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Factors of formation of the spiritual immune system in the process of teaching primary school students

JDPU "Theory of Pedagogical Education"

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Annotation: In this article, the factors and mechanisms of formation of spiritual immunity in elementary school students are described in detail.

Key words: students, spirituality, education, activity, lesson, teacher's activity, conscious attitude.

As we live in an accelerated period of the global globalization process, we felt that it is appropriate to directly mention the negative aspects of globalization, because the main participants of globalization are the youth, who are the owners of our future, and elementary school students, who are the owners of fundamental knowledge. therefore, recognizing the process of negative globalization and creating a mechanism for preventing them is considered not only the problem of our country, but also the problem of the whole world. Because in this situation, invisible threats, various foreign ideas occupying the minds of young people and leading them to poverty, religious and ideological extremism, the negative influence of foreign culture on national culture, and other similar evils are the same as globalization. It's not a secret to all of us that its feature is spreading widely.

At this point, we must say that the whole world is creating a mechanism to look at the correct formation of children's minds, and through this mechanism, in the first place, to protect students from alien spiritual and ideological threats from alien culture and to preserve the nation and is a program aimed at development, and in the second place, we can see the desire to raise students from the level of intellectual potential to the creative level. Among the developed countries, the Republic of Uzbekistan is leading the problem of developing the level of positive attitudes towards young people .

Our country is a country of young people, about 64 percent of the population of Uzbekistan is young people. Young people have always been recognized as an active layer of society. President Shavkat Mirziyoyev in the book "Strategy of New Uzbekistan" emphasized such words: "It is an honorable and at the same time extremely responsible task to bring Uzbekistan to the ranks of the most developed countries." Great attention is being paid to the education system in order to bring us to the ranks of developed countries. As a sign of this, "Presidential schools" are being

built in every region of Uzbekistan. ¹Based on the "Concept of the Development of the Public Education System of the Republic of Uzbekistan until 2030" adopted on the basis of the Decree of the President of the Republic of Uzbekistan No. PF-5712 of April 29, 2019, the educational , develops and implements youth policy aimed at creating conditions for social and spiritual development. Our honorable president Sh.M. As Mirziyoyev said, "If the body of society is economy, then its soul and spirit is spirituality. As we decide to build a new Uzbekistan, we rely on two strong pillars. The first is a strong economy based on market principles. The second is a strong spirituality based on the rich heritage of our ancestors and national values. The ideology of the new Uzbekistan we are creating will be the idea of goodness, humanity, humanism. When we say ideology, we understand first of all the education of thought, the education of national and universal values. "They are based on the concepts and values of our people that have been alive for thousands of years," he says. Based on the above ideas, we will create a foundation for the formation of our national culture in young people by forming the legal consciousness culture and moral behavior skills in the proper organization of youth activities. What are the main factors that promote or threaten our spirituality and culture?

Film industry, music, art and similar activities - in this place, various films cannot fail to influence the minds of our people, especially our youth.

Social networks are the spread of reasonable and unreasonable opinions, advertisements, various demonstrations, ideas that cause panic in the human mind.

The main factors in these two forms are carriers of culture, and we can see the positive aspects of this culture and we can also see the negative aspects. Because we have to take the positive aspects and form our immune system against the negative aspects, and this immune system should not allow foreign cultures to take over our consciousness.

The main factor in the spiritual upbringing of elementary school students is the educational process - the source of education is mainly the family and the environment formed in the family, the correct organization and evaluation of the education of young people, the ability to set a personal example, individual approach formation of skills to apply authoritarian, liberal, democratic forms of education method on the spot.

The function of psychological influence is considered to be one of the powerful means of spiritual education of elementary school students , and in this process, the influence of the individual is influenced, in most cases, the psychologist's knowledge

¹Sh. M. Mirziyoyev. New Uzbekistan strategy

and the individual's ability to think, age-related, socialization-related approach, attitude is important to consider.

Educational process - in this process, it is important to organize education correctly and stably, and as the main instruction, it is important to be able to organize a person-oriented educational environment in the course of the lesson, and the main sign of this environment is to make the student creative. teaching to think, creating a discussion system, taking into account the conditions of ability and interest are considered one of the important conditions of the lesson.

Implementation of regular supervision - in this process, not mainly regular supervision, but trust in the student, signs of sincerity, personal and community actions

Taking Social Environment Levels into account is where students focus on family and social environment levels. We can include considerations such as the level of material and spiritual security in the family, the influence of the family on the child, the influence of the social environment on the child, and the influence of the child on the social and family environment.

Establishing communication is usually the first step in the process of adapting to the social environment of primary school students, so communication situations are more difficult than in other classes. thrown away. That's why in this period, students feel needs in relation to adults in terms of communicative activity. If the necessary attention and communication are not established by adults, a gap may appear in the students' ideological consciousness, and this gap may be occupied by negative vices. That is why, in the world and in our country, education is being carried out taking into account the wishes, desires and abilities of children.

In conclusion, we should say that in order for the young generation to become fully mature, the proper organization of teacher-student relationships and the assignment of assignments based on the abilities and skills of young people are not only important for students to attend classes. Perhaps the correct formation of self-relation will ensure that he looks at life on the basis of deep thinking.

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**FURTHER INCREASE THE EFFICIENCY OF SPIRITUAL-
EDUCATIONAL MEASURES IN THE EDUCATION OF THE YOUNG
GENERATION**

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Abstract: This article discusses the use of various methods in the implementation of traditional educational measures, which are the most important in the education of the young generation. Also, information was given about the need to determine the moral level of the knowledge taught to the future young generation, the need to pay special attention to its upbringing from childhood, and what the results of the implemented measures could be.

Key words: education, spiritual and educational activities, integrated curriculum, experiential learning, role models, family participation, culturally relevant pedagogy, personalized education, community participation, character development, continuous assessment, vital impact.

Uzbekistan are implemented in a comprehensive way. In particular, special attention is paid to the President, creativity and specialized education system. The basis of our opinion is the Law of the Republic of Uzbekistan "On Education" adopted on September 23, 2020 and the Decree of the President of the Republic of Uzbekistan dated April 14, 2022 "Republic of Uzbekistan Preschool and School Decree No. PF-106 "On expanding the network of specialized schools in the system of the agency of specialized educational institutions under the Ministry of Education" serves as a basis.

In the process of implementing reforms in the field of education, special attention is being paid to the issues of improving the effectiveness of spiritual and educational measures in the education of the young generation, along with the organization of quality education. M. Hamdamova's treatise "Fundamentals of Spirituality" has a special approach to the spiritual potential of young people .

Based on the above thoughts and comments, we can make the following comments to further increase the effectiveness of spiritual and educational measures in educating the young generation.

Incorporating spiritual and educational activities into the upbringing of the young generation can be of great benefit in their all-round development. This activity to combine some methods , stories , debates and role games through honesty , mercy and responsibility such as qualities to teach It helps young people understand the

importance of ethical behavior and develops empathy for others. Practices such as mindfulness and meditation should be introduced to help the younger generation develop self-awareness, emotional regulation and empathy, which will greatly help them. These practices also help with the focus needed for academic success. Also, encourage children to spend time outdoors and connect with nature. It inculcates the values of nature and environmental protection, instills a sense of admiration and appreciation for nature.

a sense of social responsibility and empathy for those in need will develop social responsibility in the current generation. may include Working together to help others fosters a sense of belonging and reinforces the importance of making a positive contribution to society. To provide opportunities for the younger generation to learn about different cultures and religions, to develop respect for diversity and to develop intercultural understanding. This can be achieved through storytelling, visiting cultural sites and participating in multicultural festivals.

Encourage creative expression through art, music and drama. These activities not only develop imagination and self-expression, but also help children explore and understand their feelings and experiences. At the same time, discussions about values such as honesty, compassion and gratitude should be integrated into daily lessons. It helps young people develop strong morals and make ethical decisions in their lives. Teaching young people to critically question and analyze information, encouraging them to think independently and make informed choices. Reflection exercises help them understand themselves and their beliefs more deeply.

By introducing these spiritual and educational events into the lives of young people, we help them to become not only academically successful, but also compassionate, ethical, and socially responsible members of society.

Methods. Measures aimed at instilling in the minds of the young generation a sense of loyalty to the Motherland and responsibility for its destiny, and forming ideological immunity in them against the negative effects of foreign ideas and views, will be effective in all respects. The main purpose of the "Five Initiatives" project for young people is to increase love for the Motherland.

Further development of the activities of state bodies and public organizations in connection with the strengthening of loyalty to national and universal values, religious tolerance and inter-ethnic harmony, as well as the formation of intolerance towards extremism, terrorism and other destructive ideas.

Increasing the number of cultural and entertainment facilities, extracurricular educational institutions, including various creative and educational circles, sports sections, necessary for the meaningful organization of free time of students and

young people . it is necessary to educate in a healthy spirit, to have a positive influence on the right choice of lifestyle.

Increasing the level of inclusion of young people in higher education institutions, establishing sufficient cooperation with leading foreign higher education institutions , increasing the number of qualified personnel, and fully achieving the goals set in the ongoing reforms.

Elimination of violations of the law in the field, including control over the purposeful spending of funds directed to the support of young people , does not create systemic problems, all the measures taken are very important for the young generation.

In accordance with the action strategy, several methods and measures mentioned above have been implemented in the territory of the Republic of Uzbekistan for several years, until sufficient and effective results are achieved, all measures and decisions related to this direction will remain in force.

Results. Evaluating the effectiveness of spiritual and educational work in educating the young generation includes evaluating various results and effects over time. Some key outcomes can determine the effectiveness of these efforts. Improved academic performance among youth engaged in spiritual and educational activities is evidenced by standardized test scores, grades, and graduation rates. Positive changes in character traits and behaviors, increased empathy, moral reasoning, and resilience observed through self -responsibility, teacher evaluations, and behavioral assessments.

social and emotional skills in young people , including self-awareness, self-management, interpersonal and conflict resolution skills, that lead to overall well-being. It is also reflected in the greater clarity of purpose and meaning in life among young people, their aspirations, values and sense of connection to something greater than themselves .

Encouraging community service, volunteering and civic engagement among youth who demonstrate a desire to make a positive contribution to society, and a strengthened cultural and spiritual identity among youth that reflects their heritage, traditions and it is manifested in a deeper appreciation of their beliefs, a sense of belonging to their cultural and spiritual communities.

It builds resilience and coping skills among young people, enabling them to overcome challenges and obstacles with greater adaptability and determination . At the same time, improving relationships with peers, family members, and authority figures characterized by increased mutual trust, communication, and mutual respect is one of the important factors in the education of the young generation .

of young people and fostering a love for lifelong learning, striving for continuous personal and intellectual development, all these are the future of the young generation. Also, long-term success and achievement in various areas of life, including education, career, relationships and general well-being, as young people uphold the lessons and values learned through spiritual and educational experiences .

These outcomes can be determined through a combination of qualitative and quantitative methods, including surveys , interviews, observations, standardized assessments, and longitudinal studies that track youth development over time. Studying these results , we will gain an understanding of the effectiveness of spiritual and educational activities in shaping the life of the young generation, directing them towards a bright and promising future.

Discussions. Today, in the rapidly changing world, the formation of such qualities as responsibility, commitment, spirituality, legal consciousness and legal culture, enlightenment, tolerance are becoming the main issues of the agenda in preparing young people for social life. There are also problems in youth education, such as the inability to correctly assess the complex geopolitical and ideological processes taking place in the world , the inability to make correct decisions in solving social problems, and the inability to formulate specific goals related to this.

These, in turn, lead to a vortex of moral evils as a result of the breakdown of family-community relations, indifference, criminality, easy acceptance of various manifestations of "popular culture". In our country, measures aimed at forming a mature generation, raising young people mentally, morally and physically healthy , and turning them into active participants of the ongoing reforms are being implemented consistently. Constant communication with young people in identifying and solving current problems in this regard is becoming an integral part of the activities of state bodies and public organizations.

Summary. In conclusion , it should be noted that increasing the effectiveness of spiritual and educational measures in the education of the young generation requires a multifaceted approach. Holistic curriculum development, experiential learning, combining powerful experiences and community engagement can foster character development, resilience, and a lifelong love of learning. Through continuous evaluation and adaptation, it is possible to ensure that these efforts have a meaningful and lasting impact on the lives of young people , enabling them to develop academically, socially, and spiritually, we can make the following recommendations to further increase the effectiveness of spiritual and educational measures in raising the young generation .

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1. To further increase the effectiveness of spiritual and educational measures in educating the young generation, to organize various competitions to create the national and political consciousness of young people.
2. Formation of communication culture in proportion to the level of individual and social development of youth education.
3. Development of cooperation plans for parents, neighborhood and educational institutions depending on the level of social origin.

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**THE PRINCIPLES OF NATIONALITY AND GENERAL HUMANITY
IN THE NATIONAL IDEA IN EDUCATING YOUTH IN THE SPIRIT OF
PATRIOTISM**

**Tashkent State Pedagogical University, Faculty of History, Department
of “Education of Spirituality and Law”**

Ph.D. Deputy Professor Rahbarov Ulugbek Rahbarovich

Annotation : in this article, the principles of nationalism and universality in the national idea in educating young people in the spirit of patriotism , the issue of the harmony of nationality and universality in the education of the young generation, the formation of moral culture in young people, the feeling of concern for the interests of the Motherland, the harmony of nationality and universality, and the primacy of universal human values based on their interdependence the means of influence are illuminated.

Key words: youth, education, virtue, culture, national idea, morality, culture, value, nation, social - maturity, moral virtue, high - spirituality, national pride, spirituality

The main goal of comprehensive reforms in the field of education and science in the Republic of Uzbekistan educating the young generation morally, spiritually, patriotically and ideologically mature is considered as an urgent task. Including the President of the Republic of Uzbekistan Shavkat Mirziyoyev² On January 13, President of the Republic of Uzbekistan, Supreme Commander-in-Chief of the Armed Forces Shavkat Mirziyoyev, in a speech at an extended meeting of the Security Council, focused on the topic "History and duty to future generations" and said, "I would like to emphasize one point on today's auspicious day: the military potential and high moral potential of the Armed Forces of Uzbekistan." It is necessary to turn their power into two great supports. Our glorious history, the bravery of our great ancestors, our indomitable commanders, their wise teaching, "Know the one with a strong wrist, and kill the one with a strong mind and heart" teach us this very truth of life. In this sense, the most important task of all of us is to further improve the system of military education and education of young people in the spirit of military patriotism, national identity, and devotion to our noble values.

²People's word. President of the Republic of Uzbekistan Shavkat Mirziyoyev² On January 13, his speech at the holiday event to the defenders of the homeland on the occasion of the 31st anniversary of the establishment of the Armed Forces of the Republic of Uzbekistan. 2020 January 14. Issue #-9.

Therefore, the national idea becomes important because it can embody the interests of all the peoples living in the country and serves to strengthen the development of the society.

The issue of harmony of nationality and universality in the system of the national idea has important scientific, theoretical and practical aspects. First of all, this requires a correct understanding of the concept of "national". The existence of a system that ensures the continuous operation of the national idea shows that the factors that contribute to its regular, continuous operation in different periods are in operation.

Instilling in the hearts of people of different nationalities and peoples the feeling of concern for the interests of the country and the Motherland is an important factor that creates a system. One such factor is the combination of nationalism and universalism in the system of national ideas.

In the system of the national idea, the primacy of universal values is based on the harmony of nationalism and universality, their interdependence. As one of its main principles is related to the idea of humanity, nationality and universality are inextricably linked with each other both as a system and structurally and functionally. In order to further improve the expression of this relationship in the process of systematic work in society, the President of the Republic of Uzbekistan Shavkat Mirziyoyev issued the Decree No. F-5465 on April 8, 2019 "On measures to develop the concept of developing the national idea at a new stage of Uzbekistan's development" ³.

Gaining independence of our people made it necessary to develop new values that would strengthen our independence and increase its power, among many forgotten values and heritages. These new spiritual values expressed the ancient noble goals of our people and found their reflection in the national idea and ideology. However, in the current globalization process "... the development and application of effective methods and means of combating ideological threats aimed at the peace of our country, the stability of our society, our universal, national and religious values, the realization of national identity, and the destruction of the way of life of our people formed over the centuries lags behind the demands of the times ⁴."

³Decree "On measures to develop the concept of development of the national idea at a new stage of Uzbekistan's development" <https://lex.uz/docs/3765918>

⁴Decree of the President of the Republic of Uzbekistan dated April 8, 2019 No. F-5465 "On measures to develop the concept of development of the national idea at a new stage of Uzbekistan's development".

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In the national idea system, in the relationship between nationality and universality, nationalism should not deny universality, and universality should not deny nationality, or one of the two sides should not be allowed to be absolute.

, one of the sociologists of our republic . "The national idea begins to form in the process of self-realization of each person. The formation of a person as a person begins with his self-awareness. ... The sphere of influence of the national idea is extremely wide, and it has its influence on such things as maintaining the identity of the nation, uniting representatives of the nation in the interests of the nation, organizing and defining the directions of development ⁵. From the above, it can be seen that the principles of the national idea are compatible with universal human values. The system of the national idea has its own principles, on the basis of which the actual tasks of national development are being implemented.

In our opinion, national consciousness, national thinking is oriented towards the formation of national identity; aimed at uniting the nation; represent the interest of the nation; to be the basis for the formation and strengthening of national pride, pride and responsibility; to be the basis for the formation of a single Motherland mentality among the population of our multi-ethnic country; to be a spiritual and spiritual source of preserving, mastering and passing on national heritage, historical memory to the next generation; aimed at forming the spiritual and spiritual potential of patriotism, nationalism, patriotism and universal humanity in our youth; reflecting the status of our nation as an independent entity; to organize the representatives of nationalities and peoples living side by side with our nation, to live peacefully with them, to treat them with respect, to show them support, to strengthen cooperation and to be a source of the formation of the feelings of a single nation of Uzbekistan based on them; giving spiritual strength and inspiration to make a worthy contribution to the modern civilizations of our nation; To be the theoretical basis for the formation and strengthening of the spirit of national security and national development in the people of Uzbekistan; Reflecting the ideal of a perfect human being constitutes the main national and national principles of the national idea.

The national ideal is obedience to the law in all spheres, respect for human rights and non-discrimination; to live and work in friendship and brotherhood with representatives of different nationalities; respecting the language, religion, and customs of each nation; deep assimilation of worldly knowledge, enlightenment; study the advanced achievements and culture of other nations in various fields; to be free from nationalism, aggressive nationalism and chauvinism; embody the ideas of justice, equality, peace, creativity and democracy; to embody the ideas of religious tolerance; to light the fire of war, to be free from oppressing other countries; it is

⁵ Otamuratov S. Philosophy of national development. - Tashkent: Academy, 2005. - B.20, 24-25.

necessary to demonstrate and enjoy universal democratic principles such as fighting against destructive and malicious ideas and being a factor in the development of constructive ideas .⁶

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**PEDAGOGICAL FOUNDATIONS OF PREVENTION OF VERBAL
AGGRESSION IN THE SCHOOL COMMUNITY BASED ON NATIONAL
MORAL VALUES**

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Abstract: Verbal aggression poses a significant challenge within school communities, threatening the well-being and educational experience of students. This article explores the pedagogical foundations for preventing verbal aggression, with a focus on integrating national moral values into educational practices. Drawing upon psychological insights and innovative approaches, such as cultivating empathy, leveraging technology, and fostering collaborative partnerships, educators can create a nurturing environment where respect and understanding thrive. By empowering students with the skills to navigate conflicts constructively and promoting a culture of inclusivity, schools can pave the way toward a future characterized by harmony and mutual respect.

Keywords: Verbal aggression, School community, Pedagogy, National moral values, Empathy, Technology, Conflict resolution, Collaborative partnerships.

In the bustling corridors of our educational institutions, the echoes of discourse and dialogue often shape the very fabric of our society. However, within this tapestry of learning, there exists a shadow that looms ominously over the sanctity of communication – verbal aggression. In the microcosm of the school community, where young minds burgeon with curiosity and impressionability, the prevalence of verbal aggression poses a formidable challenge, one that not only disrupts the educational environment but also jeopardizes the holistic development of individuals. As we embark on a journey to delineate the pedagogical foundations for preventing verbal aggression, it becomes imperative to anchor our discourse in the timeless reservoir of national moral values. Verbal aggression, in its myriad forms, inflicts profound wounds on the psyche of both the perpetrator and the victim. From subtle taunts to overt bullying, the ramifications reverberate far beyond the confines of the classroom, permeating the very essence of societal harmony. It is within this context that the significance of pedagogical intervention assumes paramount importance. By fostering an ethos steeped in empathy, respect, and understanding, educators can cultivate an environment where verbal aggression finds no fertile ground to proliferate.

At the heart of our endeavor lies the integration of national moral values into the pedagogical framework. These values, imbued with the collective wisdom of

generations past, serve as beacons illuminating the path toward a harmonious school community. Whether encapsulated in the principles of compassion espoused by religious teachings or embodied in the tenets of justice enshrined in the fabric of our cultural heritage, national moral values provide a compass by which educators can navigate the turbulent waters of verbal aggression. Central to the discourse is the recognition that prevention precedes intervention. Rather than merely addressing the symptoms of verbal aggression, educators must delve deeper, excavating the root causes that underlie such behavior. Herein lies the transformative potential of pedagogy – to instill in students a profound sense of self-awareness and emotional intelligence, thereby equipping them with the requisite tools to navigate interpersonal conflicts constructively. In delineating the pedagogical foundations for prevention, it is incumbent upon us to adopt a multifaceted approach that transcends the confines of the traditional classroom. Beyond the dissemination of knowledge lies the cultivation of character – a task that demands holistic engagement with students at cognitive, affective, and behavioral levels. Through experiential learning modalities, such as role-playing exercises and peer mediation programs, educators can empower students to internalize the values of empathy, tolerance, and resilience.

Moreover, the integration of technology emerges as a potent ally in our quest to prevent verbal aggression. Leveraging digital platforms, educators can facilitate open dialogue, thereby fostering a culture of inclusivity and mutual respect. Whether through online forums or virtual mentorship initiatives, technology serves as a conduit through which students can engage in meaningful discourse, transcending the barriers of time and space. Crucially, the pedagogical foundations for preventing verbal aggression necessitate a collaborative effort that transcends the boundaries of the classroom. In partnership with parents, community stakeholders, and policymakers, educators can forge a holistic ecosystem wherein the seeds of empathy and understanding find fertile soil to flourish. By fostering a symbiotic relationship between home, school, and society, we can collectively sow the seeds of a more harmonious future.

1. Understanding Verbal Aggression in the School Community. Verbal aggression manifests in various forms within the school community, ranging from subtle acts of name-calling to overt instances of bullying. At its core, verbal aggression represents a breach of the fundamental principles of respect and empathy, perpetuating a culture of discord and division. By delving into the psychological underpinnings of such behavior, educators can gain invaluable insights into the nuanced dynamics at play.

2. The Role of National Moral Values in Preventing Verbal Aggression. National moral values serve as the bedrock upon which the edifice of our society

stands. Whether rooted in religious teachings, cultural traditions, or historical narratives, these values embody the collective ethos of a nation. By integrating these values into the educational curriculum, educators can imbue students with a sense of moral clarity and ethical discernment, thereby fostering a school community characterized by mutual respect and understanding.

3. Cultivating Empathy and Emotional Intelligence. At the heart of preventing verbal aggression lies the cultivation of empathy and emotional intelligence. By nurturing a deep-seated understanding of the emotions and experiences of others, educators can empower students to navigate interpersonal conflicts with grace and compassion. Through experiential learning modalities, such as role-playing exercises and storytelling sessions, students can develop the cognitive and affective skills necessary to forge meaningful connections and resolve conflicts amicably.

4. Fostering a Culture of Inclusivity through Technology. In an increasingly interconnected world, technology emerges as a potent tool in our arsenal against verbal aggression. By leveraging digital platforms, educators can facilitate open dialogue and foster a culture of inclusivity and mutual respect. Whether through online forums, virtual mentorship programs, or interactive learning modules, technology offers a myriad of opportunities for students to engage in constructive discourse and cultivate empathy across cultural and geographical boundaries.

5. Peer Mediation and Conflict Resolution. Peer mediation programs represent a cornerstone of preventive efforts against verbal aggression. By empowering students to serve as mediators and facilitators in resolving conflicts, educators can instill a sense of agency and responsibility in the school community. Through training workshops and real-world simulations, students learn invaluable communication and negotiation skills, equipping them with the tools to address interpersonal conflicts in a constructive and empathetic manner.

6. Collaborative Partnerships for Holistic Prevention. Preventing verbal aggression requires a collaborative effort that extends beyond the confines of the classroom. By forging partnerships with parents, community stakeholders, and policymakers, educators can create a holistic ecosystem wherein the values of empathy and understanding are reinforced across multiple spheres of influence. Through parent-teacher associations, community outreach programs, and policy advocacy initiatives, educators can mobilize collective action to nurture a school community characterized by harmony and respect.

7. Assessing Impact and Sustaining Progress. As with any educational intervention, assessing the impact of preventive efforts against verbal aggression is crucial for sustaining progress and refining strategies. By implementing pre- and

post-intervention assessments, educators can gauge changes in student attitudes and behaviors, thereby informing future pedagogical practices. Moreover, ongoing professional development and collaboration with academic researchers can ensure that preventive efforts remain grounded in evidence-based practices and responsive to evolving societal dynamics.

In conclusion, the prevention of verbal aggression in the school community demands a multifaceted approach grounded in the pedagogical principles that transcend the temporal confines of the classroom. By integrating national moral values into the educational curriculum, cultivating empathy and emotional intelligence, leveraging technology for inclusive dialogue, and fostering collaborative partnerships, educators can create a nurturing environment wherein every interaction becomes an opportunity to nurture harmony and understanding. As we embark on this collective journey, let us remain steadfast in our commitment to fostering a school community characterized by respect, empathy, and resilience, wherein the echoes of verbal aggression are drowned out by the symphony of shared humanity.

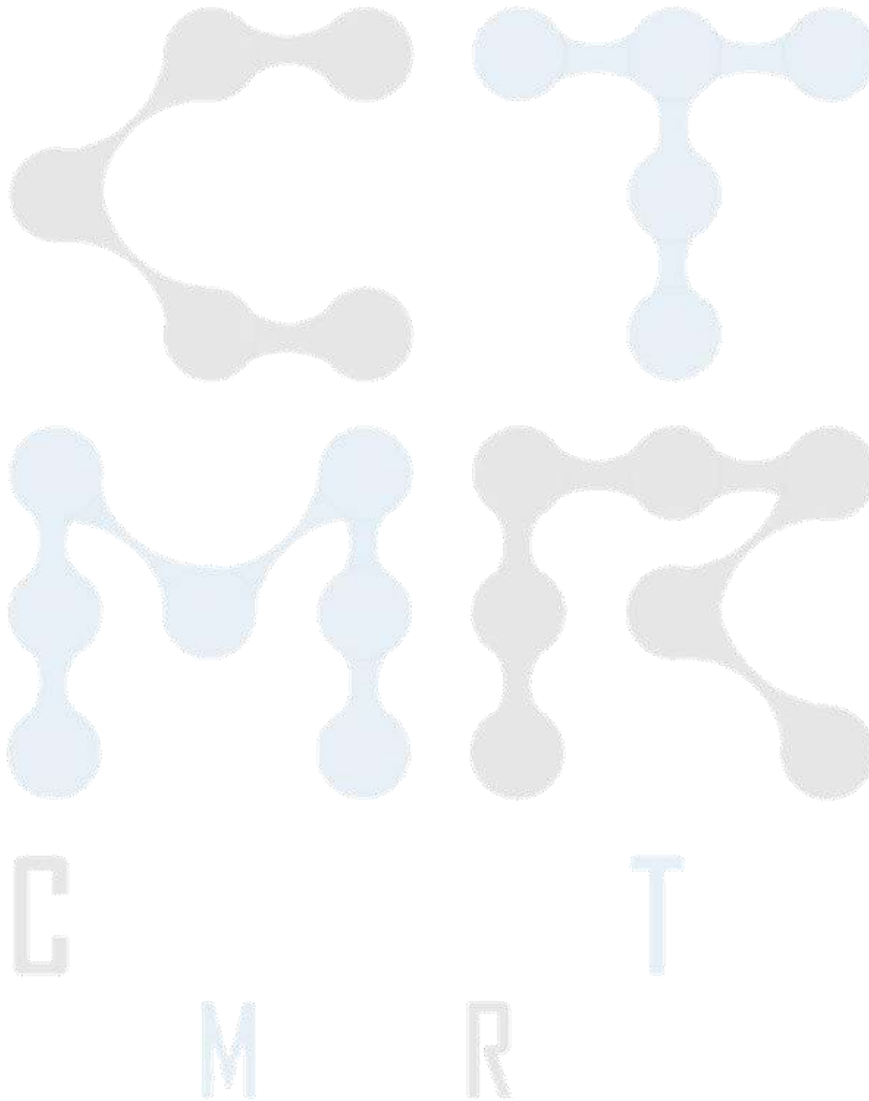
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BOLALARDA TISH KASALLIKLARIDAN QO‘RQISH DARAJASINI BAHOLASH

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Muammoning dolzarbligi: Dunyo aholisining tish kasalliklaridan paydo bo‘ladigan qo‘rquv xissiyoti yuqori o‘rinlarni egallaydi va aniqlandi. (Korchagina V.V., 2008; Maslak Ye.E. 2008; Schuller A.A. 2003; Folayan M.O. 2004; Heft M.W. 2007; Hermes D. 2007; Nicolas E. 2007). Qo‘rquvning eng yuqori darajasi-stomatofobiya-bolalikda shakllanishi va hayot davomida davom etishi mumkin (Kononenko Yu.G. 2001; Derevyanchenko S.P., 2005; Gower P.L, 2004; Milgrom P., 2004).

Ko‘pgina tish kasalliklarining rivojlanishi erta bolalik davrida boshlanadi, ammo otanonalar va bolalarda tish kasalliklaridan qo‘rqish xissiyoti o‘zining jiddiy muammosini keltirib chiqaradi va tish shifokorlariga zarur choralarini ko‘rishga imkon bermaydi [1, 2, 3].

Jahon sog‘liqni saqlash ma‘lumotlariga ko‘ra dunyo tibbiyot soxasida bolalar o‘limi eng asosiy muammolardan biri bo‘lib kelmoqda. Bugungi kunda bolalar o‘limi darajasi 1000 ta tirik tug‘ilgan bolalarda 15,6% to‘g‘ri kelishiga qaramasdan bolalar tug‘ilishi ko‘rsatkichi juda past, yani 9,1% qilmoqda. Jumladan 5 yoshgacha bolalar o‘lim ko‘rsatkichi O‘zbekistonda 2018 yilda 9,8 ming nafarni tashkil qilmoqda [4, 5]

Bolalarda tish kariyesining tarqalishi stomatologiya klinikalarining bolalar bo‘limlariga yordam so‘rab murojaat qilganlarning umumiy sonining 60% ini tashkil qiladi. So‘nggi paytlarda og‘iz bo‘shlig‘iga otilib chiqqandan keyingi dastlabki yillarda doimiy tishlarning kariyesli jarayonining intensivligini oshirish tendentsiyasi kuzatilmoqda. Bolalar va o‘smir yoshdagilarni tekshirishning o‘ziga xos xususiyatlari, vaqtincha va doimiy tiqilib qolishi tishlaridagi turli xil kariyes shakllarini tashxislashning murakkabligi, davolash usulini tanlashdagi qiyinchilik bolalar stomatologining yuqori kasbiy tayyorgarligini talab qiladi [6]

Tadqiqot maqsadi: Bolalarda tish kasalliklarida paydo bo‘ladigan qo‘rqish darajasini baholashdan iborat.

Tekshiruv usullari va meteriallari: Tekshiruv Surhondaryo viloyat bolalar stomatologiya markazi hamda Termiz shahar №2 va №3 oilaviy poliklinika, Angor tuman markaziy stomatologiya poliklinikasiga 2020-2023 yillarda murojat qilgan bolalarni ustida olib borildi.

Retrospektiv tahlil guruh tarkibiga turli tish kasalliklari aniqlangan 184 nafar bola olinib, tekshiruvdagi bolalarni anamnez ma‘lumotlari, kasallikni davomiyligi hamda, laborator va instrumental tekshiruvdan o‘tgan bemorlar olindi.

Retrospektiv guruhdagi bolalarning yosh bo‘yicha tasnifi

№ 1 jadvalda keltirilgan.

Yosh (M±m)				
1-3 yosh	3-5 yosh	5-7 yosh	7-12 yosh	14 yosh va undan yuqori
2,1±0,1	3,7±0,3	6,2±0,2	9,5±0,3	12±0,2

Yashash joyi	Yosh									
	1-3 yosh		3-5 yosh		5-7 yosh		7-12 yosh		14 yosh va undan yuqori	
	Abs	%	Abs	%	Abs	%	Abs	%	Abs	%
Shahar n=66	6	3,3	20	10,8	24	13	10	5,4	6	3,3
Qishloq n=118	12	6,5	28	15,2	34	18,5	34	18,5	10	5,4

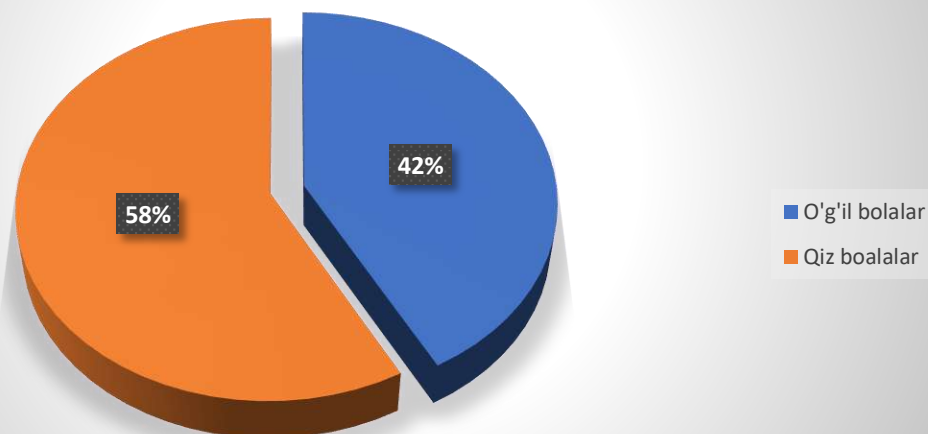
Jadvaldan ko‘rinib turibdiki, retrospektiv guruhdagi bolalar 184 tani tashkil etadi. Ulardan 66 tasi shahar aholisi 35,9% va 118 tasi qishloq aholisida yashovchi bolalar bo‘lib u 64,1% ini tashkil etadi. Yosh jihatdan: bolalarning 3 yoshdan 5 yoshgacha retrospektiv guruhda ($3,7 \pm 0,3$) ulushi 31,1% ni (29 ta bola), 5 dan 7 yoshgacha ($6,2 \pm 0,2$) bo‘lgan bolalar (24 ta) 26% ni tashkil qildi.

