various systematization features incorporated into them for understanding the pathogenesis of

GERD are additional evidence that a unified system of views on the pathogenesis, and therefore on the choice of treatment method for such patients, has not yet been formed.

Study objective: Develop an algorithm for selecting a surgical approach for HH.

Materials and methods. The analysis was conducted at the clinical site of the Bukhara Regional Multidisciplinary Clinic and covers the period 2015-2025. The total sample consisted of 128 patients with HH who underwent laparoscopic surgery. The study design was retrospective and prospective.

Results and discussion. To objectively develop an algorithm for selecting a surgical approach, a statistical analysis of clinical, morphological, and functional parameters was conducted, allowing for the identification of signs associated with unsatisfactory treatment outcomes.

The analysis included the following variables: hernia type (Barrett/HPE classification), degree of gastric migration, antireflux valve status (Hill classification), presence of esophageal motility disorders (esophagomanometry data), severity of pathological reflux (daily pH measurement), and other diagnostically significant parameters. The incidence of adverse outcomes was determined in each subgroup, and odds ratios (OR) and 95% confidence intervals were calculated.

Esophageal motility impairment demonstrated the strongest association with an unfavorable prognosis: in patients with dyskinesia, an unsatisfactory outcome was recorded in 60% of cases, while in those with normal motility, it was only 8.9% (odds ratio, OR = 9.00; 95% CI: 2.40-33.80; $p = 0.001$), emphasizing the key role of motor function assessment in planning surgical tactics, especially in choosing the fundoplication option and the feasibility of combining it with other stages of the intervention.

The state of the antireflux valve mechanism according to the Hill classification also proved to be a significant predictor: with grades III-IV impairment, an unsatisfactory outcome was observed in 48% of patients, versus 8.6% in the group with grades I-II (OR = 5.75; $p = 0.006$). This sign reflects functional failure of the esophageal stenosis, requiring at least stabilization measures (e.g., gastropexy), and in some cases, also diaphragmatic ring reinforcement.

According to the data obtained, the most significant independent prognostic factor was a sign of esophageal motility disorder, in particular the presence of dyskinesia (OR=7.85; 95% CI: 2.10-29.35; $p=0.002$), which highlights the inconsistency of esophageal peristaltic activity, significantly reducing the effectiveness of standard interventions and requiring modification of surgical tactics.

The Hill valve mechanism score was the second most influential: at grades III-IV, impaired esophageal-to-stomach transition was accompanied by an almost fivefold increase in the risk of an unsatisfactory outcome compared to grades I-II (OR=4.95; $p=0.008$).

A high degree of gastric migration (grade 3-4) demonstrated an OR of 3.80 (95% CI: 1.20-12.00; $p=0.025$), indicating the need for stabilization of the cardia with fixation or additional reinforcement in cases of significant gastric displacement into the thoracic cavity.

Finally, the hernia type according to the Barrett/HPE classification (III-IV) retained independent prognostic significance even after adjustment for other variables (OR=2.95; $p=0.041$), allowing the inclusion of the morphological type of hiatal hernia in the risk scale, particularly when assessing the volume of the hernia sac and the deformation of the pancreatic hernia.

Based on the results of multivariate logistic analysis, an integrated prognostic scale was developed to stratify patients according to the degree of risk of developing an unsatisfactory outcome of surgical treatment of hiatal hernia. The scale included only those features that retained independent prognostic significance in multivariate regression: Barrett/HPE hernia type, degree of gastric migration, valve mechanism status according to Hill, and the presence of esophageal motility disorders. Each feature was assigned a weight (point) proportional to its impact on the risk of outcome, assessed using the odds ratio (OR).

The most significant factor was esophageal motility disorder, which was assigned 2 points. The remaining features (hernia type III-IV, Hill III-IV, degree of gastric migration ≥ 3) were assigned 1 point each, reflecting their clinical significance but a lesser impact on prognosis compared to dyskinesia.

Thus, the presented scale not only formalizes the approach to choosing a surgical strategy but also improves the reproducibility of clinical decisions, minimizing the risk of subjective assessment during intervention planning. The use of this model makes it possible to personalize the scope of the operation and avoid both under- and over-surgical aggression.

Overall, the developed risk stratification scale and algorithm for selecting surgical treatment tactics for hiatal hernias represent a logically formalized system based on a quantitative assessment of clinical and instrumental parameters, which provides the basis for their digital implementation in the form of specialized software.

Given the clearly structured input data (hernia type, degree of gastric migration, valve mechanism parameters, manometry data) and their diagnostic reproducibility, this algorithm can be integrated into a digital platform with artificial intelligence elements, providing automated interpretation of significant parameters and predicting the likelihood of an unsatisfactory outcome. The use of artificial intelligence will allow for real-time recommendations for the optimal surgical intervention for a specific patient, improve the accuracy of clinical decisions, eliminate the variability of human interpretation, and thereby standardize a personalized approach to hiatal hernia surgery. Based on the overall assessment, the following stratification is proposed:

0-1 point: patients with minimal anatomical and functional impairments. They are recommended to undergo a modified cruroraphy, typically without additional stages.

2-3 points: intermediate risk zone, in which modified cruroraphy can be supplemented with functional gastropexy to stabilize the cardia and prevent axial displacement.

≥ 4 points: high risk of unsatisfactory results with the traditional approach. Patients in this category are recommended to undergo a full modified technique, including cruroraphy with subalarcosis sutures, gastropexy, and placement of a semi-encompassing "saddle" mesh implant.

The algorithm we developed for choosing a surgical treatment strategy for hiatal hernia reflects a shift from an empirical approach to a formalized model based on a logistic analysis of objective clinical and instrumental data. The developed risk scale includes predictors that have proven their independent prognostic value: hernia type, degree of gastric migration, valve mechanism assessment, and esophageal motility. All these parameters allow us to stratify patients based on their risk of developing unsatisfactory outcomes and, accordingly, determine the necessary intervention, ranging from basic cruroraphy to a fully modified technique with gastric fixation and mesh placement.

Use of this algorithm ensures clinical validity, reproducibility, and individualization of surgical approaches for hiatal hernia. The model's application in real-life practice has been validated in clinical cases and helps reduce the risk of recurrence, functional impairment, and unnecessary extension of surgical intervention.

CONCLUSIONS:

1. The developed modified technique includes three functionally interconnected stages: cruroraphy with subalgal sutures, gastric fixation, and placement of a semi-loop mesh implant. Each of these modifications is aimed at correcting a specific aspect of the anatomical and functional imbalance. Unlike standard approaches, the proposed technique is not universal, but is applied differentially, based on objective diagnostic criteria.

2. The proposed algorithm for choosing surgical tactics allows us to minimize the risks of relapse and functional failure and increase the reproducibility of surgical decisions.

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O‘ZBEKISTON IQTISODIYOTIDA INVESTITSION FAOLIYATNI RIVOJLANTIRISH VA BOSHQARISH MASALALARI

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Annotatsiya

Mazkur maqolada O‘zbekiston iqtisodiyotida investitsion faoliyatni rivojlantirishning ahamiyati, investitsiyalarni boshqarish mexanizmlari hamda ularni takomillashtirish masalalari tahlil qilinadi. Shuningdek, investitsion muhitni yaxshilash, xorijiy va mahalliy investitsiyalarni jalb etish, davlat va xususiy sektor hamkorligini rivojlantirish bo‘yicha ustuvor yo‘nalishlar yoritilgan.

Kalit so‘zlar: *investitsion faoliyat, investitsion muhit, investitsiyalarni boshqarish, xorijiy investitsiyalar, iqtisodiy o‘rnatish, davlat-xususiy sheriklik.*

Bozor iqtisodiyoti sharoitida investitsiyalar mamlakat iqtisodiy rivojlanishining asosiy harakatlantiruvchi kuchi hisoblanadi. O‘zbekiston Respublikasida amalga oshirilayotgan keng ko‘lamli iqtisodiy islohotlar investitsion faoliyatni rivojlantirish, ishlab chiqarish salohiyatini oshirish va iqtisodiyot tarmoqlarini modernizatsiya qilishga qaratilgan. Shu bois investitsion faoliyatni samarali boshqarish va uning mexanizmlarini takomillashtirish dolzarb masalalardan biri bo‘lib qolmoqda.

Investitsiyalar yangi ishlab chiqarish quvvatlarini yaratish, texnologik yangilanish, infratuzilmani rivojlantirish va bandlikni oshirishda muhim rol o‘ynaydi. O‘zbekiston iqtisodiyotida investitsion faoliyat sanoat, qishloq xo‘jaligi, xizmatlar sohasi hamda ijtimoiy infratuzilma rivojiga bevosita ta‘sir ko‘rsatadi.

So‘nggi yillarda mamlakatda investitsion faollik oshib, yirik sanoat loyihalari, transport-logistika infratuzilmasi va energetika sohasiga yo‘naltirilgan investitsiyalar hajmi sezilarli darajada kengaydi. Bu holat iqtisodiy o‘rnatish sur‘atlarining barqarorligiga xizmat qilmoqda.

Investitsion faoliyatni boshqarish — investitsiya resurslarini shakllantirish, taqsimlash va ulardan samarali foydalanishni ta‘minlovchi tashkiliy-iqtisodiy mexanizmlar majmuasidir. O‘zbekistonda investitsiyalarni boshqarish davlat siyosati, normativ-huquqiy baza va institutsional mexanizmlar orqali amalga oshiriladi.

Davlat tomonidan investorlarga qulay shart-sharoitlar yaratish, soliqlar va bojxona imtiyozlarini joriy etish, ruxsat berish tartib-taomillarini soddalashtirish investitsion faoliyatni boshqarishning muhim yo‘nalishlari hisoblanadi. Shu bilan birga, investitsiya loyihalarini baholash va monitoring qilish tizimini kuchaytirish investitsiyalar samaradorligini oshirishga xizmat qiladi.

Investitsion muhit — investorlarning iqtisodiy faoliyatini amalga oshirish uchun yaratilgan shart-sharoitlar majmuasidir. O‘zbekistonda investitsion muhitni yaxshilash borasida sezilarli ishlar amalga oshirilgan bo‘lsa-da, ayrim muammolar saqlanib qolmoqda. Jumladan, ayrim hududlarda infratuzilmaning yetarli darajada rivojlanmaganligi, moliyaviy resurslarga kirish imkoniyatlarining cheklanganligi va kadrlar malakasining pastligi investitsion faollikka salbiy ta‘sir ko‘rsatishi mumkin.

O‘zbekiston investitsiyalar strukturasi ham sezilarli o‘zgarishlar jarayonidan o‘tmoqda. Xorijiy sarmoyalar ko‘pincha ishlab chiqarish, energetika, xizmatlar va infratuzilma loyihalariga yo‘naltirilmoqda. Mahalliy resurslar ham investitsiyalar tarkibida katta rol o‘ynamoqda, natijada umumiy investitsiya hajmi oshmoqda.

Shuningdek, investitsiyalarni jalb etish ijobiy ijtimoiy o‘zgarishlarga olib kelmoqda — yangi ish o‘rinlari yaratilmoqda, ishlab chiqarish texnologiyalari yangilanmoqda va eksport salohiyati oshmoqda.

Mazkur muammolarni bartaraf etish investitsion siyosatni yanada takomillashtirishni va boshqaruv tizimida zamonaviy yondashuvlarni joriy etishni talab etadi.

Investitsion faoliyatni boshqarish — investitsiyalarni ajratish, sarflash va monitoring qilinishini ta‘minlovchi strategik mexanizmlar tizimidir. Samarali boshqarish iqtisodiyotning barqaror o‘sishini qo‘llab-quvvatlaydi va sarmoyalarni ijtimoiy foydaga yo‘naltiradi.

O‘zbekiston hukumati investitsion siyosatni takomillashtirish, byurokratik to‘siqlarni kamaytirish va investorlar uchun kafolatli huquqiy sharoitlar yaratish bo‘yicha chora-tadbirlarni amalga oshirmoqda. Bu esa sarmoya oqimini oshirishga xizmat qilmoqda.

Investitsiyalarni boshqarish tizimi quyidagi asosiy yo‘nalishlarni o‘z ichiga oladi:

a) Normativ-huquqiy bazani mustahkamlash: Soliq imtiyozlari, investor huquqlarini kafolatlash va ruxsat berish tartiblarini soddalashtirish orqali investitsion muhitni yanada jozibador qilish.

b) Davlat-xususiy sheriklik (PPP): Strategik infratuzilma va innovatsion loyihalarni moliyaviy qo‘llab-quvvatlash uchun PPP mexanizmlarini kengaytirish.

c) Regional investitsiyalarni yo‘naltirish: Hududlarning investitsion salohiyatini oshirish va hududlararo tafovutlarni kamaytirish bo‘yicha davlat dasturlarini amalga oshirish.