Tadqiqot natijalari: Bolalarda tish kasalliklarida paydo bo‘ladigan qo‘rqish darajasini baholashda stomatologik fobiyaning o‘rganish va uning shakllanishiga hissa qo‘shadigan oilalar tarbiyasi shuni ko‘rsatadiki, Stomatologik fobiya belgilari yosh bolalarning uchdan birida (35,9%) aniqlangan va tish kasalliklaridan qo‘rqish xissi maktab yoshidagi bolalarning ko‘pchiligiga 5-7 yosh xosdir mos ravishda (54,7%-89,2%) teng.

Yosh bolalarning stomatologga birlamchi tashrif buyurish sabablari orasida birinchi o‘rinni bolalar shifokori tomonidan tibbiy-profilaktik ko‘rikdan o‘tkazish zarurati (77,1%), sezilarli kariyes (15,8%) va tish og‘rig‘i (4,1%) egalladi. tashriflar sabablari, travma (2,1%), va boshqa (1,0%).

Bolalarning dastlabki stomatologik tekshiruvi ota-onalar o‘ylaganidan ko‘ra kasallikning ko‘proq tarqalishini aniqladi: 32,2% bolalarda tish kariyesi bor va davolanish kerak edi. Bolalar qanchalik katta bo‘lsa, tish kasalliklari qanchalik tez-tez aniqlansa, davolanishga bo‘lgan ehtiyoj shunchalik yuqori bo‘lgan: 1-3 yosh – 13,5%, 3-5 yosh – 34,8%, 5-7 yosh – 28,8%, 7-12 yosh – 45,9%.

Tekshiruvimizdagi bolalarni jins buyicha taqsimoti



Tish shifokorining qabulida birinchi kurikda bolalarning xatti-harakatlarini o'rganish shuni ko'rsatdiki, har uchinchi bolada stomatologik fobiya belgilari (tashvish, bezovtalik, uyga ketish istagi, ko'z yoshlari) aniqlandi.

Ikki yoshgacha bo'lgan bolalarda stomatologik fobiya belgilari ikki yoshdan oshganlarga qaraganda sezilarli darajada tez-tez aniqlandi: 47,4% va 28,3%, $p < 0,01$. Tadqiqotga olingan yosh bolalarning tishlarini davolash jarayonini kuzatishi shuni ko'rsatdiki, ko'plab onalar (29%) bolalarning og'iz bo'shlig'idagi tibbiy muolajalardan qo'rqib, o'z farzandlarini majburiy davolashga ruxsat berishni istamasliklari sababli tish davolashdan bosh tortgan yoki bolalarini davolashni to'xtatgan.

Xulosa: Bolalarda tish kasalliklarining erta boshlanishi va davolashga katta ehtiyoj fonida rivojlanadigan stomatologik fobiyaning yuqori tarqalishi katta ijtimoiy ahamiyatga ega va maxsus profilaktika dasturlarini ishlab chiqish zarurligini belgilaydi.

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PSYCHOLOGICAL AND PEDAGOGICAL ASPECTS OF STUDENTS' LEARNING OF
DRAWING

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Abstract: The article deals with the problems of formation of spatial thinking and spatial imagination in pupils of VIII-X classes. Psychological and pedagogical aspects of studying drawing by pupils are substantiated. Types and classifications of thinking are given.

Keywords: spatial thinking, spatial imagination, thinking, spatial image, imagination.

An important type of thinking that has a direct impact on quality graphic training is the operation of spatial images. The deeper and more logical the thought, the more clearly and concisely it will be reflected in the drawing or expressed in words. By expressing their thoughts aloud, pupils learn to emphasise the main points, which is of great importance in solving this or that task, in understanding it more deeply.

Studies of domestic and foreign teachers and psychologists confirm that spatial representations in pupils of VIII-X classes (adolescence) are not sufficiently developed. This is manifested in the numerous, not easily overcome difficulties that many schoolchildren experience in creating and operating spatial images. At classes in many subjects for better learning of knowledge along with visual images of certain objects conditional images in the form of graphs, schemes, diagrams, tables are used, which helps to reproduce any subject relations (functional, structural, etc.) without the use of modern computer technologies that directly affect the formation of spatial representation.

Some authors use the term "spatial thinking", which in the psychological and pedagogical literature is interpreted in a broad sense as thinking with spatial images. A spatial image is a secondary image of an object that arises in the human mind on the basis of perception. Spatial thinking is understood as a complex and multifaceted representational process that results in the creation and operation of a spatial image. Creation of a spatial image can be carried out both with the use of means of visual learning and with maximum distraction from it. The main content of spatial thinking is the operation of spatial images.

Important indicators of the development of spatial thinking are the breadth of operation and completeness of the image. The breadth of operation is understood as the degree of freedom to manipulate spatial images using different graphic material. The completeness of the image is its correspondence to the real object. It characterises the set of image elements, their connection and dynamism. The breadth of operation and completeness of the image allow us to monitor the dynamics of spatial thinking development in the process of reading a drawing, etc.

The problem of formation of spatial thinking, spatial imagination in students, the result of the above processes are spatial representations, without which it is simply impossible to master the subject "Drawing". The development of imagination is the most important condition for mastering the ability to build and read a drawing and graphic activity in general. However, the process of learning to draw serves as one of the most important means of developing the imagination.

The spatial image has a number of specific features. Created predominantly on a graphic basis, it is complex in nature. It represents both the singular and the universal, the concrete and the abstract, the empirical and the theoretical. It reflects spatial properties and relations of objects, characterising to a greater extent not the object, but its position in the system of objects. It is the spatial image that is the operational unit that makes it possible to distinguish spatial thinking into a separate type of thinking.

Spatial thinking is a type of visual thinking. When operating with images, they are recreated, reconstructed, modified in the required direction. Images here are both the source material, the basic operational unit, and the result of the thought process. This does not mean that verbal knowledge is not used. But unlike verbal-logical thinking, the word is used as a means of interpreting changes in images that have already been made.

Spatial thinking in its most developed forms forms visual images on a graphic basis. The formation of scientific ideas and concepts of space in schoolchildren is one of the most important tasks of intellectual development and graphic culture. The ability to identify the shape and size of depicted objects is mediated by a system of knowledge, methods and ways of action, mastery of specially developed standards of geometric shapes. There is much less reliance on knowledge when delineating spatial relations.

As already mentioned, spatial thinking is a multi-level formation. Therefore, the indicators of its development should be sought in the specificity of the activity of spatial representation, which ensures the creation and operation of images. Although these are closely related processes, different activities underlie each. When creating an image, the visual base, on the basis of which the image arises, is subjected to mental transformation. When operating with an image, an image already created on this basis is mentally modified, sometimes in conditions of complete abstraction from this basis. In both cases there is a change of primary images, but the conditions of this transformation are different. In the first case, it relies on perception, recognition, identification of objects given graphically, in the second case it is based on the ability to carry out the required spatial transformations mentally, without reliance on perception, i.e. by representation.

By singling out the operation with images as a special kind of activity, which does not coincide neither in its content, nor in the conditions of implementation, nor in the results with the process of image creation, I.S. Yakimanskaya reveals the levels of spatial thinking development.

The separation of two types of activities, such as creating images and operating them, shows that several levels of spatial thinking development should be distinguished. The spatial representation is formed in multidimensional activity, which is conditioned, firstly, by special conditions of image creation (abstraction from the visual basis of different kinds), and secondly, by the content of the representation, as the pre-formations carried out in the mind are a whole system.

Thinking is the most generalised and mediated form of mental reflection that establishes connections and relations between cognizable objects.

Thinking is of different kinds and is classified using different bases. Thus, by form, thinking is differentiated:

- *concrete-action* (based on direct perception of objects in the process of actions with them);
- *visual-imaginative* (characterised by reliance on representations and images);

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- *figurative or visual* (the product of which are new images that can be objects of visual manipulation and transformation);

- *verbal-logical* (carried out by means of logical operations with concepts).

Thinking operations used in the study of drawing (technical graphics):

Synthesis is a thought operation that allows one to move from parts to the whole in a single analytical-synthetic thought process.

Comparison is a thinking operation based on establishing similarities and differences between objects.

Analysis is a thought operation of dissecting a complex object into its constituent parts or characteristics (properties).

Generalisation is the association of objects into one group by their common, essential features revealed by comparison: the presence of edges, faces and vertices.

Classification is the distribution of objects, phenomena and concepts into classes, departments, divisions in accordance with their common features.

Imagination representations are new images and are subdivided, depending on the way of their creation, into two groups: images of recreative imagination and images of creative imagination.

An *image of recreative imagination* is a new image that is created on the basis of given material, recycling memory images by mentally processing it. They are created in practice when solving the following tasks: construction of a third image of an object based on two given ones, construction of a drawing of an object based on a verbal description, making a part cut. The images of recreative imagination are also the images created on the basis of reading epurés, working and assembly drawings, kinematic, electrical schemes.

The *image of creative imagination* is a new image. Its creation is not directly directed, not dictated by a given material - a conventional image, or a text - as in the creation of an image of the recreative imagination. In this sense, images of the creative imagination are more "free" than images of the recreative imagination. In this way the designer mentally creates a new technical object that has no analogy, although familiar images are used in some of its features.

Psychologists have proved that the activity of representation is determined and conditioned, on the one hand, by the content, conditions and form of presentation of visual material, the requirements of the task, and on the other hand, by subjective selectivity, depending on personal interests, a person's inclination to work, his emotional attitude to the material.

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ФИНАНСОВОЕ ОЗДОРОВЛЕНИЕ ПРЕДПРИЯТИЯ КАК СПОСОБ ПРЕДУПРЕЖДЕНИЯ ЕГО БАНКРОТСТВА

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АННОТАЦИЯ

В статье освещены подходы к толкованию финансового оздоровления предприятия. Определено, что главной задачей финансового менеджмента является обеспечение финансового равновесия предприятия в изменяющейся экономической среде. Исследовано как стадия жизненного цикла предприятий влияет на стратегию финансового оздоровления. Обоснован и уточнен комплекс санкционных мероприятий краткосрочного и долгосрочного характера. Акцентировано внимание на необходимости внедрения именно стратегического подхода в антикризисном управлении. Определены основные этапы разработки и проведения мероприятий финансового оздоровления для устранения неплатежеспособности предприятия. Изложенные подходы могут быть использованы в дальнейших исследованиях механизма предупреждения банкротства предприятий.

Ключевые слова: финансовое оздоровление предприятия, финансовая санация, стратегия финансового оздоровления, неплатежеспособность, банкротство.

Неплатежеспособность и финансовая нестабильность предприятий могут быть следствием проявления определенных кризисных ситуаций, возникших под действием факторов экономической, социальной и политической нестабильности в стране и оказавших негативное влияние на финансово-хозяйственную деятельность этих предприятий. Для решения этих проблем, стабилизации и дальнейшего развития таких предприятий необходимо обосновать механизм выявления и преодоления причин кризисных явлений. Следовательно, актуальной темой является исследование теоретико-методического инструментария проведения финансовой санации для вывода предприятий из кризисного состояния.

Исследуя понятие «финансовое оздоровление» можно отметить определенные неточности и недостаточную полноту наполнения отдельных толкований. Так, в нормативно-правовых документах предоставляется более узкое определение «финансового оздоровления», которое учитывает только возобновление платежеспособности и погашение задолженности перед кредиторами. Хотя к этому понятию, на наш взгляд, необходимо включение более широкого круга вопросов – улучшение показателей эффективности финансово-хозяйственной деятельности, увеличение стоимости предприятия путем капитализации.

В конечном итоге, именно обеспечение прибыльной деятельности предприятия и его финансовой устойчивости в изменяющейся экономической среде является условием стабильности и сохранения предприятием своей ниши на рынке. Условием обеспечения эффективности процесса управления финансовой устойчивостью предприятия является дальнейшее исследование теоретико-методических основ закономерностей развития

предприятий в рыночной среде. Хозяйственной практикой доказано, что все решения по управлению формированием, распределением и использованием финансовых ресурсов, а следовательно, и организации денежного оборота предприятия являются взаимосвязанными и непосредственно оказывают влияние на дальнейшие финансовые результаты деятельности.

Основным результатом эффективного управления финансами является формирование необходимых источников финансовых ресурсов, направленных на обеспечение расширения операционной деятельности, стабильное увеличение стоимости собственного капитала, утверждение рыночной конкурентной позиции предприятия и создание стабильных условий его экономического развития в стратегической перспективе.

Именно акцент на обеспечение финансового равновесия предприятия в процессе его развития является главной задачей финансового менеджмента. Такое финансовое равновесие предприятие может получить только при соблюдении оптимальной структуры капитала и активов, рационально обоснованных пропорций финансовых ресурсов, сформированных из разных по степени риска источников, безопасного уровня финансирования инвестиционных потребностей, что, в свою очередь, обеспечивает финансовую устойчивость и платежеспособность предприятия в долгосрочной перспективе. Но вполне логично, что под действием влияния изменений внешних или внутренних факторов хозяйственной деятельности, происходит и изменение параметров такого равновесия, независимо от этапа развития предприятия.

Поэтому, объектом антикризисного управления является именно выявление и дальнейшее уменьшение действия разрушительной силы негативных факторов на нарушение финансового равновесия предприятия в динамике. Комплекс финансового оздоровления должен включать меры по управлению производством, маркетингом, финансами и персоналом. Также эту комплексность финансового оздоровления можно рассматривать как в узком, так и в широком смысле. В первом случае для стабилизации финансового состояния, нарушенного структурными элементами кризисных явлений, требуется изменение финансовой политики предприятия на отдельной стадии жизненного цикла предприятия. Во втором случае, финансовое оздоровление уже предусматривает санацию и совокупные меры финансового менеджмента для формирования ресурсного потенциала и обеспечения постоянного финансового равновесия на всех стадиях жизненного цикла предприятия, то есть как устранение причин возникновения кризиса на предприятии, так и избегание в дальнейшем от факторов, вызвавшие ухудшение финансово-экономического положения [6, с. 52].

Следовательно, финансовое оздоровление может также рассматриваться как краткосрочное и долгосрочное, и в общем своем понимании предполагает нейтрализацию негативных последствий для достижения финансовой стабильности. Но исследование опыта финансового оздоровления многих предприятий показывает, что более успешны эффективные инвестиционные мероприятия.

Такие предприятия не только остаются на рынке, поддерживая свое существование на нем, но и усиливают свои позиции в будущем [4, с. 56]. При действии законов рыночной экономики, а именно теории цикличности, которая имеет свое влияние на каждое существующее предприятие, проблема оздоровления обязательно встает перед любым субъектом хозяйствования. То есть выживание предприятия на рынке требует от него

постоянного обновления. Различные варианты реализации жизненного цикла предприятия с учетом затрат в процессе санации приведены на рис. 1. Да, зона А характеризует развитие предприятия; зона Б – санацию предприятия; зона В – неплатежеспособность (банкротство).

Приведенные варианты кривой жизненного цикла имеют свои особенности, поэтому должны рассматриваться индивидуально [4, с. 56]. На сегодняшний день стратегическое планирование в рыночных условиях неопределенности и риска необходимо для прогнозирования возможных проблем и возможностей их преодоления в будущем. То есть стратегия в данном случае выступает гарантом стабильного развития предприятия. Однозначно неправильно было бы говорить, что только наличие стратегии позволит избежать кризисного состояния, но она позволяет уменьшить уровень вероятности его возникновения, а также, в случае наступления, – скорее преодолеть его последствия.

Рассмотрим санацию как совокупность мер по устранению неплатежеспособности, восстановление финансовой устойчивости, внедрение превентивных действий по избежанию банкротства, повышение конкурентоспособности. Такие мероприятия должны быть нацелены на восстановление эффективности финансово-хозяйственной деятельности предприятия через разработку программы оздоровления и развития, а также выявление и реализацию неэффективных структурных подразделений, поиск скрытых резервов и дополнительных стимулов.

Основной целью этих мероприятий является «выигрывание времени» для проведения более глубокой реорганизации предприятия. Именно поэтому оптимальными стадиями жизненного цикла для ее производства выступает стадия возникновения (становления), а также период стремительного спада деятельности (на рис. 1 – зоны А, В).

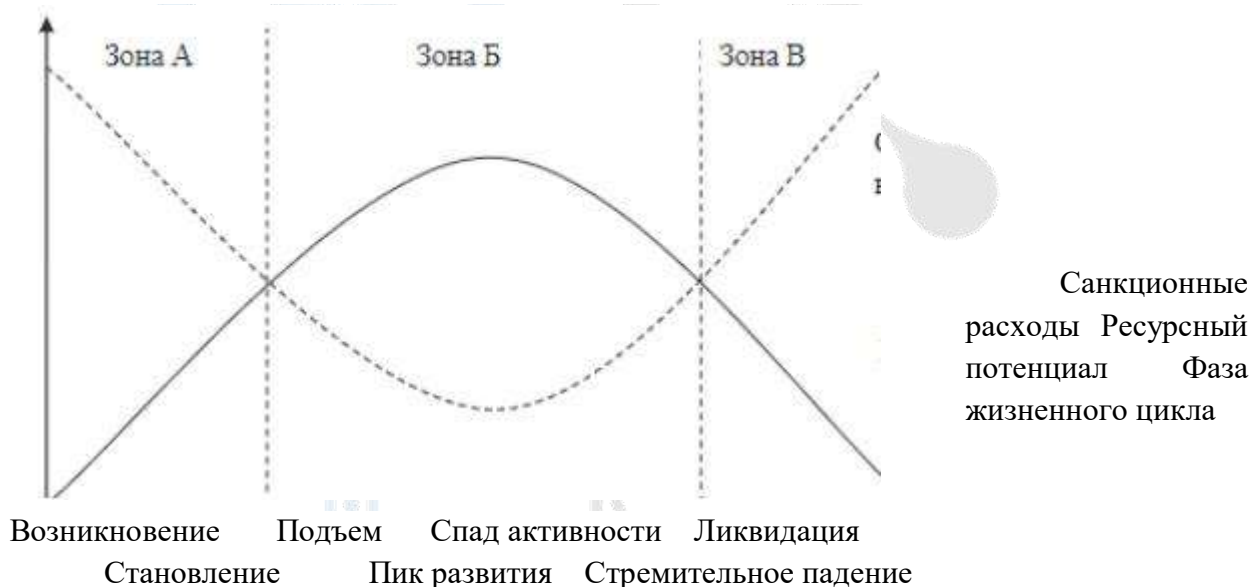


Рис. 1. Изменение соотношения скопленного потенциала ресурсов и их издержек в процессе санации на этапах жизненного цикла компании [10, с. 216]

В стратегической перспективе оздоровление предполагает выявление оптимального и рационального использования возможностей предприятия по формированию прибыли, т.е. на поддержание финансовой устойчивости в долгосрочном периоде [10]. Следовательно, следующая стратегия целесообразна в ситуации наличия определенного

внутреннего потенциала для проведения активных оздоровительных действий (на рис. 1 - зона Б).

При этом варианте внешние финансовые ресурсы инвестируются в расширение производственного, кадрового и маркетингового потенциала предприятия. Особенностью такой стратегии есть то, что она помогает оздоровить объект путем реализации цели прорыва. Возможно также эффективно сочетать защитную и наступательную стратегии с целью более эффективного и стремительного восстановления платежеспособности предприятия [2, с. 88-89].

На эффективность осуществления финансового оздоровления влияет также субъективный фактор – рациональный и умелый подход руководства к разработке такой стратегии деятельности и развития, что позволило бы добиться максимальных результатов при минимальных рисках. Процесс разработки проекта финансового оздоровления также требует высокой степени осведомленности о особенностях ведения определенного бизнеса; создание квалифицированной команды специалистов, которые должны реализовывать план оздоровления, и профессионального антикризисного руководства ею; эффективного управления рисками проекта с учетом его ограниченности в стоимости и сроках проведения санационных мероприятий.

Принятие решения в пользу проведения санации (а не ликвидации) предприятия должно быть обоснованным, прежде всего, оценкой возможности восстановить стабильные входящие денежные потоки. Если неплатежеспособность предприятия является временной, то возможно вовлечение в процесс разработки досудебных санационных мероприятий не только собственников предприятия, но и кредиторов. Последние достаточно заинтересованы в сбережении своих средств, а следовательно, при наличии значительных шансов по преодолению кризисного состояния предприятия, могут согласиться на реструктуризацию долга в части продления сроков его погашения.

Решающим аргументом в пользу принятия решения о ликвидации предприятия, по мнению зарубежных специалистов, является низкая оценка вероятности возобновления успешной деятельности предприятия, а ее продолжение связано со значительными рисками и убытками [4, с. 57].

В случае принятия решения о сохранении предприятия основной задачей антикризисного менеджмента становится разработка системы мер по финансовому оздоровлению, которые можно сгруппировать по двум направлениям: восстановление платежеспособности предприятия и стабилизация его финансового состояния; создание стратегии развития, ориентированной на реструктуризацию предприятия с целью нейтрализации в будущем причин кризиса.

Процесс формирования мер, направленных на финансовое оздоровление, может происходить по следующим этапам (см. рис. 2).

Мероприятия по финансовому оздоровлению предприятия		
Защитная стратегия	I этап. Цель – устранение неплатежеспособности	Первоочередные мероприятия: -продажа краткосрочных финансовых инвестиций; -ускорение инкассации дебиторской задолженности; -снижение страховых запасов товарно-материальных ценностей; -реструктуризация кредиторской задолженности с целью продления срока ее уплаты; -отсрочка расчетов по отдельным формам внутренних текущих обязательств.
Наступательная стратегия	II этап. Цель – восстановление финансовой устойчивости	Стабилизационные мероприятия: -уменьшение величины постоянных затрат; -снижение уровня переменных затрат; -проведение рациональной ценовой политики; -замораживание или выход из инвестиционных проектов; -отказ от выплаты дивидендов; -уменьшение расходов на социальные программы
	III этап. Цель – обеспечение финансового равновесия в долгосрочном периоде	Меры инвестиционного характера: -расширение существующих и выход на новые рынки сбыта через активизацию маркетинговой политики; -оптимизация структуры активов и капитала; -капитализации прибыли; -поиск внешних стратегических инвесторов.

1. Внедрение первоочередных мер по устранению неплатежеспособности предприятия. На данном этапе используются оперативные меры возобновления платежеспособности (по принципу «отсечения излишнего») [1, с. 252]. Перед руководством возникает вопрос об уменьшении размера текущих финансовых обязательств и увеличении суммы денежных средств, необходимой для погашения краткосрочных обязательств. Для этого необходимо уменьшить как размер текущих потребностей, вызывающих рост финансовых обязательств, так и размер отдельных видов ликвидных активов из-за необходимости их конверсии в денежные средства. Среди таких мер могут быть: продажа краткосрочных финансовых инвестиций, ускорение инкассации дебиторской задолженности, снижение страховых запасов товарно-материальных ценностей, реструктуризация кредиторской задолженности с целью продления срока ее уплаты,

отсрочка расчетов по отдельным формам внутренних текущих обязательств (расчеты с дочерними предприятиями, по выплате дивидендов) и др.

В международной практике максимальные сроки получения результатов от оперативного регулирования не должны превышать шести месяцев.

2. Реализация стабилизационных мер, направленных на восстановление финансовой устойчивости. На этом этапе должен быть задействован комплекс мер по улучшению финансового состояния. Результатом такого улучшения должно стать достижение финансового равновесия, то есть размер поступления собственных финансовых ресурсов должен равняться размеру их расходования на минимальные повседневные потребности предприятия. В кризисных условиях, когда у предприятия ограничены возможности увеличения потока собственных финансовых ресурсов, руководство вынуждено сокращать объемы операционной и инвестиционной деятельности для достижения точки финансового равновесия (по принципу «сжатия предприятия») [1, с. 257–261].

Среди возможных мероприятий этого этапа финансового оздоровления являются следующие: уменьшение величины постоянных затрат, снижение уровня переменных затрат (повышение производительности труда, сокращение производственного персонала), проведение рациональной ценовой политики, замораживание или выход из инвестиционных проектов, отказ от выплаты дивидендов, уменьшение расходов на социальные программы и др.

3. Разработка мер инвестиционного характера. Целью проведения мероприятий этого этапа финансового оздоровления является обеспечение финансового равновесия предприятия в долгосрочном периоде (использование «модели устойчивого роста») [1, с. 262-264].

Согласно такому подходу необходим учет того момента, что возможный темп прироста объема производства продукции не должен нарушать финансового равновесия. Так, привлечение дополнительных внешних источников финансовых ресурсов для наращивания объемов производства оправдано только при наличии соответствующей конъюнктуры товарных рынков. Именно при такой рыночной ситуации предприятие может надеяться на стабильные входящие денежные потоки.

Исходя из этого, на данном этапе проводят следующие основные санационные мероприятия: расширение существующих и выход на новые рынки сбыта через активизацию маркетинговой политики, оптимизация структуры активов и капитала, капитализацию прибыли, поиск внешних стратегических инвесторов и др.

Следовательно, можно утверждать, что финансовое оздоровление имеет комплексный характер и включает мероприятия финансово-экономического, производственно-технического, организационно-правового и социального направления. Выводы из проведенного исследования.

Исходя из вышеизложенного, можно сделать общий вывод о том, что в условиях рыночной экономики финансовое оздоровление является действенным инструментом предупреждения банкротства предприятий. В общем своем понимании, оно предполагает нейтрализацию негативных последствий для достижения финансовой стабильности. Учет особенностей процесса санации на разных стадиях жизненного цикла предприятий может непосредственно повлиять на принятие решения о санации или ликвидации должника.

Также на принятие такого решения влияет результат оценки вероятности возобновления успешной деятельности предприятия. Комплекс мероприятий в рамках стратегии финансового оздоровления последовательно должен разрабатываться по следующим этапам: устранение неплатежеспособности, восстановление финансовой устойчивости, обеспечение финансового равновесия в долгосрочном периоде. То есть, финансовое оздоровление только тогда достигает своей цели, когда санкционные мероприятия носят комплексный характер и применяются не только в кризисном состоянии, а внедряются постоянно с учетом стратегического развития предприятия.

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**ОСОБЕННОСТИ ТЕЧЕНИЯ БРОНХОЛЁГОЧНОЙ ПАТОЛОГИИ У ДЕТЕЙ,
РОДИВШИХСЯ ОТ МАТЕРЕЙ ПЕРЕНЕСШИХ КОВИД ИНФЕКЦИИ**

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Актуальность. Начавшаяся по всему миру в 2019 году, пандемия Коронавирусной инфекции все еще продолжается, и она является одной из актуальных проблем не только лечения беременных женщин, но и родившихся новорожденных детей, что в сравнении с другими заболеваниями имеет большое значение. [1,3,8,12,16,18].

Коронавирусная инфекция, вызывающая тяжелый острый респираторный синдром- 2 (SARS-CoV-2) при заболевании COVID-19 у женщин детородного возраста и его последствия у младенцев представляет большой интерес для педиатров и пациентов. Изучение проведенного лечения по историям болезней больных детей с бронхолегочной патологией, матери которые перенесли COOVID – 19 во время беременности, имеет большое значение для здорового роста молодого поколения нашей страны [2,4,6,9,10,15].

Цель исследования. Изучение анамнеза матерей, поступивших в отделение и перенесших COVID – 19 до беременности, у больных детей с бронхолегочной патологией и определить тяжесть состояния.

Методы исследования. Для решения поставленных задач нами были проведены изучения литературных данных по COVID – 19 инфекции.

Коронавирусы - это одноцепочечные инкапсулированные РНК-вирусы. Многие ученые охарактеризовали их как респираторное заболевание у молодых цыплят, а позже болезнь была описана и у особей старшего возраста, но одним из первых в начале 1930-х годов Шахнас М. Наджимудин, Мохамед С. Хасан и др., определили инфекционный бронхит, вирус которого принадлежал к семейству Coronaviridae и отряду Nidovirales. А с 1950 –х годов появились новые серотипы вируса инфекционного бронхита и его генотипы, связанные с его репродуктивной деятельностью, появились почечные, желудочно-кишечные, мышечные и иммунодепрессивные проявления [5,9,14,17,19].

Учитывая вышеизложенные, можно представить, что коронавирусная инфекция была и будет дальше представляться с нарушением не только дыхательных путей, но и других органов: центральной нервной системы, со стороны сердечно-сосудистой системы, почек, печени, нарушением нервно-мышечной передачей и т.д. [7,8,12,15].

Нами были изучены 2 группы - 20 историй болезней детей поступивших в пульмонологическое отделение клиники, из них первая - 10 историй болезней матерей, которые перенесли в 2019 году COVID – 19 инфекцию, из них 6 историй болезней с диагнозом внебольничная очаговая пневмония, острое течение у 4-х осложненное с ДН-1 степени, из всех больных с сопутствующими заболеваниями анемия была выявлена у 9 больных: из них 1 - степени у 70% больных, 2 - степени 30% больных и 1 из них: рецидивирующий обструктивный бронхит, осложненный с ДН 1 степени, также 2 из них

острый обструктивный бронхит с сопутствующей анемией и последний двухсторонний частичный ателектаз верхней доли, с гнойным эндобронхитом.

Во 2- контрольной группе были изучены -10 историй болезней детей и матерей, которых не болели COVID – 19 инфекцией, в возрасте от 1,5 года до 2 лет, лечившихся в пульмонологическом отделении клиники ТашПМИ с диагнозом острая пневмония, различной локализации. Из них дети с сопутствующими заболеваниями при патологии пневмонии 2 группы составляют: с острым тонзиллитом 30%, катаральным ринофарингитом у 30% больных, гнойным риносинуситом у 20%; лямблиоз у 10%; у 10% детей отмечался энцефалопатия, соответственно.

Проведенные анамнестические данные указывают, что больные дети поступают в клинику на 3 - 5 день заболевания после амбулаторного симптоматического лечения по месту жительства и, учитывая участие микроорганизмов при развитии пневмонии, в основном соответственно проводили этиотропную терапию антибиотиками цефалоспоринового ряда. Для проведения патогенетической и симптоматической терапии бронхо-легочных заболеваний применяются также спазмолитики, бронходилататоры, витаминотерапия – с аскорбиновой кислотой на физиологическом растворе натрия хлора, а антигистаминные препараты и жаропонижающие препараты назначают только при предрасположенности к фебрильным судорогам.

Результаты: Изучение анализов и проводимой фармакотерапии в историях болезней у больных детей показали, что больные дети 1 группы от матерей, которые перенесли COVID – 19 инфекцию, в возрасте 1,5 – 2 года с диагнозом бронхолегочной патологии и с сопутствующими заболеваниями, как анемии 90%, бронхоспазм, ателектаз нижней доли, гнойный эндобронхит и у 4-х больных с дыхательной недостаточностью 1 ст., и во 2 группе без патологии у матерей в анамнезе, также от 1,5 до 2 лет - показали, что дети с сопутствующими заболеваниями при патологии пневмонии составляют: с острым тонзиллитом 20%, катаральный ринофарингит наблюдался у 20% больных, гнойный риносинусит- у 10%; лямблиоз у 10%; и с сопутствующей железодефицитной анемией составили 30%.

У всех больных проведены клиничко-лабораторные, биохимические анализы и инструментальные исследования - Рентгенологически были подтверждены.

Таблица №1 Лабораторные показатели общего анализа крови

п/н	Показатели крови	В норме	1-ая группа,(матери переболевшие covid – 19)	2-я группа
1.	Гемоглобин	130-160 г/л	94,7 ± 0,04	110,9±3,5
2.	Эритроцит	4-5 * 10 ¹² /л	4,5* ± 0, 052	3,5± 0,47
3.	Цветной показатель	0,85-1,05	0,75 ± 1,01	0,7 ± 0,8
4.	Лейкоцитлар	4-9 * 10 ⁹ /л	8,6* ± 0,001	7,73± 0,03
5.	- палочкоядерные	1-6%	1,2 ± 0,06	1,1 ± 0,03
6.	- сегментоядерные	47-72%	43,1 ± 0,8	48,5 ± 2,2
7.	Эозинофиллар	0,5-5,0%	2,5 ± 0,6	1,5 ± 0,4
8.	Лимфоцитлар	19-37%	48,2 ± 2,18	47,1±0,001

9.	Моноцитлар	3-11%	$2,56 \pm 0,31$	$2,3 \pm 0,28$
10.	СОЭ	2-10мм/ч	$7,9 \pm 0,87$ мм/ч	$6,2 \pm 0,01$

Изучение показателей общего анализа крови показали, что у детей 1 – группы больных имеются изменения не только по тяжести состояния, но и по показателям крови. У матерей, перенесших во время беременности, однозначно были изменения со стороны сердечно-сосудистой и дыхательной системы, которая описывается в большом количестве литературных данных. Изменения со стороны крови в большей степени связаны с нарушением дыхания, способствуют нарушению метаболических процессов и накоплению недоокисленных продуктов в крови, хотя плацентарный барьер предохраняет плод от вредных веществ, но могут в какой-то мере также подействовать и на плод. Этому выводу способствует не только тяжесть состояния, но и показатель гемоглобина ниже чем на 2 группы, цветной показатель указывает на сгущение крови- обычное явление при анемии. При COVID – 19 инфекции отмечается сгущение крови и назначаются антикоагулянты - гепарин и его производные, это провоцирует у маленького пациента возникновение гематогенной патологии в виде анемий различной тяжести.

Изменения тонуса гладких мышц бронхов и высвобождение гистамина тучными клетками зависит от соотношения концентрации циклических нуклеотидов в этих клетках (ц-ГМФ и ц-АМФ), которое зависит от степени выраженности симпатического и парасимпатического влияния на рецепторы. Антигистаминные препараты уменьшают меберацию (высвобождение) тучными клетками, снижают отёки (за счёт блокирования гистаминовых рецепторов) в слизистой бронхов. Препараты 1- поколения повышают активность фермента гистаминазы и способствуют распаду гистамина. Кроме того димедрол оказывает мембраностабилизирующее действие, но в то же время может понижать порог судорожной готовности. Учитывая изменения общего анализа крови, которые более выражены в 1 вой группе чем во 2 группе, можно сделать вывод: перенесенная матерью инфекция COVID – 19 во время беременности может оказать влияние на нормальное формирование органов дыхания, осложненное дыхательной недостаточностью, частичным ателектазом нижней доли у пациента. По литературным данным также отмечается, что COVID – 19 инфекция может поражать все органы организма, и после выздоровления давать остаточные изменения. Даже при выздоровлении, малейшие изменения со стороны обменных процессов у матери, могут спровоцировать у плода склонность к различным патологическим состояниям.

Таблица №2 Анализы биохимических лабораторных показателей

п/н	Показатели крови	В норме	1-ая группа (матери переболевшие Covid-19)	2-я группа
1.	АлаТ	0-40 u/l	$0,39 \pm 0,021$	$0,42 \pm 0,08$
2.	АсаТ	0-45 u/l	$0,32,0 \pm 0,21$	$0,31 \pm 0,06$
3.	Билирубин общий	8,5-20,0 мкмоль/л	$10,3 \pm 0,6$	$10,1 \pm 0,02$
4.	Билирубин связанный	0-5,0 мкмоль/л	$8,4 \pm 0,047$	$2,5 \pm 0,06$
5.	Общий белок	65-85 г/л	$70,75 \pm 0,4$	$63,3 \pm 2,58$
6.	Альбумины	33-55 г/л	$37,57 \pm 0,44$	$39,5 \pm 0,48$
7.	Кальций в крови	2.0-2.75 мкмоль/л	$2,008 \pm 0,0053$	$1,95 \pm 0,02$

Данные биохимических анализов показали незначительные изменения печеночных обменных процессов, а также умеренное снижение белоксинтезирующей функции печени, что свидетельствует о снижении иммунитета у пациентов данной группы по сравнению со 2 – группой. Показатели минерального обмена проводились исследованием определения ионов кальция в крови, которое отмечалось в пределах нормы в обеих группах, соответственно.

Вывод: Таким образом, при изучении историй болезней больных, матери которых в анамнезе переболели COVID – 19 , по сравнению со 2-группой было обнаружено что, дети 1 –группы отличаются от 2 – группы по тяжести состояния и осложнениям. По-видимому, эти остаточные явления COVID – 19 у матерей с последующей беременностью дали такие изменения у детей 1- ой группы. Эти результаты дают представление, что у наблюдаемых пациентов, матери, которых перенесли COVID-19 инфекцию в период реабилитации могут быть остаточные явления со стороны анатомии и физиологии, эпидемиологии и патологической анатомии. Данные подтверждают, что раннее наступление беременности у женщины, перенесшей заболевание может снизить у ребенка защитные силы и болезнь протекает тяжелее .

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THE SUPERIORITY OF THE USSR IN THE PRODUCTION OF MILITARY WEAPONS IN THE SECOND WORLD WAR

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Abstract: During the Second World War, the Soviet Union demonstrated remarkable superiority in the production of military weapons, establishing itself as a formidable military force on the Eastern Front. Through a combination of industrial capacity, technological innovation, strategic planning, and foreign support, the USSR outproduced its adversaries and maintained a steady supply of weapons and equipment. The rapid industrialization under Joseph Stalin's regime, coupled with efficient resource allocation and coordination between military and industrial sectors, enabled the Soviet Union to mass-produce essential military equipment, including tanks, aircraft, artillery, and small arms. This industrial prowess played a crucial role in the eventual Allied victory over the Axis powers.

Keywords: Soviet Union, Military weapons, Production, Second World War, Industrial capacity, Technological innovation, Eastern Front

INTRODUCTION

The Second World War, one of the most devastating conflicts in human history, witnessed the emergence of the Soviet Union as a military powerhouse. Despite facing significant challenges and staggering losses, the USSR managed to establish superiority in the production of military weapons during the war. This article delves into the factors that contributed to the Soviet Union's remarkable industrial and military capabilities, which played a crucial role in the eventual Allied victory over the Axis powers.

1. Industrial Transformation and Mobilization Efforts

The Soviet Union underwent a rapid industrial transformation in the years leading up to the Second World War under Joseph Stalin's regime. The First and Second Five-Year Plans laid the groundwork for the country's industrialization, focusing on heavy industry and armaments production. By the outbreak of the war, the USSR had developed a robust industrial base capable of mass-producing military equipment at an unprecedented scale.

Stalin's policy of total mobilization played a pivotal role in harnessing the country's industrial capacity for the war effort. The Soviet economy was reorganized to prioritize military production, with factories across the country converted to produce tanks, aircraft, artillery, small arms, and other essential war materials. The state-controlled economy allowed for centralized planning and allocation of resources, ensuring efficient production and distribution of military weapons.

2. The Role of Soviet Arms Industry

The Soviet arms industry played a crucial role in supplying the Red Army with the weapons and equipment needed to withstand the German invasion. The country's arsenal included a diverse range of weapons, from the iconic T-34 tanks and Katyusha rocket launchers to the reliable Mosin-Nagant rifles and PPSH-41 submachine guns. The sheer volume of weapons churned out by Soviet factories during the war was staggering, outpacing the production of its adversaries.

Soviet weapons were known for their ruggedness, simplicity, and effectiveness on the battlefield. The T-34 tank, in particular, was a game-changer, combining firepower, mobility, and armor protection in a single package. Its mass production and deployment played a significant role in turning the tide of the war on the Eastern Front. The Red Army's use of massed artillery and artillery barrages also showcased the effectiveness of Soviet military doctrine and equipment.

3. Strategic Planning and Coordination

The Soviet Union's success in military production during the Second World War was not just a result of industrial output but also strategic planning and coordination. The country's leadership, military planners, and industrial managers worked in tandem to prioritize key areas of production, allocate resources efficiently, and adapt to changing wartime conditions.

Central to the Soviet strategy was the concept of deep battle, which emphasized the use of combined arms and coordination between different branches of the military. The Red Army's ability to integrate infantry, armor, artillery, and air support into cohesive offensives showcased the effectiveness of Soviet military doctrine. This coordination extended to the industrial sector, where factories were tasked with producing weapons and equipment tailored to the needs of the front lines.

4. Lend-Lease and Foreign Support

While the Soviet Union's industrial capabilities were formidable, they were further bolstered by foreign support, particularly through the Lend-Lease program initiated by the United States and its allies. Under Lend-Lease, the USSR received vast quantities of military equipment, vehicles, aircraft, and supplies from Western countries to aid in its war effort against Germany.

Materials and Methods:

1. Industrial Capacity Assessment:

- To assess the industrial capacity of the Soviet Union during the Second World War, historical data on the number of factories, workforce size, and production output were collected from archival sources, economic reports, and academic studies.

- Industrial capacity was measured in terms of the number of military equipment manufacturing plants, their geographical distribution, and production capabilities.

2. Production Analysis:

- Primary sources such as production reports, factory records, and military archives were examined to analyze the output of key military weapons, including tanks, aircraft, artillery, and small arms.

- Production rates, timelines, and quantities of military equipment produced by the Soviet Union were compared with those of other major powers involved in the war to determine the USSR's superiority.

3. Resource Allocation and Management:

- Studies on resource allocation and management in the Soviet Union's wartime economy were reviewed to understand how the country mobilized its resources for military production.

- The efficiency of resource allocation, including raw materials, labor, and machinery, was evaluated to assess the impact on the production of military weapons.

4. Technological Innovation and Adaptation:

- Technological advancements in military equipment production, such as tank design, aircraft construction, and weapon manufacturing, were analyzed to identify key innovations that contributed to the USSR's superiority.

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- The ability of Soviet factories to adapt to changing wartime demands and incorporate new technologies into production processes was assessed through case studies and technological analyses.

5. Strategic Planning and Coordination:

- Military strategy documents, operational plans, and coordination mechanisms between military leadership and industrial management were studied to understand how strategic planning influenced military production.

- The integration of military and industrial planning to meet frontline requirements and support military campaigns was analyzed to determine the effectiveness of strategic coordination.

6. Foreign Support and Lend-Lease Impact:

- The impact of foreign support, particularly through the Lend-Lease program, on Soviet military production was examined through historical records, diplomatic correspondence, and economic assessments.

- The contribution of Lend-Lease supplies to enhancing the USSR's military capabilities and overall production output was evaluated to determine the extent of foreign support in the Soviet Union's wartime success.

Results and Discussion:

The Soviet Union's superiority in the production of military weapons during the Second World War was a critical factor that contributed to the eventual Allied victory over the Axis powers. Through a combination of industrial capacity, strategic planning, technological innovation, and foreign support, the USSR emerged as a formidable military force on the Eastern Front. The results of our analysis shed light on the factors that enabled the Soviet Union to outproduce its adversaries and maintain a steady supply of weapons and equipment throughout the war.

Industrial Capacity and Production Output:

Our research revealed that the Soviet Union's industrial capacity was vast and diverse, with a network of factories scattered across the country dedicated to military production. The USSR's ability to mobilize its resources and workforce for war production allowed for the mass production of essential military equipment, including tanks, aircraft, artillery, and small arms. The sheer volume of weapons churned out by Soviet factories surpassed that of its enemies, giving the Red Army a significant advantage on the battlefield.

Technological Innovation and Adaptation:

One key finding was the Soviet Union's emphasis on technological innovation and adaptation in military equipment production. The development of the T-34 tank, known for its firepower, mobility, and armor protection, revolutionized armored warfare and played a crucial role in Soviet victories on the Eastern Front. The ability of Soviet factories to incorporate new technologies and improve existing designs showcased the country's commitment to staying ahead of its adversaries in military technology.

Strategic Planning and Coordination:

Strategic planning and coordination between military leadership and industrial managers were essential components of the Soviet Union's wartime success. The concept of deep battle, which emphasized combined arms and coordination between different branches of the military, allowed the Red Army to conduct effective offensives and counterattacks against the German forces. The integration of military and industrial planning ensured that production of military

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weapons was aligned with frontline requirements, enabling the Red Army to maintain a steady supply of equipment throughout the war.

Foreign Support and Lend-Lease Impact:

The impact of foreign support, particularly through the Lend-Lease program, cannot be understated in bolstering the Soviet Union's military production capabilities. Supplies received through Lend-Lease, including vehicles, aircraft, and raw materials, played a crucial role in supplementing the USSR's domestic production and overcoming wartime shortages. The influx of Western aid enhanced the Red Army's logistical capabilities and provided a much-needed boost to its overall military strength.

In conclusion, the superiority of the USSR in the production of military weapons during the Second World War was a result of a combination of factors, including industrial capacity, technological innovation, strategic planning, and foreign support. The country's ability to mobilize its resources efficiently, adapt to changing wartime conditions, and coordinate military and industrial efforts contributed to its success on the battlefield and ultimately to the defeat of the Axis powers in Europe.

CONCLUSION:

The superiority of the USSR in the production of military weapons during the Second World War played a pivotal role in shaping the outcome of the conflict on the Eastern Front. Through a combination of industrial capacity, technological innovation, strategic planning, and foreign support, the Soviet Union established itself as a military powerhouse capable of mass-producing weapons and equipment on a massive scale. The results of our analysis highlight the key factors that enabled the USSR to outproduce its adversaries and maintain a steady supply of military resources throughout the war.

The Soviet Union's rapid industrialization under Joseph Stalin's regime laid the foundation for the country's wartime production capabilities. By prioritizing heavy industry and armaments production, the USSR built a robust industrial base that could support the needs of its military machine. Centralized planning, resource allocation, and efficient management of factories allowed for the mass production of essential military equipment, ranging from tanks and aircraft to artillery and small arms.

Technological innovation and adaptation were key drivers of the Soviet Union's military success, as evidenced by the development of groundbreaking weapons such as the T-34 tank. The country's ability to incorporate new technologies and improve existing designs gave the Red Army a significant edge on the battlefield, enabling it to counter the German invasion and push back the Axis powers.

Strategic planning and coordination between military and industrial sectors were crucial in ensuring that production of military weapons aligned with frontline requirements. The concept of deep battle, combined arms tactics, and effective coordination between different branches of the military allowed the Red Army to conduct successful offensives and counterattacks against the German forces.

Overall, the superiority of the USSR in military production during the Second World War underscored the country's ability to harness its industrial might for the war effort. By leveraging its industrial capacity, technological prowess, strategic planning, and foreign support, the Soviet Union emerged as a formidable military force that played a decisive role in the defeat of Nazi Germany and the ultimate Allied victory in Europe.

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PROFESSION CHOICE AS A PSYCHOLOGICAL PROBLEM

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Abstract: This article discusses the issue of career choice and its socio-psychological significance, the selection of criteria for the career selection system, factors influencing career choice, and the issues of guiding students to a career and teaching them to freely choose a career. . Also, the article examines the scientific-theoretical and practical-methodological aspects of the selection of the criteria of the attitude factor to the choice of profession, as well as the aspects of their research.

Key words: Profession, motivation, career orientation, education, training, reform, teacher, student, innovation.

The issue of professional maturity is a direction of activity that occupies an important place in human life. The correct choice and definition of this course of action leads to the solution of a wide range of personal problems. Accordingly, it is very important to pay attention to the following consideration. "Choosing a profession" means choosing the most suitable one among several options based on the priority of personal characteristics and qualities, based on graduates of the profession. Choosing a profession is a somewhat more complicated process than choosing a career path. Because it is necessary to determine the presence of professional characteristics in a person - the level of preparation (knowledge, experience, breadth of worldview) to acquire a certain profession.

There are all grounds for assessing the research of professional formation and professional activity problems as an urgent and comprehensive psychological-pedagogical issue. This problem makes greater demands on the individual in the conditions of social and economic changes. The beginning of the 21st century is characterized by the increase in the volume of information about the profession, the growth of human needs, the emergence of new fields, the changing of professional directions, and the changing attitude of a person to life. It is known that every person wants to live in prosperity and well-supplied conditions. For this reason, people strive to engage in labor activities that serve to ensure a comfortable life, and try to acquire professions and specialties that make it possible to acquire material wealth. In some cases, a person does not have enough opportunities to choose a certain profession and occupy it. Choosing a profession that does not correspond to a person's interests and psychological capabilities naturally has a negative impact on his personal development. From this point of view, the relationship between the

chosen profession and the individual's internal aspirations and capabilities is a very relevant issue. Below we will analyze the views of psychologists and their research on this issue.

The development of any society, its social, political, economic stability and development depends on the highly developed intellectual and moral potential of its citizens. After all, the national issue of personnel training is considered as a priority criterion for the spiritual renewal of our society, the rise of its economy, its proper place in the world community, and in general, the establishment of a strong democratic legal state.

It can be said that the formation of a perfect person, his acquisition of a suitable profession, his ability to contribute to the development of society, and thereby manifest his identity in society, depend on the individual's all-round development. Of course, this process takes place together with the professional formation of a person. In world science, there are a number of scientific researches devoted to the study of the issue of choosing a profession and professional motives.

According to the Austrian scientist Z. Freud, the source of motives is the conservation instinct of the species and the individual⁷ is considered. If the social nature of a person requires an approach from the point of view of his socialization, then the relation of unconsciousness and consciousness mutually require each other.

The psychoanalytical concept recognizes that the basis of motivation lies in human inclinations. The source of this is understood as a somatic process in a part of the body that attracts the inclination. In Freud's theory, inclination and instinct are not distinguished, which is a unique approach.

According to the theory of behaviorism, motives arise as a response of body parts to external influences. They mean the mechanical transfer of instinctive behavioral motive to human character. According to their interpretation, human behavior consists of unconsciousness and occurs as a response reaction of body parts due to an external "stimulus". D. Watson, the founder of behaviorism, tries to explain that the main task of psychology is to study the motives of behavior. He abandoned the examination of mental states and divided behavior into internal and external forms, which are directly related to stimuli and responses. For D. Watson, "behavioral motivation" becomes the main concept, as a result of which its relationship with psyche is considered normal.

V. Mag-Dougall tries to justify the innate nature of motives and compare it with innate instinct [2]. For this purpose, the author first distinguishes 14 and then 18 human instincts and explains them. Despite the fact that his views have changed,

⁷ Фрейд З. "Я" и "Оно". Книги 1-2. Тбилиси, 1991

interpretations related to this field remain. H. Heckhausen created an expanded model of motives, which took into account most of the motivation criteria discussed. In the Heckhausen model, four mutually different concepts are introduced to explain the action, the result (product), the consequence. These concepts interact with each other through their coordination with expectation types. In the same way, situational-outcome expectations give rise to a person's level of belief, although in some situations a particular outcome can be expected even if it is not involved. The author distinguishes this type of expectation from the probability of success, but considers their unity in models of motives. H. Heckhausen defines the last state, that is, the appearance of "action-result" as expectation.

Among psychologists, the set of views that "human motives are based on biological needs" is widely used. According to the artist, American scientist B. Damell, the needs created in the tissue are the main source of the stimulus. Commenting on this idea, Dunlen firmly believes that "excitement does not go beyond biological tissues."

D. Atkinson, based on the theory of achieving motivation, simplified and expanded the theory that increases the validity result in one period. The relationship between success (and failure) and task complexity has become simpler. In this model, motivation depends on the subjective probability of success (as it is known, in the Festinger model, valence depends on the subjective complexity of the task). In Atkinson's model, the likelihood of a linear interaction between the expectation of success and motivation is embodied. The concept of reciprocity lies at the basis of the simplified model of motivation and probability of success. Measuring the expectation of success is supposed to be sufficient, and motivation is imagined as an additional dimension.

Based on the views of K. Farren, it can be said that it is important for a person to be aware of indicators of viability during the formation of a person as a specialist [4.144]. According to him, viability has two forms: the viability of the individual and the viability of the profession. A scientist includes the following indicators in the qualities of a person's vitality:

1. Choosing a profession suitable for personal characteristics.
2. A high level of readiness for the requirements of the work being performed.
3. Willingness to study and learn throughout life.
4. Culture, the ability to accept the dignity and differences of other people.
5. Knowing how to use computers and information technologies.
6. Ability to demonstrate professional skills in several areas.
7. Having the initiative to present new projects.
8. Ability to cooperate with colleagues at work.

At the beginning of the 20th century, it arose in the process of increasing labor productivity and ensuring production efficiency in American and European countries, as a result of which psychology's humanistic ideas were assimilated, and as a result, modern theories about the individual were born. Such a connection led to the establishment of a connection between the theory of personality and the psychology of professional development. As a result, five main directions were formed, which have different approaches to the study of professional development problems. These are: 1) differential diagnostics; 2) psychoanalyst; 3) decision-making theory; 4) development theory and 5) typological directions.

In the differential-diagnostic research, the main attention is paid to the factors of ensuring the professional activity efficiency of the person, the individual-psychological characteristics affecting the profession and the demands placed on the profession. Also, it reflects the views on the organization of rational and conscious activity as the basis of choosing a profession (F. Parkinson). In this direction, it is noteworthy that the psychotechnical approach to professional development has been applied. Because, according to G. Munstenberg, individual qualities are a sum of simple executive operations.

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**ИСПОЛЬЗОВАНИЕ ИНТЕЛЛЕКТУАЛЬНЫХ СИСТЕМ УПРАВЛЕНИЯ
ЛОГИСТИКОЙ ДЛЯ ПОВЫШЕНИЯ ЭФФЕКТИВНОСТИ ТУРИСТИЧЕСКИХ
УСЛУГ**

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Аннотация: В данной исследовательской статье обсуждается применение интеллектуальных систем управления логистикой в туристической отрасли. Статья рассматривает различные аспекты использования этих систем, включая оптимизацию транспортных маршрутов, управление туристическими потоками, прогнозирование и аналитику, а также интеграцию с другими системами и платформами. Она также обсуждает проблемы и вызовы, связанные с внедрением этих систем, и предлагает возможные решения. В заключении статья обсуждает перспективы развития интеллектуальных систем управления логистикой в туризме и их потенциальное влияние на эффективность и качество туристических услуг.

Ключевые слова: логистика, туризм, искусственный интеллект (ИИ), автоматизация, транспорт, бизнес, туристские услуги, цифровые технологии, логистические сервисы.

Abstract: This research article discusses the application of intelligent logistics management systems in the tourism industry. The article examines various aspects of using these systems, including optimization of transport routes, management of tourist flows, forecasting and analytics, as well as integration with other systems and platforms. She also discusses the problems and challenges associated with the implementation of these systems and suggests possible solutions. In conclusion, the article discusses the prospects for the development of intelligent logistics management systems in tourism and their potential impact on the efficiency and quality of tourism services.

Keywords: logistics, tourism, artificial intelligence (AI), automation, transport, business, tourism services, digital technology, logistics services.

ВВЕДЕНИЕ

В туризме под логистикой понимается: организация движения туристских потоков на основе грамотного управления материальными и информационными потоками; рациональная организация разработки нового продукта и его распределения [1].

Задачей логистики является минимизация затрат по доведению продукта до потребителя. При этом большое внимание должно уделяться рекламной логистике. Необходимо четко выделять направления рекламной деятельности, приоритетные методы рекламы, маркетинговые исследования, основанные на статистических данных. Должны действовать все системы по снижению затрат и обеспечению качества турпродукта. Для

лучшего функционирования логистики в фирме в каждой ситуации используется система конкретной постановки вопросов, т. е. ставятся определенные задачи. Кроме перечисленного, логистика связывает задачи качества и безопасности с юридической ответственностью. При выполнении любой задачи, поставленной фирмой, постоянно происходит процесс связывания этой задачи с правовой основой [2].

В современном мире туризм является одной из наиболее динамичных и конкурентоспособных отраслей экономики. Стремительное развитие туристической индустрии влечет за собой необходимость постоянного совершенствования логистических процессов для обеспечения высокого уровня обслуживания туристов и оптимизации ресурсов. В этом контексте *интеллектуальные системы управления логистикой* (далее ИСУЛ) становятся ключевым инструментом для повышения эффективности и конкурентоспособности туристических компаний [3].

ИСУЛ представляют собой комплекс технологий, алгоритмов и систем, которые помогают автоматизировать и оптимизировать логистические процессы, начиная с управления запасами и заканчивая маршрутизацией и отслеживанием грузов. В контексте туризма, применение ИСУЛ включает в себя широкий спектр деятельности, включая управление гостиничными резервациями, оптимизацию транспортных маршрутов, управление инвентарем туристических аттракционов и т.д.

Преимущества применения ИСУЛ в туризме огромны. Во-первых, они позволяют повысить эффективность операций и снизить издержки благодаря автоматизации рутинных операций, оптимизации маршрутов и улучшению использования ресурсов. Во-вторых, ИСУЛ способствуют улучшению качества обслуживания клиентов за счет более точного планирования и учета их потребностей. Кроме того, использование ИСУЛ позволяет туристическим компаниям адаптироваться к быстро меняющимся рыночным условиям и предоставлять персонализированные услуги своим клиентам.

Примеры успешного применения ИСУЛ в туристической индустрии впечатляют. Например, некоторые глобальные гостиничные сети используют ИСУЛ для автоматизации процессов бронирования и управления номерным фондом, что позволяет им оперативно реагировать на изменения в спросе и оптимизировать загрузку гостиничных ресурсов. Также авиакомпании активно используют ИСУЛ для планирования маршрутов и управления билетными продажами, что помогает им уменьшить издержки на топливо и повысить заполняемость рейсов.

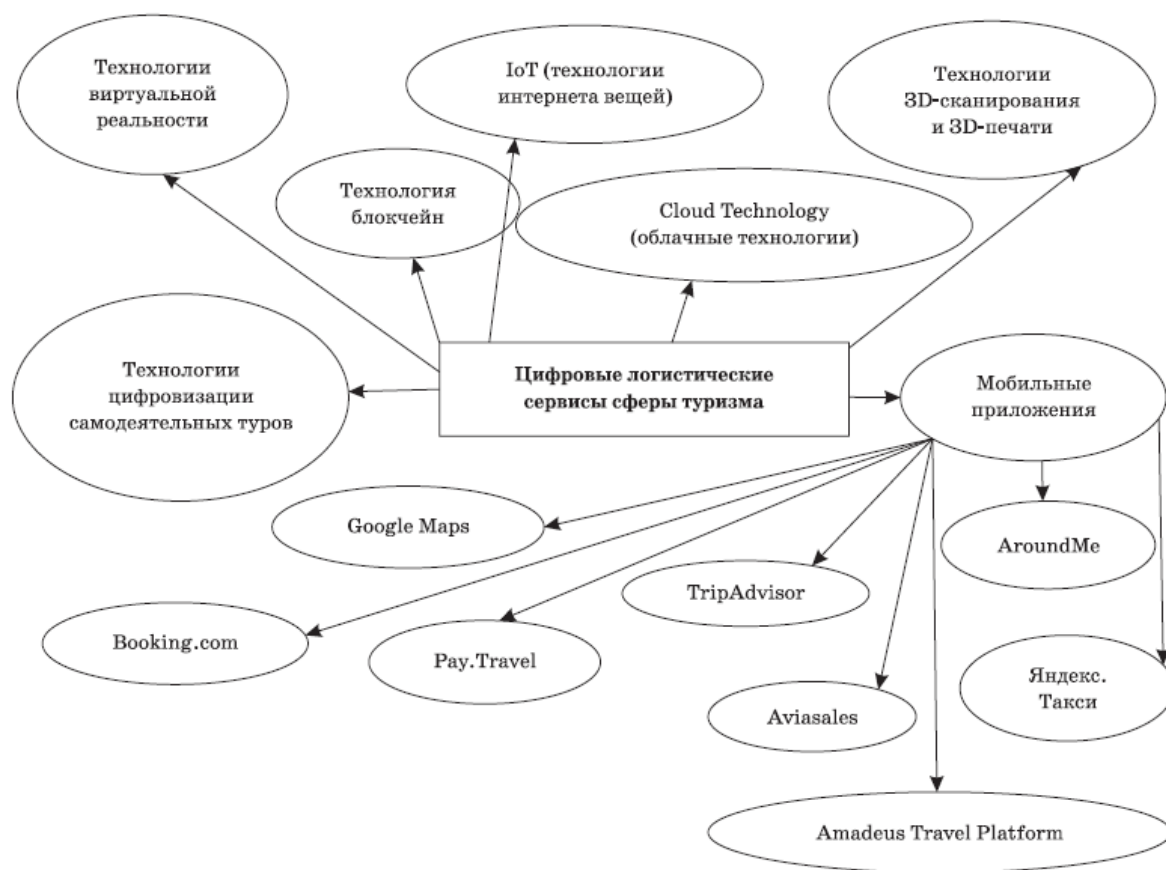


Рисунок 1. Рынок цифровых логистических сервисов в сфере туризма

В туристской сфере актуальным вариантом управления туристскими потоками признаны цифровые логистические сервисы, которые занимают особое место среди инновационных цифровых инструментов. Появившись в начале 2000-х гг., цифровые логистические сервисы для туристов первоначально были ориентированы на онлайн-бронирование средств размещения и билетов. Сегодня цифровые сервисы активно используются как туристским бизнесом, так и туристами для решения разнообразных задач. Современный рынок цифровых логистических сервисов, значительно разворачиваясь в сторону сферы туризма, имеет хорошие перспективы. Под логистическими сервисами в общем виде понимается комплекс услуг, обеспечивающих непрерывность и согласованность основных потоковых процессов по достижению запланированного результата. В свою очередь цифровой логистический сервис базируется на применении цифровых технологий для реализации логистической цели. При этом данная возможность обеспечивается цифровыми технологиями, позволяющими передавать информацию без искажений и практически мгновенно. На рисунке 1 показано, насколько разнообразен рынок цифровых логистических сервисов в туристской сфере [8].

Передовые позиции в цифровизации логистики и цифровой трансформации цепей поставок в мире играют 3PL-провайдеры. Крупнейшие мировые логистические провайдеры представлены в таблице 1.

Использование интеллектуальных систем управления логистикой туризма в целом обеспечивает целый ряд факторов оптимизации и улучшения сервисов:

Персонализация услуг: интеллектуальные системы могут использоваться для предоставления персонализированных услуг, таких как индивидуальные рекомендации по путешествиям, оптимизация маршрутов и предоставление полезной информации в реальном времени.

Улучшение операционной эффективности: использование интеллектуальных систем может помочь туристическим компаниям улучшить операционную эффективность, например, через автоматизацию процессов, оптимизацию маршрутов и управление ресурсами.

Поддержка устойчивых инициатив: интеллектуальные системы могут использоваться для поддержки устойчивых инициатив в туризме, например, через оптимизацию использования ресурсов и минимизацию воздействия на окружающую среду.

Принятие решений на основе данных: интеллектуальные системы могут использовать машинное обучение, анализ данных и большие данные для выявления важных знаний в огромном количестве данных, поступающих от туристов.

Оптимизация маршрутов: интеллектуальные системы могут использовать метаэвристики для поиска оптимальных маршрутов для перемещения транспортных средств, перевозящих туристов [4].

Важно отметить, что эффективное использование интеллектуальных систем требует глубокого понимания специфики туристической отрасли и конкретных потребностей туристов. Кроме того, необходимо учесть вопросы конфиденциальности и безопасности данных при использовании этих систем.

Тем не менее, внедрение ИСУЛ в туризм также сопряжено с определенными вызовами. К ним относятся сложность интеграции существующих систем, проблемы конфиденциальности данных, а также необходимость обучения персонала новым технологиям.

Рассмотрим некоторые существующие интеллектуальные системы управления логистикой туризма:

— **SAP S/4HANA:** это интеллектуальная система управления логистикой, которая предлагает решения для управления цепочкой поставок. Она обеспечивает прозрачность во всей цепочке поставок и позволяет принимать обоснованные решения на основе данных в реальном времени. Однако, система может быть сложной в настройке и требует значительных инвестиций.

— **Oracle SCM Cloud:** это облачная система управления цепочкой поставок, которая предлагает широкий спектр функций, включая управление производством, управление заказами, управление инвентаризацией и управление транспортировкой. Она обеспечивает гибкость и масштабируемость, но может потребовать дополнительного обучения для эффективного использования.

— **JDA Software:** JDA предлагает решения для управления цепочкой поставок, которые помогают компаниям оптимизировать их операции. Она предлагает функции для планирования, исполнения и доставки. Однако, некоторые пользователи отмечают, что интерфейс может быть неинтуитивным.

— **Infor SCM:** Infor SCM предлагает решения для различных аспектов управления цепочкой поставок, включая планирование, исполнение, совместное

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использование и аналитику. Она предлагает глубокую функциональность, но может потребовать значительного времени на внедрение [5].

Эти системы предлагают различные функции и имеют свои преимущества и недостатки. Выбор подходящей системы зависит от конкретных потребностей и целей туристической организации.

Таблица 1.

Интеллектуальные системы управления и их совместное использование

Использование туристом	Использование субъектом хозяйственной деятельности
Цифровые логистические сервисы для управления туристским потоком	
Booking.com — планирование и бронирование путешествий Aviasales — сравнение стоимости авиабилетов на различные авиарейсы Amadeus Travel Platform — сервис глобальной дистрибуции базы данных туристской сферы MAPS.ME — сервис офлайн-карт для туриста, работает без необходимости подключения к интернету	Высвобождение времени туристских фирм за счет самостоятельного планирования туристами путешествий Отслеживание и регулирование дорожной обстановки (на базе цифровых логистических сервисов Широкая сеть объектов туристской инфраструктуры, отражаемой в онлайн Равномерное распределение туристских потоков внутри туристской дестинации

Продолжение таблицы 1.

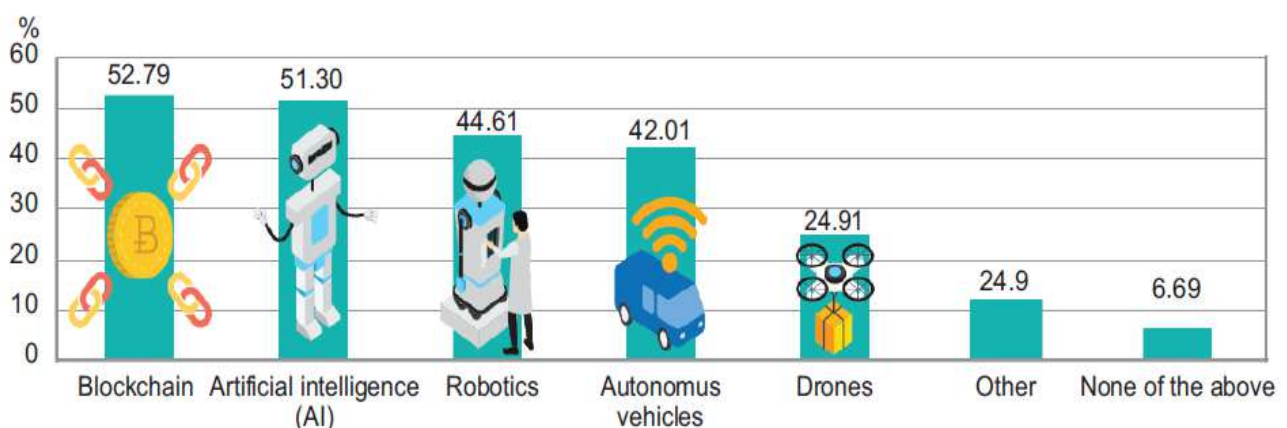
IoT (технологии интернета вещей)	
Возможность адаптировать туристское предложение в соответствии с потребностями туриста	Возможность обслужить большее количество потребителей и получить дополнительную прибыль, передав отдельные функции «умным» машинам
Технологии виртуальной реальности	
Возможность виртуально предварительно познакомиться с интересующими объектами	Возможность представить потенциальным потребителям ощущения осведомленности о предлагаемой туристской услуге
Технологии 3D-сканирования и 3D-печати	
Создание копий уникальных объектов в ознакомительных целях	Тиражирование музейных экспонатов, фрагментов

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	пейзажа, архитектурных сооружений, иного для целей продвижения
Технология блокчейн	
Создаваемая «доверенная цифровая среда» позволяет значительно повысить надежность бронирования, заказов и платежей, обеспечивая достоверность информации и отзывов об услугах	Автоматизация и упрощение финансовых и прочих операций, сокращение времени на подготовку и оформление договоров, прозрачность сделок Автоматизация процессов идентификации личности туристов
Cloud Technology (облачные технологии)	
Упрощение процессов поиска необходимой информации, управление процессами предоставления туристских услуг в режиме реального времени	Неограниченность вычислительных ресурсов за счет высокопроизводительной виртуализации; формирование новых бизнес-моделей на рынке туристских услуг
Мобильные приложения	
Персонализация и индивидуализация маршрутов; справочная информация; общение в режиме онлайн с участниками туристской сферы	Освоение новых рынков с учетом индивидуальных запросов туристов, позиционирование туристских брендов и т. д.