Bu yo‘nalishlar milliy iqtisodiyotni diversifikatsiya qilish va barqaror o‘shishni ta‘minlash uchun muhim ahamiyatga ega.

O‘zbekiston iqtisodiyotida investitsion faoliyatni rivojlantirish va samarali boshqarishda quyidagi yo‘nalishlar ustuvor hisoblanadi:

- investitsion muhitni yanada liberallashtirish va investorlar huquqlarini ishonchli himoya qilish;
- davlat-xususiy sheriklik asosidagi investitsion loyihalarni kengaytirish;
- hududlarning investitsion salohiyatini oshirish va hududlararo tafovutlarni kamaytirish;
- innovatsion va yuqori texnologiyali loyihalarni moliyalashtirishni rag‘batlantirish;
- investitsiya loyihalarini tanlash va boshqarishda samaradorlik mezonlarini kuchaytirish.

1- jadval

O‘zbekistonda investitsion faoliyatning asosiy ko‘rsatkichlari (2021–2024-yillar)

Ko‘rsatkichlar	2021-yil	2022-yil	2023-yil	2024-yil
Asosiy kapitalga investitsiyalar (trln so‘m)	239,6	269,9	303,5	352,0
Xorijiy investitsiyalar (mlrd AQSh doll.)	7,4	9,1	7,7	11,9
Shundan FDI (mlrd AQSh doll.)	6,6	8,0	7,2	11,9
FDI ning YaIMdagi ulushi (%)	8,5	9,2	9,6	10,3
Xorijiy investitsiyali korxonalar (dona)	12 308	14 541	16 357	17 595
Yangi yaratilgan ish o‘rinlari (ming)	432	458	471	510

2021–2024-yillar davomida O‘zbekiston iqtisodiyotida investitsion faoliyatning izchil rivojlanish tendensiyasi kuzatilmoqda. Jadval ma‘lumotlaridan ko‘rinib turibdiki, asosiy kapitalga yo‘naltirilgan investitsiyalar hajmi yil sayin barqaror oshib borgan. Xususan, 2021-yilda 239,6 trln so‘mni tashkil etgan investitsiyalar hajmi 2024-yilda 352,0 trln so‘mga yetib, qariyb 1,5 barobarga oshgan. Bu holat investitsion faollikning kuchayganini va iqtisodiy islohotlarning samarali amalga oshirilayotganini ko‘rsatadi. Xorijiy investitsiyalar hajmi tahlili ham ijobiy o‘zgarishlarni namoyon etadi. 2021-yilda 7,4 mlrd AQSh dollari bo‘lgan xorijiy investitsiyalar hajmi 2024-yilda 11,9 mlrd AQSh dollariga yetgan. Ayniqsa, to‘g‘ridan-to‘g‘ri xorijiy investitsiyalar (FDI) hajmining keskin o‘shishi e‘tiborga molik bo‘lib, bu ko‘rsatkich 2024-yilda 11,9 mlrd AQSh dollarini tashkil etgan. Mazkur holat xorijiy investorlar uchun yaratilgan qulay

investitsion muhit, huquqiy kafolatlarning mustahkamlanishi va biznes yuritish sharoitlarining yaxshilanganidan dalolat beradi.

FDI ning yalpi ichki mahsulotdagi ulushi ham barqaror o'sib borgan. Agar 2021-yilda bu ko'rsatkich 8,5 % bo'lgan bo'lsa, 2024-yilga kelib 10,3 % ga yetgan. Bu esa investitsiyalarning mamlakat iqtisodiy o'sishiga ta'siri kuchayib borayotganini ko'rsatadi.

Jadval ma'lumotlariga ko'ra, xorijiy investitsiyali korxonalar soni ham sezilarli darajada oshgan. 2021-yilda 12 308 ta bo'lgan bunday korxonalar soni 2024-yilda 17 595 taga yetgan. Ushbu o'sish xorijiy kapital ishtirokidagi ishlab chiqarish va xizmat ko'rsatish subyektlarining kengayib borayotganini, shuningdek, bandlikni oshirish va texnologik yangilanish jarayonlariga ijobiy ta'sir ko'rsatayotganini anglatadi.

Investitsion faoliyatning ijtimoiy samaradorligi yangi yaratilgan ish o'rinlari sonining ko'payishida ham yaqqol namoyon bo'lmoqda. 2021-yilda 432 mingta yangi ish o'rni yaratilgan bo'lsa, 2024-yilda bu ko'rsatkich 510 mingga yetgan. Bu investitsiyalarning nafaqat iqtisodiy, balki ijtimoiy ahamiyatga ham ega ekanini tasdiqlaydi.

Umuman olganda, jadval ma'lumotlari O'zbekiston iqtisodiyotida investitsion faoliyatni rivojlantirish va boshqarish bo'yicha olib borilayotgan siyosat ijobiy natijalar berayotganini ko'rsatadi. Shu bilan birga, investitsiyalarni hududlar va tarmoqlar kesimida yanada samarali taqsimlash, innovatsion loyihalarni qo'llab-quvvatlash va investitsiya loyihalarini boshqarish tizimini takomillashtirish kelgusidagi ustuvor vazifalar sifatida namoyon bo'lmoqda.

Xulosa qilib aytganda, O'zbekiston Respublikasi investitsion faoliyatni rivojlantirish va boshqarish bo'yicha sezilarli natijalarga erishmoqda. Xorijiy investitsiyalar hajmining o'sishi, sarmoyaviy korxonalar sonining ko'payishi va investitsion muhitning yaxshilanishi investitsiyalar samaradorligini oshirish strategiyasining samaradorligini ko'rsatadi. Shu bilan birga, investitsiyalarni boshqarish tizimini takomillashtirish, innovatsiyalarni qo'llab-quvvatlash va davlat-xususiy sheriklikni kuchaytirish orqali qisqa va uzoq muddatli iqtisodiy maqsadlarga erishish mumkin.

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DEVELOPING SPEED ABILITY IN CHILDREN AGED 5–6 WITH PHYSICAL DISABILITIES THROUGH ADAPTIVE PHYSICAL EDUCATION TECHNOLOGIES

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Abstract

The development of physical qualities in early childhood is a key task of sports science and physical education pedagogy. Speed ability is one of the fundamental motor qualities that determines the efficiency of movement execution, reaction time, and overall physical readiness. Children aged 5–6 with physical disabilities often experience limitations in motor activity, which negatively affects the formation of speed ability and reduces their participation in physical education.

This study aims to scientifically substantiate the effectiveness of adaptive physical education technologies for developing speed ability in preschool children with physical disabilities. The research is based on theoretical analysis, pedagogical modeling, and observation. The findings indicate that systematic application of individualized, safe, and play-based speed-oriented exercises contributes to improved reaction speed, motor coordination, and functional activity. The results may be applied in preschool educational institutions and adaptive physical education programs.

Keywords: adaptive physical education, speed ability, preschool children, physical disabilities, sports science, motor development.

Introduction. In contemporary sports science, the formation of physical qualities during preschool age is considered a crucial stage for long-term physical development and health. The age of 5–6 years is characterized by intensive development of the nervous system, high neuroplasticity, and rapid acquisition of motor skills. During this sensitive period, the development of speed ability occurs most effectively under appropriate pedagogical conditions. Speed ability is defined as the capacity to perform motor actions in minimal time and to respond quickly to external stimuli. From the perspective of sports pedagogy, speed is closely associated with reaction time, movement frequency, and coordination. For children with physical disabilities, insufficient development of speed ability leads to reduced motor independence, low

physical activity, and difficulties in social adaptation. In recent years, inclusive and adaptive physical education has gained increasing attention worldwide. In this context, the development of scientifically grounded adaptive physical education technologies aimed at improving speed ability in children with physical disabilities is a pressing issue. This research is conducted in accordance with state priorities in physical education and sports development, including inclusive approaches promoted by **Shavkat Mirziyoyev**, emphasizing equal opportunities for all children to engage in physical activity.

Literature Review. Scientific research in sports pedagogy indicates that speed ability develops most intensively in early childhood due to the functional maturity of the central nervous system. Motor development theories highlight preschool age as a critical period for forming basic motor qualities such as speed, agility, and coordination.

American researchers emphasize that traditional physical education programs often fail to meet the needs of children with physical disabilities because they do not adequately account for individual functional limitations. As a result, children may experience either excessive physical load or insufficient motor stimulation. Adaptive physical education is defined as a system of physical activities modified according to the functional capabilities of individuals with disabilities. Studies show that adaptive programs are most effective when they include short-duration exercises, high-frequency repetitions, and emotionally engaging tasks.

Speed-oriented exercises are particularly effective when integrated into play-based activities that enhance motivation and reduce psychological barriers. Despite extensive research on adaptive physical education, limited attention has been paid specifically to the development of speed ability in preschool children with physical disabilities. Most studies focus on general motor development or rehabilitation, which highlights the relevance of the present research.



Figure. Adaptive physical education technology for developing speed ability in children aged 5–6 with physical disabilities

The figure presents a three-stage adaptive physical education model (preparatory, main, and consolidation stages) aimed at improving speed ability through individualized and safe motor activities, considering the functional capabilities of preschool children with physical disabilities.

Methodology. The study is based on theoretical analysis, pedagogical modeling, and observation methods commonly used in sports science research. Adaptive physical education technologies were designed considering the age characteristics, functional capabilities, and safety requirements of children aged 5–6 with physical disabilities.

The methodological principles of the study include:

- individualization of physical load;
- gradual progression of exercise intensity;
- emphasis on reaction speed and movement initiation;
- integration of speed-oriented tasks into play-based activities;
- ensuring emotional comfort and motivation.

Adaptive exercises were selected to stimulate rapid motor responses without causing excessive physical strain. Visual and auditory signals were used to improve reaction speed, while short movement tasks were applied to develop movement frequency and coordination.

Adaptive Physical Education Technology for Speed Development The proposed adaptive physical education technology is structured in a последователь and systematic manner, ensuring safe and effective development of speed ability.

Table 1. Structure of Adaptive Physical Education Technology for Speed Development

Stage	Content of Activities	Pedagogical Purpose
Preparatory stage	Simple movements, reaction to visual and auditory signals	Preparation of neuromuscular system
Main stage	Speed-oriented games, short-distance movements	Development of reaction speed and movement frequency
Consolidation stage	Repetitive play-based speed tasks	Stabilization of speed ability

This structure allows for gradual adaptation and consistent improvement of speed ability while considering the functional limitations of children with physical disabilities.

Results and Discussion. Pedagogical observation demonstrated positive dynamics in the development of speed ability among children participating in adaptive physical education programs. Improvements were observed in reaction time, movement initiation, and overall motor responsiveness. Children showed increased motivation and confidence during physical activities, which is an important psychological factor in adaptive sports pedagogy. From a sports science perspective, early stimulation of speed ability through adaptive methods creates a foundation for further physical development and supports inclusive education practices. The findings confirm that speed ability can be effectively developed in children with physical disabilities when exercises are appropriately structured, individualized, and systematically applied.

Conclusion. The study confirms that adaptive physical education technologies play a significant role in developing speed ability in children aged 5–6 with physical disabilities. The use of individualized, safe, and play-based speed-oriented exercises contributes to improved motor performance, reaction speed, and overall physical activity. The proposed technology can be recommended for implementation in preschool educational institutions and adaptive physical education programs.

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ABDULLAXON II HUKMRONLIGI DAVRIDA BUXORO XONLIGI

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Annotatsiya: Mazkur maqolada XVI asrning ikkinchi yarmida Buxoro xonligida hukmronlik qilgan Abdullaxon II davridagi siyosiy, ijtimoiy-iqtisodiy hamda madaniy jarayonlar tahlil qilinadi. Tadqiqotda Abdullaxon II ning markazlashgan davlat barpo etish yo‘lidagi sa’y-harakatlari, ichki siyosatdagi islohotlari va harbiy yurishlari yoritiladi. Shuningdek, uning tashqi siyosati, xususan, qo‘shni davlatlar bilan olib borgan diplomatik va harbiy munosabatlariga alohida e’tibor qaratiladi. Maqolada Abdullaxon II hukmronligi davrida Buxoro xonligining siyosiy barqarorlashuvi hamda iqtisodiy va madaniy taraqqiyotidagi o‘rni tarixiy manbalar asosida ochib beriladi.

Kalit so‘zlar: Abdullaxon II, Buxoro xonligi, Shayboniylar davlati, markazlashgan davlat, XVI asr, ichki siyosat, tashqi siyosat, harbiy yurishlar, diplomatik aloqalar, tarixiy manbalar.