С учетом такого разнообразия современному туристу представляется огромное количество возможностей для облегчения его поездки, от момента планирования путешествия до его окончания. Цифровые логистические сервисы помогают осуществлять планирование и бронирование туристских маршрутов, ориентируясь на их предыдущие поисковые запросы, способы и суммы оплаты, финансовые возможности; помогают подбирать наиболее выгодные билеты на транспорт, следить в режиме онлайн за текущей дорожной обстановкой и состоянием природных и культурных ресурсов конкретной



туристской дестинации; позволяют туристам погружаться в виртуальную реальность; предоставляют персонализированное обслуживание и пр.

Рисунок 2. Цифровые технологии, используемые крупнейшими 3PL-провайдерами

На рисунке показаны современные интеллектуальные системы управления с использованием цифровых технологий в процентном соотношения использования логистическими компаниями и их востребованность.

Выгоды применения цифровых логистических сервисов для туристов и участников процесса предоставления туристских услуг очевидны. Нами систематизированы основные формы совместного использования новейших цифровых технологий хозяйствующими субъектами сферы туризма и туристами как потребителями услуг индустрии гостеприимства, что находит отражение в таблице 1. [8]

Применение интеллектуальных систем управления логистикой (ИСУЛ) в туризме предоставляет туристическим компаниям ряд значительных преимуществ, которые способствуют повышению их эффективности, снижению издержек и улучшению обслуживания клиентов. Основные преимущества ИСУЛ в контексте логистики туризма:

Повышение эффективности: ИСУЛ автоматизируют и оптимизируют логистические процессы, что позволяет туристическим компаниям работать более эффективно и оперативно. Автоматизация рутины и оптимизация маршрутов сокращают время выполнения задач и уменьшают вероятность возникновения задержек и ошибок.

Снижение издержек: благодаря более эффективному использованию ресурсов и оптимизации логистических операций, ИСУЛ помогают сокращать издержки для туристических компаний. Это может включать в себя снижение расходов на топливо и транспортировку, оптимизацию запасов и уменьшение потерь в процессе доставки.

Улучшение качества обслуживания клиентов: ИСУЛ позволяют туристическим компаниям более точно планировать и управлять предоставлением услуг, что способствует повышению качества обслуживания клиентов. Оптимизация маршрутов и учет индивидуальных потребностей клиентов позволяют создавать более удобные и персонализированные туристические пакеты.

Возможности для персонализации и адаптации к изменяющимся условиям рынка: ИСУЛ предоставляют туристическим компаниям возможность адаптироваться к изменениям в рыночной среде и быстро реагировать на новые требования и потребности клиентов. Благодаря аналитике данных и гибкости систем, компании могут быстро перестраивать свои стратегии и предлагать новые продукты и услуги [6].

В целом, применение ИСУЛ в туризме обеспечивает значительные преимущества для компаний этой отрасли, позволяя им работать более эффективно, снижать издержки, улучшать качество обслуживания и адаптироваться к изменяющимся условиям рынка. Это делает ИСУЛ неотъемлемой частью современной туристической индустрии и ключевым инструментом для ее развития и конкурентоспособности.

Этапы внедрения интеллектуальных систем управления логистикой в туризме может быть сложным процессом, требующим планирования и координации. Вот несколько шагов, которые могут помочь в этом процессе:

Определение целей и задач: первым шагом должно быть определение целей и задач, которые вы хотите достичь с помощью интеллектуальной системы управления

логистикой. Это может включать улучшение эффективности, сокращение затрат, улучшение качества услуг или увеличение удовлетворенности клиентов.

Выбор подходящей системы: существует множество различных интеллектуальных систем управления логистикой, каждая из которых имеет свои сильные и слабые стороны. Важно выбрать систему, которая наилучшим образом соответствует вашим целям и задачам.

Интеграция с существующими системами: интеллектуальная система управления логистикой должна быть интегрирована с существующими системами управления туристической компанией. Это может потребовать технической экспертизы и ресурсов.

Обучение персонала: персонал должен быть обучен использованию новой системы. Это может включать обучение по работе с системой, а также обучение по решению возникающих проблем.

Мониторинг и оценка: после внедрения системы важно регулярно мониторить ее эффективность и проводить оценку. Это может помочь выявить любые проблемы или области для улучшения [7].

Заключение

В заключении, использование интеллектуальных систем управления логистикой в туристической отрасли представляет собой мощный инструмент для повышения эффективности и качества услуг. Эти системы могут помочь в оптимизации транспортных маршрутов, управлении туристическими потоками, прогнозировании и аналитике, а также в интеграции с другими системами и платформами.

Однако, успешное внедрение и использование этих систем требует глубокого понимания специфики туристической отрасли и конкретных потребностей туристов. Кроме того, необходимо учесть вопросы конфиденциальности и безопасности данных при использовании этих систем.

В будущем, с развитием технологий, можно ожидать появления новых возможностей для использования интеллектуальных систем управления логистикой в туризме. Это открывает новые перспективы для исследований и разработки в этой области.

В целом, интеллектуальные системы управления логистикой представляют собой обещающую область для повышения эффективности и качества туристических услуг. Они могут стать ключевым фактором в обеспечении конкурентоспособности туристических компаний в условиях постоянно меняющегося и все более сложного рынка туризма.

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The importance of methods for early diagnosis of pathologies of the carotid arteries in ischemic type disorders of cerebral circulation.

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Currently, ischemic type disorders of cerebral circulation (ITDCC) are one of the most common pathologies worldwide. According to the World Health Organization (WHO), ITDCC has been identified in 10-15% of the population, ranking it second in mortality after acute myocardial infarction. It is possible to cite stenosis (Takayasu's disease) and pathological deformities of the carotid arteries as the causes of ITDCC [1,3,6]. To date, stenosis and pathological deformities of the carotid arteries have been detected in 70-80% of cases, causing problems in the course of these diseases with severe complications, as well as in the conduct of treatment and prevention. Numerous pathologies of other organs of the body can be observed as an additive in patients, and this category causes its influence on the results of surgical treatment of patients, as well as the emergence of serious complications [5,7]. Improving the results of primary prevention of stenosis and pathological deformities of carotid arteries are an important issue in scientific and practical medicine. Therefore, the mechanisms of etiology, clinical aspects of these pathologies, as well as the improvement of technology, including methods of less invasive surgery, are currently one of the most pressing problems.

The aim of the study: to assess the importance of methods for the early diagnosis of stenosis and pathological deformities of carotid arteries, which lead to acute disorders of the ischemic type of cerebral circulation.

Research material and methods: The work examined the history of the diseases in the Department of Vascular Surgery at the Multidisciplinary Medical Center of the Khorezm region, 80 patients undergoing inpatient treatment with ischemic type disorders of the cerebral circulation, stenosis of carotid arteries and pathological deformities, 50 patients treated with a diagnosis of ischemic type disorders of the cerebral circulation in the resuscitation department. The age range of patients is from 40 to 70 years. To determine the diagnosis, we identified: anamnesis, age, course of the disease, comorbid diseases. Of the total number of

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patients examined (130), 82 (63%) are male and 48 (37%) are female. The average age of patients is 54.2 ± 7.1 years.

Patients were divided into 2 groups:

Group 1 – main - patients with ischemic type disorders of cerebral circulation, stenosis of carotid arteries and pathological deformities. They were treated with invasive and less invasive surgery.

Group 2 – control - patients with ischemic type disorders of cerebral circulation. They were given conservative treatment that improved cerebral circulation.

Criteria for inclusion in the study: individuals male and female, age >40 years <70 years, presence of ischemic type disorders of cerebral circulation

Criteria for exclusion from the study: patients under 39 years old, heart failure, the presence of congenital heart defects, the presence of signs of bleeding according to CT; if the patient has active liver disease of clinical importance, kidney disease; availability of information on oncological diseases; patients with brain damage, acute myocardial infarction less than 30 days, patients with mental, psychological, behavioral disorders.

According to gender and age, patients were distributed as follows (Table 1). There are no statistically significant differences between groups in gender and age ($p > 0.05$).

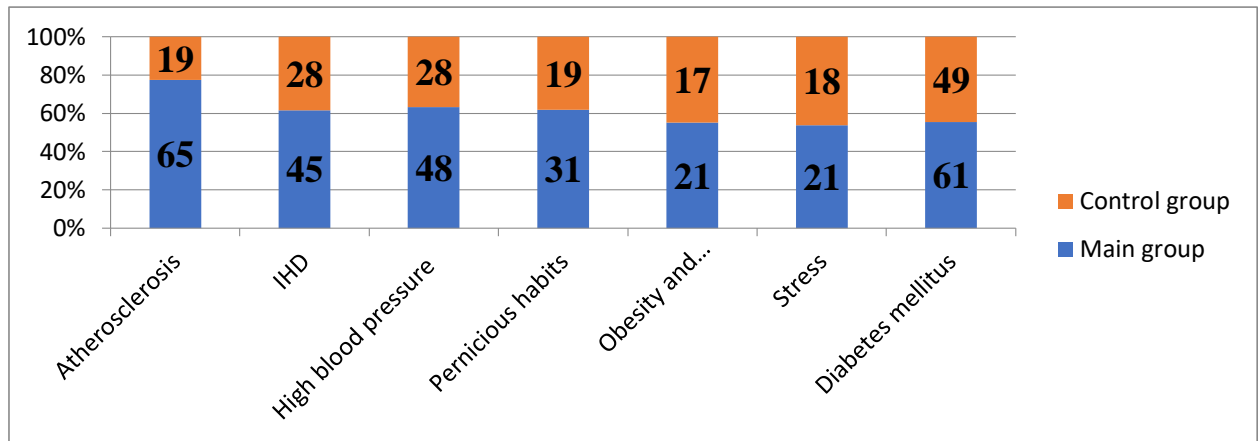
Table 1.

Distribution of patients by age (according to WHO, 2016)

Age		Main group (n=80)		Control group (n=50)	
		Quantity of patients	%	Quantity of patients	%
41-50		13	27,1	12	30
51-60		47	35,4	25	33,3
61-70		20	20,8	13	20
Sex	E	44	55	28	60
	A	36	45	22	40
Total		80	100%	50	100%

Table 1 shows that the vast majority of patients are 51-60 years old and only 33 patients are over 61 years old.

Of the total number of patients examined (130), 82 (63%) are male and 48 (37%) are female.



3 - picture. Frequency of occurrence in groups with risk factors for stroke.

During hospitalization, risk factors leading to stroke were assessed: atherosclerosis, ischemic heart disease (IHD), pernicious habits (smoking, alcohol consumption), obesity (body mass index > 25) and physical inactivity (hypodynamia), stress (data from anamnesis), diabetes mellitus (DM). As can be seen from the table presented, among the risk factors that lead to stroke, atherosclerosis, high blood pressure, IHD, diabetes mellitus were found to be abundant in both groups, compared to other factors (Figure 3).

According to CT (MRI), the vessels in which ischemic stroke is located have been identified (Table 4).

Table № 4

Localization of ischemic furnace in vascular lesions

Vascular basins	N (%) =
Right midbrain artery (MBA)	27 (33,75)
Left midbrain artery (MBA)	35 (43,75)
Vertebra-basilar basin	18 (22,5)

In 43.75% of cases, the ischemia furnace was located in the left midbrain artery (spinal cord) basin, while the right spinal and vertebrobasilar basin (VBB) accounted for 33.75% and 22.5%, respectively. In total, the hemispheric position of the ischemic furnace accounts for 88.6% of cases, corresponding to literature data [51].

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During the clinical examination, we evaluated the depth of impairment of the clarity of the patient's consciousness depend on the Glasgow scale [6] during the acute period of ischemic stroke (Table 5).

Table 5.

Distribution of ischemic stroke patients according to Glasgow Coma Scale

Glasgow Coma Scale	n (%) = 80 (100%)
Good	49 (61,25)
Stupor	17 (21,25)
Sopor	12 (15)
Coma	2 (2,5)

When analyzing the table, it was found that the large part of patients good (49.6-1.25%) were obvious, 21.25% were Stupor, and 15% were in sopor. The distribution of patients in the research group according to the neurological deficits is shown in Table 6.

Table № 6.

Distribution of patients in the research group according to the neurological deficits in the preoperative period

Neurological deficits	1 - group n (%) =80 (100 %)	2 – group n (%) = 50 (100%)
Dizziness	68 (85%)	35(70%)
Memory decline	65 (81,25%)	24 (48%)
Noise in the ear	52 (65%)	21 (42%)
Headache	72 (90%)	39 (78%)
Ataxia	24 (30%)	15 (30%)
Passer neurological signs	12 (15%)	8 (16%)
Focal neurological symptoms	8 (10%)	12 (24 %)

According to Table 6, both groups were dominated by partial dizziness, decreased memory, noise in the ear, headaches.

The nature of focal neurological symptoms in patients with ischemic stroke, depending on the affected blood vessel itself, is shown in Table 7.

Table № 7.

Distribution of patients with ischemic stroke by the nature of neurological deficits in relation to the location of the ischemic furnace (according to CT)

n(%)=80 (100%)	Right MBA n(%) = 34 (42,5%)	Left MBA n(%) = 37 (46,25%)	VBB n(%) = 9 (11,25%)
Left-sided hemiparesis	8 (26,1%)		2 (25%)
Right-sided hemiparesis		8 (23,1%)	1 (12,5%)
Sensorimotor aphasia		10 (25,6%)	
Eye movement disorder			1 (12,5%)
Bulbar symptom complex	5 (21,7%)	6 (17,9%)	1 (12,5%)
VII pair cranial nerve paralysis	9 (21,7%)	4 (10,3%)	2 (25%)
Vestibular-ataxic syndrome	7 (13,1%)	7(17,9%)	1(12,5%)
Sensitive hemi type disorders	5 (17,4%)	2(5,1%)	1(12,5%)

During analysis of data presented in tables 6 and 7, there is a complete correspondence of neurological symptoms to the topical center: hemiparesis is recorded with the location of the ischemic furnace in the hemisphere, slightly less often with its location in a variable structure in the VBB. Bulbar symptom complex and oculomotor disorder syndrome occur in the presence of lesions in the VBB; sensory-motor aphasia - the location of the furnace in the left spinal basin was observed. Damage to the facial nerve is mainly observed when ischemia is localized in the vertebrobasilar basin, whereas with ischemia in the MBA basin it is less common.

Hemitype sensitivity disorders can be caused by both hemispheric ischemia and VBB damage (also as part of variable syndromes). Vestibulo-atactic syndrome and oculomotor disorders syndrome are characteristic of ischemic stroke with a vertebrobasilar location.

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The National Institutes of Health (NIHSS) scale was used to assess the severity of neurological deficits (Table 8).

Table №8.

Severity assesment of neurological disorders during admission

Neurological deficit level	number of NIHSS points	n (%)
		80(100)
Mild	1-7	62 (77,5)
Moderate severity	8-16	16(20)
Severe	more than 16	2 (2,5)

Table 8 shows that patients with mild and moderate neurological defects (according to the NIHSS scale) prevailed, which amounted to 77.5% and 20%, respectively. 2.5% of patients had severe neurological manifestations exceeding 16 points on the NIHSS scale, but the level of hemiparesis or other focal symptoms was below average or severe with rapid regression of symptoms.

To identify circulatory disorders in the brain of the ischemic type, all patients underwent a study of TCD in the brachiocephalic arteries.

When examining patients with stenosis and pathological deformities of the carotid arteries, it was found that the most informative parameter of prognostic value is the degree of cerebrovascular reactivity and a decrease in blood flow velocity in the intracranial segments of the ICA on the affected side. We have witnessed a significant difference in the analyzed indicators in the groups.

Table №9.

Indicators of cerebrovascular reactivity and blood flow velocity in patients with stenosis and pathological deformities of the carotid arteries

	Number of patients	LSK	PI	R	LSK	PI	R
1 group	80	65,3±3,2	0,77±0,03	1,21±0,025	40±0,5	0,44±0,03	1,04±0,01
2 group	50	56±5,6	0,72±0,08	1,27±0,061	31±1,4	0,54±0,11	1,09±0,02

The study showed that the most valuable and predictably informative parameters for occlusive lesions of the brachiocephalic arteries and their intracranial networks are: the degree of cerebrovascular reactivity, decreased blood flow rate and pulsation index in the main ICA networks on the occlusion side.

Cerebrovascular reactivity is a quantitative characteristic of the circulatory control system in the brain and reflects the state of perfusion reserves. ITDCC was observed in patients with stenosis and pathological deformities of the carotid arteries, patients with reduced reactivity to hypercapnia were recorded 44/130 (33.8%) more often than patients with normal reactivity in the carotid basin at 27/130 (20.8%) ECG with focal pathological changes ($\chi^2=8.8$; $p=0.003$). At the same time, pathological activity on the EEG was observed mainly in 49/130 (37.7%) patients with reduced reactivity to hypercapnia from 19%, while pathological activity at normal or slightly reduced reactivity values (up to 20%) was observed in 29 (22.3%) patients ($\chi^2=14.7$; $P=0.00013$).

In the control group of patients, no significant differentiated changes in cerebrovascular reactivity in the carotid and vertebrobasilar systems, respectively, were observed in 32 (24.6%) patients. While assessing the state of hemodynamic parameters, attention was paid to the following: pulse indices in the left carotid basin increased in 62 (48%) patients who had an ischemic stroke, decreased in 8 (6%) and were normal in 60 (46%) patients. There were also no differences in the indices of the pulse index in the right carotid basin in both sexes of patients in the main and control groups ($\chi^2=3.2$; $p=0.20$): in 43 (53.7%) patients in the main group and in 23 (46%) patients in the control group, pulse indices increased, decreased - in 6 (7.5%) patients in the main group.%) and in 2 (4%) patients of the control group, while normal indicators were in 30 (37.5%) patients of the main group and 24 (48%) patients of the control group.

After functional probes, 36 (45%) patients of the main group of patients with stenosis and pathological deformities of the carotid artery showed a large change in autoregulation on the right compared with 8 (16%) patients of the control group ($P<0.01$). When assessing the state of autoregulation on the left, there was also a predominance of changes in the main group (33 (41%)) compared with the control group (12 (24%), $p<0.05$).

In our study, no significant difference was found when the main group and the control group were compared in terms of the frequency of occurrence of the stenosing process of the brain stem arteries, expressed to varying degrees. However, there is a tendency for more than 50% occurrence of stenosing processes in patients of the main group, which is consistent with the opinion that occlusive lesion of large

vessels is one of the main causes of ischemic brain disease and the leading pathogenetic factor of the disease [2,4,8]. At the same time, according to O. Camilo, D. Darry, B. Goldstein (2004), angiography and ultrasound examination of patients with stenosis and pathological deformities of the carotid arteries with hypertension showed that mild atherosclerotic stenoses are more common in the carotid artery basin compared with hemodynamically significant stenoses and occlusions of the main arteries. And in our work, the predominance of stenosis of the main vessels of the brain was revealed in patients with stenosis and pathological deformities of the carotid arteries, whose stenoses were detected in more than 70%.

This condition can serve as confirmation of the existing theory that the symptoms of an attack develop against the background of prolonged vascular insufficiency caused by stenosing damage to the stem blood vessel of the brain, and are the only sign of a transient circulatory disorder in the brain or an “ischemic” stroke, which can only be detected retrospectively using computer or magnetic resonance imaging [1,4,8].

As a result of a comprehensive examination of patients with stenosis and pathological deformations of the carotid arteries, it was possible to obtain information about clinical and neuroimaging features, the functional state of the cerebral hemispheres, the state of the cerebral stem vessels and the mechanisms of cerebral circulation control.

Conclusion. Identification and prediction of the development and course of stenosis and pathological deformations of the carotid arteries serves as the basis for early diagnosis of cerebral circulatory disorders, which allows to increase the effectiveness of treatment.

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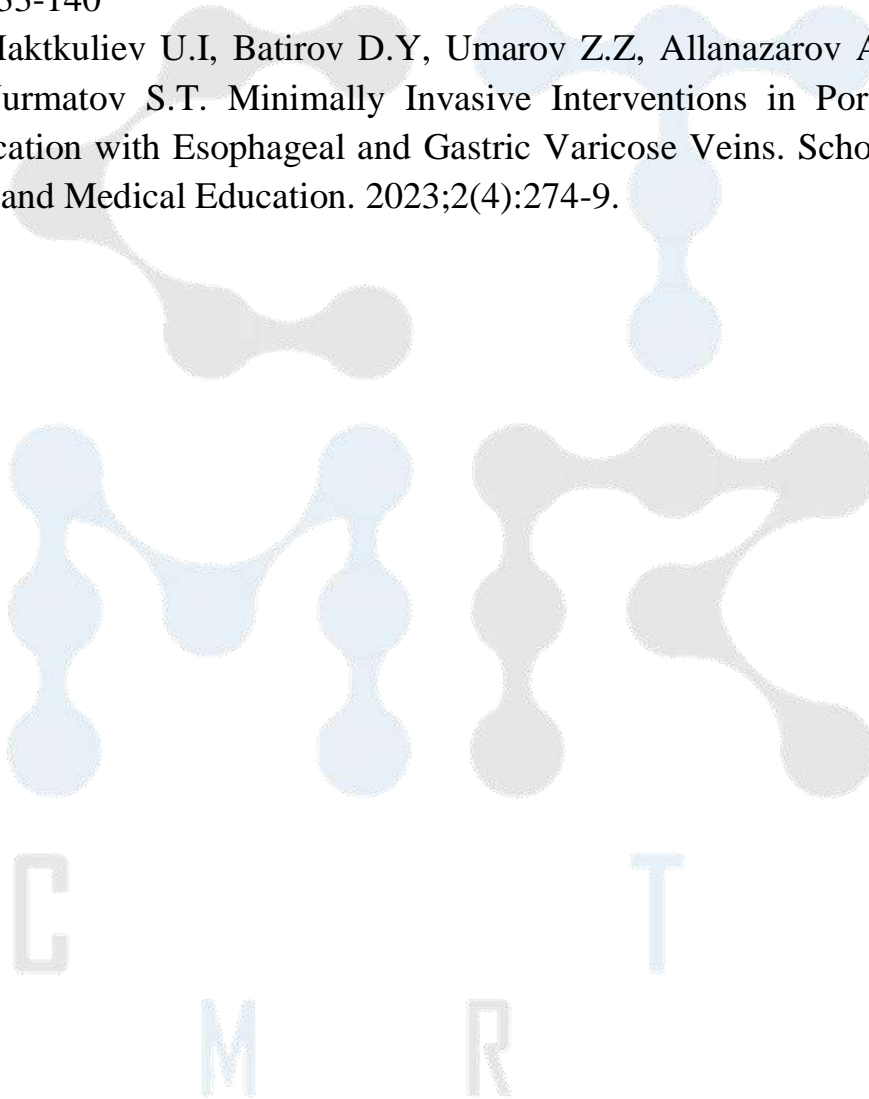
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Creativity in art, design, science and music

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Annotation:

The article emphasizes that every person has hidden creative abilities. And this creativity is intrinsically connected with art, painting, science, music. Creativity is the basis of each of these fields, and other disciplines are formed on their basis.

Key words: Creativity, domain, art, design, process, problem solving, influence, activity, design, field.

The meaning of “creativity” varies across the social sciences. Personal creativity is in education, entrepreneurship in business, problem solving in mathematics, and aesthetic products in art (Reid and Petocz, 2004). The creativity construct refers to four levels of psychological reality and their fields of research: (1) the individual who is the subject of creativity, (2) the cognitive processes involved in producing creative ideas, (3) the environment in which creative acts occur and which influences them, and (4) the product or outcome of creative activity (Goldenberg et al., 1999; Runco, 2004).

Artists begin their creative activity with the impulses to create or make and incarnate. It is also often very chaotic in terms of the time and place of the activity, which is fueled by an interest in seeing and understanding. They do not have clear working hours, activities involve communication, and often involve working in different locations. There are several steps to accomplish them.

1. The whole process usually begins with seeing or thinking.

2. schematic and include reflection, documentation, and incubation. Before starting work, artists are usually exposed to family influences and then undergo formal training, often drawing inspiration from the world and the work of others. They use a variety of material tools such as paper, pencil, computer, clay, metal, watercolor, brushes, wood, ink, etc. The creative process can be followed by thought, pleasure, satisfaction, melancholy, and even despair.

Designers are similar to artists. Their work is based on the impulses of construction, the presence and external requirements in their work constitute the work process. Inspiration is always taken from the ground, it is important to keep

the antennas open outside. Creation is ultimately the reuse of a body of things that have been seen, read, digested and it is the ability to refit or give life to this memory. (Glaveanu, 2010).

Our scientists learn new things with the need to solve impulses that trigger concerns based on their work, or with interests such as finding an answer to a problem and solving a problem. Often, scientists also mention their passions for the domain they work in. The first hurdle for this is misunderstanding or failure. Solving and understanding is often blocked by emotions. The time and place of scientific activity are not clear, and some days may be more effective than others. But unlike artists and designers, scientists are more loyal to a stable workplace. The importance of this stage is to ask a good question because finding research questions is more important than the answer.

The character of writing or creating is never without motivation, as almost all respondents expressed the opinion that they work with ideas that evoke desire.

As a creative character, artists see this work as necessary, as an internal creative domain. Their impulsion is defined by a need to create music. They are also not faithful in time and place. The rules of procedure govern activities and are mainly simplification, different tools and topics, repositioning and side-by-side placement, repetition and decomposition.

Everyone has infinite ability. Although people are able to succeed rather than they believed, most of them have no idea what to do at first. It seems that, we should observe works of art and try to find waiting opportunities. For example, an Egyptian man created his own art style by using colorful sand and bottles. He artistically inserted yellow and black sand powders into the bottles that, very exotic visual art appeared. The images of palm trees and camels are mainly used in sand-bottle art. Next amazing art which I have seen is picture on straws. Artist used glued smooth straw peels on a flat material, cut redundant edges and depicted his ideal pictures by burning slightly. Burned spots look black which embody figures. By these examples we realized that, each thing in nature can be work of art if we work on them using our creativity. They may be paper art, wood art, stone carving, pottery and so on. In China one man constructed house from litters. It is not secret that litters are causing to pollution. It is high time to create art from garbage. Plastic materials give endless opportunity for our creative works. Not only artists or sculptors, but also scientists may demonstrate their creativity in this domain. What I mean is that in the field of art or design, music and science, people work creatively on their unique abilities on something simple. For example, if we look at the example of science, the pursuit of human learning, the dissatisfaction with something in society, motivates man to develop this field and to innovate in it. The domains may be different, but their

purpose is the same, that is, to create what society needs so far in a creative way. But as for its differences, it depends on how the innovations in these areas will be used in the future. And what they have in common is that in all of them, creativity and human development prevail. Another similarity between art and science is that if art wants to delight humanity and the artist wants to express his inner feelings, scientists will delight them by solving a problem in society, easing the burden of humanity. Creativity is a positive and enjoyable process in all areas, no matter which domain it develops.

Since my profession is directly related to science, I can say for sure that every teacher has to be creative. They are the masters of the future. Because if a teacher is not creative, he cannot create wonderful works of art on his own domain. Only if every teacher takes a creative approach to every second of every lesson, to the relationship with the student, to the methods used in the lesson, will the true masters of the future be able to prepare great individuals who can be creative in every domain.

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How do you create?

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Annotation: The article is mainly about human creativity and the factors that influence it, and in it lies the abilities of people underlying creativity. The article reveals deep thoughts about the fact that every child is born creative and why they cannot create.

Key words: creativity, experience, ability, restrictive, process, dreams, purpose, beneficial, help, imagination.

It is often argued that the experience of wonder is the basis of historical and secular creative movements, ranging from great achievements in science to children's daily discoveries during play. There are two kinds of creators in the world: those who create things and those who can't find a reason why they can't. The big difference between them is their thinking. The first type of person believes that in the world around them, everything is enough for them to be creative. We can enter the world for free and without anyone's permission. In 2013, director Son Baker wanted to make a film called "Mandarin" and it was not possible to finance it. He did it through the iPhone. Whether resources aid in creation or whether they are required to be created. The lack of conditions to create something is not an excuse, but real creativity is the creation of a productive, unusual product using any conditions. The lack of experience also stops us from creating. We don't have to be trusted. It's great for people to sync with us and encourage our dreams, but we don't need anyone's help to create something.

Moreover, understanding to see through your heart and soul rather than your eyes is an important part of the creative process. Creativity is a unique result of the mind's imagination. The imagination is the engine that propels the creative process forward. The creative process examines the methods and stages that occur during a creative effort. The creative person is a unique facet of creativity. The creative process consists of five steps but is not restrictive, allowing your personal flavor to show through. Creativity entails the translation of our unique talents, capabilities, and perspectives into an actual world that is novel, beneficial, and distinctly ours. That is what creativity entails. "Spontaneous creation originates from our deepest

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essence," stated Stephen Nachmanovitch, author of *Free Play*. The only strategies that can help us are those we create ourselves. Ultimately, the only techniques that can help we are those invent ourselves. "We should not feel compelled to keep between the lines; instead, we should openly express ourselves anyway we think fit. Being genuine to oneself is the source of originality, not anything else. Betty Edwards, an artist, feels that the creative process may be broken down into five parts. The steps of the creative process should be utilized as a guide to help the creative person along the path. "The trail is at least marked with indications to aid the chase like clues in a treasure hunt, these notations encourage the pursuit," says the author (Betty Edwards, 1999). "The steps of the creative process are in chronological order, starting with the first insight and ending with the final product. Beginning as the first idea, the stages of the creative process progress in order: immersion, incubation, illumination, and verification. "Because there are different personality types, and the creative processes of one are not the same as those of another...each of us must discover his or her own way into and through these key secrets (Nachmanovitch 10)," there isn't much more to say about the creative process.

For some people, creation is an emotional response. One of the best ways to get rid of stress when many thoughts and stresses are spinning in our heads is to create words or shapes out of our imagination and into the real world. Another reason people create is peace of mind. Another reason to create is for money. Believe it or not, there are artists in the world who enjoy painting because it brings them money. Money is a great motivator for some people, it's a good reason to create or not is another matter.

Another key fact, in reality mind and culture are inter-dependent (Shweden, 1990) and create action is an excellent example of this inter-dependence. As life becomes more cultural and innovative day by day, it allows people to personally create new things for me by smelling the scent of these innovations, because it convinces me that I can further expand the scope of my mental development. For example, I use my own national fabrics to create beautiful clothes, hats and bags, giving them a modern look.

Creating things is an integral part of my personal life. Because I try to apply creativity to everything I do in my daily work. Basically, I use creativity in teaching students, in interacting with my children, in interacting with people, in my own society. I use my position and most importantly, I use my personal life wisely to enrich my life with creativity, to gain strength from everything. Discovery is the main tool in my life, and the above experiences are examples that have helped me. Because my personal rule is that creativity is seeing the impossible with the eyes of the heart, finding rational solutions to them, and at the same time creating a unique

work. My primary creative duty is to produce visual aids for each session based on the abilities of the students and the capacities of learners of various ages. Although this is an era of innovation, works based on handicrafts created in a creative manner are valued and highly esteemed in any era.

Above all, human beings are essentially born creative-from infancy on we find innovative ways to negotiate life. The most creative people find ways around obstacles because they see them not just as roadblocks but also as opportunities. Creativity expands our perceptions and along with expanded perceptions come new ways of problem solving-from making an exquisite meal when you don't know how to cook to painting an extraordinary landscape when you are living in a freezing attic and can't afford a full box of paints. The most appealing sphere in my life is language. However, I use it as a tool in social life and daily life as language is directly related to my profession and through it my interests.

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Formation of students' knowledge and skills by means of parables and riddles

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Annotation: In this article, mastering the culture of oral speech, knowing its characteristics; to teach the student to compose sentences and speeches in accordance with the standards of the literary language in terms of grammar, orthography, and stylistics. For the development of oral speech, it is necessary to consistently increase the student's vocabulary, to acquire practical knowledge of the syntactic structure of the sentence, to develop skills related to ensuring the logical harmony between speech units, and to connect new letters and sounds. The meaning of the words should be fully understood by the reader. It was thought about working on riddles, proverbs, and wise words

Keywords: students, riddles, content, parables, school students, lesson, textbook.

Organization of reading classes in primary grades is aimed at developing the vocabulary of children of primary school age, teaching them to think independently, developing literary and aesthetic thinking, and raising children of this age to become mature in all aspects. The content of the study program serves to form the concepts of faith and belief in elementary school students, instill love for the homeland, and to get to know one's identity. In the process of teaching students to read, a number of skills and competencies are formed. Including correct, conscious, fast and expressive reading; to deeply perceive the literary and aesthetic features of the read work, to grasp the essence of the described events, to draw certain conclusions; teaching to work on the text, enriching students' knowledge about the environment; such as raising high moral qualities and a sense of sophistication in students. The tasks mentioned above are carried out on the basis of the teaching of artistic, scientific and popular works, examples of folk oral creativity included in the "Reading" textbooks.

Reading lessons in primary grades are organized in two directions. 1st grade reading lessons; 2nd route extracurricular study lessons.

It is clear from our observations that ideological-aesthetic, seasonal, and practical principles were taken into account when creating the study program. The selected teaching materials include knowledge about existence and high human relations, which are important in teaching and educating students. The artistic works

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expressed in the textbooks (reading textbooks of the 1st, 2nd, 3rd, and 4th grades) are the past of our people, the history of our country, important events in it, symbols of our country, people's work, human faith. and spirituality, with the goal of educating a well-rounded person.

Teaching students to read is based on life experiences. For this, the student relies on certain skills he has in the cultural-household and other spheres, as well as in relation to natural phenomena.