Abdullaxon II (Abdullaxon ibn Iskandarxon), XVI asrning taniqli hukmdorlaridan biri, Buxoro xonligini boshqargan shayboniylar sulolasining vakili edi. U 1533–1540 yillarda hukmronlik qilgan. Tarixiy manbalarga ko‘ra, Abdullaxon II 1533-yilda tug‘ilgan. Abdullaxon II (1533–1598) Shayboniylar sulolasiga mansub edi. Shayboniylar sulolasi Chingizxonning avlodidan bo‘lib, ular Movarounnahr va Xuroson hududlarida XVI asr davomida hukmronlik qilishgan. Abdullaxon II Shayboniylar ichida eng nufuzli va muvaffaqiyatli hukmdorlardan biri hisoblanadi. U o‘z faoliyati davomida Buxoro xonligini kuchli markazlashgan davlatga aylantirdi va ko‘plab madaniy hamda diniy islohotlarni amalga oshirdi. Uning davrida Buxoro xonligi qudrat cho‘qqisiga chiqdi. Shu bilan birga, u Movarounnahrda yagona hukmronlikni o‘rnatib, o‘zining siyosiy qobiliyati bilan mashhur bo‘lgan. Abdullaxon II (1533–1598) bolalik yillari haqida tarixiy manbalarda to‘liq va batafsil ma’lumotlar ko‘p uchramaydi. U Shayboniylar sulolasining taniqli vakili sifatida Iskandarxonning o‘g‘li edi. Abdullaxon yoshligidan siyosat va harbiy ishlar bilan tanishgan, chunki u zamonlarda shohzodalar kichik yoshidan davlat boshqaruvi va jangovar san’atni o‘rganishga jalb qilingan. Uning bolalik yillari Shayboniylar sulolasi ichidagi siyosiy kurashlar va Movarounnahrning murakkab siyosiy holati bilan kechgan. Abdullaxonning tarbiyasida unga atrofidagi olimlar va diniy ulamolar katta ta’sir ko‘rsatgan. Keyinchalik u o‘zining donoligi, strategik fikrlashi va bilimdonligi bilan

o'zini namoyon etgan. Uning yoshligidan boshlab qudratli hukmdor bo'lishiga tayyorlanganligi uning keyingi faoliyatida, ayniqsa, Movarounnahrni birlashtirishda va Buxoro xonligini markazlashgan davlatga aylantirishda namoyon bo'lgan. Agar bolalik yillariga doir ma'lum bir voqeani qidirayotgan bo'lsangiz, aniqlashtirish kiritishingiz mumkin! Abdullaxon II ning ta'lim olishi haqida aniq va batafsil tarixiy ma'lumotlar saqlanib qolmagan. Ammo o'sha davr an'alariga ko'ra, shayboniy shahzodalar yoshliklaridan diniy va dunyoviy ilmlarni o'rganishga katta e'tibor qaratishgan. Movarounnahr, xususan, Buxoro, Samarqand va boshqa yirik shaharlardagi madrasalar o'z davrining bilim maskanlari sifatida xizmat qilgan. Abdullaxonning bolalik va yoshlik yillari Shayboniylar sulolasi ichidagi siyosiy kurashlar bilan kechgan bo'lsa-da, u juda yaxshi ma'lumot olgan. Abdullaxon II saroyiga xizmatga qabul qilingan Qulbobo Ko'kaldoshning tavsiyasi bilan Hofiz Tanish Buxoriy va xonning shaxsiy voqeanavisi (tarixchisi) qilib tayinlangan (1570-yildan). U umrining oxirigacha shu lavozimda xizmat qilgan. Hofiz Tanish Buxoriy o'z davrining yetuk shoiri bo'lib, u „Mavlono Naxliy“ taxallusi bilan she'rlar yozgan. 1560-yilda u Iskandarxon taxtga o'tirganida unga qasida bag'ishlagan. Uning she'rlari ko'plab tazkiralarda va bayozlarda uchraydi. Hofiz Tanish Buxoriy ibn Mir Muhammad Buxoriy, Mavlono Naxliy (taxminan 1540 — Buxoro — 1589) — tarixchi olim va shoir. O'zbekiston Respublikasi Prezidenti Shavkat Mirziyoyev ta'kidlaganidek, „Milliy tiklanishdan – milliy yuksalish sari“ degan da'vatkor g'oya hayotimizga tobora chuqur kirib bormoqda. Biz ayni shu asosda xalqimiz hayotini tubdan yaxshilash, inson huquq va erkinliklari, qonun ustuvorligi va ijtimoiy adolatni ta'minlash, innovatsion taraqqiyot borasida muhim qadamlarni qo'yamoqdamiz” . Innovatsion taraqqiyot borasida muhim qadamlarni qo'yayotgan yangi O'zbekistonning har bir fuqarosi ona yurtimizning xolisona va mafkuraviy qarashlardan xoli tarixini innovatsion yondashuvlar asosida yaratilgan ilmiy tadqiqot ishlaridan o'rgansalar hamda tarix ta'limida ham ana shunday tadqiqotlar natijalaridan unumli foydalansalar ezgu niyatlarimiz va buyuk maqsadlarimiz ro'yobi – “Uchinchi Renessans”ning mustahkam poydevorini bunyod etishga munosib hissa qo'shgan Sh.M.Mirziyoyev Mustaqillik-ezgu niyatlarimiz, buyuk maqsadlarimiz ro'yobi yo'lida qudrat manbai hisoblanadi Yuqorida keltirib o'tilgan fikrlar ilmiy ish mavzusining g'oyat dolzarbligidan dalolat beradi. Hofiz Tanish Buxoriy o'zining shoh kitobi — „Abdullanoma“ („Sharafnomai shohiy“) asari bilan tanilgan. Asar shayboniylardan Abdullaxon II ga bag'ishlangan bo'lib, 1584—88 yillarda Buxoroda fors tilida yozilgan. Muallifning rejasiga ko'ra, asar muqaddima, 2 qism (maqola) va xotimadan iborat bo'lishi mo'ljallangan. Buxoro xonligi tarixshunosligi bo'yicha

Hofiz Tanish Buxoriyning Abdullanoma, Mir Muhammad Amini Buhari, Ubaydullaname, Abduraxmon Tole, История Абулфейзхана, Mirza Abdal Azim Sami, Tarix salatini mangitiyai Buhara, O'zbekistonning yangi tarixi. 1 kitob, Turkiston chor Rossiyasi mustamlakachiligi davrida, O'zbekiston tarixi: davlat va jamiyat taraqqiyoti, 1 qism kitoblari va mustaqillik davrida olib borilgan ilmiy tadqiqot asarlari hisoblanadi. : Kurs ishining maqsadi Abdullaxon II (to'liq ismi: Abdulla ibn Iskandarxon ibn Jonibek sulton ibn Xoja Muhammad ibn Abulxayrxon) (1534; Miyonkol, Ofarinkent — 1598.8.2, Samarqand, Buxoro yaqinidagi Bahouddin majmuasiga dafn etilgan) — o'zbek davlatchiligi tizimidagi Buxoro xonligining shayboniylar sulolasidan chiqqan eng yirik hukmdori (1583—1598), davlat arbobi, sarkarda, ilm-fan, ma'rifat, madaniyat homiysi, uning siyosiy faoliyati va ilmiy faoliyatini yoritib berishdan iborat. Abdullaxon II. ning kelib chiqishi, Shayboniylar bilan qarindoshlik an'analari va Movarounnahr o'zbeklari bilan aloqalari, o'limi Abdullaxon II ning oilasi: onasi, xotinlari va farzandlar Abdullaxon II davrida shaharsozlik, ilm-fan va adabiyotga katta etibor berganligi Abdullaxon II - davlat arbobi, sarkarda, ilm-fan, ma'rifat, madaniyat homiysi Abdullaxon II (to'liq ismi: Abdulla ibn Iskandarxon ibn Jonibek sulton ibn Xoja Muhammad ibn Abulxayrxon) (1534; Miyonkol, Ofarinkent qishlog'i — 1598.8.2, Samarqand, Buxoro yaqinidagi Bahouddin majmuasiga dafn etilgan) — o'zbek davlatchiligi tizimidagi Buxoro xonligining Shayboniylar sulolasidan chiqqan eng yirik hukmdori (1583—98), davlat arbobi, sarkarda, ilm-fan, ma'rifat, madaniyat homiysi. Bobosi Jonibek sulton (vafoti 1528/29) Karmana va Miyonkol hokimi (1512/13 yildan bo'lgan. Otasi Iskandar sulton o'g'li tug'ilgan paytda Ofarinkentni, keyichalik, aftidan aka-ukalaridan biri vafot etgach, Karmanani boshqargan. Abdullaxon II Shayboniynon vafotidan keyin parchalanib ketgan mamlakat hududini qayta birlashtirish, markaziy davlat hokimiyatini mustahkamlash uchun yoshlik chog'idan qattiq kurash olib borgan. Toshkent hokimi Navro'z Ahmadxon! (Baroqxon) bilan Koson yonida (1548),! Mo'g'uliston xoni Abdurrashidxon va shayboniylardan Do'stum sultonlar qo'shiniga qarshi Forob yonida (1554)1 jang qilgan. Yosh Abdulla sulton o'zining hukmdor sifatidagi butun g'ayrat-shijoatini 1551 yil Karmanada namoyish etgan; viloyatga Toshkentdan! Navro'z Ahmadxon va Samarqanddan Abdullatifxon hujum qilganlar, Iskandar sulton Amudaryo ortiga qochgan. Abdulla sulton otasi vazifasini o'z zimmasiga olib bu hujumni muvaffaqiyatli qaytargan. Keyingi yillarda] (1552—56) o'z mulkini g'arbga — Buxoro tomonga va janubiy.-sharq — Qarshi va Shahrisabz tomonga kengaytirishga intilgan. Bu sa'y-harakat dastlab muvaffaqiyatsiz chiqqan, hatto 1556 yil u ota meros mulkini tashlab Maymanaga qochishga majbur bo'lgan. U

amakisi, Balx hokimi Pirmuhammaddan harbiy yordam olib va piri Jo'ybor xojalaridan Xoja Muhammad Islom ko'magida Navro'z Ahmadxon, keyinchalik uning o'g'illari Darveshxon va Bobo sultonlarga qarshi uzoq muddat kurash olib borgan. Navro'z Ahmadxon vafot etgach (1556), darhol Karmana va Shahrisabzda o'z hukmronligini tiklaydi, 1557 yil mayda Buxoroni qo'lga kiritadi va uni o'z poytaxtiga aylantiradi. 1561 yil otasini davlat boshlig'i—xon deb e'lon qilib, uning nomidan mamlakatni o'zi boshqara boshlaydi. Markaziy xokimiyatga bo'ysunishdan bosh tortgan shayboniy sultonlar bilan kurashib Balx (1574), Samarqand (1578), Toshkent, Sayram, Turkiston (1583) va Farg'ona (1583) ni egallaydi. 1582 yil Dashtga yurish qilib Ulug'tog'ta qadar borgan. 1583 yil otasi Iskandarxon vafot etgach, mamlakatni o'z nomidan boshqara boshlaydi. Markaziy hokimiyatga qarshi ko'tarilgan Maymana va Garchiston (1583), shuningdek Badaxshon (1585) dagi g'alayon, tartibsizliklarni bostirgan. Xorazmga ikki marta yurish (1594 va 1596) qilib, u yerda markaziy hokimiyat hukmronligi qayta tiklagan. Abdullaxon II mamlakat hududi yaxlitligini tiklash yo'lida qo'shni xorijiy davlatlar bilan ham kurash olib borgan. Masalan, Turkiya Movarounnahrda o'z ta'sirini kuchaytirish niyatida Abdullaxon II ga qarshi kurashda Bobo sultonga yordam bergan. Bobo sulton turk askarlari yordamida Nasaf yonida Abdullaxon II ga qarshi jang qilgan. Abdullaxon II safaviylar bilan Xuroson, Gilon uchun kurashib ularni o'z tasarrufiga kiritgan. Sharqiy Turkistonga qilingan yurishda Qashqar va Yorkend viloyatlarini olgan. Boburiylar ham Badaxshon, Shim. Afg'oniston va Xuroson uchun Abdullaxon II ga qarshi kurashganlar. Abdullaxon II bunga qarshi Sind (1583), Kashmir (1586)ni egallab, davlatning janubiy chegaralarini mustahkamlagan. Abdullaxon II davrida mamlakat hududi Qashqardan Orol va Kaspiy dengizlari sohillarigacha, Turkiston va Sayramdan Xurosonning sharqiy qismigacha bo'lgan yerlardan iborat edi. Abdullaxon II hayotining so'nggi yillarida o'g'li Abdulmo'min (q. Abdulmo'minxon) bilan chiqishmay qolgan. Abdulmo'min 1582 yil kuzidan Balxni otasi nomidan boshqarayotgan edi. Iskandarxon davrida Abdullaxon II haqiqiy, amaldagi hukmdor bo'lgani kabi, Abdulmo'min ham keksaygan otasiga nisbatan shunday mavqeni egallamoqchi bo'lgan. Faqat ulamolarning aralashuvi tufayligina ota-bola o'rtasida ochiq urush harakatlari boshlanmagan va Abdulmo'min otasiga bo'yin egishga majbur bo'lgan. Ular o'rtasidagi munosabatlar keskinlashganidan xabar topgan qozoq xonlaridan Tavakkalxon Toshkent viloyati va Toshkent—Samarqand oralig'idagi yerlarga bostirib kirib, unga qarshi yuborilgan qo'shinni yenggan. Unga qarshi safarga otlangan Abdullaxon II Samarqandga yetganda vafot etgan. Tashqi siyosati. Abdullaxon II faol tashqi siyosat olib borgan. Bu davrda shayboniylar Eron, Hindiston, Turkiya, Xitoy, Rossiya va b. mamlakatlar bilan keng diplomatik, iqtisodiy,

savdo aloqalari olib borganlar. Masalan, Abdullaxon II elchilari 1583 yil Moskvadan o`q dori, ov qushlari, mato olib kelganlar. Bunday elchilik 1589, 1595 yil larda ham qaytarilgan. Abdullaxon II ning mamlakat ichki siyosatidagi, davlat boshqaruv tizimini mustahkamlash, ayniqsa pul islohoti o`tkazish yo`lidagi faoliyati natijalari keyingi davrlarda ham saqlanib qolgan. U ko`plab turli inshootlar qurdirgan. Hozirgacha xalq orasida u yoki bu inshoot qurilishi Amir Temur yoki Abdullaxon II ga nisbat beriladi. Abdullaxon II davrida madaniy hayot Abdullaxon II davrida Buxoro yaqinidagi Sumiton (Jo`ybor) mavzesida Jo`ybor xojalaridan Abu Bakr Sa`d (970/971 yil vafot etgan) mozori atrofiga Madrasa, masjid, xonaqoh va chorbog` (1558—66), Buxoroda Madrasa (q. Abdullaxon madrasasi), hammom, Govkashon, Fatxulla qushbegi, Mirakan, Xoja Muhammad Porso, yangi Chorsu (1569—70), tim (q. Abdullaxon timi), Karmana yaqinida Zarafshon daryosi ustiga ko`prik (1582) va b. qurildi. Bunday inshootlar va karvonsaroylar Samarqand, Toshkent, Balx va b. shaharlarda ham qurilgan (masalan, Abdullaxon II ning nufuzli amiri Qulbobo Ko`kaldosh sharafiga Toshkentda qurilgan Ko`kaldosh madrasasi va b.). Karvon yo`llarida sardobalar, rabotlar, kanallar, suv omborlari (q. Abdullaxon bandi), ko`priklar (masalan. Surxondaryoda xalq orasida Iskandar ko`prigi nomi bilan mashhur bo`lgan G`ishtko`prik va b.), chorbog`lar bunyod etilgan. Abdullaxon II davrida shaharsozlik, ilm-fan va adabiyot Abdullaxon II davrida mamlakatda shaharsozlik, adabiyot, ilm-fan taraqqiy etgan. Buxoro madaniyat, ilm-fan markaziga aylangan Hofiz Tanish Buxoriyint Abdullanoma («Sharafnomayi shohiy») (1584—89), Amin Ahmad Roziyning «Haft iqlim» (1583), Mutribiyning dunyo xaritasi ilova qilingan «Tazkiroti shuaro» (taxminan. 1593—95) va b. ilmiy asarlar yaratildi. Buxoroda mashhur Abdullaxon kutubxonasi tashkil qilingan. Unda mashhur xattotlar Mir Ali Hiraviy, Ahmad Husayniylar va b. kitob ko`chirish bilan mashg`ul bo`lishgan. Hasanxoja Nisoriyning «Muzakkiri ahbob» asari Abdullaxon II ga bag`ishlangan. Bu davrda shoir, adib va ilohiyotchi olimlardan Mushfiqiy, Nizom Muammoiy, Muhammad Darvish oxund, qozi Poyonda Zominiy, mulla Amir, Muhammad Alti Zohid, tabiblardan mavlono Abdulhakim va b. yashab ijod etgan. Abdullaxon II ning o`zi ham iste`dodli shoir bo`lib, «Xon» taxallusi bilan o`zbek va fors tillarida she`rlar yozgan. Mamlakatda (Buxoro, Samarqand, Toshkent, Balx va b.da) hunarmandchilik, savdo-sotiq rivojlangan. Hunarmandlar turli ipak matolar, uy-ro`zg`or, zargarlik buyumlari, qurol-yarog`lar va b. tayyorlardilar. Movarounnahr ustalari tayyorlagan buyumlar ichki va tashqi bozorda juda xaridorgir bo`lgan. Harbiy san`at taraqqiy etgan. Qo`shin tarkibini nayza, qilich, manjanik, naftandoz va shotular bilan qurollangan otliq va piyoda qismlar tashkil qilgan. 16-asr ikkinchi yarmidan qo`shin Turkiya va Rossiyadan

keltirilgan piltalarga va zambaraklar bilan qurollana boshlagan (yana q. Buxoro xonligi) Buxoro xonligi (amirligi) — o'zbek davlatchiligi tizimidagi xonliklardan biri (16—20-asr boshlari). 1533 yilgacha mamlakat markazi Samarqand bo'lgan. Ubaydullaxon davrida (1533—39) poytaxt Buxoroga ko'chirilgan va xonlik Buxoro xonligi nomini olgan. 1510 yil Marv yonida Shayboniyxon shoh Ismoil I Safaviy qo'shinlaridan yengilib halok bo'lgandan keyin Movarounnaxr temuriylardan Zahiriddin Muhammad Bobur qo'lga o'tadi. Lekin, ko'p o'tmay shayboniylar yana Movarounnaxrni egallaganlar. Shu vaqtdan boshlab Movarounnaxr butunlay shayboniylarga tobe bo'lgan. O'sha vaqtlarda xonlikka hozirgi O'zbekiston va Tojikistonning katta qismi, Balx va Badaxshon kirgan. Ubaydullaxon vafotidan keyin Buxoro xonligi mayda bo'laklarga Buxoroda Ubaydullaxonning o'g'li Abdulazizxon, Samarqandda esa Ko'chukxonning o'g'li Abdullatifxon mustaqillik e'lon qilgan. Balx va Badaxshonda shayboniylardan Pirmuhammadxon mustaqil hukmronlik qilgan. Shu yillari shayboniy sultonlari va mahalliy mulqdorlarning hokimiyat uchun kurashi kuchaygan. Toshkent va Turkistonda Navro'z Ahmadxon (Baroqxon), Karmana va Miyonqolda Iskandarxon, Balxda Pirmuhammadxon va boshqa kichikkichik hukmdorlar mustaqil bo'lib olganlar. 1551—56 yillarda shayboniylar o'rtasidagi Movarounnaxr uchun kurashda Iskandarxonning o'g'li Abdullaxon g'olib chiqib, Buxoro xonligi da o'z hokimiyatini o'rnatgan. 1557 yildan boshlab Buxoro uzilkesil xonlik poytaxtiga aylangan. Iskandarxon (1563—83) va uning o'g'li Abdullaxon II davrida Buxoro xonligi ning siyosiy mavqei ortgan. Abdullaxon II Balx (1573), Samarqand (1578), Toshkent (1582), Farg'ona (1583), Badaxshon (1584), Ko'lob (1585), Xuroson (1588), Xorazm (1595—96) ustidan o'z hukmronligini o'rnatgan; markaziy davlat boshqaruv devonini mustahkamlagan. Shunday qilib 16-asr oxiriga kelib Buxoro xonligi markazlashgan ulkan davlatga aylangan. Sharqda Qashqar bilan chegaradosh bo'lgan, g'arbiy chekkasi Orol va Kaspiy dengizi sohillarigacha borib tutashgan. Xonlikning shim.dagi chegaralari Turkiston va Sayramgacha yetib, jan.da Xurosonning sharqiy qismini o'z ichiga olgan. Shayboniylar hukmronligi yillarida, ayniqsa Abdullaxon II zamonida Buxoro xonligi da dehqonchilik, hunarmandchilik, savdo-sotiq rivojlangan, madaniy hayot ancha yuksalgan. Juda kup sug'orish inshootlari: Abdullaxon bandi, Tuyatortar kanali, Oqchopsoy to'g'oni va suv ombori, Vaxshdan chiqarilgan ko'plab ariqdarning qurilishi dehqonchilikni rivojlantirdi. Bu vaqtlarda Buxoro xonligi da bug'doyning 10 xil turi, suli, qo'noq, jo'xori, mosh, no'xat, makkajo'xori, loviya, sholi, paxta, kunjut, beda, arpa, sabzavot va poliz ekinlari ekilgan, bog'dorchilik, chorvachilik va ipakchilik rivojlangan. Samarqand, Buxoro, Marg'ilon, Xo'jand, Andijon, Toshkent, Jizzax, O'ratepa, Shaxrisabz va boshqa yirik

shaharlarda hunarmandchilik taraqqiy qilgan. Samarqand qozi kalonining hujjatlaridan ma'lum bo'lishicha, 16-asrda Samarqandda hunarning 61 turi mavjud bo'lgan. Movarounnaholik kosiblar zo'r san'at bilan turlituman metall buyumlar, a bo'linib ketgan. ip va ipak matolar, a'lo navli qog'ozlar ishlab chiqarganlar. Buxoro shahri bir muncha kengaytirilgan, devor va harbiy istehkomlar qaytadan qurilgan. Shaharda madrasalar, xonaqoh va karvonsaroilar, yangi rastalar barpo qilingan. Shaharlar o'rtasidagi savdo yo'llarida tim (Abdullaxon timi), ko'chalar chorrahasi ustiga gumbaztoqlar, hammomlar, karvon yo'llarida sardobalar, karvonsaroilar, ko'priklar qurilgan. Shayboniylar zamonida Buxoro xonligi ning Hindiston, Turkiya, Rossiya bilan savdo va diplomatik munosabatlari rivojlangan. Tarixiy manbalardan ma'lum bo'lishicha, 1572—78 yillari Hindistonda Buxoro xonining elchilari, Buxoroda esa Hindiston podshohi Akbarntt elchilari bo'lgan. Abdullaxon davrida boshlangan ichki siyosiy nizolar natijasida 1598 yilda Abdullaxonning o'zi va shu yilda uning o'g'li Abdulmo'min o'ldirilgan. Taxtga Pirmuhammadxon II chiqqan. Ammo uning hukmronligi ham uzoqqa bormay, 1601 yil taxtdan ag'darilgan. Shu bilan qariyb 100 yil hukm surgan shayboniylar sulolasi barham topib, Movarounnaxrda Jo'jixon naslidan bo'lgan ashtarxonjlar (joniylar) sulolasi hukmronligi boshlangan. Ashtarxoniylar davrida xonlikda siyosiy nizo va beboshliklar deyarli to'xtamagan. Dastlab asli ashtarxonlik, Buxoroda qo'nim topgan shahzoda Jonibekning o'g'li Boqi Muhammad (1601—05), so'ngra uning ukasi Vali Muhammad (1605—11) taxtga o'tqazilgan. Imomqulixon davrida (1611—42) qozoq biylari va boshqa ko'chmanchilarning Buxoro xonligi yer lari ga talonchilik yurishlari kuchaygan. Chunonchi Imomqulixon 1612 yil Toshkentni egallab, o'g'li Iskandarni hokim etib tayinlaydi, ammo shaharda qo'zg'olon ko'tarilib Iskandar o'ddiriladi. Imomqulixon Toshkent aholisini shafqatsiz qirg'in qilib shaharni yana xonlikka qo'shib oladi. Uning davrida xonlik ancha mustahkamlanadi. Imomqulixon ko'r bo'lib qolgach, taxtni egallagan ukasi Nadr Muhammadxon (1642—45) ham shafqatsizligi va zolimligi bilan norozilik chiqaradi. Natijada muxolif kuchlar tazyiqi bilan taxtdan voz kechadi. Hokimiyat uning o'g'li Abdulaziz II (1645—81) qo'liga o'tadi. U markaziy hokimiyatni mustahkamlashga harakat qiladi, lekin tobora kuchayib borayotgan tarqqlikni bartaraf qilolmaydi. Bu vaqtda Eron shohi Abbos /Balxni egallaydi, keyinroq Balx Erondan qaytarib olingan. Abdulaziz II bilan uning ukasi Subhonqulixon o'rtasida hokimiyat uchun kurash boshlanadi. Ashtarxoniylar hukmronligi yillarida Xiva xoni Abulg'oziy Bahodirxon va undan keyin o'g'li Anushaxon Buxoro va Samarqand atrofiga tez-tez hujum qilib turgan. Taxtni egallab olgan Subhonqulixon (1681 — 1702) o'z raqiblariga qarshi shafqatsiz kurashgan. U