Using methods that increase students' activity and enrich their imagination in reading classes, teaching works by dividing them into roles based on the nature of the genre, retelling the story on behalf of the characters, continuing the story about the hero's fate, creating an oral story on interesting topics it is appropriate to use positive tasks such as

Acquiring the culture of oral speech, knowing its characteristics; to teach the student to compose sentences and speeches in accordance with the standards of the literary language in terms of grammar, orthography, and stylistics. For the development of oral speech, it is necessary to consistently increase the student's vocabulary, to acquire practical knowledge of the syntactic structure of the sentence, to develop skills related to ensuring the logical harmony between speech units, and to connect new letters and sounds. the meaning of the words should be fully understood by the reader. Work on riddles, proverbs, wise words (on the basis of textbooks and educational materials selected for reading outside the classroom);

Riddles are questions and tasks in a poetic or prose structure based on finding the symbol, form, behavior, state and function of things or events that are deliberately hidden by comparing them to other things or events. Riddles are created in close connection with people's life. They are based on people's ancient beliefs and imaginations, aspirations to know and understand the world.

Finding hidden things is his answer. In order to find the answer to a riddle, one should carefully read the text of the riddle, understand what is being referred to, and try to guess what the main features and signs of the riddle are aimed at.

Finding hidd teaches students to be resourceful and present. Therefore, this genre of folklore is widely used in textbooks. In the 1st-2nd grade "Reading book", there are more riddles under each text. The purpose of this is to achieve the mastery of the content of the text based on riddles. For example, the 1st grade "Reading book" ", under the text "Love the book" is the riddle "Fold it quickly, don't throw it away if you're smart" and it was chosen very well for the topic. When riddles are given in this form, their answers are easy to find.

In the reading textbooks of the 1st-4th grade, various riddles are given under the topic "Riddles", which further increase the ingenuity of the students and

develop their thinking. In the 1st - 2nd grade textbooks, the answers to riddles are written below them or given with pictures. After the 3rd and 4th grades, the answers were not recorded. The reason for this is that by this time, students have acquired the skills to work on riddles.

Riddles are also created by children's poets. Such riddles are fun and interesting. For example, in the 4th grade "Reading book" there are riddles "Find this, my girls" (G. Ghulam).

It should be emphasized that it would be appropriate to include riddles of more educational importance, selected according to the subjects, suitable for the age of the students, in the elementary school textbooks.

Studying riddles in primary grades is initially carried out in each lesson. Teachers can use different methods when learning as a separate lesson. Now we will give an example of the development of a puzzle lesson:

The word "find" means to think, to find something hidden.

Who is finding? or what The questions are hidden, and the answer is required after the riddle is told. The riddle first of all attracts the child's interest with its brevity, figurativeness, and the secret giving of something. Thanks to this interest, the child learns the inner secrets of various things and events, the connections between them.

Another characteristic of riddles is that the idea is expressed in a simple and concise way.

A riddle teaches a child to think, to express his thoughts fully and clearly, develops his imagination, thinking, and develops stable attention in him.

The riddle not only gives children new knowledge, but also teaches them to correctly perceive the knowledge they have received and to apply it in their place.

In the process of finding riddles, children learn to do some brainstorming, that is, to analyze, synthesize, summarize things.

Riddles have a great impact on the development of children's speech, teach them to say words clearly, and make sentences correctly.

Dalama-dala qidiradi,
Qo'y bilan echki oh uradi.(Bo'ri)
Erta turadi,
Jar chaqiradi. (Xo'roz)

Boshida tayog'i bor,
Sakkizta tuyog'i bor. (Echki)
Osti tosh, usti tosh,
O'rtasida jondor bosh. (Toshbaqa)

After telling the students the riddles about the animals listed above, after finding out their answers, it is necessary to give information about them. It is necessary to explain that they should be preserved. It is explained to children that animals are divided into 2 types, they are domestic and wild animals. Pets live in the

house, feed the house, benefit people. That is why they take care of them and feed them at home. And without people, pets will starve. And who has pets at home? What are their main characteristics? It is necessary to ask questions.

In traditional riddles about vegetable crops: watermelon, melon, carrot, onion, pumpkin, turnip, beetroot, cabbage, garmdori are riddled. We did not find any riddles about tomatoes, eggplants, potatoes, radishes, etc., which were spread in Uzbekistan in the next century. The reason for this can be explained by the fact that these vegetables were not grown in the conditions of Uzbekistan in ancient times. The fact that these vegetables were widespread and widely consumed among the Kazakhs, especially during the next half century, is the most difficult part of the matter. It is not possible to solve this problem without conducting systematic observations.

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The teacher's skill and creativity in using problem situations.

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Abstract: A teacher's abilities can and should be manifested through creativity, which affects the personal professional trajectory, a system that reflects original approaches, technologies, and methods of educational activities. As a result, the achievement of the teacher's creative activity will be a qualitatively new result. The article examines creativity as one of the most important components of pedagogical skills. It also reveals the main approaches to the problem of creativity as one of the characteristics of a teacher's personality traits. It is emphasized that the teacher's creativity is manifested in his professional activities and has a productive impact on the education and training of students.

Keywords: creativity, teacher, creativity, competence.

Creativity in pedagogy is the teacher's ability to find and use non-standard approaches to teaching, preparing lessons, and interacting with students; it allows the teacher to easily find material tailored to specific students' needs, characteristics, and interests. This significantly increases the efficiency of the educational process. And a creative teacher can create an atmosphere in which children will develop creative abilities.

In their teaching activities, many teachers face the following problems:

- low level of motivation;
- decrease or lack of interest in the subject;
- high level of anxiety among students;
- rapid fatigue in lessons and, as a result, overload of students, deterioration of their health.

I consider one of the main solutions to these problems to be the activation of students' cognitive activity, both in class and outside of class.

Active cognitive activity of students in the classroom improves the assimilation of knowledge, increases interest in the subject, and increases children's self-esteem, which, in turn, helps schoolchildren feel more comfortable in the classroom.

Activation of students' cognitive activity can be achieved using modern pedagogical technologies.

Nowadays, the idea of creative education for children has become central, especially in a regular school.

What type of creativity is available to the student in the classroom? In a lesson on any subject, students can take on the role of scientists and discover new knowledge for themselves. Thus, it all begins with the emergence of a problematic situation: the scientist is faced with a contradiction and has a feeling of surprise or difficulty. You have to do specific mental work: recognize the contradiction and formulate a question. Then we need mental work to put forward and test hypotheses.

The search for solutions begins. Only rigorous testing turns a correct guess into a solution, i.e., into new knowledge.

Our time is a time of change. Now in Uzbekistan, we need people who can make non-standard decisions and who can think creatively. Unfortunately, modern mass schools still retain an uncreative approach to acquiring knowledge. Children lose the joy of discovery and may gradually lose the ability to be creative.

The development of students' creative abilities is important in all approaches to school education, but improving creative thinking at primary school age is of particular importance. There are a sufficient number of teaching aids on the Russian language in elementary school, but there are very few that would collect and summarize data that would allow students to develop creative thinking in Russian language lessons without going beyond the scope of the course. There are few teaching aids for the use of problem-based learning technology in primary school. Therefore, I concluded that it was necessary to create a well-thought-out system of exercises to develop students' creative thinking.

The practical significance of this work is the development of a system of cards with different degrees of difficulty for the same task for students with different levels of creative thinking, a system of tasks for the development of creative potential, and a system of leveled tasks based on personality-oriented learning technology.

When forming creative thinking, I identify three main conditions for the formation of creative thinking:

- 1) individualization of education;
- 2) research and learning;
- 3) problematization.

Problem-based learning cannot be equally effective in all conditions. Practice shows that the process of problem-based learning destroys various stages of both the intellectual difficulties of students and their cognitive activity and independence when mastering new knowledge or applying previous meanings in a new situation.

I was tasked with organizing problem-based learning in such a way that, along with the high efficiency of learning results (formation of spelling skills), the development of creative thinking of each student would be ensured.

Based on the fact that the choice of method of teaching the Russian language depends both on the purpose of learning and on the content of the educational material that belongs to mastering, I selected material that can be studied using both traditional explanatory and illustrative and problem-based (search) methods. Spelling rules were such material.

For each rule, goals of a problematic nature were set for the formation of a corresponding skill, for highlighting, understanding the spelling pattern, a component of the rule, etc. Thus, when considering the rule for spelling words with a soft sign in the middle of the word, the task was to develop the skill in students' transfer of such words and the rules for spelling unstressed vowels, highlighting them in sounding words. For other rules, the task was either to determine the significant parts of the word (morphemes) or to form the corresponding skill.

Before teaching each rule, I learned what knowledge, skills, and abilities were needed to master it. First of all, to acquaint students with the spelling rule planned for study, they repeated the concept of vowels and consonants, stress, unstressed and stressed vowels, roots and roots with alternating vowels and consonants, consolidated the ability to place stress, and highlighted the root in a word. The better the students knew the fundamental material, the easier it was to master the rules.

In problem-based learning, when creating conflict situations, the material is mainly used, the assimilation of which is based on an in-depth understanding of the basic relationships between its essential features, patterns, general principles for solving a whole class of problems, etc. Tasks-problems place the student in conditions of uncertainty, and the emergence of errors is quite possible here. Such mistakes are not terrible if the teacher draws the students' attention to them and achieves an understanding of the reasons that gave rise to the mistakes and ways to overcome them.

So, an educational problem can exist in two forms: as a question that does not coincide with the topic of the lesson, the answer to which is new knowledge, and as the topic of the lesson. In a problem-based lesson, the teacher "guides" students through the formulation of a problem in one of two possible ways, each of which increases students' motivation to study a new topic but has its specific developmental effect.

The current stage of development of pedagogy is called the stage of creativity and innovation since it marks the successful combination and interaction of various studies, the purpose of which is to educate a creator (creative, artistic personality) capable of becoming part of constantly developing socio-economic relations and creating their capabilities.

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Realities allow us to conclude that if you want to be happy in a modern environment, it is not enough to acquire professional knowledge and skills and be able to apply them in practice. The most important thing that efforts should be directed towards is the constant development of both your creative potential and like-minded people capable of generating new, creative ideas.

An analysis of the latest educational documents in the field of higher education in Ukraine has shown that the object of education and upbringing should be a professionally competent, proactive, creative person, endowed with a sense of duty and responsibility to society, capable of quickly adapting to the modern world, the characteristic features of which are personal enhancement, intellectualization activities in the context of dynamic changes in technology and technology, the continuous growth of information volumes. That is why, in our opinion, an important task of modern higher education is the formation of a creative individual capable of constant self-educational activity.

In the context of changing values and priorities, a modern teacher is expected not only to be professional, competitive, and master new technologies, but also to be able to create a comfortable developmental environment. The purpose of education changes from the process of transferring knowledge, skills, and abilities to the formation of readiness for self-knowledge, building oneself as an individual, and an active awareness of one's purpose. Therefore, the teacher's task is not to impart ready-made knowledge.

A universal interpretation of creativity as the fundamental principle of creativity was given by E.P. Torrance. "Creativity is the ability to generate original ideas and use non-standard methods of intellectual activity (in a broad sense); divergent abilities (in a narrow sense). Creativity is the process of finding ideas and hypotheses, testing them, modifying them, and creating them by others."

Currently, problems of prevention and psychohygiene of creative work, regulation of personality states, success of vocational training, and creative activity are being studied by A.L. Groysman. In his scientific studies of the success of professional training and the creative activity of a specialist (including the teaching profession), the ways of objectively determined integration of psychology, medicine, theatrical art, and pedagogy are opened to ensure the adaptation of the individual in the modern world.

Personal mechanisms that ensure the self-development and creative self-improvement of a person in professional work and life are adaptation, correction, and presentation, per the idea of A.V. Petrovsky about the three phases of personality formation in the social environment: adaptation, individualization, and integration. These mechanisms determine the stages of creative development of the individual

(propaedeutic, basic) in the process of professional preparation for work and their educational support.

Modern, developed school pedagogy studies the essence of education not only as obtaining a result but also (especially) as the organization and mastery of the process of creative learning and education, during which the creative potential of the individual and creativity in general develop. This indicates that there has been a change in priorities in Russian psychology and creativity pedagogy. From the study of abilities (for example, abilities in mathematics), there is a change to a more relevant direction: the study of methods and techniques for the development of creativity and creative thinking, since it has been established that every student, be it a schoolchild or a student, has unclaimed potential for creativity (for example, independent creation of new knowledge). The teacher's task is to reveal these potentials and develop the student's creativity.

The problem of creative readiness is determined by the mechanisms of adaptation and "criticism" in the process of pedagogical professionalization. A future teacher can be ready for creativity when he assumes the position of master teacher, creator, and innovator, having previously mastered all aspects of professional life, including creativity and competence.

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GENERAL CHARACTERISTICS OF THE NERVOUS SYSTEM AND HIGHER
NERVOUS ACTIVITY IN CHILDREN.

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Abstract: The nervous system, on the one hand, adapts to the metabolic and physiological processes that pass to various tissues, organs and systems, and on the other hand, with its help, performs the function of maintaining the connection between the whole organism and the external environment. During ontogeny, various parts of the nervous system merge into a functional system, mature and harmonize with age. This article provides information about the general features of the nervous system and higher nervous activity in children.

Key words: Higher nervous activity, central nervous system, pallidum function, lipofucin pigment.

During early childhood, the central nervous system develops very rapidly. According to I. P. Pavlov, the characteristic of higher nervous activity is the synthesis of heredity, factors and educational conditions. 50% of a person's general mental development begins to form at the age of four. 1/3-4-8 years old, the remaining 20% are 8-17 years old. Therefore, the impact of unpleasant factors in early childhood causes serious disorders of the central nervous system. The impact of unpleasant factors can lead to a strong stimulation of the cerebral cortex. After a short-term excitation, its diffuse inhibition appears. The function of the higher layers of the central nervous system is closely related to the activity of receptors, which are peripheral self-receiving mechanisms. Interoceptors transmit tickling from the internal organs to the cerebral cortex; and exteroceptors provide tickling through the external environment. The cerebral cortex receives sensory impulses, analyzes and synthesizes them. It is clear from this that the cells of the cerebral cortex of the large hemisphere must be perfectly matured. Due to the insufficient development of the child's nervous system and the cells of the cerebral cortex, the receptive stimulus is functionally insufficient. When the child is related to the environment, he should interact closely with the environment. This balancing is carried out by a number of mechanisms, such as extero- and interoceptors, humoral regulatory systems, then changes in the function of organs and the adaptive-trophic function of the symptomatic sympathetic system. All these mechanisms are directly controlled by the cortex of the brain, the development of complex human behavior and higher nervous activity is entirely related to the brain and partly to its large hemisphere.

The nervous system of newborns and young children differs from other systems in that it is not sufficiently developed and not divided into classes. The brain. In the first period of life in the mother's womb (up to the first month), the cerebral cortex is not divided into layers, there are

no myelinated nerve fibers. Although almost all brain cells and egests are present in the large hemisphere of the brain of a newborn child, they are very weakly developed; the structure of the layers of the cerebral cortex is mostly completed only at the end of the period in the mother's womb, but the division of all nerve cells into layers occurs mainly in the postembryonic period. At the same time, the structures of the spinal cord, optic nerve (thalamus opticus), on the contrary, are somewhat improved. The shape of the cerebellum is elongated, and its edges are not clearly visible. Only in the first half of the year, the child's brain macroscopically approaches the brain of an adult. The weight of the brain increases rapidly after birth, the weight of the brain of a newborn child is 360-370 grams, that of a 6-month-old child is 600 grams, and at the end of the year it is about 900 grams. The weight of the brain of a newborn child is equal to 1/8 of the weight of the body, and that of an adult is equal to 100 parts. Brain weight increases twice at 9 months, three times between 1 and 3 years of age, and 4-5 times at 20 years of age. The division of brain matter into layers, that is, the development of nerve tissue, ganglion cells, and nerve fibers is somewhat slow. Because in a newborn child, the stratum corneum is divided into few layers and the center of the cortex is not sufficiently developed. The development of the cerebral cortex is especially intense in the first three months after birth. The lack of short branches of dendrites (nerve cells) in nerve cells is very characteristic. The division of nerve cells into layers is mostly completed by the age of 3. At the age of 8, they completely improve. From the moment of birth, the conducting path is sufficiently developed. The pyramidal tracts are surrounded by a myelin membrane in 5-6 months.

Spinal cord. After the birth of the child, the spinal cord weighs 2-6 g, and in the future, it grows somewhat slower than the weight of the brain. The growth of the spinal cord goes hand in hand with the development of motor function; it increases its weight by three ranks at the age of 5, but its difference from the brain is that from the second year its structure approaches the structure of adults. Depending on age, only the number of motor cells of the anterior horn increases. During puberty, the spinal cord increases 4-5 times. When performing a spinal puncture, it should be noted that the lower part of the spinal cord in a newborn child is located at the level of the III lumbar vertebra, and at the age of 4, it is located between the I and II lumbar vertebrae, as in adults. Nerves inside the skull are covered with myelin for up to 3 months, and peripheral nerves for up to 3 years. The autonomic nervous system is active from birth. Thus, the morphological features of the nervous system in early childhood are expressed by the insufficient development of the cerebral cortex, the insufficient separation of nerve cells into layers, and the insufficient wrapping of nerve fibers in the myelin sheath. Accordingly, there are a number of features of the nervous system function in childhood. In the embryonic period, in the first half of pregnancy, tickling from a

desired point causes a diffuse reaction by the nervous system, and this tendency to diffuse reaction is preserved in newborn children. In the second half of pregnancy, it has been determined that exposure is manifested in a certain place. As long as the pyramidal tracts of the cerebral cortex and the striatal body are not fully developed at birth, the entire life function of the newborn child is regulated mainly by the thalamopallid, that is, the subcortical system. For example, the pallidum regulates motor movement; It is also responsible for the slow, involuntary movements of the fingers and toes that are characteristic of a newborn child. crawling is also linked to the function of the pallidum.

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METHODOLOGY OF FORMATION OF STUDENTS' COMPOSITIONAL THINKING SKILLS IN SCHOOL VISUAL ARTS CLASSES.

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Abstract. Art is a component of human spiritual culture. It includes other types such as music, theater, cinema, fiction, choreography, visual and applied decorative arts. Fine art is one of the types of art that quickly affects the human mind, awakens good feelings in it, inspires a person and enriches his spiritual world. At the same time, visual art is also an educator that helps in the formation and perfection of human personality.

Key words: Fine art, lesson, student, composition, ability, methodology.

Introduction. Today, regardless of which of the developed countries of the world, in the field of education, especially from school age, great importance is attached to the development of knowledge about art, in particular, visual art. The eleventh year of secondary education in our country and the establishment of educational centers for career guidance, as well as the artistic and aesthetic development of young people studying in academic lyceums, vocational colleges, and higher education institutions. great attention is paid to education. Art is a component of human spiritual culture. It includes other types such as music, theater, cinema, fiction, choreography, visual and applied decorative arts. Each type of art uses different tools to reflect the tasks set before it, for example, literature - words, music - sounds, visual arts - colors and lines, etc. At the same time, each type of art is further divided into types and genres. The issue of understanding art and determining its role in people's lives has been the cause of sharp debate and controversy throughout the history of culture. is one of the types of art that enriches. At the same time, visual art is also an educator that helps in the formation and perfection of human personality. Today, it is essential for every person to have graphic knowledge, both for himself and for society. According to this, the French philosopher Diderot said almost 300 years ago, "If a country knew how to draw like how to read and write, this country would overtake and surpass any other country in all fields."

Methodology. Visual art classes in general education schools are considered as the main means of aesthetic education and are of great importance in educating students to be spiritually mature. In fine art classes, students learn the basics of scientific knowledge, master existence, which has an effective effect on their ideological, intellectual, moral, and aesthetic education. Subjects of studying composition, compositional vision and compositional thinking skills included in fine arts classes, introducing students to composition and the materials used in this process, teaching the process of creating compositional works, and along with it, it is conducted in order to develop the artistic and aesthetic consciousness of students. The composition of fine arts and the lessons of their study are of particular importance in the formation of the spiritual outlook and ideological beliefs of students. It develops the ability to think, visual memory, creative imagination, artistic taste, and aesthetic feeling. Each type of visual art composition helps the growth of students' creative abilities, the formation of worldview, that is, it contributes to the comprehensive development of a person. Currently, one of the main tasks of our schools is not only to form in students the need and ability to creatively master the world, but also to educate them to rebuild the world based on the laws of beauty. Everyone in our society should be able to

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see and understand beauty and elegance, regardless of the field of work. In order to educate students aesthetically, the teacher shows them the beauty of nature and the variety of forms. The beauties of nature, indescribable color combinations, which gave joy and excitement to children, remain in their minds for a long time. In this process, composition of fine art, compositional vision has a special place. Many methodological works are carried out in order to teach the basics of composition and to form the ability of compositional thinking in school visual arts classes. Among these are drawing, preparing compositions made of different elements and assignments for students to prepare such compositions. Travel and excursion lessons, as well as trips to art galleries and museums, also develop compositional thinking skills.

Improving the ability of compositional thinking is considered a very important factor in visual arts classes. Through the ability of compositional thinking, the student can compare the state of nature he is drawing, its location, proportions and dimensions. These skills are developed through many exercises and repetitions.

Improving the ability of compositional thinking in school visual arts lessons imposes several important tasks on teachers. First of all, to form the ability of students to see and understand the composition, and then to apply this process in the process of illustration. Teachers in this case, each educational process is carried out step by step. First of all, students are taught the basic concepts of composition. Later, the tasks become more complicated, and they are required to compose compositions and choose optional subjects. It develops the first stages of compositional thinking in students. As the tasks for the students are gradually becoming more complicated, the results are also improving. The role of compositional thinking ability is incomparable in the development of human artistic and aesthetic taste. First of all, the feeling of beauty, the concept of its perception, is formed in the human personality precisely under the influence of the environment. The ability of compositional thinking is capable of making the environment around us aesthetically pleasing and unique. The ability of compositional thinking is of particular importance in the spiritual maturity of people, labor and aesthetic education, and preparation for work in the national economy. The ability of compositional thinking and its practical application is an integral part of culture and has an active influence on the formation of artistic taste. In conclusion, it should be said that students develop aesthetic perception, presentation, and aesthetic feeling through the ability of compositional thinking. Emotional experiences are accumulated, speech is enriched. Students' thinking process is developed, comparison is important in analysis, synthesis, and generalization processes. As the leading goal set before us by the society is to achieve a close unity of work, moral and aesthetic education in order to fully develop the personality of each young generation, the solution to such an important task is the quality of a new educational and creative process in the process of training the skills of composite vision and thinking. the implementation of a system of tasks can be brought, and this serves as an effective way to lead to our goal.

It is known that the era does not choose the teaching methodology, but the era chooses the teaching methods. In the 17th century, the famous Czech pedagogue Y. A. Comensky, having developed the school system, recommended a number of teaching methods and didactic principles used in it to the peoples of the world and for their schools.

During the analysis of art genres in high school visual arts classes, the teacher pays the main attention to the idea of the work, and the artist's artistic style. But there must be a certain system and order in the analysis of works of art. Accordingly, in the analysis of works of art:

1. Information is provided about the author of the work and the history of its creation.

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2. Discussion on the theme of the work, can the work respond to the theme, its plot and idea?

3. The idea of the work - what issue, problem the artist raised in the work based on the plot he described;

4. The plot of the work - in this work, correct, scientific information is given about the object, event, things, landscape, people and animal world or others;

5. An understanding of the artistry of the creation of the work, the artistic style, the artist's knowledge and talent, and the skills of the artist;

6. Information is provided about the artist's research work, material collection, summarization, draft, etude sketches during the creation of the work;

7. The fate of the work - i.e., the current state of the work, its current location, and the exhibitions in which it has been exhibited will be discussed.

Summary. For such an analysis of a work of art, a school teacher needs to know how to paint, understand the work well, and be able to explain it to others. Art works are not analyzed due to the lack of qualified artist-pedagogues in our schools. Even if it is analyzed, it will be analyzed incorrectly and incompletely.

Therefore, the lack of good teaching of art makes it difficult to introduce our art to our people. Until now, there are very few works of art in the Uzbek household. They don't even get the artwork. The main reason for this is that art works are not taught well in our schools.

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TERMS RELATED TO THE FIELD OF ARCHITECTURE AND CONSTRUCTION

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Abstract: In order to carry out research at the points of intersection of architecture and construction with language, it is necessary to clarify several concepts and paradigms related to this process. Regarding the definition of the term, there are a lot of opinions expressed in scientific sources. In almost all definitions, the term is described as a word or phrase expressing a special scientific and technical concept. In this article has shown the influence of word and term in national lexicon.

Key words: function, tagged, linguistic concepts, morphological-syntactic signs, semantic, syntactic information

Globalization and civilization processes, which continue continuously and productively throughout the world, have also brought great changes to the field of construction and architecture. The emergence of new types of raw materials, changes in construction forms and methods, adaptation to social needs and the demands of the times, and the improvement of the techniques and technologies used in this process, in parallel, lead to the assimilation of new field terms from other languages or the creation of them using internal capabilities, and to the active use of communicants in everyday life and which in turn affects the social lexicon.

In order to carry out research at the points of intersection of architecture and construction with language, it is necessary to clarify several concepts and paradigms related to this process. Regarding the definition of the term, there are a lot of opinions expressed in scientific sources. In almost all definitions, the term is described as a word or phrase expressing a special scientific and technical concept. For example, the linguist V. P. Danilenko admits that the perception of any process occurring in society is first expressed in terminology or occurs as a result of transformational changes of certain terms.

Despite the wide range of researches carried out in the field of terminology, researches related to the terminology of some fields have not yet been completed. But it should also be noted that whatever language it is, its lexicon and the terminology included in this lexical scope are constantly being updated in line with the times. This naturally gives rise to the idea that the lexicon of the language needs constant research and research.

At this point, let's dwell on the factors that influenced the formation of Uzbek and English terms of construction architecture. Uzbek architecture, which is considered one of the central centers of civilization of Eastern architecture and architectural art, has its own ancient and rich historical development and traditions. The richness and attractiveness of Uzbek construction-architecture, which was able to create its own building principles and style according to its geographical, cultural and national characteristics, was formed on the basis of the trends characteristic of the Turkic peoples, and combines painting, carving, decoration and several other national cultural directions, is also reflected in the terminology of the field. .

The social, political and historical factors that occurred in this area determined certain criteria for the architecture of each period. During the 13th-18th centuries, tims, rabots, mosque-

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madrasas, palaces for rulers, defensive fortresses, mausoleums, etc. played an important role in the formation of the city's architectural appearance, and the names of the equipment, forms, and methods related to the field were partly influenced by the Arabic and Persian-Tajik languages in a certain sense. (Uzbek) language played a big role. As a result of subsequent political processes, the image of Russian architecture began to enter the country. In the 19th and 20th centuries, the construction of high-rise buildings, public buildings, etc., typical of Russian architecture, flourished not only in the city centers, but also in the districts and rural villages. As a result, the Uzbek architecture-construction field terminology has been enriched through the acquisition of Russian-international terms. Among the borrowed terms, there is an active encounter of terms borrowed from other languages through the Russian language. In particular, we can cite the following examples of terms introduced through the Russian language.

Parts of the building: roof, basement, attic, warehouse, hallway, floor..;

Names of equipment:zip, concrete mixer..;

Product names: brick, stone..;

The Soviet power, which kept our region and people under its influence for more than a century, was able to leave indelible traces in the field of construction and architecture. Due to the fact that the builders or employers who carried out architectural and construction works in our country for more than half a century were mainly representatives of the Russian language, many Russian construction and architectural terms have become "relics" for the Uzbek language. This can be explained by the importation and active use of construction equipment and materials from Russia and neighboring regions, the fact that the master builders spoke Russian and the language of construction and architecture was also Russian, as well as the high tendency to teach and learn the Russian language in the social life of that time. Today, Uzbek equivalents and alternatives of Russian architecture-construction terms, like other field terms, are offered for language users. For example: chot - hole, kraska - paint, brick - brick. But their adoption by the living language is very slow. The development and use of a dictionary of construction-architecture terms in the Uzbek language would have greatly accelerated this process.

But another aspect of the matter is that it is much more difficult from the point of view of the present day that the terms of construction and architecture, which are being actively used, will remain stable in our language. Because the introduction of new terms into our lexicon as an acquired layer is causing the word used before to become inactive and archaic along with the thing it meant. Examples of this are terms such as rabat, castle, maqbara, burj, mezana, sharafa, fanus, koshin, muqarnas.

The people are the main participants in the process of the popularization and assimilation of the terms of the acquired layer into our language. Language is a community asset. The members of the society make regular contacts with each other. During communication, the words in the language change over time, some words become historical and leave the communication process, while some become modern and become an active lexeme among members of society (this process is carried out in most cases at the expense of foreign words).

Linguistics has widely studied the issue of term creation and the interaction between the bases of artificial terms. In terminological studies, it is thought that the formation of terms is carried out mainly in 3 different ways. These are: affixal, compositional and semantic methods. The formation of a term in sources is almost no different from the formation of a word in the language. But in some places, the introduction of common words plays an important role in the

formation of terms. The method of calking also plays a significant role in the creation of terms. But in this process, Russian or foreign words introduced through the Russian language also become popular, move to the national language or become a component of the provision of a certain field. Any profession, be it architecture or any other type, contains certain words and phrases that are related to the scope of application and clearly express the field.

After a few years, a group of words becomes inactive, giving way to newly introduced words. But some terms are still used in their meaning. Because the semantic and stylistic meanings of the words are not exactly the same, this happens. For example, plaster, marble, paint, glass.

1. Most of the words used in the field of architecture and construction are translated words. In such lexemes, the stylistic and social status of the vocabulary of the language plays an important role. Today, among the terms in this field, there are many lexemes that came from the English language.

2. First of all, the reason for the appropriation of terms is that various countries widely use English as an international language in creating high-tech tools and popularizing them and putting them on the world market, naming their products. Therefore, most of the new terms entering our social life are in this language. Secondly, the brevity of words and phrases used in English makes it easier to master. Below we will consider some terms related to the field of architecture and construction that are used with the same name in both English and Uzbek:

3. **Arch** - a gate, door, window, etc., with a semicircular top.

4. **Balcony** - a porch, a square built on the second and higher floors of a multi-story building, attached to the interior rooms, and its front, back, or sides facing the outside, yard or street.

5. **Bracket** - a device used to install a shelf on the wall.

6. **Entasis** - is used in the work of the column, i.e., the decoration that thins the upper part of the column from the middle to the capitell with a special circular line.

7. **Facade** - house, front side of the building.

8. **Corridor** - a corridor serving for access to rooms inside the building and communication between rooms.

9. **Panel** - is a wooden, plastic or oil-painted decorative coating of a wall inside a building.

10. **Project** - project.

11. **Terrace** - light summer porch, porch.

12. **Reconstruction** - radical reconstruction of an existing thing (enterprise, city, building) in order to improve it, increase its practical value, improve it.

Acquisitions are one of the sources of regularity of development and enrichment of any language. The acquisition process is a complex phenomenon and is closely connected with linguistic and extralinguistic factors.

Currently, special attention is being paid to the provision of housing to the population in different regions of our country and the construction of multi-storey buildings that fully meet the requirements of the time. If we take the example of our capital alone, investments are made from abroad in the construction of hundreds of modernized residential buildings, and foreign architects and builders are involved in the construction work. This, in turn, creates the ground for foreign terms in this field to enter our language as neologisms. Below are examples of such lexemes:

1. "Hi-tech" style. In recent years, the term "high-tech" has been actively used in the field of architecture. In English, the word "hi-tech" means "high technology". This term is used in our language for modern home renovation based on high technologies.

2. Hall An area of a house or building leading to individual rooms. Forms a semantic synonymy with the lexeme hall. The lexeme hall is used in the language as a component of public buildings, and the lexeme "hall" is now more widely used for residential buildings than for public buildings.

3. Building. A structure built for living, working and other needs of people, a huge house, building. It forms a semantic synonymy with the building lexeme. The term "building" is used to refer to modern high-rise buildings, as well as to the name of a construction company. For example, "Murad buildings", "Brilliant building", "Simple building" and others.

4. House. A place built for people to live. Currently, it is used for high-rise residential buildings and their designation. For example, "Golden house", "Star house", "Dream house", etc.

It is known that sectoral terminology is enriched by taking words from common lexical units belonging to its layer based on the internal capabilities of the language, and the acceptance of the lexical unit as terminology is often carried out based on the phenomena of metaphor and metonymy. At this point, it should be said that the terms, in turn, serve for the emergence of certain linguistic units, in particular, lexemes, word combinations, collocations, and stable combinations in the common language. In the process of termination, the non-termination of the terminological unit, as well as the widespread reliance on metaphor and metonymy phenomena, is understood by transferring the metaphorical and metonymic meaning. We can actively encounter this in the process of social communication of communicants or in the discourse of an artistic work. For example: in the process of daily communication in the Uzbek language, we actively meet such stable combinations and collocations.

Today, the increasing popularity of electronic dictionaries in mobile form makes it necessary to form and electronicize the dictionary base of architectural and construction terms, and in this process to accept them as terms by analyzing the terms of the field that exist in social communication, and at the same time to transfer the terms that are out of date from the social language to the base of the dictionary of obsolete terms. or it requires taking alternative equivalents of the newly acquired terms from among archaic terms and national language units and preserving the semantic and stylistic linguistic features of the term.

TYPES OF BIOSORBENTS OBTAINED BY CHEMICAL MODIFICATION OF WASTE
FROM FOOD PRODUCTION ENTERPRISES

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Abstract. Biomasses of microorganisms are used as sorbents in the determination and sorption separation of heavy metal ions from the composition of industrial effluents and waste. A biosorbent was prepared from *Saccharomyces Cerevisiae* microorganism and yogurt whey, and the composition of the biomasses was studied.