Balx va Xurosonga harbiy yurishlar qilgan. Uning o'g'li Ubaydullaxon (1702—11) hukmronligi davrida Balx, Termiz, Shahrisabz hokimlari mustaqil bo'lib olishga harakat qilganlar. Xon ularga qarshi harbiy yurishlar qilishga majbur bo'lgan. Samarqand va Hisorda bosh ko'targan qabilalarga qarshi qo'shin yuborgan. O'zaro beto'xtov urushlar, harbiy yurishlardan keyin xazina bo'shab, iqtisodiy ahvol mushkullashgan. 1708—09 yillarda o'tkazilgan pul islohoti natijasida pul qiymati to'rt marta tushib ketgan. Islohotdan zarar ko'rgan aholi g'alayon ko'targan, biroq qo'zg'olon shafqatsizlarcha bostirilgan. Xonlikda siyosiy va iqtisodiy ahvolning yomonlashishi ichki ziddiyatlarni kuchaytirib yuboradi. Ayrim nufuzli amirlar uyushtirgan fitna natijasida Ubaydullaxon 1711 yil da o'ldiriladi. Taxtga marhum xonning ukasi Abulfayzxon (1711—47) nomigagina xon qilib o'tqaziladi. Hokimiyatdagi muhim lavozimlar nufuzli amirlar qo'liga o'tib qoladi. Markaziy hokimiyat zaiflashgach, 1711 yilda Balx, 1723 yilda Samarqand viloyati Buxoro xonligi dan ajralib chiqadi. 1720 yillarda Toshkent viloyatini qalmoqlar bosib oladi. Shu asnoda Xiva xoni Sherg'ozixon ham Buxoro xonligi ga da'vogar bo'ladi, ammo uning harakatlari samarasiz yakunlanadi. 1723 yilda qalmoqlar qozoq dashtlariga bostirib kirib qozoqlarni Movarounnahrqa qochishga majbur qilgan. Qozoqlar chorva mollari bilan Zarafshon vodiysiga kirib bog' va ekinzorlarni payhon qilganlar. Buxoro xonligi da iqtisodiy va siyosiy tanglik kuchaya borib xonlik tanazzulga yuz tutgan. Movarounnahr parchalanib, uchta xonlikka (Buxoro, Qo'qon va Xiva) bo'linib ketgan. Bundan foydalangan Eron hukmdori Nodirshox 1740 yil bahorida Balxni egalladi va o'sha yili kuzda katta qo'shin bilan Amudaryodan o'tib Buxoro xonligi ni bo'ysundiradi. U mang'it qabilasidan bo'lgan Muhammad Hakim otaliqni ishonchli vakili sifatida taxtga o'tqazadi.

Xulosa

Abdullaxon II hukmronligi davri Buxoro xonligi tarixida siyosiy barqarorlik va markazlashuv jarayonlarining kuchayishi bilan ajralib turadi. Uning faoliyati natijasida davlat boshqaruvi tizimi mustahkamlanib, ichki nizolar bartaraf etildi hamda markaziy hokimiyat nufuzi oshdi. Abdullaxon II olib borgan harbiy yurishlar Buxoro xonligi hududiy yaxlitligini ta'minlashga xizmat qilgan bo'lsa, tashqi siyosatda qo'shni davlatlar bilan olib borilgan munosabatlar xonlikning mintaqadagi siyosiy mavqeini mustahkamladi.

Shuningdek, ushbu davrda savdo-sotiq, hunarmandchilik va madaniy hayot rivojlanib, shaharlar iqtisodiy va ma'naviy markazlarga aylandi. Ilm-fan va me'morchilik sohalaridagi yutuqlar Abdullaxon II hukmronligining muhim jihatlaridan biri bo'lib, Buxoro xonligining tarixiy taraqqiyotida muhim o'rin egalladi. Umuman olganda,

Abdullaxon II faoliyati Buxoro xonligini kuchli va nufuzli davlat sifatida shakllantirishda hal qiluvchi ahamiyat kasb etdi.

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“O‘ZBEKISTONNING ENG YANGI TARIXI” FANINI O‘QITISH DOLZARBLIGI

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Annotatsiya. Maqolada “O‘zbekistonning eng yangi tarixi” fanining oliy ta’lim tizimidagi o‘rni, mazmuni va metodik asoslari tahlil qilinadi. Muallif tomonidan ishlab chiqilgan zamonaviy, innovatsion metodika asosida o‘tkazilgan tajriba-sinov ishlarining natijalari bayon etilgan. Tadqiqotda talabalar tarixiy tafakkurini rivojlantirish, fuqarolik pozitsiyasi va milliy identitetni shakllantirish, tanqidiy va analitik fikrlash ko‘nikmalarini mustahkamlashga xizmat qiluvchi pedagogik yondashuvlar asoslab beriladi. Statistik va sifatli tahlillar orqali metodikaning samaradorligi ilmiy jihatdan asoslanadi hamda uni boshqa ijtimoiy-gumanitar fanlarga tatbiq etish istiqbollari ko‘rsatib o‘tiladi.

Kalit so‘zlar: O‘zbekistonning eng yangi tarixi, tarixiy tafakkur, fuqarolik pozitsiyasi, milliy identitet, metodika, innovatsion yondashuv, pedagogik tajriba, kompetensiya, tanqidiy fikrlash, mafkuraviy immunitet.

Аннотация: В статье рассматривается роль, содержание и методологические основы преподавания учебной дисциплины «Новейшая история Узбекистана» в системе высшего образования. Представлены результаты экспериментального исследования, проведённого на основе авторской инновационной методики. Обоснованы педагогические подходы, способствующие развитию у студентов исторического мышления, гражданской позиции, национальной идентичности, критического и аналитического мышления. Эффективность методики подтверждается статистическим и качественным анализом, а также обозначаются перспективы её применения в преподавании других социально-гуманитарных дисциплин.

Ключевые слова: Новейшая история Узбекистана, историческое мышление, гражданская позиция, национальная идентичность, методика, инновационный подход, педагогический эксперимент, компетенция, критическое мышление, идеологический иммунитет.

Annotation: The article explores the role, content, and methodological foundations of teaching the subject “Contemporary History of Uzbekistan” in the higher education system. It presents the results of an experimental study conducted based on an

innovative author-developed methodology. The paper substantiates pedagogical approaches that contribute to the development of students' historical thinking, civic stance, national identity, as well as critical and analytical thinking skills. The effectiveness of the methodology is supported by statistical and qualitative analysis, and the prospects for its application to other social and humanitarian disciplines are outlined.

Keywords: Contemporary History of Uzbekistan, historical thinking, civic stance, national identity, methodology, innovative approach, pedagogical experiment, competence, critical thinking, ideological immunity.

KIRISH

Globalashuv jarayonlari kuchayib borayotgan hozirgi sharoitda jamiyatning ijtimoiy-siyosiy ongiga turli tashqi g'oyaviy ta'sirlar tobora oshib bormoqda. Aynan shunday murakkab davrda yoshlarda tarixiy tafakkur, fuqarolik pozitsiyasi va milliy o'zlikni shakllantirish dolzarb vazifaga aylanmoqda. Bu borada "O'zbekistonning eng yangi tarixi" fanining oliy ta'lim tizimidagi o'rni alohida ahamiyat kasb etadi. Fan mustaqillik davridan to hozirgi kungacha bo'lgan tarixiy jarayonlarni qamrab olgan bo'lib, talabalar ongida tarixiy haqiqatga tayanilgan real tasavvurlarni shakllantirib boradi. "O'zbekistonning eng yangi tarixi" fanining mazmuni siyosiy va iqtisodiy o'zgarishlarni qamrab oladi, jamiyatning modernizatsiyasi, milliy uyg'onish, inson huquqlari va demokratik qadriyatlarning rivojlanishi kabi fundamental jarayonlarni ham aks ettiradi. Mazkur fan orqali talabalar o'z mustaqil davlatchiligimiz shakllanishining bosqichma-bosqich rivojini, tashqi siyosatdagi muvaffaqiyatlarimizni, milliy manfaatlar asosida olib borilayotgan ichki islohotlarning mohiyatini chuqur anglab yetadilar.

Xozirgi kunda mazkur fan doirasidagi ta'lim mazmuni ba'zi hollarda faktlar bayoniga asoslanib qolmoqda, u talabalarni chuqur tahlil qilishga va tanqidiy fikrlashga yetaklamayotgani kuzatiladi. Talabalarda tarixiy jarayonlarning sabab-oqibat bog'liqligini anglash, mustaqil fikr bildirish va tarixiy xulosalar chiqarish malakalarini shakllantirish uchun zamonaviy, innovatsion pedagogik yondashuvlar asosidagi metodikalarni joriy etish zarurati tug'ilmoqda. Demak, fanni o'qitish metodikasini ilmiy asosda qayta ko'rib chiqish va zamonaviy texnologiyalar bilan boyitishni taqozo etadi.

Yana bir muhim jihat shundaki, "O'zbekistonning eng yangi tarixi" fani orqali yoshlarga mafkuraviy immunitet singdirish, ularni tarixiy haqiqat asosida tarbiyalash imkoniyati mavjud. Xorijdan kirib kelayotgan g'arazli axborotlar, tarixni buzib

ko'rsatishga qaratilgan urinishlarga qarshi faqatgina mustahkam tarixiy bilimlar va tanqidiy tafakkur vositasida kurashish mumkin. Shu ma'noda, mazkur fan yosh avlodni mafkuraviy tahdidlardan himoyalashning samarali vositasiga aylanadi. Shu sababli, "O'zbekistonning eng yangi tarixi" fanining ta'limdagi o'rni nafaqat akademik bilim berish bilan chegaralanmasligi, balki yuksak fuqarolik ongini shakllantirish, tarixiy xotira va milliy g'ururni mustahkamlash vositasi sifatida qaralishi lozim. Mazkur maqolaning maqsadi — fan mazmunining zamonaviy dolzarbligini ilmiy asoslash, uni o'qitish jarayonida qo'llanilayotgan metodik yondashuvlarni tahlil qilish va yangi, samarali usullarni ishlab chiqishga qaratilgan ilmiy-amaliy asoslarni belgilab berishdan iborat.

METODOLOGIYA

Tadqiqotning metodologik asoslari zamonaviy pedagogikaning fundamental tamoyillariga tayangan bo'lib, ular orasida kompetentlik yondashuvi, shaxsga yo'naltirilgan ta'lim konsepsiyasi va faoliyatga asoslangan didaktik yondashuv muhim o'rin egallaydi. Aynan shu yondashuvlar "O'zbekistonning eng yangi tarixi" fanini o'qitishda talabaning shaxsiy tarixiy tafakkurini shakllantirish, mustaqil tahlil qilish qobiliyatini rivojlantirish, fuqarolik pozitsiyasi va milliy o'zlikni mustahkamlash imkonini beradi. Kompetentlik yondashuvi orqali talaba nafaqat tarixiy faktlarni bilib oladi, balki ularni tahlil qilish, baholash, zamonaviy voqelik bilan bog'lash, tanqidiy fikrlash kabi ko'nikmalarga ham ega bo'ladi.

Tadqiqot eksperimental tarzda amalga oshirildi va u Urganch davlat pedagogika instituti 3-bosqich talabalari orasida olib borildi. Ishtirokchilar ikki guruhga bo'lindi: nazorat guruhi (NG), ya'ni an'anaviy metodlar asosida dars olgan talabalar; va tajriba guruhi (TG), ya'ni yangi, mualliflik metodikasi asosida o'qitilgan talabalar. Tajriba guruhda o'qitish jarayoniga yangi modul asosidagi metodika joriy etildi. Metodika tarixiy tafakkurni rivojlantirish, tarixiy haqiqatni tahliliy idrok qilish, saboq chiqarish, shuningdek, mustaqillik davridagi tarixiy jarayonlarni zamonaviy kontekstda anglashda foydalanish mumkin.

Tajriba metodika modul shaklida ishlab chiqilgan bo'lib, u nazariy, amaliy va reflektiv bloklardan iborat edi. Nazariy blok mustaqillikdan keyingi siyosiy va ijtimoiy islohotlarni, Prezident farmon va qarorlarini, konstitutsiyaviy o'zgarishlarni qamrab oldi. Amaliy blokda talabalar bilan tarixiy hujjatlar, statistik ma'lumotlar, vizual xaritalar va arxiv materiallari asosida ishlash mashg'ulotlari o'tkazildi. Reflektiv blok esse yozish, tarixiy bahs-munozaralarda ishtirok etish, virtual taqdimotlar va tarixiy infografikalar tayyorlash orqali talabalarning fikrni ifodalash va baholash ko'nikmalarini rivojlantirishni bajardi.

Tajribada talabalar bilimni baholash uchun uchta asosiy komponent bo'yicha kompleks tahlil tizimi ishlab chiqildi. Birinchidan, kognitiv komponent (KK) – talabalar tomonidan tarixiy faktlar, hodisalar, davrlar va ularning sabab-oqibat bog'liqligini anglash darajasi o'rganildi. Ikkinchidan, operatsional komponent (OK) – tarixiy hujjatlar asosida mustaqil tahlil qilish, voqealarni vaqt va makon kontekstida talqin qilish, mantiqiy xulosalar chiqarish qobiliyati baholandi. Uchinchidan, motivatsion-aks ettiruvchi komponent (MK) – tarixga bo'lgan qiziqish, Vatanga daxldorlik hissi, milliy g'urur, tarixiy xotirani saqlashga intilish kabi ichki holatlar o'rganildi.

Har bir komponent bo'yicha o'rtacha ball quyidagi matematik formula asosida hisoblandi:

$$\bar{X} = \frac{1}{n} \sum_{i=1}^n X_i$$

bu yerda:

$\bar{X}$ – komponent bo'yicha o'rtacha ball,

X_i – har bir talabaga to'g'ri keluvchi ball,

n – baholangan talabalar soni.

Bu formula yordamida har bir komponent bo'yicha guruh ichida o'rtacha natijalar aniqlandi va keyinchalik guruhlararo taqqoslash uchun asos bo'lib xizmat qildi.

Nazorat va tajriba guruhlar o'rtasidagi farqni aniqlash uchun St'yudent t-kriteriyasi qo'llanildi, quyidagi formula asosida:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

bu yerda:

$\bar{X}_1, \bar{X}_2$ – TG va NG uchun o'rtacha qiymatlar,

s_1^2, s_2^2 – dispersiyalar,

n_1, n_2 – har bir guruhdagi talabalar soni.

Statistik tahlil $p < 0.05$ darajasida sezilarli farqni ko'rsatgan hollarda metodika samarali deb baholandi.

Tadqiqot natijalariga ko'ra, nazorat guruh talabalari nazorat guruhiga nisbatan barcha komponentlar bo'yicha yuqori ko'rsatkichlarga ega bo'lishdi. Kognitiv komponent bo'yicha EGda o'rtacha ball 4.41 ni tashkil etgan bo'lsa, NGda bu ko'rsatkich 3.67 atrofida bo'ldi. T-kriteriy bo'yicha hisoblangan $t = 2.89$ ($p < 0.01$) qiymati farqning

statistik ahamiyatini tasdiqlaydi. Shuningdek, operatsional va motivatsion komponentlar bo'yicha ham nazorat guruhda sezilarli o'sish qayd etildi.

Sifatli tahlil natijalari ham metodikaning samaradorligini isbotladi. Tajriba guruh talabalari tomonidan tayyorlangan esse, taqdimot, infografika va tarixiy tahlillar mazmunan chuqur, mantiqiy asoslangan, zamonaviy formatda taqdim etilgan. Talabalar mustaqil qaror chiqarish, tarixiy voqealarni shaxsiy nuqtai nazardan baholash, tarixiy saboqlarni bugungi hayot bilan bog'lashga urinib, o'zlarining tarixiy tafakkur darajalarini namoyon qilishdi.

Pedagogik kuzatishlar shuni ko'rsatdiki, yangi metodika nafaqat bilimlarni o'zlashtirish darajasini oshirdi, balki talabalar ongida mustaqil O'zbekiston tarixini chuqur anglash, uni qadrlash, tarixiy haqiqatni himoya qilishga tayyorlik, ijtimoiy faollik va milliy g'ururni mustahkamladi. Bu holat "O'zbekistonning eng yangi tarixi" fanining ma'naviy-tarbiyaviy vazifalarini ham samarali bajarayotganini ko'rsatadi.

Taklif etilgan mualliflik metodikasi asosida olib borilgan o'quv jarayoni "O'zbekistonning eng yangi tarixi" fanini o'qitishda yuqori darajadagi natijalarga erishishni ta'minladi. Statistik va sifatli tahlillar asosida uning ta'lim samaradorligi isbotlandi. Mazkur tizim boshqa ijtimoiy-gumanitar fanlar uchun ham metodologik model sifatida tavsiya etilishi mumkin. U orqali tarixiy bilimlar, fuqarolik ong, mafkuraviy barqarorlik va milliy o'zlikni anglash kompetensiyalari ham shakllanadi.

NATIJALAR

Pedagogik tajribaning konstatatsion bosqichida olingan natijalar "O'zbekistonning eng yangi tarixi" faniga oid bilimlar va tarixiy tafakkur darajasi jihatidan nazorat va nazorat guruh o'rtasida statistik jihatdan ishonchli farqlar mavjud emasligini ko'rsatdi. Har ikki guruhda ham tarixiy voqealarning sabab - oqibatlari, mustaqillikdan keyingi islohotlar mazmuni, davlat ramzlarining tarixiy ildizlari kabi mavzularda bilimlarning sathiy darajasi nisbatan past yoki o'rtacha bo'lib, bu holat talabalarning tarixiy tafakkuri va fuqarolik ongini rivojlantirishda tizimli yondashuv yetishmasligini anglatadi. Nazorat bosqichida motivatsion-aks ettiruvchi komponentda ham o'rtacha baholar ustunlik qilgan bo'lib, talabalar tomonidan mustaqil tarixga bo'lgan qiziqishning hali shakllanmaganini tasdiqlaydi.

Tajriba-sinov ishining shakllantiruvchi bosqichida mualliflik metodikasining bosqichma-bosqich joriy etilishi natijasida nazorat guruhda barcha tahlil komponentlari bo'yicha ijobiy dinamik o'sish kuzatildi. Ayniqsa, kognitiv komponentda talabalar tarixiy voqealarni chuqur tahlil qilish, ular orasidagi sabab-oqibat bog'liqligini tushunish va tarixiy manbalarga asoslangan xulosalar chiqarish bo'yicha ancha yuqori natijalarni ko'rsatdi. Operatsional komponentda esa ularning

tarixiy hujjat, statistik jadval, xarita va vizual materiallar bilan ishlash malakalari ancha shakllanganligi kuzatildi. Talabalar tarixiy debatlar, tahliliy esse va taqdimotlar orqali tarixga bo'lgan shaxsiy munosabatlarini ifoda etishga harakat qilishdi, bu esa ularning motivatsion-aks ettiruvchi komponentdagi faolligini namoyon etdi.

Tajriba guruh talabalari tomonidan tayyorlangan esse, virtual taqdimotlar, infografikalar va boshqa loyiha ishlari sifatida yuqori darajada bo'lib, ularda tarixiy tafakkurning chuqurligi, manba asosidagi fikrlash va milliy g'urur hissining yorqin ifodasi aks etdi. Kichik guruhlarda olib borilgan ilmiy-amaliy mashg'ulotlar, mustaqil tahliliy vazifalar, tarixiy holatlarni zamonaviylik bilan bog'lashga oid topshiriqlar orqali talabalar o'z bilimlarini real hayotiy kontekstda tatbiq etishga harakat qilishdi. Qo'shimcha ravishda talabalarning axborotni tahlil qilish, tarixiy kontekstda fikr bildirish va o'z pozitsiyasini asoslash ko'nikmalari ham jiddiy darajada rivojlandi.

Boshqa tomondan, nazorat guruhida o'quv yili davomida sezilarli ijobiy siljishlar aniqlanmadi. Talabalar tomonidan tayyorlangan ishlar shaklan to'g'ri bo'lsa-da, mazmunan yetarli darajada tahliliy emas, ko'proq faktlarni qayta ifodalashga yo'naltirilganligi ko'zga tashlandi. Ularning tarixiy tafakkuri va fuqarolik ongida barqaror o'sish belgilari yetarli darajada ko'zga tashlanmadi. Nazorat guruhidagi talabalar ko'proq darsda aytilganlarni eslab qolishga intilgan bo'lib, mustaqil tahlil va baholash darajasi past bo'lib qoldi. Ushbu holat "O'zbekistonning eng yangi tarixi" fanini metodik jihatdan yangilash va samarali uslublarni kengroq tatbiq etish zarurligini yana bir bor ko'rsatadi.

Statistik tahlil natijalari **St'yudent t-kriteriyasi** asosida o'tkazilgan hisob-kitoblar, nazorat va nazorat guruhlarida o'rtasida statistik jihatdan ishonchli farqlar mavjudligini ko'rsatdi ($p < 0,05$). Masalan, nazorat guruhida kognitiv komponent bo'yicha o'rtacha ball 4.41, nazorat guruhida esa 3.67 bo'lib, bu $t = 2.89$ ko'rsatkich bilan farq qiladi ($p < 0.01$). Boshqa komponentlar bo'yicha ham shunga o'xshash farqlar aniqlandi. Ushbu raqamlar metodikaning samaradorligini va uni o'qituvchilarning amaliy faoliyatida keng qo'llash mumkinligini asoslab beradi. Shu asosda, taklif etilgan yondashuv "O'zbekistonning eng yangi tarixi" fanini samarali o'qitish, yosh avlodda tarixiy tafakkur va fuqarolik pozitsiyasini shakllantirishda pedagogik jihatdan natijador ekani ilmiy jihatdan isbotlandi.

MUHOKAMA

Olib borilgan tadqiqot natijalari shuni ko'rsatdiki, "O'zbekistonning eng yangi tarixi" fanini yuqori samaradorlik bilan o'qitish zamonaviy metodik yondashuvlarni talab etadi. Ayniqsa, talabalarda tarixiy tafakkur, fuqarolik pozitsiyasi va milliy identitetni shakllantirish uchun ta'lim jarayoni maqsadli metodik qo'llab-quvvatlashga muhtoj.

Ushbu fan orqali talabalarga mustaqillik davridagi tarixiy jarayonlar haqida chuqur bilim berish, tarixiy haqiqatni tahlil qilish, uni anglash va bugungi kun bilan bog'lash ko'nikmalarini shakllantirish imkoni yaratiladi. Tadqiqotda qo'llangan mualliflik metodikasi aynan shunday maqsadlarga xizmat qilib, talabalarning tarixiy ongini faollashtirish, ularning bilim olishga bo'lgan ichki motivatsiyasini kuchaytirish va tarixga nisbatan shaxsiy munosabatini mustahkamlash imkonini berdi.

Metodikaning muhim jihatlaridan biri uning nazariy bilim va amaliy faoliyatni uyg'unlashtirganligidir. Talabalar tarixiy faktlarni oddiy eslab qolishdan ko'ra, ularni muhokama qilish, saboq chiqarish, tahlil etish va hozirgi zamon bilan taqqoslash imkoniyatiga ega bo'ldilar. Pedagogik faoliyatga yaqinlashtirilgan topshiriqlar (loyiha asosida ishlash, tarixiy esse yozish, virtual taqdimotlar tayyorlash) talabalarni o'zlashtirgan bilimlarni real holatlarda qo'llay olishga o'rgatdi. Shuningdek, o'quv jarayonining interaktiv xususiyat kasb etishi talabalarni faol ishtirokchi, tashabbuskor va mas'uliyatli subyektga aylantirdi, bu esa ularning tarixiy tafakkur darajasini sifat jihatdan yuksalishiga olib keldi.

Tadqiqot davomida motivatsion-aks ettiruvchi komponent ustida olib borilgan metodik ishlar alohida e'tiborga loyiqdir. Talabalar faqat tarixiy materialni o'rganish bilangina cheklanib qolmay, balki mustaqil O'zbekiston tarixiga nisbatan shaxsiy pozitsiyasini shakllantira boshladi. Bu esa, o'z navbatida, ularning milliy o'zligiga, Vatanga bo'lgan sadoqatiga, tarixiy xotirani asrash va qadrlashga bo'lgan intilishlarini kuchaytirdi. Aynan loyiha asosidagi o'quv vazifalari va tadqiqot topshiriqlari orqali talabalar tarixiy materiallarga tanqidiy yondashishni, tarixiy holatlarning mohiyatini anglashni, zamonaviy muammolarni tarixiy nuqtai nazardan baholashni o'rgandilar.

Albatta, tadqiqotning cheklovlari ham mavjud bo'ldi. Jumladan, eksperiment faqat bitta oliy ta'lim muassasasi — Urganch davlat pedagogika universiteti doirasida o'tkazildi va unda tarix yo'nalishining faqat 3-bosqich talabalari ishtirok etdi. Shuningdek, metodikaning ta'sirini uzoq muddatli nazorat qilish imkoniyati cheklangan edi. Shuning uchun metodikani boshqa ta'lim muassasalarida, turli bosqichlarda va turli auditoriyalarda sinovdan o'tkazish, shuningdek, tarix fanlarining boshqa turlariga (umumiy tarix, O'zbekiston davlatchilik tarixi, milliy g'oya asoslari) integratsiyalashgan holda tadbiq etish orqali yanada mukammal natijalarga erishish mumkin.