Key words: Sorbent, microorganisms, whey, biosorption, *Saccharomyces Cerevisiae*

Amino acids, as well as covalent bonds with sulfhydryl groups in proteins. Thus, the toxic effects of heavy metals are not specific in nature, so they can combine with proteins, nucleotides, coenzymes, phospholipids, porphyrins, i.e. with practically all types of substances involved in cellular metabolism. In addition, by interacting with the groups of the active center of enzymes of microorganisms or replacing individual ions in them, heavy metals lead to their inhibition. When talking about the anthropogenic effect on biota, it should be noted that many metals in concentrations are necessary for the life of soil biota (Zn, Cu, Mn, Co, Cr, etc.), however, at high concentrations they become toxic and a number of metals are very toxic in small amounts. Concentrations (Ag, Pb, Hg, Cd, etc.) and can be affected in one way or another. Currently, many studies are being conducted on the effects of metals in the soil on microscopic fungi. It is known that pollution soil heavy metals can oppress the community microscopic fungi in the soil or stimulate their development. For example, in some types of soil, strontium dramatically increases the formation of toxins and stimulates the growth of *Fusarium* fungi. The greatest toxic effect on soil biota is set for cadmium (Cd), the lowest - for lead (Pb). In soils constantly polluted with industrial waste, micromycetes are able to accumulate Cu and Ni in a dry amount of 0.3-1.5%. This ability of fungi allowed a number of authors to propose[6]

Reduction of heavy metal ions by microbial cells

Microbial cells can convert metal ions from one oxidation state to another, thus reducing their toxicity [9]. Bacteria use metals and metalloids as electron donors or acceptors to produce energy. Metals in the oxidized form can serve as terminal acceptors of electrons during the anaerobic respiration of bacteria. Reduction of metal ions by enzymatic activity can lead to the formation of less toxic forms of mercury and chromium [4].

Bioremediation of heavy metals by microorganisms

The toxicity of heavy metals is the ability of the metal to have a harmful effect on microorganisms, and it depends on the bioavailability of the heavy metal and the absorbed dose [3]. The toxicity of heavy metals involves several mechanisms, namely disruption of destructive enzymatic functions, reaction as redox catalysts to produce reactive oxygen species (ROS), disruption of ion regulation, and direct effects on DNA and protein formation. does [2] . Physiological and biochemical properties of microorganisms can be changed by the presence of

heavy metals. Chromium (Cr) and cadmium (Cd) can cause oxidative damage and denaturation of microorganisms, as well as weaken the bioremediation ability of microbes.

Chromium Cr(III) can change the structure and activity of enzymes by reacting with their carboxyl and thiol groups [5]. Intracellular cationic Cr(III) complexes interact electrostatically with negatively charged phosphate groups of DNA, which can affect transcription, replication, and cause mutagenesis [3].

Heavy metals such as copper (Cu(I) and Cu(II)) can catalyze the production of ROS through Fenton and Haber-Weiss reactions, which act as soluble electron transport. It can cause severe damage to cytoplasmic molecules, DNA, lipids and other proteins [8]. Aluminum (Al) can stabilize superoxide radicals responsible for DNA damage [10]. Heavy metals can disrupt vital enzymatic functions through competitive or non-competitive interactions with substrates leading to configurational changes in enzymes [3]. In addition, it can adhere to the cell surface and enter through ion channels or transmembrane transporters, causing ion imbalance [6].

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Cadmium (Cd) and lead (Pb) have a harmful effect on microbes, destroy cell membranes and destroy DNA structure. This toxicity is caused by displacement of metals from their native binding sites or ligand interactions [7]. Changing the nucleic acid structure, causing functional disorders, destroying cell membranes, inhibiting enzyme activity and oxidative phosphorylation [8, 9] affect the morphology, metabolism and growth of microbes.

The propensity of heavy metals to be stimulatory or inhibitory to microorganisms is determined by related factors such as total metal ion concentration, chemical forms of the metals, and redox potential. Environmental factors such as temperature, pH, low molecular weight organic acids, and humic acids can alter the transformation, transport, valence state, and bioavailability of heavy metals to microorganisms. Heavy metals form free ionic species at acidic pH, with more protons available to saturate metal binding sites. At a high concentration of hydrogen ions, the surface of the adsorbent is more positively charged, so the attraction between the adsorbent and metal cations decreases, which increases its toxicity.

Temperature plays an important role in the adsorption of heavy metals. An increase in temperature increases the adsorbate diffusion rate across the outer boundary layer. The solubility of heavy metals increases with increasing temperature, which improves the bioavailability of heavy metals [4]. However, the effect of microorganisms is enhanced by increasing the temperature in a suitable range, and this enhances the microbial metabolism and enzyme activity, which accelerates bioremediation. The stability of the microbe-metal complex depends on the sorption sites, the configuration of the microbe cell wall, and the ionization of chemical moieties

in the cell wall. The outcome of the degradation process depends on the substrate and a range of environmental factors.

Mechanism of microbial detoxification of heavy metals

Microorganisms adopt different mechanisms to interact and survive in the presence of inorganic metals. Different mechanisms used by microbes to survive metal toxicity are biotransformation, extrusion, enzyme utilization, production of exopolysaccharide (EPS) [1 , 6] and synthesis of metallothioneins. In response to metals in the environment, microorganisms have developed remarkable mechanisms of metal resistance and detoxification. The mechanism involves several procedures including electrostatic interaction, ion exchange, precipitation, redox process, and surface complexation [7]. The main mechanistic means of resistance to heavy metals by microorganisms are oxidation of metals, methylation, enzymatic reduction, reduction of metal-organic color, reduction of metal, cleavage of metal ligands, metal efflux pumps, demethylation, sequestration of intracellular and extracellular metals, o Exclusion and production with a permeability barrier. of metal chelators such as metallothioneins and biosurfactants [8].

Microorganisms can neutralize metals by valence conversion, volatilization, or extracellular chemical precipitation [4]. Microorganisms have a negative charge on their cell surface because there are anionic structures that allow microbes to bind to metal cations [9]. The negatively charged sites of microbes involved in metal adsorption include hydroxyl, alcohol, phosphoryl, amine, carboxyl, ether, sulfhydryl, sulfonate, thioether, and thiol groups.

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EFFECTS OF KIDNEY DYSFUNCTION ON DISEASE COURSE IN PATIENTS WITH CHRONIC HEART FAILURE.

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The functions of the heart and kidneys are closely interrelated. Their interaction can be defined as a complex biological relationships between distant organs, which are mediated through cellular, canlecular, nervous, endocrine and paracrined factors. Under physiological conditions this connection.Helps maintain homeostasis and optimal functioning of the human body. Deterioration the function of one of these organs is caused by a vicious range of events leading to multi-organ failure

accuracy. Although it is well known about the dysfunction renal function in patients with heart disease, it remains unclear whether renal dysfunction is passive response to cardiac failure activity. In clinical practice throughout the for more than 13 years, the term "cardiorenal syndrome" (CDS), i.e. coexistence cardiac and renal nature in the same patient.

Key words: Chronic heart failure, cardiorenal syndrome, chronic kidney disease (CKD)

ВЛИЯНИЕ ДИСФУНКЦИИ ПОЧЕК НА ТЕЧЕНИЕ ЗАБОЛЕВАНИЯ У ПАЦИЕНТОВ С ХРОНИЧЕСКОЙ СЕРДЕЧНОЙ НЕДОСТАТОЧНОСТЬЮ.

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Функции сердца и почек тесно взаимосвязаны. Их взаимодействие можно определить как сложные биологические взаимоотношения между отдаленными органами, которые опосредуются клеточными, канлекулярными, нервными, эндокринными и паракринными факторами. В физиологических условиях эта связь способствует поддержанию гомеостаза и оптимального функционирования организма человека. Ухудшение функции одного из этих органов вызвано порочным кругом событий, приводящих к полиорганной недостаточности. Хотя хорошо известно о нарушении функции почек у больных с сердечно-сосудистыми заболеваниями, остается неясным, является ли почечная дисфункция пассивным ответом на несостоятельность сердечной деятельность. В клинической практике на протяжении более 13 лет широко используется термин «кардиоренальный синдром» (КРС), т.е. сосуществование сердечной и почечной природы у одного и того же пациент.

Ключевые слова: Хроническая сердечная недостаточность, кардиоренальный синдром ,Хроническая болезнь почек (ХБП)

The problem of chronic heart failure (CHF), and especially CHF with reduced ejection fraction, is one of the most significant for modern healthcare systems. This is due to high mortality, reduced quality of life, frequent episodes of hospitalization and severe comorbidity of patients with this pathology. Involvement of the kidneys in the pathological process is one of the most common comorbid conditions in cardiovascular diseases. There are a large number of pathogenetic mechanisms of the mutually negative influence of heart failure and renal dysfunction, which are reflected in the concept of “cardiorenal syndrome”.

There are five subtypes of cardiorenal syndrome:

Cardiorenal syndrome type 1 (acute RRS) is characterized by rapid deterioration of cardiac function, which leads to the development of acute kidney injury (AKI). It is observed in acute heart failure due to myocardial infarction, high blood pressure (BP), with rapid progression of chronic heart failure (CHF), cardiogenic shock. The cause of acute kidney injury in type 1 is inadequate blood supply to the kidneys due to low cardiac output and/or increased venous pressure, which leads to congestion in the renal vasculature.

Cardio-renal syndrome type 2 (chronic RRS) is characterized by chronic dysfunction of the heart (for example, coronary heart disease, valvular disease), which leads to the progression of chronic renal failure. The incidence of kidney dysfunction in CHF is about 25%. The reason for the development of type 2 RRS is a long-term decrease in blood supply to the kidneys. Independent predictors of worsening renal function are older age, hypertension, diabetes mellitus, and acute myocardial infarction.

Cardiorenal syndrome type 3 (acute renocardial syndrome) is characterized by a sudden and primary deterioration of kidney function (eg, acute kidney injury or glomerulonephritis), leading to acute cardiac dysfunction (eg, arrhythmia, angina). AKI can affect cardiac function in several ways. Fluid retention in the body can cause acute decompensation of chronic heart failure and pulmonary edema, and hyperkalemia can cause arrhythmias. Untreated uremia reduces myocardial contractility, acidosis leads to narrowing of the pulmonary vessels, which worsens the course of right ventricular heart failure.

Cardio-renal syndrome type 4 (chronic reno-cardiac syndrome) is characterized by primary chronic kidney disease (for example, chronic glomerulonephritis), which leads to decreased heart function, hypertrophy of the heart chambers, and an increased risk of developing cardiovascular diseases.

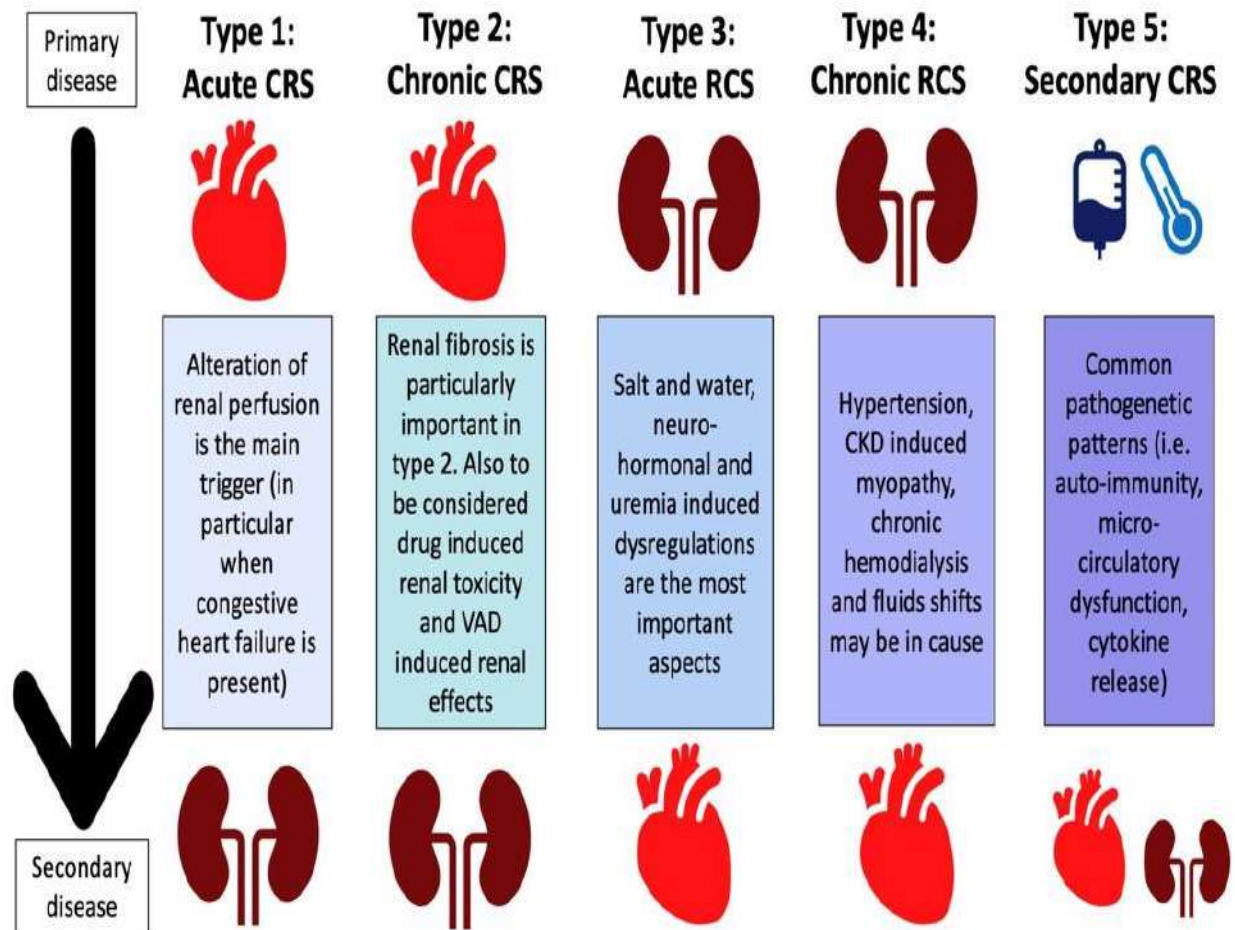
Cardiorenal syndrome type 5 (secondary RRS) is characterized by the presence of combined dysfunction of the heart and kidneys as a result of acute or chronic systemic disease. Type 5 RRS is observed in sepsis, diabetes mellitus, systemic lupus erythematosus, amyloidosis and sarcoidosis.

Cardiorenal syndrome type 1 occurs with acute decompensation of cardiac function, leading to a decrease in glomerular filtration. Previously, researchers suggested that decreased cardiac output with decreased renal perfusion is the main cause of deterioration of renal function in cardiorenal syndrome types 1 and 2. However, recent studies have shown that increased central venous pressure is a more important factor. When patients develop fluid overload due to deteriorating cardiac function, venous pressure increases and is transmitted back to the efferent arterioles; this results in a net decrease in glomerular filtration pressure and kidney damage. Other factors involved in the pathogenesis of cardiorenal syndromes types 1 and 2 include increased intra-abdominal pressure, activation of the renin-angiotensin-aldosterone system (RAAS),

activation of the sympathetic nervous syndrome, and increased inflammatory kidney damage associated with heart failure.

Targeting this cycle is the basis of therapy for type 1 cardiorenal syndrome. Cardiorenal syndromes types 3 and 4 most often result from volume overload due to renal dysfunction, cardiac dysfunction secondary to metabolic disorders (such as acidemia), and neurohormonal changes accompanying kidney disease. Patients may develop cardiorenal syndrome type 5 due to sepsis, systemic lupus erythematosus (SLE), diabetes mellitus, decompensated cirrhosis, or amyloidosis; all these disorders can lead to diseases of both the heart and kidneys.

Cardiorenal Syndrome (CRS) Types



Ricci Z, Romagnoli S, Ronco C. Cardiorenal Syndrome. Crit Care Clin. 2021;37(2):335-347.

Schematic representation of the five Cardiorenal syndrome (CRS) types according to the organ direction (primary > secondary disease) and the time window (acute or chronic). According to this classification, two CRS (acute and chronic), two renocardiac (acute and chronic) syndromes, and one secondary CRS are depicted.

CKD, chronic kidney disease; RCS, renocardiac syndrome; VAD, ventricular assist device.

When discussing renal risk factors for cardiovascular disorders in CKD, it should be noted that what dyslipidemia and chronic inflammation contribute additional load on the myocardium and endothelium vessels [2]. In patients with impaired function

kidney and significant proteinuria lipid profile becomes atherogenic, in part due to dysfunction of high-density lipoprotein cholesterol (HDL-C) and excessive oxidation

low-density lipoprotein cholesterol (LDL). In addition, chronic inflammation is one of the pathogenetic factors that can contribute to the development and progress the study of cardiovascular diseases, how is it has been confirmed in studies showing significant increase in C-reactive protein in patients with CKD with a significant positive correlation with the resistive index of the renal arteries and feedback with the glomerular filtration (GFR).

In recent years, special attention has been given to the role phosphate retention and related disorders, falling under the CKD-MCD section. In patients with renal dysfunction, deficiency often develops activity of vitamin D due to the lack of its pre-cause, disturbances in the activity of the renal enzyme 1α -hydroxylase, which converts this a precursor to the active hormone, or both. As a result, phosphorus-calcium is disrupted

metabolism in tissues and hyperphosphatemia occurs [12].

Pulmonary hypertension in CKD may be associated with several risk factors such as anemia, apnea, increased sympathetic activity pain, inflammation, vascular calcification and endothelial dysfunction, but pathogenesis remains unclear pulmonary arterial hypertension (PAH) in early these stages in patients with CKD[3].

In one study, TAPSE and ePASP scores were significantly different in patients with CKD from control group of healthy individuals. In addition, ePASP negatively correlated with GFR, showing it progressive increase with deterioration of function kidneys, at the same time there were no statistical significant differences between the two groups in terms of pulmonary artery wedge pressure and final but-diastolic volume of the RV. In fact, on experimental models (on dogs) was there is a connection between hyperparathyroidism and calcification pulmonary vessels and PAH, increased incidence of PAH, a relationship between PAH and hyperparathyroidism has been identified in predialysis and dialysis patients[5].

Thus, timely assessment of the bilateral influence of the heart and kidneys is a key point in understanding the severity of such pathology. The mechanisms leading to multiorgan changes during the development of renal dysfunction require further study, and the implementation of treatment and preventive measures should be carried out taking into account the multidisciplinary nature of the problems.

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Tayyorladi:

SOME PROBLEMS AND SOLUTIONS FOR THE FORMATION OF A NATIONAL INNOVATION SYSTEM

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ANNOTATION

The article is about the directions of formation and development of the national innovation system of the Republic of Uzbekistan. The article investigates factors, problems and solutions affecting the formation and development of the national innovation system, and also develops a model of the national innovation system.

Key words: innovation activity, innovation, innovation economy, innovation model, National Innovation System, innovation activity, effective management, human capital, intellectual property.

INTRODUCTION

Ensuring economic stability, recovery of the economy and creation of conditions for its further development is carried out by revitalising innovation activity. That is why the creation of conditions aimed at revitalising the innovation activity of industrial enterprises is one of the most important factors in the implementation of effective structural transformations in the economy. In addition, the assessment of the level of innovation activity of industrial enterprises and the formation on the basis of this innovation activity of a national innovation system, keeping pace with the times, aimed at achieving long-term strategic development goals and ensuring their stable income in the future, are among the topical issues.

Literature review

So far, scientists have not given an unambiguous definition of the national innovation system. National innovation systems of developed countries differ from each other. Already in different countries different goals are set and realised before the national innovation system. The author of the textbook with numerous citations Y.P.Surmin writes: 'the division and construction of systems is carried out in the following way: the goal, which the system should provide, is set. Functions or tasks that ensure the fulfilment of functions are defined. The target object is directed in the direction of movement. The goal usually arises from problem situations that cannot be solved by available means. And the system comes to the surface as a means of solving the problems.

So far, neither among foreign nor Russian scientists there is a single universally recognised concept of 'national innovation system. The lack of common views gives rise to different approaches to the methodology of formation of the national innovation system and its components. Based on the conducted analysis of the literature, it is possible to identify eight directions supporting these directions:

- + as a complex of institutions: r. Nelson;
 - + institutions and as a set of various elements and components: D.A. Serpukhovitin;
 - + as a network of organisations (enterprise, structure) and target types (directions) of their activities: K. Freeman;
 - + as interrelated activities, elements and content: B.O.Lumdvall;
- None of the concepts proposed by both foreign and Russian scientists to define the concept

of national innovation system covers state or national specificities. The conducted analysis of literature shows that the mechanism of interaction in the national innovation system or state policy, the structure and characteristics of institutions, various elements and components allow to identify the features of national innovation systems of each state.

However, the level of formation and development of the national innovation system, as well as the interrelationships of the structure of the national innovation system are also insufficiently studied and insufficiently researched in our country.

As the purpose of the study we will consider some problems of formation of modern innovation system in the Republic of Uzbekistan.

The aim of the study is the formation of a modern innovation system in the Republic of Uzbekistan, its state, potential, contribution to economic development and competitiveness.

Results and Discussion.

As part of the Sustainable Development Goals (SDGs) established by United Nations General Assembly resolution 70/1, countries have committed to significantly increase public and private spending on research and development by 2030.

According to Robert Merton Solow, American economist, author of the Solow model and 1987 Nobel Prize winner, Robert Merton Solow, between 1908 and 1949, innovative products that were unparalleled led to a 1.5% increase in the growth rate of the US economy. This represented half of the country's GDP during that period. Another American scholar, Edward Denison, identified 23 factors that stimulate economic growth in a given country and 14 of them were related to innovation and 9 factors were related to capital, land and labour. According to the scientist, the invention of a new product and its subsequent entry into the market will increase the GDP of developed countries by about 60%.

Today Uzbekistan is a major scientific centre with a developed research base in Central Asia and an extensive scientific history recognised internationally. However, the pace of innovation development both in Uzbekistan and in Central Asia as a whole has not kept pace with expectations. Uzbekistan was not included in the latest global innovation index, although a few years ago we were ranked 127th out of 144 countries included in the index.

However, as a result of the work done, in the Global Innovation Index ranking, published on 2 September 2020, Uzbekistan after a long break was assessed on 43 entry indicators and 22 exit indicators, rising 29 positions with 80 indicators among 131 countries and ranked 93rd. That is 81 - th place in the access sub-index, with rating columns institutional development (Institutions, 95th place), human capital & R&D (Human Capital & Research, 77th place), infrastructure (Infrastructure, 72nd place), knowledge & technology outputs (Knowledge & Technology outputs, 90th place) positive results in such indicators as: Ease of starting a business (Ease of starting a business) ranked 8th, Graduates in science&engineering (Graduates in science&engineering) ranked 7th and Gross Capital formation (Gross Capital formation) ranked 8th. At the same time, it ranked 12-45th in 8 important indicators.

It also remains at the bottom of the list in the following indicators: Regulatory quality - 127th place, Rule of law -124th place, ICT services exports - 129th place, gross expenditure on research and development financed by abroad -96th place.

Our country ranks 12th among 29 middle-income countries of the group and 4th among 10 countries of Central and South Asia, with India in 1st place with rating indicators 48, Iran in 2nd place 67 and Kazakhstan in 3rd place with rating indicators 77.

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According to the UNESCO Institute for Statistics, in 2015, the world's R&D funds averaged 1.7% of GDP, while for Central Asia this figure was 0.2%.

According to the World Bank, R&D expenditures in Uzbekistan and Kazakhstan are at about the same level-0.13 per cent of GDP, which is very low. In comparison, Egypt spends about 0.72%, Brazil and the Russian Federation - 1.26% and 1.0%, the USA and Germany - 2.84% and 3.09%, Sweden and Japan - about 3.34% and 3.26% of GDP respectively. South Korea is a leader in this respect, with R&D expenditure accounting for 4.81% of the country's GDP, as evidenced by the presence of world-class corporations such as Samsung, LG, SK Holdings, POSCO, Hyundai and others.

In countries with high R&D investment, the private sector accounts for the majority of R&D investment. In Japan, about 80% of investment is spent by the private sector. In China and South Korea, the private sector spends more than $\frac{3}{4}$ of total R&D investment. In Uzbekistan, by contrast, the state finances more than 60 per cent of total R&D expenditure. This indicates that the private sector in Uzbekistan does not yet have sufficient incentives to move in this direction and sufficient capacity to develop innovative solutions on its own.

In the countries of the Organisation for Economic Co-operation and Development, 80-90% of GDP growth comes from innovation.

Our research shows that the transition of these countries to the path of national innovation development occurred as a result of the creation of a national innovation system. Starting with the import of innovative technologies by developing countries, they formed their own innovation system. The model of innovation they used shows that the rational use of imported scientific and technological achievements not only provided significant GDP growth, but also proved that they can help to raise their economies to a qualitatively higher level of the economically developed countries of the world.

So, based on the above, based on our conclusion, we can define the term 'national innovation system' as a set of organisational, legislative, structural and functional components that ensure the functional functioning of the national innovation system of a given country, providing innovative development.

These structures are components that provide access to various resources and provide some support to participants in innovation activities. This system includes a set of enterprises (organisations), mutual movement of knowledge and technologies in all spheres of economy and society.

In our opinion, the innovation system is a system that combines at a certain point the principles of science, technology, economics, entrepreneurship and management, as a result of which the process of transformation of scientific ideas and projects into an innovative product is accelerated. Therefore, in the world practice, the development of innovation system for developed and developing countries is one of the most important priority strategies.

Taking into account the above, the purpose of the model of the national innovation system of the Republic of Uzbekistan proposed by US, sources of financing, economic and organizational institutions, information supply of innovative activities, personnel supply, legislative framework, monitoring and coordination system for the implementation of State Scientific and technical programs and projects, research organizations, interaction of innovative infrastructure entities and knowledge users, it consists in creating a favorable institutional climate and an innovative system for state structures at the level of commercialization of state organizations, subjects of innovative

activities and innovative developments, as well as promoting the development of a complex of strategic directions for innovative activities, fundamental knowledge.

The development of the mechanism of interaction of the model of the national innovation system is a large-scale complex task, which will be possible only through carefully thought out, mutually agreed effective actions of the president of Respubliki of Uzbekistan, the Cabinet of Ministers of the Republic of Uzbekistan, state organizations, subjects of innovative activities and the commercialization of innovative developments. The priority policy of the state, aimed at the development of the national innovation system, is among the areas considered important to Uzbekistan today. It is recommended to use the proposed model of the national innovation system in the development of innovative development strategies under the law on innovative activities of the Republic of Uzbekistan for medium - term and long-term periods, effective solution of important innovation problems in promising areas, development of regional innovation and investment programs.

According to the proposed model of the national innovation system, innovation policy in Uzbekistan is determined by the President and the Cabinet of Ministers and implemented by the republican and local state bodies within the limits of their authority.

The legislative basis for the formation and creation of mechanisms for the sustainable development of the national innovation system includes the laws adopted in Uzbekistan and a number of decrees and resolutions.

In particular, the decrees of the president of the Republic of Uzbekistan dated July 8, 1992 "on the development of state support and innovation activities in Science", published on February 20, 2002 "on improving the organization of research activities", dated August 7, 2006 "measures to improve the coordination and management of the development of Science and technology- on 24 May 2011, the resolution of the Cabinet of Ministers of the Republic of Uzbekistan "on additional measures to promote the implementation of innovative projects and technologies in production", July 15, 2008 "on the establishment of intellectual property agency of the Republic of Uzbekistan" and the measures of the Cabinet of Ministers of the Republic of Uzbekistan "on the development of, On January 19, 1998, on "development of international scientific and technical relations, state support of scientific programs and projects on grants of international and foreign organizations and foundations", on September 7, 2004,"on measures to strengthen the scientific and material and technical base of the Academy of Sciences of the Republic of Uzbekistan ", on October 15, 2008, "technology transfer agency" on improving the activities of the State Unitary Enterprise", on November 10, 2008, on measures to strengthen the material and technical base of scientific research institutions and organizations", the first directive documents on the development of the national field of Science and innovation were based on a set of measures to modernize the sectors of the economy of our country, to expand the scope of innovative products and services in the future, based on technical requirements.

Today, the basis of the system of state regulation of innovation activities, support and development of scientific technical activities, improvement of the competitiveness of the country's scientific potential is the PF of the president of the Republic of Uzbekistan dated September 21, 2018 on approval of the strategy for the innovative development of the Republic of Uzbekistan in 2019-2021- 5544, PF-6097 "on approval of the concept for the development of Science until 2030" of October 29, 2020, PF-6198 "on improvement of the public administration system for the development of scientific and innovative activities" of April 1, 2021, at the same time, the

president of the Republic of Uzbekistan on measures to further strengthen the infrastructure of research institutions and develop innovative activities “, On November 29, 2017, PQ-3416, on April 27, 2018, PQ - 3682 "on measures to further improve the system of practical introduction of innovative ideas, technologies and projects" and on July 24, 2020, based on the law of the Republic of Uzbekistan "on innovative activities" PQ-630.

The above laws, decrees and resolutions further improve the activities of research institutes, material and technical and laboratory - strengthening the experimental base, creating conditions for the development of innovation activities, revitalizing and developing the activities of the Academy of Sciences, restoring the activities of 9 scientific research institutes, reorganizing a number of scientific institutions, establishing 3 branches of the Academy of Sciences in scientific fields, including the Navoi Branch, Public Council on the new history of Uzbekistan, agency for science and technology, in order to increase the competitiveness of the country's scientific potential by organizing the activities of the foundation for the support and development of scientific technical activities, to strengthen the material and technical, laboratory and experimental bases of scientific infrastructures in the near future, it serves to further strengthen the basis of the comprehensive systematic changes in the development of scientific and after the adoption of the decree of the president of the Republic of Uzbekistan PQ3416 "on the establishment of the Ministry of innovative development of the Republic of Uzbekistan" on November 29, 2017, the attention to innovative activities in our country increased. Now all processes in science and innovation are carried out and coordinated by this ministry. The ministry has become a state governing body implementing a unified state policy aimed at the comprehensive development of society and state life in the field of innovative and scientific and technical development of the Republic of Uzbekistan, increasing the intellectual and technological potential of the country.

However, the R&D and innovation management mechanism implemented by the Ministry still does not meet the objectives of innovative development:

- ✚ Lack of consistency in creating motivation and mechanisms for innovation in Uzbekistan;
- ✚ Coordination of innovation development in the country is weak;
- ✚ Coordination of R&D activities with economic and social spheres is currently limited to assessing the alignment of R&D activities with priorities formulated in a very broad range;
- ✚ priorities are formulated in such a way that they can include any research in the field, regardless of its practical application, and do not contribute to the development of specific strategies and programmes.

The created regulatory environment also has the following disadvantages:

- ✚ existence of legal loopholes in attracting rights to the results of intellectual activity created at the expense of budgetary funds or state organisations into economic turnover;
- ✚ insufficient norms of inability of institutions to secure and dispose of exclusive rights to the results of intellectual activity created by them, including those created at the expense of budgetary funds, as well as to the income received from the use of these results;
- ✚ absence of regulatory and legal framework aimed at the development of economic cooperation between individual elements of innovation infrastructure (innovation funds, technology implementation centres, engineering laboratories, technoparks, etc.) ;
- ✚ the absence of a legal and regulatory framework to ensure a strong integration of

education, science and production, and the actual lack of functioning of the existing ones;

- ✚ Lack of a formal procedure for the use of intellectual property rights.

CONCLUSION

Thus, innovative development should be a systematic and targeted effort by the state, private business and civil society institutions to ensure the rapid development of Uzbekistan in the field of science, innovation and the digital economy.

At the same time, the relevant experience of leading innovative countries and successful methods of organising an effective innovation economy, including commercialisation of scientific developments, are important for Uzbekistan.

We propose the following priority directions for accelerated innovative development of the country, attraction of investments, economic growth and development of other spheres of state and public life:

- ✚ Improvement of the management system in science;
- ✚ improvement of the system of financing of science and scientific activity and diversification of sources of financing;
- ✚ Training of highly qualified scientific and engineering personnel and directing them to scientific activity;
- ✚ Formation of a modern information environment conducive to the development of science;
- ✚ Improvement of work on introduction of knowledge and new technologies in the domestic and world markets;
- ✚ Organisation of scientific activity of scientific organisations taking into account the prospects of socio-economic development of the country;
- ✚ formation of a competitive market and efficient use of resources ensuring the transition of the economy to the innovative way of development;
- ✚ it is necessary to develop competition in all areas and reduce administrative barriers.

At the same time, it is necessary to solve a systemic problem based on the principle of concentration of budgetary resources on financing of scientific-research works on medium-term and long-term priorities - the main directions, and the use of the mechanism of public-private partnership.

As a result of implementation of the author's concept of functioning of the innovation system in the Republic of Uzbekistan will be created an effective national innovation system, including mechanisms of interaction between the state, business, science and education, which will increase the share of science-based products in GDP.

Consequently, through the development of the national innovation system in our country there will be opportunities for the formation and development of innovation potential, as well as further increase the competitiveness of the economy. It also has a positive impact on the development of the national economy at present. To summarise, we can say that the formation, development and effective management of the national innovation system leads to the formation of a new economy based on innovative knowledge in our country. This will certainly become the basis for increasing the competitiveness of the national economy.

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BIOTECHNOLOGY OF RAPID AND MASS CULTIVATION OF SPECIES AND STRAINS OF ALGAE

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Abstract. Based on the process of photosynthesis, promising species and strains of algae are grown technologically in special machines, obtaining more biomass and extracting biologically active substances from biomass, and using it in various sectors of the national economy.

Key words: Euglena clara, Chlamydomonas parietari, Chlamydomonas rein, Chlorella vulgaris.

Algae cells are superior to higher plants due to their high growth rate, photosynthetic activity and productivity, as well as the ability to store more protein, fat, and vitamins in the biomass. In Uzbekistan, a method of mass cultivation of promising species and strains of the chlorella and stenedesmus family was developed, and the methods of using their suspension as a biostimulant in livestock, poultry, and cocoon breeding were put into practice [4].

Based on the process of photosynthesis, promising species and strains of algae are grown technologically in special machines, obtaining more biomass and extracting biologically active substances from biomass, and using it in various fields of the national economy. The biology and ecology of nitrogen-fixing blue-green algae were studied, cultivation methods were developed, and it was recommended to use their promising species in rice cultivation to increase the rice yield [4,5].

The process of photosynthesis of promising species and strains of single-celled green algae, the amount of biologically active substances contained in them, was studied, the biotechnology of intensive and mass cultivation was developed, and the biomass of the promising strain of hamidomanada was recommended to be used as a protein-vitamin food in fur breeding. [1].