Yana bir istiqbolli yo'nalish bu — fan doirasida shaxsiylashtirilgan o'qitish yondashuvlarini joriy etish, ya'ni talabaga individual tarixiy tajriba orqali bilim berish imkonini yaratishdir. Masalan, talabalar oilaviy tarix, mahalliy tarix (regionshunoslik), shaxsiy xotiralar asosida mustaqil tarixiy tadqiqotlar olib borishi mumkin. Quiydagi

tizim “O‘zbekistonning eng yangi tarixi” fanini shaxsiy tajriba va milliy xotira asosida o‘rganishga zamin yaratadi. Shuningdek, talabalar uchun kompetensiyalarning rivojlanish yo‘llarini aniqlovchi shaxsiy “tarixiy o‘shish trassalari” (kompetensiya trassalari) ishlab chiqilishi ham katta amaliy ahamiyatga ega bo‘ladi.

Bugungi kunda ta‘lim tizimining strategik vazifalaridan biri — yosh avlodning mafkuraviy immunitetini mustahkamlash, tarixiy haqiqat asosida ijtimoiy ongni rivojlantirish va milliy g‘urur tuyg‘usini shakllantirishdan iborat. “O‘zbekistonning eng yangi tarixi” fanining metodikasini takomillashtirish ustuvor vazifa sifatida qaralishi lozim. Mazkur fan orqali berilayotgan bilim va tarbiyaviy ta’sir bir vaqtning o‘zida talaba shaxsida milliy qadriyatlar, huquqiy ong, ijtimoiy mas’uliyat, tarixiy xotira va tanqidiy tafakkur kabi muhim fazilatlarni shakllantiradi. Shuning uchun fan mazmuni, o‘qitish texnologiyalari va metodikasi zamon talablari asosida takomillashtirilishi, uni o‘qitish jarayoni ilmiy asoslangan va samaradorlikka yo‘naltirilgan bo‘lishi ta‘lim islohotlarining ajralmas qismiga aylanishi lozim.

XULOSALAR

Olib borilgan tadqiqot natijalari asosida aniqlanganki, “O‘zbekistonning eng yangi tarixi” fanini zamonaviy metodik yondashuvlar asosida o‘qitish talabalarda tarixiy tafakkur, fuqarolik pozitsiyasi, milliy identitet va mafkuraviy immunitetni shakllantirishda muhim ahamiyatga ega. Mualliflik metodikasi asosida tashkil etilgan tajriba-sinov ishlari fanni nazariy va amaliy jihatdan uyg‘unlashtirib, interaktiv va shaxsga yo‘naltirilgan usullardan foydalangan holda o‘qitish talabalarning kognitiv, operatsional va motivatsion-aks ettiruvchi kompetensiyalarini sezilarli darajada rivojlanishini ko‘rsatdi. Statistik tahlillar ham metodikaning samaradorligini isbotladi, bu esa uni boshqa oliy ta‘lim muassasalarida ham tatbiq etish imkoniyatlarini yaratadi. Fan mazmunini yangilash, individual tarixiy tajriba bilan bog‘liq topshiriqlardan foydalanish, tanqidiy tafakkur va zamonaviy kontekst bilan integratsiya qilish orqali talabalarni faol o‘quvchi subyektiga aylantirish mumkinligi amaliyotda tasdiqlandi. Metodikaning o‘ziga xosligi, ayniqsa, loyihaviy va tadqiqotga asoslangan topshiriqlarning qo‘llanilishi orqali namoyon bo‘ldi. Talabalar tarixiy haqiqatni anglash, o‘z shaxsiy pozitsiyasini shakllantirish, milliy g‘urur va tarixiy xotiraga sodiqlik kabi ijtimoiy-ma’naviy qadriyatlarni chuqur anglay boshladilar.

Tadqiqot yakunida metodikaning ilmiy-nazariy asoslari va amaliy samaradorligi asosida shunday xulosa qilindi: “O‘zbekistonning eng yangi tarixi” fanini o‘qitish metodikasini takomillashtirish oliy pedagogik ta‘lim tizimi uchun strategik ahamiyatga ega. Ushbu fan orqali shakllanadigan kompetensiyalar fuqarolik jamiyatining barqaror poydevorini yaratish, yosh avlodni mafkuraviy tahdidlardan himoya qilish va ularni

milliy qadriyatlarga sodiq etib tarbiyalashda beqiyos vositadir. Istiqbolida bu metodikani raqamli ta'lim muhiti va boshqa ta'lim bosqichlariga moslashtirish, shuningdek, yondashuvning universalligi va funksionalligini kengroq o'rganish muhim ilmiy vazifalardan biri bo'lib qoladi.

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IMPROVING THE PREVENTION AND TREATMENT OF ANAL CANAL CONTRACTION AFTER RADICAL HEMORRHOIDECTOMY

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Abstract. Hemorrhoids are one of the most common diseases of the anal canal and rectum, affecting 10-15% of the adult population, according to epidemiological studies. The aim of the study is to improve the methods of prevention and treatment of cicatricial narrowing of the anal canal after radical hemorrhoidectomy. The clinical part of the study included 297 patients with stage II-IV chronic combined hemorrhoids who underwent radical hemorrhoidectomy operations from 2010 to 2025 at the Khorezm Regional Multidisciplinary Medical Center, as well as 35 patients with cicatricial narrowing of the anal canal after hemorrhoidectomies performed in other institutions. In the main group, the average intraoperative blood loss was 27.6 ± 17.2 ml, which was significantly lower ($t=6.65$; $P<0.001$) than in the comparison group (82.3 ± 15.8 ml and 96.2 ± 15.8 ml). The improved Milligan Morgan hemorrhoidectomy technique with preservation of the mucocutaneous bridge and without suturing wounds in the transition zone helps to reduce pain reception, reduce hospital stay from 7.4 ± 1.2 to 2.3 ± 0.4 ($P<0.05$), reduce rehabilitation time from 28.4 ± 2.9 to 17.5 ± 2.6 days, and reduce the frequency of scarring anal canal stenosis from 7-12 to 0.9% ($P<0.05$).

Keywords: laser technology; hemorrhoidectomy; Milligan-Morgan operation; anal canal stricture.

Introduction. Hemorrhoids are the most common non-oncological anorectal condition in the world, and their incidence increases with age. [1]. Hemorrhoids do not have a tendency to spontaneous involution, and the main clinical manifestation and complication is hemorrhagic syndrome, which eventually leads to a number of complications in the form of bleeding. Moreover, the stage of the disease and the comorbid background of patients determine not only the nature, intensity, and regularity of bleeding, but also the tendency to recur and the risk of developing inflammatory processes with the addition of secondary infection [2, 3].

The results of fundamental research conducted in the last decade on the pathological physiology of hemorrhoids have led to changes in conservative and surgical treatment approaches [4]. Early forms of the disease can be successfully treated with phlebotonics, dietary fiber, and local therapy. If these methods are ineffective, the

preferred treatment options include sclerotherapy, internal hemorrhoidal ligation with latex rings, and infrared photocoagulation [5-8]. The main disadvantage of minimally invasive treatment methods is the need for repeated procedures and a high frequency of recurrence of hemorrhoidal symptoms. In addition, minimally invasive methods are ineffective in the third and fourth stages of hemorrhoids, where excisional hemorrhoidectomy (Milligan and Morgan, Ferguson, Whitehead) is currently the primary treatment option. The goal of surgical treatment is to completely remove the internal and external components of the hemorrhoids. In addition, the procedure should have minimal postoperative pain and complications, as well as a lower rate of recurrence. Unfortunately, none of the currently available surgeries meet all of these criteria.

Materials And Methods. The clinical part of the study included 297 patients with stage II-IV chronic combined hemorrhoids (CCH) who underwent radical hemorrhoidectomy surgeries from 2010 to 2025 at the Khorezm Regional Multidisciplinary Medical Center, as well as 35 patients with scarred anal canal narrowing after hemorrhoidectomies performed in other institutions. All patients were divided into three groups based on the research objectives. The groups were comparable in terms of gender, age, type and severity of pathology, and type of surgery. The comparison group consisted of 152 patients who underwent traditional surgical interventions for complicated hemorrhoids (Milligan-Morgan, Whitehead), and the results were analyzed retrospectively for a comparative study. The main group included 145 patients who underwent radical hemorrhoidectomy without suturing the mucocutaneous bridge of the anal canal. There were 46 patients with grade 2-3 anal canal stricture after hemorrhoidectomy, of which 12 were observed after our surgeries. These patients were also divided into 2 groups. The comparison group consisted of 22 patients who were treated using the traditional method (anal sphincter devulsion and dosed anal sphincter dissection). The main group consisted of 24 patients who were treated using the original method involving combined laser exposure.

The patients' ages ranged from 19 to 76 years. The average age in the main group-1 was 43.4 ± 15.2 years, in the comparison group-1 – 41.2 ± 17.1 years, and in the main group 2- 37.8 ± 12.3 years and in the comparison group-2 – 46.7 ± 11.9 years.

From the medical history, it was determined that in more than half (67.6%) of the cases, the duration of the disease was 5-10 years.

The distribution of patients by stage of hemorrhoidal disease showed that most (68.7%) had stage III of the disease, and 24.2% had stage IV. Patients with hemorrhoidal disease had a complicated course and were treated in stages 3-4 of the disease.

Results. We have analyzed the results of radical treatment of stage 3-4 hemorrhoidal disease, depending on the following surgical methods:

- 63 patients who underwent Whitehead surgery from 2012 to 2018;
- 91 patients underwent Milligan-Morgan surgery from 2018 to 2024;
- 145 patients who underwent Milligan-Morgan surgery without suturing the defect in the skin-mucous membrane junction in the anal area using laser therapy and the local hemostatic drug Hemoben for hemostasis from 2020 to 2025.

In the main group, the average intraoperative blood loss was 27.6 ± 17.2 ml, which was significantly lower ($t=6.65$; $P<0.001$) than in the comparison group (82.3 ± 15.8 ml and 96.2 ± 15.8 ml).

The duration of surgery in the comparison groups was 53.8 ± 16.8 minutes and 67.3 ± 11.7 minutes, with a statistically significant difference ($t=5.21$; $P<0.05$) longer than in the main group – 41.2 ± 7.2 minutes.

Compared to other types of surgical interventions, hemorrhoidectomy with the preservation of a mucosal-cutaneous bridge reduced pain perception.

The intensity of pain was significantly lower in the main group of patients 24 hours after surgery, which was manifested in 17.6% of cases by the absence of the need for administration of analgesics. Pain was relieved after performing hygienic baths.

Pearson's chi-square test was used to assess the differences in the distribution of pain intensity between the three patient groups (Whitehead, Milligan-Morgan, and Milligan-Morgan + Laser).

The analysis results showed statistically significant differences: $\chi^2=61.45$; $df=4$; $p<0.0001$.

The highest proportion of severe pain (7–9 points) was observed in the Whitehead group (49.3%), while in the Milligan-Morgan group without a suture, this figure was only 7.4%. In addition, only in the Milligan-Morgan group without a suture, cases of minor pain (1–3 points) were recorded - 17.6% of patients.

Thus, the Milligan-Morgan method without a suture is associated with a significant reduction in postoperative pain.

Complications in the postoperative period manifested themselves in the form of bleeding, wound infection, and urinary problems. Incontinence of gases in the early postoperative period was quite common, but it was completely resolved within 1-3 weeks after the operation and was largely dependent on the degree of anal dilation.

Thus, in the main group, after the use of the combined laser method, there was a significant increase in the diameter of the anal canal and a decrease in pain syndrome.

The average resting sphincter pressure was higher, indicating the preservation of muscle function. The frequency of relapses decreased by more than 5 times.

When analyzing the degrees of stenosis, it was found that the highest effectiveness was observed in patients with grade I-II stenosis, where the diameter and subjective pain assessment were close to normal, while patients with grade III stenosis showed a tendency towards improvement but required repeated dilatations.

Conclusion. 1. Radical hemorrhoidectomy with damage to the mucosal-cutaneous junction by more than 2/3 of the circumference of the anal canal and suturing in the longitudinal and especially in the transverse direction leads to the development of scarring of the anal canal in 7–12% of cases. Operations involving transverse tissue division (Whitehead method) are associated with a higher frequency of scarring of the anal canal compared to longitudinal techniques (Milligan–Morgan in Ferguson modification).

2. The improved Milligan Morgan hemorrhoidectomy technique with preservation of the mucocutaneous bridge and without suturing wounds in the transition zone helps to reduce pain reception, reduce hospital stay from 7.4 ± 1.2 to 2.3 ± 0.4 ($P < 0.05$), and reduce rehabilitation time from 28.4 ± 2.9 to 17.5 ± 2.6 days ($P < 0.001$), as well as a decrease in the frequency of cicatricial narrowing of the anal canal from 7-12 to 0.9% ($P < 0.05$).