Physiological and biochemical characteristics of single-celled green, blue-green and red algae representatives were comparatively studied, their methods of adaptation to high light and temperature, as well as strains that retain more protein, fat, carotenes in biomass were selected, and photobiotechnological was recommended for production as an object. In particular, the method of obtaining highly effective face skin care lotion and cream from the alcohol mixture of chlomidomanada algae was shown [5].

Algae grow fast mainly in mineral nutrient environment. Due to the fact that the price of chemical reagents added to the mineral nutrient medium is rapidly increasing, it is necessary to look for ways to reduce the cost of growing algae and obtaining biomass. For this reason, in 2001-2005, it was started to solve the problems of separating species and strains of algae that can grow in organic waste, developing methods that reduce the cost of biomass [5].

Two species and one new strain (Kazirahimova) belonging to the Chlamydomonada family were isolated from the ponds of the Namangan city wastewater treatment plant, and Euglena

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clara Skuja species (Eshpol'atova M.) was isolated for the first time in the water basin of the Samarkand city chemical plant. a method of collecting and storing them in the collection was developed. Their bio-ecological, physiological-biochemical properties were studied under conditions of intensive cultivation. The new strains were continuously grown in a laboratory device for 7-8 days in a modified nutrient medium at a temperature of 25-32 °C, 20-80 W/m² FAR light, and it was shown that 5-7 g/l of dry biomass can be obtained. The photosynthetic activity of *Chlamydomonas parietari* Dill .UA-5-24 strain is slow and lasts longer in the stationary phase, the methods of increasing the amount of carotene, fat and oxyl substances in its biomass under the influence of optimal food and light were shown. Thus, 2 types of *Chlamydomonas*, one strain, one strain of *Euglena*, and one strain of *Chlamydomonas* were isolated from wastewater of industrial and household service enterprises in an algologically pure state, and their adaptation to mixotrophic nutrition, photosynthetic activity, and biologically active substances in biomass were positively evaluated. orientation characteristics were determined and it was shown that it is possible to control the biotechnology of rapid cultivation [7].

Algae belonging to different systematic groups: *Chlorella vulgaris* Beijer from green algae; UA-1-8; *Chlamydomonas reinhardtii*, 449; *Ch. parietaria* Dill., UA-5-24; *Synechococcus elangatus* Naeg from blue-green algae; *Nostoc linckia f. calcicola* (Breb.) Elenk.; *Euglena clara* Skuja, *E. oblonga* Schmitz from *Euglena* algae were grown continuously for 10 days in a special device under optimal conditions in the laboratory, and their photosynthetic productivity was analyzed under different light conditions. Among the studied algae, *Chlorella vulgaris* Beijer; UA-1-8; *Chlamydomonas reinhardtii*, 449; *Ch. Parietaria* Dill., UA-5-24; it grew well at high temperature (30-35°C) and high light (200-300 W/m² FAR), productivity was 5-6 g/l of dry biomass. Therefore, these algae were included in the group of light-loving algae. The studied representatives of blue-green and euglena algae grew normally at a temperature of 25-30°C and 100-150 W/m² FAR light, and the productivity was 2-3 g/l of dry biomass. Representatives of this group are included in the group of mesophilic algae [9].

In 2007-2008, the tasks of searching for promising strains of salt-resistant algae from nature, selection of breeding environments, light regime, and development of active preservation methods were researched. *Chlorella vulgaris* Beijer from the sample of algae brought from the water basin around Moynak; new UA-1-29 strain, new D-30 strain of *Dunaliella minuta* species and new D-31 strain of *D. salina* species were isolated in algal purity and modified mineral nutrient media were developed for them. A new strain of *Chlorella vulgaris* species UA-1-29 was found to be able to adapt to 10-15 g/l NaCl salt in the mineral nutrient medium [1].

Currently, 68 cultures are kept alive in the laboratory of the scientific and production center "Botany" of the UzR FA. They belong to 68 strains, 41 species, 18 genera, and 4 divisions. As a result, the collection of algae was replenished with newly isolated species and strains, and it can be recommended to produce them as new photobiotechnological objects [4].

In the future, the following issues should be studied more deeply and widely:

- Separating promising species and strains of algae from fresh, salt and wastewater waters of our republic and replenishing the collection;
- to introduce new methods of active preservation of the gene pool of algae and to create a passport of promising species and strains and obtain their legal status;
- to determine the specific laws of newly isolated algae based on the study of their bioecological, physiological and biochemical characteristics;

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- development of biotechnology for intensive and mass cultivation of promising species and strains, as well as recommending their use in various sectors of the economy [4].

Sources indicate that *Chlorella* contains 50-60% protein, 88% protein, 30% carbohydrate, and 15% lipid dry mass. *Stenedesmus* contains 7% carbohydrate, 24% protein, 13% fat, and 89% nitrogen. These algae are rich in vitamins such as E, B, B2, RR, B6 (Muzaffarov et al. 1974). In addition, all 20 different amino acids are found in large quantities in these algae. Among the elements K, Na, Mg, Ca, S, Cl is available [3;].

Of course there are many strains of this algae. All of them have their own composition, yield and nature. For example, *Chlorella pyrenoidosa* Chick. - grows well in thermophilic (30-40°C) organomineral environment, large cell, 6-16.2 mm in diameter. The chloromotophore is round, and when the suspension is stirred, the sunken cell rises rapidly. Culture media lysis is rare [8].

The length of the cell of *Scenedesmus obliquus* (Tirp) Kutz is 9-15 mm. Width 3.5-5.4mm. The chromophore is plate-like, one perenoid. Cell senobis are connected to each other by lateral vessels. Cell sedimentation is slower than *Ch pyrenoidosa*. Thermophilic strain 35-39 Co Almost all strain cultures have organic nutrients, depending on the nature of their habitat. feels the need for sources. Most local strains live in waters rich in nitrogenous organic matter. The photosynthetic organ of green algae is very sensitive to unfavorable environments. As a result of frequent changes in conditions, cultures in open basins undergo high morphological changes.

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THE IMPORTANCE OF EXTRA-CURRICULAR ACTIVITIES OF GENERAL
SECONDARY SCHOOL STUDENTS

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Abstract: This article talks about the meaningful organization of students' free time, the importance of extracurricular activities and types of extracurricular activities in their development as a well-rounded person.

Key words: Circle, spiritual activities, tasks, integration, curricular and extracurricular activities

Currently, a number of effective decisions and laws are being adopted in the education system of our country. In his address to the nation on December 20, 2022, President Sh.M. Mirziyoyev stated the need to teach schoolchildren foreign languages and professions. At the meeting held on January 20, 2023, it was planned to train students in 64 different professions based on the characteristics of districts and neighborhoods. In today's rapidly developing era, such decisions are timely for the meaningful organization of students' free time and the development of tourism in our country. There are several types of clubs that fully cover extracurricular activities:

- scientific circles;
- circles of skilled hands;
- carpentry circles;
- sports club;
- artistic amateur circle.

In secondary general education schools, these activities are organized by the head of the class and the organizer of educational activities. The head of the class closely supports the leaders of the circle. He invites his students who have the same interests and aspirations to join a club.

Extracurricular activities supplement the educational activities of students. They help them to form a correct worldview and moral maturity. It creates the ground for the close connection of theoretical knowledge with practice and production. The duties of the organizer of extracurricular activities include:

- ❖ control planning and implementation of extracurricular educational activities;
- ❖ to organize multifaceted extracurricular activities of students with the help of pedagogical team, class activists of student organizations;
- ❖ providing methodological support to teachers, class leaders, parents, student organizations, class activists while directly guiding the direction of extracurricular activities;
- ❖ participation in the most important educational events held at the general school and between schools;
- ❖ extensive use of educational and cultural institutions and public power in organizing students' free time;

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The educational effect of extracurricular activities depends to a large extent on the level of organization of the educational process and how the students organize various tasks as a team member. Extracurricular activities are not limited to the compulsory program, but the youth unites various students voluntarily.

He carries out work on the basis of their initiative, makes them interested in science, brings them into the environment of the cultural life of the people.

Extracurricular activities are the most important factor in the formation of social activity, social consciousness and moral habits in a person. This activity includes the works of the scientific community, literary and school theaters, readers' conferences and discussions on various topics, lectures and conversations on political, moral, scientific-popular and labor topics, social and useful work, political information, holiday evenings and mornings, to includes training sessions.

Extracurricular activities of students are considered to be a means of thinking and attitude according to their content. Because the information obtained during extracurricular activities is perceived, processed and new knowledge is created on this basis.

Students participate in extracurricular activities, interact with different people, and face different tasks. Therefore, the more diverse the students' activities, the richer their relationships, the wider the range of relationships, and the more effective their spiritual growth. In educational activities outside the classroom, students learn to work in a team, feel the joy of social work, join production work, get used to obeying public opinion and fighting for the honor of the team. Extracurricular activities are determined according to the spiritual and physical development and age characteristics of the participants. This process is also influenced by the conditions of the school where they are studying. Although the tasks of all schools in our country are the same, they have their own characteristics, and these characteristics are clearly visible in cultural and national conditions.

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THE EFFECT OF BIOSTIMULATORS ON THE GROWTH AND DEVELOPMENT OF AGRICULTURAL PRODUCTS

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ANNOTATION

Agricultural biostimulants are considered biological and include biologically beneficial fertilizers and similar products used in the production of plant products to increase the growth, health and productivity of plants. This article provides extensive information on what biostimulants are and the effects of biostimulants on the growth and development of agricultural products.

Key words: agriculture, product, development, growth, biostimulant, plant, biological additives.

The experience of countries shows that in order to ensure competitiveness and find a place in the world markets, first of all, consistent reform of the economy, deepening structural change and diversification, ensuring the rapid development of new enterprises and production sectors based on high technologies, it is being realized at the expense of ensuring high-quality and competitive product preparation by accelerating the processes of modernization of the operating capacities and technical-technological updating.

World practice has shown that the clustering of the economy is determined in advance and it has a decisive effect on increasing competitiveness and the processes of accelerating the innovative activities of enterprises.

Agriculture is the main source of food for the population. At the same time, it supplies raw materials for several sectors of the consumer goods industry. For example, the share of agricultural raw materials (in terms of value) makes up 60 percent of all material costs in the spinning industry, about 70 percent in the confectionery industry, and about 80 percent in the oil and milk industry. All this shows that if the agricultural production is not developed at the desired pace, no best program for raising the standard of living of the people can be implemented. The importance of agriculture is determined by the fact that 27% of the employees of the national economy work in this field.

About a third of the country's national income is created in agriculture. Therefore, the rate of growth of the entire economy of the country and the improvement of the welfare of workers largely depend on the level of development of agriculture. At the same time, it is important to take into account the socio-political aspect. The development of agriculture is the most important condition for strengthening the union of the working class and the peasants. V.I.Lenin pointed out the importance of agriculture and stated that without a solid agricultural base, there can be no agricultural development.

Agriculture is one of the main branches of material production. and engages in planting crops and raising livestock to obtain livestock products, provides the population with food products and raw materials for several sectors of the national economy. Agriculture also includes various

branches of primary processing of plant and animal products. Unlike other areas of production, agriculture is carried out on very large areas and in geographically diverse conditions. It uses land (the main means of production), light, heat, water and living organisms - plants and animals.

The production period of agriculture does not coincide with the working period. The main branches of agriculture are farming and animal husbandry. They, in turn, are divided into somewhat smaller branches (in agriculture - field farming, vegetable growing, policing, horticulture, forestry, etc.; in animal husbandry - cattle breeding, sheep breeding, sheep breeding, pig breeding, poultry breeding, beekeeping, cocoon breeding, etc.); In turn, agricultural and animal husbandry sectors are grouped by crops (cereal, rice, cotton) and types of livestock (cattle, sheep, horses, camels).

Agriculture. - one of the first types of human economic activity. Its origin dates back to the end of the Stone Age. During this period, human economy, etc. To meet his needs, he worked the land with simple tools and started to domesticate some animals. Over the centuries, under the influence of various conditions, the farming system has changed and improved; the beneficial properties of animals have been maintained, and many breeds have been bred.

45.2% of the world's economically active population (1316.7 million people) is employed in world agriculture. 13387.0 mln. of land used in Kazakhstan. ha, including arable land 1380.8 mln. ha, total irrigated land is 271.4 million ha (1998). In 1999, 583.6 million tons of wheat, 596.4 million t of rice, 600.4 mln. t of corn, 130.0 mln. t of barley, 294.3 mln. t potatoes, 444.6 million. t of fruits, including 60.6 mln. t grapes were grown. 225.9 million in animal husbandry. t of meat, 562.4 mln. t milk was prepared. 1338.2 mln. cattle, 912.7 mln. pigs, 1068.6 mln. sheep and 709.9 mln. head goat, 14139.0 mln. the chicken was raised.

V.P. Filatov is considered the founder of biogenic stimulants. For the first time, when he kept the cornea of the corpses at a temperature of 2-40C and surgically transferred it to the eyes of patients, he noticed that the preserved organ was well absorbed. According to V.P. Filatov, if the tissues isolated from animal and plant organs fall into unfavorable conditions (cold, dark, etc.) produce some kind of substance. V.P. Filatov called these substances biogenic stimulants, derived from the words "Bios" - life, "genesis" - birth, appearance, "stimulo" - awakening.

Biogenic stimulants accelerate vital processes in the body, improve metabolism, increase the body's resistance to diseases. Cold and high pressure (underwater) are unfavorable conditions for plants. The theory of production of biogenic stimulators in plants and the work of P.A.Gnedkov (1983) on the preparation of drugs from them are important. He isolated biosed, lekosed, flavosed, and sedoglucid drugs from 12 types of succulent plants, which are used in the treatment of inflammation and cancer.

G.A. According to Gnedkov, monosaccharides are variable and take part in the formation of organic acids in the dark, and in their decomposition in the light.

Currently, bicarbonic acids, unsaturated aromatic and oxyacids, macromolecular aromatic acids, which are part of the fat category, have been isolated from preparations containing biogenic stimulants. From its physical and chemical properties, it is known to be resistant to high temperatures, soluble in water, and partly soluble in water.

Preparations containing biogenic stimulants are classified according to their composition:

1. Preparations obtained from plants (Extractum Aloyos, Extractum herbae meliloti, Biosedum, lecosedum, Flavosedum, Sedoglucidum).

2. Preparations obtained from microorganisms and plants belonging to the lower class (Peloidinum, Peloidodestil-latum, Fibs, Gumisolum, Torfotum).

3. Preparations from animal organs (Corpus Vitreum, Apilacum, Luronitum, Chonsuridum, Spleninum, Plasmolum, Chole conservata medicata, Haemotogenum liquidum).

4. Preparations obtained from microorganisms (molds) (Pyrogenalum, Proper - myl).

The term "agricultural biostimulants" encompasses a diverse group of product technologies and may include bacterial or microbial inoculants, biochemical materials, amino acids, humic acids, fulvic acids, algae extracts, and more.

Currently, the local understanding of biostimulants is that they are neither pesticides nor traditional fertilizers. However, the purpose of biostimulants is the crops themselves. They can improve the physiological and biochemical condition of plants, increase the efficiency of the use of pesticides and fertilizers, increase the resistance of crops to stress, and also improve the final yield of crops and the quality of agricultural products.

The following points will help you better understand what biostimulants are:

1. Biostimulants are found in nature and are rich in certain active substances. They can directly affect plants without artificial chemical synthesis. For example, we are familiar with seaweed extract, humic acid and amino acids, etc.

2. Unlike plant protection products and fertilizers, these substances do not have any harmful effects on people, animals and the environment.

3. Biostimulants are a category, and each substance is very different from each other.

4. Biostimulants do not directly affect plants, but through indirect conversion, they encourage plants to absorb and protect themselves, and at the same time, they stimulate the development of beneficial organisms in the soil.

Agricultural biostimulants are considered biological and include biologically beneficial fertilizers and similar products used in the production of plant products to increase the growth, health and productivity of plants. Their tasks are:

- It helps to improve the efficiency of using food products
- Facilitating growth under abiotic stresses such as heat, cold, drought and too much water
- Helps improve quality attributes such as nutritional content, appearance and shelf life

A substance derived from organisms that, when applied to plants, seeds, soil, or culture media, improves nutrient utilization, reduces nutrient loss to the environment, or directly or indirectly benefits plant growth and stress. brings

A substance containing certain components and microorganisms. If these ingredients and microorganisms are applied to plants or rhizospheres, their effect is to stimulate the natural process of plants, including enhancing the absorption of nutrients, enhancing the nutritional effect, resistance to abiotic stress, and the nutritional content of the crop quality. has nothing to do with it.

A substance obtained from environmentally and ecologically friendly organisms that doubles the metabolism of plants, improves the absorption and utilization of nutrients, increases the resistance of crops, increases production and quality. It can be called a biostimulant.

Biostimulants are combination products of biostimulants. Biostimulants are divided into seven categories: humic acid, amino acids, seaweed extracts, chitin and derivatives, microorganisms and metabolites, plant extracts and inorganic salts (phosphoric acid). Biostimulant is neither a pesticide nor a traditional fertilizer. Its purpose is the harvest itself. It can increase the

use of fertilizers or increase the effectiveness of pesticides, improve the physiological and biochemical condition of crops, increase resistance to stress, improve crop quality and increase productivity.

The global biostimulants market is valued at USD 2.638 billion in 2020 and is expected to reach USD 5.04 billion by 2026. The annual growth rate from 2021 to 2026 is 11.71 percent, which is much higher than most agricultural products. Among them, in the Asia-Pacific region, China and India, Australia and others will become the main growth areas. The increase in demand for organic, stable, safe and environmentally friendly agricultural products is the main reason for the rapid development of biostimulants.

CONCLUSION. Biostimulants are easy to use, precisely targeted, less harmful to the environment and human health, can reduce the use of harmful chemicals, and other properties are preferred. Thus, biostimulants have formed a global concept and product type in a few years, attracting the attention of large companies around the world and containing strong business opportunities.

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Annotatsiya: Ushbu maqolada bo‘lajak o‘qituvchilarda kreativlikni rivojlantirish mavzusi tahlil qilingan bo‘lib, ushbu faoliyatning yo‘nalishlari yoritib berilgan. Shuningdek, kreativlik atamasi va turlari, kreativlikni tavsiflaydigan qobiliyatlar, kreativlikning rivojlanish bosqichlari, kreativ faoliyatni tashkil etishga imkon beradigan malakalar guruhlari, Kreativ mutaxassis xislatlari, kreativlik qobiliyatlarini rivojlantirishdagi ish shakllari va kreativligining yettita belgisi to‘g‘risida ma‘lumotlar berilgan.

Annotation: This article analyzes the topic of creativity development in future teachers and highlights the directions of this activity. Also, information is provided on the term and types of creativity, abilities that describe creativity, stages of creativity development, groups of skills that allow organizing creative activity, characteristics of a creative specialist, forms of work in the development of creative abilities, and seven signs of creativity.

Аннотация: В данной статье анализируется тема развития творческих способностей будущих учителей и выделяются направления этой деятельности. Также приведены сведения о термине и видах творчества, способностях, характеризующих творчество, этапах развития творческих способностей, группах умений, позволяющих организовать творческую деятельность, характеристике творческого специалиста, формах работы по развитию творческих способностей и семи признаки творчества.

Kalit so‘zlar: kreativlik, interfaol o‘qitish, novatorlik, kreativ faoliyat, kreativ faollik, kreativ maqsad, nostandart tafakkur

Ключевые слова: творчество, интерактивное обучение, инновации. творческая деятельность, творческая деятельность, творческая цель, нестандартное мышление

Key words: creativity, interactive learning, innovation. tvorcheskaya deyatelnost, tvorcheskaya deyatelnost, tvorcheskaya tsel, nestandartnoe myshlenie

Main part: In our country, as a result of consistent reforms aimed at creating conditions for the development and well-being of a person, the realization of his interests, and bringing the quality and efficiency of education to a new level, opportunities for the development of creative abilities of students are being created on the basis of interactive teaching methods. For example, as stated in the work of the President of the Republic of Uzbekistan, Sh. M. Mirziyoyev,⁸ "From

⁸ Mirziyoyev Sh.M. Milliy tiklanishdan milliy yuksalish sari. J.4.-Toshkent:"O‘zbekiston",2020.-456b.

⁸ Mirziyoyev Sh.M.Yangi O‘zbekiston strategiyasi.-Toshkent: :“O‘zbekiston”,2021.-464b.

⁸ Mirziyoyev Sh.M.Xalqimizning roziligi bizning faoliyatimizga berilgan eng oliy bahodir.J.2.-Toshkent: :“O‘zbekiston”,2018.-508b.

⁸ M.A Shaxodjaev, L.K.Mamadaliyeva «Kasbiy Faoliyatda Pedagogik Kreativlikning Rivojlantirish Omillari» Monografiya Farg‘ona – 2022 169 bet

⁸ Talabalarni Ijodiy Yondashuv Asosida Innovatsion Kasbiy Faoliyatga Tayyorlash Imkoniyatlari To‘xtayeva Zebo Sharifovna 497-503 fayl

national revival to national rise", "Our priority goal is to train specialists who think creatively, have deep knowledge in a specific field of science, and high intellectual potential."

The following comments of our head of state are a confirmation of how important the development of creativity in future teachers is today: on the way, the conceptual foundations of educating modern individuals with an active civic position, creative and innovative thinking have not been developed. This once again proves the existence of a serious gap in the field." It should be noted here that the President's opinion in his work entitled "People's approval is the highest value given to our activities" is the basis for extensive work in this field. serves as: "Today, in order to renew and modernize our country, to develop it on an innovative basis, to implement the multifaceted and complex tasks we have set before ourselves, we are modern and creative thinkers who take responsibility in any situation We are entrusting important tasks in state and society management to patriotic young personnel who are able to take on themselves, are enthusiastic, have high intellectual potential.

In order to fully understand the general essence of the process of developing creative qualities in a person, it is first of all important to understand the meaning of the concept of "creativity".

Creativity (lating, "create" - creation, "creative" - creator) is the creative ability of an individual that describes the readiness to produce new ideas and is part of talent as an independent factor.

Creativity - this component refers to the teacher's ability to create and implement new ideas. The development of creativity goes from imitative activity in the creation of projects to real creativity, as a result of which the teacher creates a new method of education and upbringing.

Creativity can be called a desire for creativity, a creative approach to life, a constant critical look at oneself and analysis. Based on the modern dictionaries of psychology and pedagogy, it can be defined as the teacher's creativity, the level of his/her thoughts, feelings, communication, special activity, creative approach, knowledge level.

According to E. P. Torrens, the basis of the concept of "creativity" is explained as follows:

- to put forward a problem or scientific hypothesis;
- checking and changing the hypothesis;
- identifying the problem based on the formation of decision results;
- sensitivity to the conflict between knowledge and workshop actions in finding a solution to a problem.

J. Guilford shows a number of individual abilities that characterize creativity:

- to be able to direct the thought according to the purpose;
- uniqueness (originality);
- curiosity;
- the ability to create hypotheses;
- to be able to imagine (fantasy).⁹

⁹⁹ Guilford J.P. (1950) Creativity, American Psychologist, Volume 5, Issue 9, 444–454

⁹ . Ибрагимова Г.Н. Интерфаол укитиш методлари ва технологиялари асосида талабаларнинг креативлик қобилиятларини ривожлантириш. / Монография. – Т.: “Фан ва технологиялар”, 2016. – Б. 77

Future teachers should be able to convey ideas to students in an appropriate way during the course of the lesson and during their scientific activities, and in order to reflect their individuality, to regularly enrich scientific activity and their own knowledge, they should have the ability to be curious, create hypotheses and imagine. His ability to get things is a clear example of his creativity.

The development of creativity in today's future teachers is important, and the stages of creativity development are interpreted as follows.

Researcher G. Ibragimova described the stages of creativity development in learners during interactive teaching as follows:

✚ Reproductive risk stage. This stage is characterized by the determination of creative activity, creative activity and inclination to creativity in students, understanding of the essence of innovative technologies in education, and the birth and formation of new ideas.

✚ Creative research stage. It is determined by the formation of research, creative activity, non-standard thinking, cognitive independence, improvisation, and innovation skills in students.

✚ Creativity, innovation stage. It includes processes related to the practical application, evaluation, analysis, popularization and wide implementation of the created innovation, as well as the creation of future-oriented strategic plans. along with hu, it is also required to have the ability to apply the existing innovation through creative approaches.

A teacher's creativity is his ability to find various original ideas in strict, limited or loosely limited conditions. *Analysis of scientific literature allows to distinguish the following interrelated structural components of creativity:*

- ✓ Intellectual (mental).
- ✓ Moral (self-control).
- ✓ Motivational (purposeful).
- ✓ Emotional (emotional).

Creativity consists of the following interrelated parts:

1. Creative purpose.
2. Creative pursuit.
3. Building a creative (installation).
4. Creative direction.
5. Creative expressive act.
6. Creative self-management.
7. Creative activity.
8. Level of creative aspirations.

The teacher's creativity appears and develops in his creative activity. Creativity is seen in the teacher's creative desire, creative ability, creative goal, direction and ability to control himself in his creative activity, and it is a mature developing, growing student with his own activity, self-control. means becoming a person¹⁰

¹⁰ Developing creative qualities in students Bakhtiyor SIDDIKOV, Erkin Abdullaev Ferghana State University Article Info Abstract Article history: Received September 2021 Received in revised form 15 September 2021 Accepted 20 October 2021 Available online 15 November 2021

It is also necessary to form a number of skills that will enable the development of creativity in pedagogues.

Groups of qualifications that allow teachers to organize creative activities:

- ✓ cognitive (gnostic) qualifications;
- ✓ design skills;
- ✓ creative-seminar (constructive) skills;
- ✓ research skills;
- ✓ accessibility to communication (communicative) skills;
- ✓ organizational skills;
- ✓ consistency (procedural) skills;
- ✓ technical and technological skills

It is important to use the following forms of work in the development of students' creativity:

- organization of trainings that serve to develop the skills of data analysis, quick decision-making, and creative thinking;
- performing creative exercises and assignments aimed at forming imaginations and visual views;
 - working with cases;
 - organization of group work forms and debates;
 - preparation of educational projects;
 - formation of portfolios;
 - organizing castings;
 - establishing activities of clubs, etc

There are the following criteria for determining the level of development of students' creativity:

- *determination of motivation for creative activity;*
- *development of creative thinking skills;*
- *formation of creative qualities;*
- *organizing the process of practical creative activity;*
- *the formation of specialized creativity, etc.*

A teacher-innovator should be a productive creative person, a lover of creativity, wide-ranging interest and occupation, a rich inner world, and be keen on pedagogical innovations.

Professional skills, knowledge, and creativity of the teacher are the main factors in the formation of conscious activity and independence in students. During the period of pedagogical practice, the work of the future pedagogue-educator in the school becomes important in the formation of their professional skills. From this it can be concluded that if the teacher is knowledgeable and creative, it serves as an important factor in the formation of a number of abilities, such as conscious activity and creativity, independence in his students.¹¹

¹²Scientist V.A. Molyako lists seven signs of student creativity:

¹¹ Innovatsion Pedagogika Toshkent Shahar Sergeli Tumani 7-Örta Ta' Lim Maktabining Boshlang'ich Sinf O'qituvchisi Aripova Gavhar Xamitovna

¹² O'zbekistonda Fanlararo Innovatsiyalar va 10-Son Ilmiy Tadqiqotlar Jurnalida 20.08.2022 112 Bo'lajak O'qituvchilarni Innovatsion Faoliyatga Tayyorlashning Pedagogik Asoslari Qubonzoda Sevara Raxmatali Qizi Farg'ona Davlat Universiteti II Bosqich Magistrant

- ✓ not being like others,
- ✓ heuristics,
- ✓ -fantasy,
- ✓ -activity,
- ✓ focused attention,
- ✓ -independence of thoughts,
- ✓ -accuracy,
- ✓ -sensitivity.

A creative specialist must have the following qualities: ingenuity, self-criticism, critical attitude, flexibility of thinking, courage and bravery, enthusiasm, persistence, determination to finish the work, goal orientation.

A.H. Maslow divides creativity into 2 types:

- creativity of talent
- -personal self-actualization creativity.

Since the creativity of self-actualization of the individual is inextricably linked with the personality, we can encounter it in everyday life and in many areas of professional activity.

A.H. Maslow identified two levels of self-actualization in creativity:

1. the first - "involuntary creativity, in which a person suddenly comes to his senses, is inspired, has difficult experiences",
2. "the second - voluntary, hard work, continuous education, striving for perfection".

A.H. Maslow believes that creativity is a fundamental characteristic of human nature, that is, an innate ability that all people have, but that is lost during life as a result of certain social barriers.

In conclusion, it should be noted that the following should be taken into account in the development of creativity in future teachers:

- ✚ to fundamentally improve the personnel potential of the higher education system, to increase the professional prestige of teachers, teachers and pedagogues;
- ✚ structural restructuring of the continuing education system;
- ✚ development of abilities such as uniqueness, heuristics, fantasy, activity, concentration, independence of thoughts, precision, sensitivity;
- ✚ organization of trainings that serve to develop the skills of data analysis, quick decision-making, and creative thinking;
- ✚ performing creative exercises and tasks aimed at forming imaginations and imaginative views;
- ✚ working with cases during the lesson;
- ✚ organization of group work forms and debates among students;
- ✚ preparation of educational projects;
- ✚ -formation of portfolios;
- ✚ organizing castings;
- ✚ establishing the activities of clubs, etc

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O'QUVCHI YOSHLARNI TARBIYALASHDA IJTIMOIIY INSTITUTLAR VA TA'LIM
MUASSASALARI HAMKORLIGINING TAKOMILLASHTIRISH

Xamroyev Kamol Qahramonovich

Buxoro davlat pedagogika instituti harbiy ta'lim fakulteti o'qituvchisi

Annotatsiya: ushbu maqolada “Oila, maktab, mahalla hamkorligi” bugungi kunning ma'naviy-ma'rifiy, mafkuraviy, tarbiyaviy zarurati ekanligini bildiradi. Yosh avlodni ma'naviy-axloqiy tarbiyalashda xalqimizning boy milliy, madaniy, tarixiy an'analariga, urf odatlariga hamda umumbashariy qadriyatlarga asoslangan samarali, zamonaviy pedagogik texnologiyaning ishlab chiqilib, amaliyotga joriy etilishi, shaxsni tarbiyalash va uni har tomonlama kamol toptirishning ustuvorligini ta'minlash; umumiy hamda milliy pedagogik madaniyatni oshirishning mohiyati yoritilgan.

Kalit so'zlar: ma'naviy-ma'rifiy, mafkuraviy, tarbiyaviy, yosh avlod, axloqiy, milliy, madaniy, tarixiy an'analar, urf odatlar, umumbashariy qadriyatlar, zamonaviy pedagogik texnologiya.

Аннотация: в данной статье утверждается, что «сотрудничество семьи, школы, соседства» является духовной, образовательной, идеологической и воспитательной необходимостью современности. Разработка и внедрение в практику эффективных, современных педагогических технологий, основанных на богатых национальных, культурных, исторических традициях, обычаях и общечеловеческих ценностях нашего народа в духовно-нравственном воспитании молодого поколения, обеспечении приоритета воспитания личности и совершенствования. он во всех аспектах; объяснена сущность повышения общей и национальной педагогической культуры.

Ключевые слова: духовно-просветительские, идеологические, воспитательные, молодое поколение, нравственные, национальные, культурные, исторические традиции, обычаи, общечеловеческие ценности, современные педагогические технологии.

Abstract: this article argues that “cooperation between family, school, neighborhood” is a spiritual, educational, ideological and educational necessity of our time. Development and implementation into practice of effective, modern pedagogical technologies based on the rich national, cultural, historical traditions, customs and universal values of our people in the spiritual and moral education of the younger generation, ensuring the priority of personality education and improvement. he is in all aspects; the essence of improving the general and national pedagogical culture is explained.

Key words: spiritual and educational, ideological, educational, younger generation, moral, national, cultural, historical traditions, customs, universal values, modern pedagogical technologies.

Tarbiya — shaxsda muayyan jismoniy, ruhiy, axloqiy, ma'naviy sifatlarni shakllantirishga qaratilgan amaliy pedagogik jarayon; insonning jamiyatda yashashi uchun zarur bo'lgan xususiyatlarga ega bo'lishini ta'minlash yo'lida ko'riladigan chora tadbirlar yigindisi. Tarbiya insonning insonligini ta'minlaydigan eng qadimiy va abadiy qadriyatdir. Tarbiyasiz alohida odam

ham, kishilik jamiyati ham mavjud bo'la olmaydi. Chunki odam va jamiyatning mavjudligini ta'minlaydigan qadriyatlar Tarbiya tufayligina bir avloddan boshqasiga o'tadi.

Pedagogik adabiyotlarda "Tarbiya" atamasi keng va tor ma'nolarda ishlatiladi. Keng ma'noda Tarbiya inson shaxsini shakllantirishga, uning jamiyat ishlab chiqarishi va ijtimoiy, madaniy, ma'rifiy hayotida faol ishtirokini ta'minlashga qaratilgan barcha ta'sirlar, tadbirlar, harakatlar, intilishlar yig'indisini anglatadi. Bunday tushunishda tarbiya faqat oila, maktab, bolalar va yoshlar tashkilotlarida olib boriladigan tarbiyaviy ishlarni emas, balki butun ijtimoiy tuzum, uning yetakchi g'oyalari, adabiyot, san'at, kino, radio, televideniye va boshqalarni ham O'z ichiga oladi. Shuningdek, keng ma'nodagi tarbiya tushunchasi ichiga ta'lim va ma'lumot olish ham kiradi.

Tor ma'noda Tarbiya shaxsning jismoniy rivoji, dunyoqarashi, ma'naviy-axloqiy qiyofasi, estetik didining o'stirilishiga yo'naltirilgan pedagogik faoliyatni anglatadi.

Buni oila, tarbiyaviy muassasalar hamda jamoat tashkilotlari amalga oshiradi. Ta'lim va ma'lumot olish tor ma'nodagi tarbiya ichiga kirmaydi. Lekin har qanday tarbiya ta'lim bilan chambarchas bog'liq holdagina mavjud bo'ladi. Chunki ta'lim va ma'lumot olish jarayonida shaxsning faqat bilimi ko'payibgina qolmay, balki axloqiy-ma'naviy sifatlarning qaror topishi ham tezlashadi.