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CYBERSECURITY: WHAT SHOULD ORDINARY USERS PAY ATTENTION TO?

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Abstract

The rapid expansion of digital technologies and Internet-based services has significantly increased the exposure of ordinary users to cyber risks. Everyday activities such as online communication, financial transactions, and data storage are now heavily dependent on digital platforms, which makes personal information vulnerable to various cyber threats. This paper examines the core cybersecurity issues faced by non-professional users and analyzes essential protective measures, including secure authentication practices, recognition of deceptive online attacks, protection against malicious software, timely system updates, and responsible Internet usage. The study highlights that improving user awareness and adopting basic security behaviors play a decisive role in minimizing cyber threats and ensuring data protection in the digital environment.

Keywords: cybersecurity, user awareness, Internet safety, data protection, cyber threats, information security.

INTRODUCTION

The Internet has become an indispensable component of modern life, transforming communication, education, commerce, and access to information. While digital technologies provide significant convenience and efficiency, they also introduce new security challenges. Cyber threats such as identity theft, unauthorized data access, malicious software, and fraudulent online activities have become increasingly common. As a result, cybersecurity is no longer a concern limited to specialists or large organizations but a fundamental issue affecting ordinary users.

Many individual users lack sufficient knowledge about online risks and secure digital behavior, which increases their susceptibility to cybercrime. A lack of awareness often leads to unsafe practices, including weak authentication methods and careless interaction with unknown online content. Therefore, understanding fundamental cybersecurity principles is essential for protecting personal data and ensuring secure participation in the digital ecosystem. This paper analyzes key cybersecurity risks

encountered by ordinary users and discusses practical measures to enhance individual-level digital security.

Discussion

Cybersecurity encompasses the set of technologies, processes, and practices designed to protect digital devices, networks, and data from unauthorized access and malicious attacks. For ordinary users, cybersecurity threats often manifest in the form of malware infections, phishing schemes, fake websites, and data breaches. These threats primarily aim to obtain sensitive information, disrupt system functionality, or cause financial losses. One of the most critical elements of user-level cybersecurity is authentication security. Weak or reused passwords remain a common vulnerability, allowing attackers to gain unauthorized access with minimal effort. Strong authentication practices, including the use of complex and unique passwords, significantly reduce this risk and form the first line of defense against cyber intrusions.

Another major threat faced by users is phishing and social engineering attacks. These attacks rely on psychological manipulation rather than technical complexity, deceiving users into revealing confidential information through seemingly legitimate messages or websites. Such attacks often exploit urgency, trust, or fear, making user vigilance and critical evaluation of online communications essential. Malware poses an additional challenge by infecting systems through untrusted downloads, malicious links, or compromised websites. Without adequate protection, malware can compromise system performance, steal sensitive data, or provide attackers with remote control over devices. The use of reliable security software and regular system scanning plays an important role in mitigating these risks. System and software updates are frequently underestimated by ordinary users, despite their importance in maintaining security. Updates often address known vulnerabilities that could otherwise be exploited by attackers. Failure to install updates leaves systems exposed to preventable threats, emphasizing the necessity of timely and consistent system maintenance. Safe Internet usage practices further contribute to reducing cyber risks. Activities such as using unsecured public networks for sensitive transactions or failing to log out from shared devices increase exposure to potential attacks. Responsible digital behavior, combined with regular data backups, enhances resilience against both cyber incidents and accidental data loss..

Advantages and Challenges of User-Oriented Cybersecurity

Adopting basic cybersecurity measures offers significant benefits, including the protection of personal and financial information, reduced likelihood of identity theft, and increased confidence in digital interactions. However, several challenges remain.

These include insufficient user awareness, the growing sophistication of cyberattacks, and increasing dependence on online services. Addressing these challenges requires continuous education and adaptation to emerging threats.

Conclusion

Cybersecurity has become a fundamental requirement for ordinary users in an increasingly digital society. As cyber threats continue to evolve, reliance on basic but effective security practices remains essential. Measures such as secure authentication, awareness of deceptive online tactics, protection against malicious software, regular system updates, and responsible Internet usage can substantially reduce individual cyber risks. Ultimately, strengthening user awareness and encouraging proactive security behavior are key factors in creating a safer and more resilient digital environment.

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UDC: [616-002.3/-08-039.71](#) + 616.379-008.64**FEATURES OF THE COURSE OF NECROBIOTIC SOFT TISSUE
INFECTIONS IN PATIENTS WITH DIABETES MELLITUS**Alisherzhon Bakhtiyorovich Khamdamov, dr.alYWOWa@gmail.com<https://orcid.org/0000-0001-6614-4806>**Bukhara Medical Institute**

Abstract. The combination of cytological indices and rapid microbiological signs allows for the development of a reliable set of criteria that reflect the key mechanisms of necrobiotic process development in necrotizing soft tissue infections in patients with diabetes mellitus.

Keywords: necrotizing soft tissue infections, prognosis, diabetes mellitus

Background. The problem of early diagnosis and comprehensive differentiated treatment of severe forms of NSTI in patients with diabetes mellitus remains relevant at the global, regional, and national levels [1, 3, 5, 7,9].

More than 150 million people worldwide suffer from diabetes mellitus (DM), with over 10 million in Uzbekistan. Diabetes mellitus ranks among the world's leading causes of mortality. Mortality among patients with diabetes mellitus when combined with purulent-surgical diseases reaches 20% [2,17].

Patients with diabetes mellitus experience decreased resistance due to profound metabolic disorders, severe hypovitaminosis, multiple organ failure of parenchymal organs, and impaired homeostasis, including carbohydrate metabolism disorders (hyperglycemia, glucosuria, polyuria with subsequent complications such as ketosis and angiopathy), water-salt metabolism, and immunoreactive factors [1,4,6,8,10,11].

Endogenous NO deficiency in diabetes mellitus causes disturbances in the neuroregulatory influence of the somatic and autonomic nervous systems (diabetic neuropathy) and impaired microcirculatory function. The combination of these factors contributes to the development of ulcerative defects of the feet, and the addition of secondary infection contributes to the development of purulent complications [4,12,13,14].

Distinctive features of acute purulent processes in diabetes mellitus include the predominance of purulent-necrotic processes with a tendency to spread. Moreover, a more severe course of infection is observed in the acute period: frequent septic complications, rapid development of purulent complications in soft tissues against a background of high hyperglycemia, glucosuria, and even a pre-coma state.

Furthermore, an areactive course of the purulent process is often observed due to anatomical changes in the affected organ, or a sluggish, protracted course of wound infection after the acute symptoms have subsided.

Furthermore, problems associated with inflammatory diseases of the lower extremities occur in one in three patients with diabetes mellitus during their lifetime. The treatment of surgical diseases that develop or occur in the context of diabetes mellitus is a major medical challenge, as purulent surgical infection and diabetes mellitus are mutually aggravating conditions. The course of surgical infection and diabetes mellitus has its own unique characteristics: on the one hand, any purulent process disrupts all metabolic processes in the body and leads to insulin deficiency, progression of diabetes mellitus, and its decompensation. On the other hand, metabolic disturbances, by slowing tissue regeneration and repair, complicate and aggravate the inflammatory process, facilitating its spread.

In all the available literature, we found no data on the comprehensive examination and management of patients with this pathology using physical treatment methods, and the available data are quite contradictory [1,15,16]. Overall, it should be noted that, until recently, the following treatment deficiencies persisted at the prehospital stage (upon admission to a specialized purulent surgical department): untreated or untimely treated purulent foci. small incisions and inadequate treatment of the purulent focus, absence or irrational antibiotic therapy, most often carried out without bacterial analysis, inadequate intensive care of seriously ill patients, uncompensated carbohydrate metabolism disorders, separate management of this group of patients by surgeons and endocrinologists, ignoring physical methods of influencing wounds. The search for prognostic criteria, optimization of the volume of surgical intervention and integration of modern methods of local action can significantly improve treatment outcomes, reduce the frequency of amputations and mortality and ensure more rational use of healthcare resources.

The aim of the study was to develop methods for predicting the progression of soft tissue necrobiosis in patients with diabetes mellitus.

Materials and Methods. The clinical material consisted of 128 patients with diabetes mellitus who were treated and examined for severe forms of NITI at a multidisciplinary medical center in the Bukhara region from 2016 to 2025. In accordance with the study's objectives, all patients were divided into two groups: the control group included 63 patients treated from 2016 to 2020, when the traditional approach to treating necrotizing lesions was used; the study group included 65 patients observed from 2021 to 2025, when the comprehensive LDA method we developed was used.

Results and Discussion. The obtained data showed that increasing degrees of soft tissue necrobiosis are accompanied by significant changes in the cytological characteristics of smears. Taken together, this forms a natural transition from the intact periphery to the questionable zone and further to the formed focus of necrosis, which is reflected in the values of the Spearman rank coefficients.

Among the main indices, four stood out as demonstrating the closest correlation with the progression of the necrobiotic process. The IDN had a strong direct coefficient of $r = 0.919$ at $p < 0.001$, reflecting the sequential destruction of polymorphonuclear cells as tissue dies. The IGN also showed a pronounced linear relationship ($r = 0.798$ at $p < 0.001$), consistent with an increase in the volume of detritus and lysis of cellular structures in more severe zones. A comparable behavior was demonstrated by the MCI ($r = 0.731$ at $p < 0.001$), indicating an increasing imbalance between the microbial mass and the number of protective cells. The last of the leading markers, the tissue destruction index, had a stable positive correlation ($r = 0.835$ at $p < 0.001$), emphasizing the direct relationship between the volume of destruction of the fibrous framework and the severity of necrobiosis. The other indices demonstrated moderate correlations. As the degree of soft tissue necrobiosis increased, the microbial flora structure changed consistently, reflecting a transition from a relatively intact periphery to a zone of severe destruction.

More pronounced changes were observed among Gram (-) forms, with the proportion of Gram (-) cocci increasing moderately, as confirmed by a coefficient of $r = 0.458$ at $p = 0.005$. Gram (-) rods showed significantly greater changes ($r = 0.784$ at $p < 0.001$), emphasizing their key role in the context of progressive necrobiosis. The proportion of these microorganisms clearly increased toward the zone of complete necrosis, consistent with the known ability of Gram (-) rods to actively proliferate in ischemic and damaged tissue. The strongest correlation was demonstrated by groups associated with the anaerobic component, with obligate anaerobes having a correlation coefficient of $r=0.852$ ($p<0.001$), the highest value among all indicators. The characterization of mixed microbial communities requires special attention, especially when the proportion of polymicrobial complexes had one of the highest correlation coefficients at $r=0.827$ ($p<0.001$).

The ratio of Gram (-) to Gram (+) forms also increased as tissue condition worsened ($r=0.813$ at $p<0.001$), forming a characteristic pattern that coincided with the severity of necrobiosis. This value, along with the coefficients for Gram (-) rods, obligate anaerobes, and polymicrobial complexes, is among the strongest correlation markers. The correlation coefficients for IDN reflected the most pronounced relationship

between this indicator and the rapid microbiological characteristics of the wound surface.

This set of relationships indicates that IDN and IGN simultaneously respond to the deepening of the necrobiotic process and a shift in the microbial ecosystem toward an anaerobic-Gram (-) profile. An increase in the proportion of Gram (-) forms is accompanied by increased neutrophil cytolysis and the accumulation of purulent-necrotic detritus, which creates a vicious cycle of further tissue destruction. The correlation structure of the MCI and the ITD emphasizes that these indicators reflect the most profound pathobiological elements of the necrobiotic process. Increased ratios of gram-negative (-)/gram-negative (+) and anaerobes/aerobes indicate that the active growth of anaerobic-gram-negative flora is accompanied by a pronounced deficit in local perfusion. Against this background, the MCI records an imbalance between the number of microbial masses and the cells of the inflammatory infiltrate, which becomes critical as necrobiosis progresses.

Thus, comparing cytological characteristics with microbiological parameters allowed us to identify a stable system of relationships reflecting the progression of necrobiosis from early changes to the phase of severe tissue destruction. An increase in the proportion of Gram-negative rods and obligate anaerobes was accompanied by a consistent shift in the cytological profile toward an increase in destructive neutrophils, increased purulent-necrotic decay, a growing microbial-cellular imbalance, and a loss of tissue matrix structural integrity. This configuration emphasizes that the degree of necrobiosis is determined by the simultaneous influence of microbial aggression and the local cellular response, and each of the four identified indices reflects a distinct element of this process. The combination of the identified patterns provides a sufficient basis for moving to the next stage, which requires formalizing the obtained characteristics into an integrated scale capable of quantifying the degree of necrobiosis and serving as a tool for early prediction of wound healing dynamics.

CONCLUSIONS:

1. The combination of cytological indices and rapid microbiological characteristics enables the development of a reliable set of criteria that reflect the key mechanisms of necrobiotic development in NIMT in patients with diabetes.

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