Tarbiya har qanday jamiyat va har qanday mamlakat hayotida hal qiluvchi ahamiyat kasb etadi. Yosh avlodning, umuman, jamiyat a'zolarining tarbiyasi bilan yetarlicha shug'ullanmagan mamlakat turg'unlik va inqirozga mahkumdur. Negaki, o'sishi va rivojlanishi uchun har qanday jamiyatda ham moddiy va ma'naviy boyliklar ishlab chiqarish to'xtovsiz ravishda yuksalib borishi lozim. Buning uchun yosh avlod moddiy va ma'naviy boyliklar yetishtirishni ajdodlari darajasida, ulardan ham yaxshiroq ishlab chiqara bilishlari kerak. Yosh avlodda ana shunday moddiy va ma'naviy qobiliyatlarni shakllantira bilish uchun esa jamiyat uzluksiz ravishda samarali faoliyat ko'rsatadigan tarbiyaviy intizomlar tizimiga ega bo'lishi lozim¹³.

Tarbiya jamiyat taraqqiyotining turli davrlarida turlicha izohlab kelingan. Sho'ro zamonida hukmron kommunistik mafkura Tarbiyaga sinfiy va partiyaviy hodisa sifatida yondashishni talab etgan. Shuning uchun ham sinfiy jamiyatda tarbiya faqat sinfiy xususiyatga ega bo'ladi va turli sinflarning tarbiyasi bir-biriga qarama-qarshi turadi degan qarash qaror topgan. Holbuki, dunyo ilmi, ayniqsa, Sharq tarbiyashunosligi va O'zbek xalq pedagogikasi tajribasi tarbiyaning sinfiy ko'rinishga ega emasligini isbot etdi. Shuningdek, kommunistik mafkura tazyiqi tufayli Tarbiyada ijtimoiy muassasalarning o'rniga ortiqcha baho berildi, bu jarayonda irsiy va biologik xususiyatlar deyarli xisobga olinmadi.

Sho'rolar davrida tarbiya orqali har qanday odamni istagan ijtimoiy qiyofaga solish mumkin degan qarash hukmron bo'lganligi uchun ham uning shaxsni shakllantirishdagi o'rniga oshiqcha baho berildi. Tarbiyalanuvchi shaxsning Tarbiyaga berilish yoki berilmaslik xususiyatlarining hisobga olinmasligi tarbiyaviy tadbirlarga maxliyo bo'lishdek pedagogik xatolikka olib keldi. Buning natijasida Tarbiya maqsadsiz bo'lib qoldi, tarbiyalanuvchilarga alohida shaxs sifatida emas, istalgan ijtimoiy yo'nalishga solinishi mumkin bo'lgan qiyofasiz tuda, olomon tarzida qarash qaror topdi, Bu hol Tarbiyaning samarasizligiga olib keldi. Chunki Tarbiyaning asosiy ob'yekti bo'lmish shaxs va uning O'ziga xoslik jihatlari unutilgan edi. Sho'ro pedagogik tizimidagi kamchiliklarning ildizi, asosan, mana shu yondashuv tarziga borib taqaladi.

¹³ R.A.Mavlonova, B.Normurodova. "Tarbiyaviy ishlar metodikasi". -T., 2007 yil.

O'zbekiston mustaqillikka erishgach, Tarbiya va unga bog'liq jarayonlarga yangi hamda sog'lom pedagogik tafakkurga tayangan holda yondashuv qaror topa boshladi. Uni izohlashda g'ayriilmiy sinfiy partiyaviy yondashuvdan voz kechildi. Tarbiyaning milliyligiga alohida e'tibor qaratilmoqda. Buning uchun xalq ped.si boyligi, O'zbek mutafakkirlarining pedagogik qarashlari sinchkovlik bilan o'rganilayotir. Natijada, O'zbekiston pedagogikasi fani va amaliyotida oila Tarbiyasining ham, ijtimoiy Tarbiyaning ham O'ziga xos o'rni borligi tan olinadi. Shuningdek, Tarbiyada irsiy va biologik omillar ham hisobga olinadigan bo'ldi. Ayni vaqtda, shaxsning shakllanishida Tarbiyaning o'rniga keragidan ortiq baho berish ham barham topdi. Bu hol Tarbiyaga doir hodisa va holatlarni to'g'ri izohlash, tarbiyaviy tadbirlar tizimini to'g'ri tayin etish imkonini berdi.

Albatta yoshlar tarbiyasi masalasiga qaytadigan bo'lsak yana ijtimoiy institutlar va ta'lim muassasalari hamkorligiga to'xtalish o'rinlidir.

“Oila, maktab, mahalla hamkorligi” bugungi kunning ma'naviy-ma'rifiy, mafkuraviy, tarbiyaviy zarurati ekanligini bildiradi. Yosh avlodni ma'naviy-axloqiy tarbiyalashda xalqimizning boy milliy, madaniy, tarixiy an'alariga, urf odatlariga hamda umumbashariy qadriyatlarga asoslangan samarali, zamonaviy pedagogik texnologiyaning ishlab chiqilib, amaliyotga joriy etilishi, shaxsni tarbiyalash va uni har tomonlama kamol toptirishning ustuvorligini ta'minlash; umumiy hamda milliy pedagogic madaniyatni oshirish;

mamlakatimiz fuqarolari orasida milliy, mafkuraviy tarbiya ishlarini takomillashtirish “Oila, maktab, mahalla hamkorligi” asosiy maqsadidir.

Mazkur vazifalar ijtimoiy ish xodimlari va mahalla faollari bilan tarbiya masalalari bilan birgalikda ta'lim-tarbiya jarayonida amalga oshirilishi zarur bo'lgan masalalarni muhokama qilish va ularni oqilona hal etishda faollik ko'rsatish, oialaviy tarbiya jarayonini qo'llab-quvvatlashdan iborat.

Hozirgi O'zbekiston sharoitida aholiga ijtimoiy xizmat ko'rsatish tizimi alohida shaxslar, oila yoki guruhlarining ijtimoiy rehabilitatsiyasi, moslashuviga yo'naltirilgan ijtimoiy insonparvarlik faoliyatining alohida usullari tizimi sifatida namoyon bo'ladi. Aholiga ijtimoiy xizmat ko'rsatish jarayonida oila, mahalla va maktab tizimi samaradorligini oshirish usullari:

Oilaning vazifalari:

- farzandlariga chuqur dunyoviy bilim asoslarini berish, ma'rifatli va ma'naviyatli kishilar bo'lib yetishishlarini taminlash;

- bolalarning ma'naviy barkamol va jismonan sog'lom bo'lishi uchun iqtisodiy va ijtimoiy muhitni yaratish;

- O'z farzandlarining maktab, mahalla, davlat va jamiyat oldidagi burchlarini to'la ado etishlari uchun oilada mas'uliyatli bo'lish;

- bolalarda tejamkorlik va ishbilarmonlikning ma'naviy-axloqiy tomonlarini shakillantirish;

Mahallaning vazifalari:

- mahalla O'z hududidagi ijtimoiy va iqtisodiy yordamga muhtoj oilalarni aniqlab, ularni qo'llab-quvvatlab va farzandlarning bilim va tarbiya olishda bosh-qosh bo'lish;

- ma'nun nosog'lom oilalarni mahalla yig'inlarida muhokama qilish, ularga nisbatan jamoatchilik choralarini ko'rish;

- mahalla hududidagi o'quv-tarbiya muassasalariga iqtisodiy va ijtimoiy yordam ko'rsatishni tashkil qilish;

- ota-onalar yordamida bolalarni tashabbuskorlik, mehnatsevarlik, milliy g'urur, vatanparvarlik, milliy odob, baynalminallik kabi xislatlarni singdirishni har tomonlama rag'batlantirish;

Maktabning vazifalari:

- O'z hududidagi mahalla jamoalari faoliyatining tarbiyaviy maqsad yo'lida muvofiqlashtirish;

-tarbiyasi "og'ir" qarovsiz qolgan bolalarning ota-onalari bilan ishlash, oilalarga pedagogik yordam ko'rsatish;

- bola tarbiyasi yaxshi yo'lga qo'yilgan oilalarni tegishli idoralar hamkorligida o'rganib tajribalarini omammalshtirish;

- maktabda bolaga biron-bir kasb-korni egallashi uchun mustahkam poydevorni yaratish, O'quvchi yoshlarning sport turi bilan shug'ullanishlariga yordam berish, ularning bo'sh vaqtlarini mazmunli tashkil etish;

- mahallada xotin-qizlar orasida zamonaviy bilimlarni targ'ib qilish, o'smir yoshlarning dunyoviy bilimlariga bo'lgan intilishlarni rag'batlantirish;

- maktab negizida pedagogik, huquqiy, psixologik ma'naviy va ma'rifiy bilimlar beruvchi "Ota-onalar universiteti" faolitaini tashkil qilish.¹⁴

Jamiyatning asosiy bo'g'ini sifatida oila institutini yanada mustahkamlash va rivojlantirish, yosh oilalarni qo'llab-quvvatlash bo'yicha bugungi kunda olib borilayotgan islohotlarni yangi bosqichga olib chiqish, bu borada davlat va

nodavlat tashkilotlarining roli va ahamiyatini ko'rsatish, jismoniy sog'lom, ma'nayetuk va barkamol avlodni tarbiyalash davlatimiz siyosatining ustuvor yo'nalishiga aylanib ulgurdi. Kelajagimiz egallarining ma'nan yetuk, jismonan sog'lom, yuksak salohiyatli, hech kimdan kam bo'lmagan holda kamolga yetishida oila, mahalla, ta'lim muassasi hamkorligi muhim ahamiyatga ega.

Tarbiya metodi (yunoncha «metodos» – yo'l) tarbiya maqsadiga erishishning yo'li. Maktab amaliyotiga tatbiq etilganda, metodlar – bu tarbiyalanuvchilarning ongi, irodasi, tuyg'ulari va xulqiga ta'sir etish usullaridir.

Tarbiyaning mutlaqo yangi metodlarini yaratishga bironta tarbiyachining kuchi etmaydi. Metodlarni takomillashtirish muammosi doimo mavjud, har bir tarbiyachi O'zining imkoniyatiga ko'ra uni hal qiladi, tarbiya jarayonining aniq shart-sharoitlariga mos ravishda O'zining xususiy qarashlarini ifoda etish asosida umumiy metodikani boyitadi. Tarbiya metodlarini bunday xususiy takomillashtirish **tarbiya usullari** deb ataladi.

Tarbiya usullari – umumiy metodning bir qismi, alohida harakati, yanada aniqlashuvi. Obrazli aytganda, usullar – bu qo'yilgan maqsadga tezroq erishish uchun tarbiyachi O'zining tarbiyalanuvchilari bilan yo'l ochadigan o'rganilmagan so'qmoq. Agar uni boshqa tarbiyachilar ham foydalana boshlasa, u holda asta-sekin usullar keng ustunli yo'llar – metodlarga aylanishi mumkin. Tarbiya metod va usullarini bilish, ularni to'g'ri qo'llay olishni egallash – bu pedagogik mahorat darajasini belgilovchi muhim tavsiflardan biri. Tarbiya metod va usullarining aloqadorligi ana shunda.

¹⁴ "Oila, mahalla, maktab hamkorligi" konsepsiyasi 1993 yil, 67-bet

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**PEDAGOGICAL APPROACHES OF ALIKHONTORA SOGUNI IN
DEVELOPING THE MORAL QUALITIES OF TEENAGE STUDENTS**

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Annotation: In this article, the pedagogical views of Alikhontora Soguni on the development of moral qualities of adolescent students are described, as well as relevant conclusions are drawn on this topic.

Key words: morality, moral qualities, education, training, knowledge, youth, teenager, student, perfection, Alikhantora Soguny , spirituality, spiritual heritage.

In life so category people will be because they are their lives during did works periods relevance even if it passes does not lose and incomparable importance occupation is enough Such people name to eternity it is good . The words of our prophet Muhammad (peace be upon him). with note as mentioned , " people the good ones are better than the angels . ¹⁵Some good intending and pure hearty people people between snobbery with humble living pass they go However , it is known time after their how much great and dear that they are homeland and compatriots for for How It's sad , my dear intention and the nation for even staring at death , own his life how many times danger and to danger that they put understand starts . They left gone spiritual wealth own to the people forever heritage being How much is left ? generation from this enjoy will be

That's it tenacious , own his soul people and nationality sacrificed for great from people one Alikhontora Shakirkhantora son Soguni . Former USSR state during Alikhanto'ra Soguny about almost never how official information unspeakable , this a person about different -district, often to each other opposite sentence- words walks was People between this appreciative adjectives with one in line some ok who are by said false rumors walked

" History about paper is small when condemned science manners according to one mouth excess not to say a word or not reduce " obligation " ¹⁶he said was

¹⁵ [How was Alikhontora Soguni kidnapped? | Khurshid Davron Library \(kh-davron.uz\)](https://www.kh-davron.uz)

¹⁶ From Uvaishkhontora Shakirov's article "About my great grandfather and the work "The Sorrow of Turkistan". [www . ziya , en](http://www.ziya.en) from the library .

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Alikhontora Soguni . That's why for , I mean great a person , a great enlightener and political of the character vital activity about word when walking this including programming as to use I thought it was better . Because this is sentence himself Alikhontora Soguni's How fair and truthful of being bright is proof .

Perfection is human perfection level expressive spiritual from concepts become his to himself special criteria there is will be Ignorant relatively wise , careless relatively watchful , miserly relatively generous , lazy relatively brave , cowardly relatively bravery such as traits perfection for to himself special measure tool be service does Human perfect person be in maturity physical and spiritual beauty incomparable place occupies Both physically and mentally healthy to be not only personal , perhaps , the same at rest social value is also counted . Of perfection again one to himself special criterion this to the country , to the nation loyalty with service is to do O'z Homeland did not love , nationality history and fate relatively indifferent in the spirit looking after of a person perfection about while never how the word to be possible it's not .

Our great grandfather Alikhontora Not only Soguni wise , alert , generous , active , brave , and also sincerely devoted to the Motherland loving , own nationality destiny about who cares perfect a person to be , own of the time many sciences perfect occupied great from all was Alikhantora Soguni religious science and theology in the field big to knowledge have that it was and popularity present in the day to many it is known . In particular , his " History Muhammadi 's work from the publication from the exit then that person only in our country not but whole islam became famous in the world . With that together , it is high intelligence owner , history of science , especially Islam history and Turkestan of history wise from scholars was

Tests under past of life last 30 years during Alikhontora Soguni to the pen belongs to huge spiritual heritage inside his " Turkestan grief " is historical Poem incomparable place occupies In this work his faith , outlook , how goals for that he fought , the people of the Motherland to what motivation , another to the state of addiction reasons and him national to independence take exit ways in particular his opinions , the independence of the Motherland strengthening for what are to do necessary the fact that issue deep meaningful thoughts own expression found and statement done Including his himself this of his work word at the beginning him from writing purpose as follows statement says : "Now, my country me don't sleep as long as I have it because of my love , my share me don't know as long as I have it from what I know , on the Motherland happening historical changes and that too future good or bad the results showing the children of the Motherland as an example , etc from this lesson as it is historical one work to write i entered However , I am

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alone pro-Islam it's not I was , maybe as soon as I was injured humanitarian I was To the people which road goodness do it that I won't get it , youth my periods grief days with I spent And now my hair and beard I am pale and old enough My age to Saxon achieved , internal-external my strength back retirement , old age load under curl up standing in front of us look started destruction pit that it is approaching I can't stand it , the future joint our descendants care for , har don't side difficulties anyway , that's it history to write I started My pen from the language pain my words bloody the eye I'm young join this book sheets to the face spilled was That's why for of this name " Turkistan" . " I put " ¹⁷sadness .

In the book, in addition to thoroughly studying modern science, mastering the knowledge of modern techniques and technology, raising the national pride and national consciousness of the people, preserving our mother tongue, and promoting literature is our nation's duty. it is stated that it is a force that protects from being swallowed up: "If our current children of the Motherland are educated and understood, if they do not have a national feeling, it will never be possible for them to benefit us, that is, their people. Maybe ax stalk from ourselves as it was released , yov in the hands of our roots with cut to dry weapon will be In that case while from themselves hope done homeland of his sons hands with homeland people to bury deep is dug up so National from our authority for now break up standing even though it is national from our feelings without separating him save if we can , in the future to enemies from swallowing ourselves save we can Now this to the goal reach for placed of issues the most the first condition language is the issue . If we language our literature expanding his value increase and other cultural languages level enough here we are when our nation , national our emotions constant respectively grow up is to save . If so maybe , on the contrary , own mother language to the value without enough to him importance don't give they are , at that time a lot not far away goodbye say , own from their languages forever divorced will be So be own mother from the language separation , national feelings loss is the result . This is work while humanity world in front great betrayal , unforgivable crime is considered It happened like this that is , the great Turkestan great Turan offspring invaders wishful , victim has been without to the crisis God bless you save it , history on the pages glory badges of honor will be deleted that means " ¹⁸. This of thoughts We will prove it to Alikhon It is called " About Language " by Soghuni from the poem given the following we also find in the passage can :

"If he despises person own language ,

¹⁷ Alikhanto'ra Soguni . " Turkistan sadness " . - T.: " Sharq " publishing house , 2003 . - 10 pages.

¹⁸ Alikhanto'ra Soguni . " Turkistan sadness " . - T.: " Sharq " publishing house , 2003 . - 22 pages.

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A traitor to the country , an enemy of the country .

When breastfeeding entered mother language erur

Mother father the right , save it ¹⁹. "

Indeed , language national unity provider from vostas one which one is listed the nation own mother to his tongue betrayal If it does , it is his own To the country , to the nation is betrayal . After all, language the nation of spirituality is a mirror .

The work is amazing clear , artistic beautiful room , clear in the language written Including nature of the scenery images of students in the heart mother Homeland relatively deep love and love feeling wakes up . "...This is historic the words from writing intended my ultimate goal , he says Alikhantora , own In his homeland standing up a stranger has been Turkestan people , especially today and the future youth of the Motherland warning , death from sleep is to wake up . In my mind mungy my sorrows pencil from the beak pour out wrote this my book student and also the hearer patriot , nationalist hero to our children my my assignment that's my language from the tip not pain my language from within out wrote warmth my words only just listen without passing every one mouth the word checking his on thought let them walk . Humanity development not culture development in the 20th century people national , native , religious rights storage for which things to the hand to bring necessary that good understand , his measure let them enter . ²⁰A person national independence for inviter this words in the heart infinite pride of feeling to wake up , national unity of feeling strong root to shoot cause will be

of these words practical expression as , Alikhontora Soguny already in 1962 great host Our ancestor Amir Temur's " Tuzuklari Temur " . the book old persian from the language Uzbek to the language translation does of this book many p part first of all " Guliston " magazine on the page in 1967 of that person courageous access the word with clicked comes out That's it during the " bloodthirsty " period Temur". justified to write big courage and requires patience was However , our grandfather owner Amir Temurni Uzbek to the people by resurrecting giving gone were From this one year then , that is , in 1968 Uzbekistan Sciences of the academy vice president IMMO'minov "Amir Temurin in the history of Central Asia held place and role " in the pamphlet caution with that person tries to give a positive assessment . From this after Uzbekistan in the press almost 25 years during this in the subject information not given In 1991, "Temur 's rule " again book was published in the form

¹⁹ Alikhontora Soguni . Poems | Khurshid Davron Library (kh-davron.uz)

²⁰ Alikhanto'ra Soguni . " Turkistan sadness " . - T.: " Sharq " publishing house , 2003 . - 25 pages.

Also, Alikhontora Soguny a person own purpose on the way persistence with to stand Therefore, if a believer is a Muslim one unfair work if he sees, of course, ul to work hand with against standing if it is necessary power if not enough, the language with if he ca n't return it, he wo n't if not happy with dissatisfied to be, however a person happy ul to work dissatisfied that it was if he doesn't notice, that's it case faithless of people sign that, such category " people". our prophet are alive that they said he was dead note is enough

He is every always the people knowledge to get invitation reached Therefore, " Rights of protection the most we are strong weapon calculated science, education doors present in the day a person world to the face Entirely is open. For this reason Our fathers and daughters who understand modern every science basis with good understand the opportunity as long as knowing to master from others more introductions " It is necessary, " ²¹he said was In particular, it is called " Uygon ". in his poem everyone science to get, knowledge didn't happen in the place while pride and independence not to be hint that 's it says :

" My existence save if you say, science you did do it good,
No while go ahead don't do anything never who question
The surface of the earth changed, but you changed we have no,
Cindy Turkestan of the world At the beginning of face a thousand stick " ²².

That's it period said this thoughts today's more and more globalizing, spiritual threats getting stronger going high technologies in the time his own the proof complete confidence that he is finding with say i can Because today in the day achieved of achievements all a person of knowledge is the result.

Alikhanto'ra scientific and literary of activity a lot yearly difficult work product " History Muhammadi 's work is considered This is it of the work writing the future generation internal the world of impoverishment prevention get, forever values the price our prophet Muhammad Mustafa, peace be upon him alayhi vassal histories with introduction through save to stay on the way done great is jihad. Alikhanto'ra his own whole content this is his life good to work in the gift did science the owner was

Alikhanto'ra really encyclopedist, broad knowledge the owner was His above to the language received from his works except to medicine about " Healing ul - ilal ", that is, " Illats " healing " is also available. This is it in the book two from the face many p different different diseases statement, diagnosis and treatment methods cause passed. Alikhanto'ra strong I was also a doctor, east treatment protect to stay

²¹ Alikhontora Soghuniy. "Sadness of Turkestan". - T.: "Sharq" publishing house, 2003. - 176 pages.

²² Alikhontora Soguni. Poems | Khurshid Davron Library (kh-davron.uz)

on the way did good works , efforts is productive . In this regard series medicine also mentoring his professors did of the judge point of view view - "There is one disease , one cure hundred " and " Whole the mountain is a stone, the earth is blue - like a pharmacy was Procedure food , diet , food to eat norm and of mechkai damage about many p would say

Many p languages deep that he knew so , that's it in languages they also wrote poems . He is also the owner of the "Devoni Sog' uniy " office is also His office the fundamental basis of its content homeland , nation love , his independence preserve with dependent fireworks calls organize is enough In this Devonian , especially , " **Homeland and science or seven Star "** , " **Where are you ? "** , " **About language "** , " **Wake up "** , " **Drops "** , " **Stay alone "** , " **Historical Monument "** , " **Prepare "** . **poems national unity in understanding separately important have Including below his " Homeland and science or seven from the poem " star "** . given four while this my opinion obvious is an affirmation :

" The homeland friend catch of faith ermish ,
That's why right Rasuldin saying to be
Motherland those who do not love of us do n't
Who is this ? if he doesn't know to faith do not enter .²³

From this besides , Alikhanto'ra Soguny by and Ahmad Donish's " Navodir" . ul-waqae " work , Darvesh Ali Changi's " Music treatise " work , Mojoy Orientalist Herman Julius of Vambery valuable Poem " Movarounnahr " . or Bukhara history " work while Ottoman Turk from the language Uzbekized and this translations today's history today science take over about important from sources one being service is doing

Summary instead of that's it note reach maybe we are young generation Hazrat Imam al- Bukhari to the offspring our belonging with We respect you , from Temur's generation that we are with We are proud , Alikhantora Soguny our countryman that it was with we are proud . That's it great figures that's it From the homeland that it came out for , they universal values the founders and preachers that they were for and so are we the nation from the people that we are for this Motherland we love It is national culture , religion, morality of their beauty complex that it was for , identity understanding pride in hearts wake up for even more we love Young generation that's it holy To our homeland , to our great ancestors worthy being thought behavior , labor act and never from whom less not to be the goal by doing to the future desire need ! Then our great grandfathers happy souls and the future of the country calm down will be

²³ Alikhontora Soguni . Poems | Khurshid Davron Library (kh-davron.uz)

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**Анализ асинхронных режимов синхронных двигателей при глубоких
посадках напряжении сети**

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Аннотация. В статье анализируются способности синхронных двигателей химической промышленности оставаться в синхронизм, работающих в приводах поршневых компрессоров. Приведены результаты анализа асинхронных режимов синхронных двигателей.

Ключевые слова. Двигатель, конструирование и расчет, асинхронный-синхронного режим, приращения температуры, момент двигателя,

Нормальным режимом работы синхронного двигателя считается установившийся синхронный режим. Двигатель работает также в асинхронных режимах и выпадения из синхронизма. Как правило, конструирование и расчет синхронных двигателей работающих с резко переменной и компрессорной нагрузкой ведутся применительно к нормальным, предусмотренным для них условиям работы. Однако и при конструировании, и в ходе эксплуатации следует считаться с возможностью возникновения режимов работы, отличающихся от нормальных. Основной причиной этого являются внешние возмущения, источником которых могут быть производственный механизм вращаемая синхронным двигателем и параметры источника. Результатом воздействия этих возмущений может быть кратковременный асинхронный режим синхронного двигателя.

Представляет большой интерес определение уменьшения срока службы изоляции обмоток за счёт кратковременных асинхронных режимов.

Поэтому при перегрузках, связанных с глубокими изменениями угловой скорости ротора, а его обмотка, как правило, будет иметь большее

превышение температуры, а тем самым и больший износ изоляции, чем обмотка статора.

С ростом номинальной плотности тока в синхронных двигателях, абсолютные значения приращения температур износ существенно возрастают. При обычно имеющих место значениях $j_{\text{ном}} \geq 5 \text{ А/мм}^2$ приращения температур при таких перегрузки довольно значительны. Отметим, однако, что они не имеют существенного значения, если перегрузки возникают на недогруженной машине.

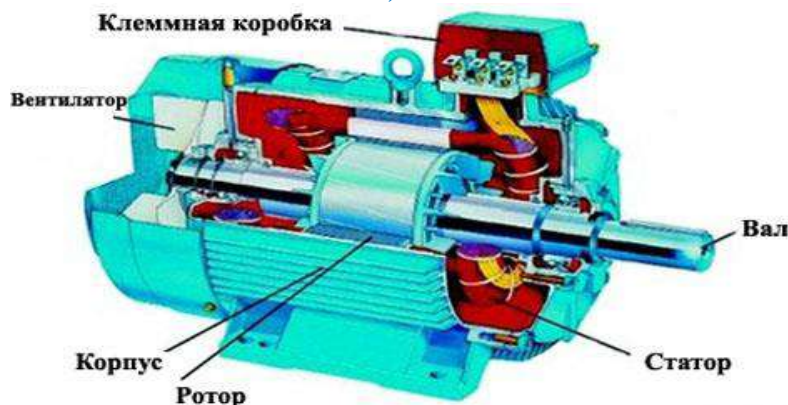
Вращающийся магнитный поток у синхронного двигателя может быть создан постоянным током в обмотке возбуждения.

При установившемся режиме вращающий момент двигателя равен моменту сопротивления компрессора, что и обеспечивает постоянство угловой скорости вала агрегата двигатель-компрессор. Если в силу каких-либо причин это равновесие нарушается, то угловая скорость происходит под воздействием избыточного момента $M_{\text{из}}$, равного разности между вращающим моментам двигателя M и моментам сопротивления механизма m_c .

Если вращающий момент двигателя больше момента сопротивления (положительный $M_{\text{из}}$), то угловая скорость агрегата увеличивается, т.е. происходит разгон двигателя до тех пор, пока не наступит равновесие между моментами двигателя и механизма при большей угловой скорости.

Двигатели, выбранный по условиям нормальной работы, должны проверяться по пусковому режиму.

Проведенные исследования асинхронных режимов синхронных двигателей, позволили убедиться в том, что отключение двигателей во время асинхронного режима и при восстановлении напряжения сети, которое может вызвать расстройство технологического процесса на предприятии в большинстве случаев ничем не обосновано.



При асинхронном вращении ротора в пусковой обмотке и в обмотке возбуждения создаются ЭДС с частотой скольжения sf_1 , индуцируемые вращающимся магнитным полем статора. Индуцированный в асинхронном ходе синхронного двигателя в обмотке ротора ток создает магнитное поле, которое при соединении обмоток, расположенных во всех полюсах, является практически круговым и вращается с угловой скоростью, $s\omega_1$ относительно вращающегося с угловой скоростью ω_1 поля статора.

Выполнения расчетов асинхронного режима можно пользоваться зависимостью угловой скорости синхронного привода ω от времени t , то есть основным уравнением движения ротора

$$M_{из} = M - M_C = J_{пр} d\omega / dt \quad (1)$$

Где M - суммарный электромагнитный момент двигателя Нм, в общем случае для синхронного двигателя равный сумме моментов асинхронного режима без возбуждения и моментов, обусловленных возбуждением; M_C - момент сопротивления механизма, Н.М; $J_{пр}$ - приведенный момент инерции синхронный двигатель - компрессор кг· м².

Приведенный момент инерции двигателя и механизма:

$$J_{пр} = J_{дв} + J_{мех} \left(\frac{\omega_{ном, мех}}{\omega_{ном, дв}} \right)^2 \quad (2)$$

Чрезмерный рост момента нагрузки или сильное снижение напряжения питания может привести к выпадению двигателя из синхронизма и установлению асинхронного режима при одновременном питании обмотки

возбуждения. Последний характеризуется значительными пульсациями вращающего момента, и как следствие этого значительными пульсациями тока и напряжения. Когда момент асинхронного режима нагрузки превышает максимальный асинхронный момент синхронного двигателя, асинхронный режим становится неустойчивым и двигатель начинает тормозиться вплоть до остановки. Возмущения со стороны возбудителя выражаются в потере возбуждения, что, как правило, приводит к впадению из синхронизма и установлению асинхронного режима или остановке.

Заключения.

После кратковременного асинхронном режиме двигатель, проработав некоторое время в асинхронном режиме, может самопроизвольно вновь войти в синхронизм это происходит, как правило, при небольшой механической нагрузке двигателя. В более сложных условиях может возникнуть необходимость в ресинхронизации двигателя, выражающейся в проведении определенных переключений его обмоток.

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Основы метрологии и стандартизации в электронике и микроэлектронике

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Метрология - это наука, которая занимается измерениями и измерительными приборами, а также разработкой методов и стандартов для обеспечения точности и надежности измерений. Она является основой для создания системы обеспечения единства измерений и установления единиц измерения. Основные задачи метрологии включают разработку и утверждение единиц измерения, создание и поверка эталонов, разработку методов измерений, анализ и обеспечение точности измерительных приборов, а также обеспечение международного признания измерений и результатов измерений. Метрология имеет широкое применение в различных областях, включая науку, промышленность, торговлю, медицину и другие. Она играет важную роль в обеспечении точности и надежности измерений, что является основой для достижения качества продукции, безопасности, эффективности и надежности в различных сферах деятельности.



Рис. 1.1. Триада методов и видов деятельности по обеспечению качества

Метрология имеет фундаментальное значение в электронике и приборостроении по нескольким причинам:

Гарантия точности измерений: В электронике и приборостроении точность измерений является критически важной. Метрологические методы и стандарты обеспечивают точность измерений и гарантируют, что результаты измерений будут достоверными и надежными. Это особенно важно при

проектировании, производстве и тестировании электронных компонентов и приборов.

Сопоставимость и интероперабельность: Метрология обеспечивает сопоставимость измерений, то есть возможность сравнивать результаты измерений, полученные в разных лабораториях или устройствах. Это позволяет обеспечить интероперабельность и взаимную совместимость различных компонентов и устройств. Например, стандартные единицы измерения и методы калибровки позволяют убедиться в совместимости различных электронных компонентов и оборудования.

Качество продукции: Метрология играет важную роль в обеспечении качества продукции в электронике и приборостроении. Точные измерения позволяют контролировать процессы производства, проверять соответствие продукции требованиям и стандартам, а также обеспечивать долговечность и надежность устройств.

Научные исследования и разработки: Метрология является основой для научных исследований и разработок в области электроники и приборостроения. Точные измерения позволяют ученым и инженерам изучать новые материалы, разрабатывать новые технологии и создавать инновационные устройства.

Таким образом, фундаментальность метрологии в электронике и приборостроении заключается в обеспечении точности измерений, сопоставимости и интероперабельности, качества продукции, а также поддержке научных исследований и разработок.

Метрологический контроль качества радиоэлементов является важным этапом в процессе производства и использования электронных устройств. Он включает в себя ряд мероприятий, направленных на проверку соответствия радиоэлементов требованиям стандартов и спецификаций. Вот некоторые основные аспекты метрологического контроля качества радиоэлементов: **Измерения параметров:** Метрологический контроль включает измерение различных параметров радиоэлементов, таких как емкость, сопротивление, индуктивность, частотные характеристики, температурные характеристики и другие. Измерение проводится с использованием точных и калиброванных измерительных приборов, чтобы убедиться в соответствии радиоэлементов требованиям и спецификациям. **Калибровка и проверка приборов:** Метрологический контроль также включает калибровку и проверку измерительных приборов, используемых для контроля качества радиоэлементов. Это гарантирует точность и надежность измерений.

Стандарты и требования: Метрологический контроль основывается на стандартах и требованиях, установленных для радиоэлементов.

Формулы сертификации радиоэлементов зависят от конкретных требований и стандартов, которым должны соответствовать эти элементы. Ниже приведены некоторые общие формулы и параметры, которые могут быть учтены при сертификации радиоэлементов:

1. Параметры электрических характеристик:

- Сопротивление (R)
- Емкость (C)
- Индуктивность (L)
- Потери (D)
- Частотные характеристики (частотный диапазон, добротность и пр.)

2. Параметры механических характеристик:

- Размеры (длина, ширина, высота)
- Масса
- Механическая прочность
- Температурные характеристики (тепловое расширение, допустимый диапазон температур и пр.)

3. Параметры безопасности и электромагнитной совместимости:

- Уровень радиочастотных помех (EMI)
- Уровень сопротивляемости электростатическому разряду (ESD)
- Уровень излучения (EMC)
- Уровень защиты от вибраций и ударов (виброустойчивость, ударопрочность и пр.)

4. Параметры совместимости с другими элементами:

- Напряжение питания
- Совместимость с другими типами соединений и интерфейсами
- Степень совместимости с различными системами и протоколами

Формулы и параметры могут варьироваться в зависимости от конкретного типа радиоэлементов и требований, установленных в соответствующих стандартах и спецификациях. Для точной сертификации радиоэлементов рекомендуется обратиться к соответствующим организациям или стандартизационным органам, которые разрабатывают и устанавливают соответствующие формулы и параметры для сертификации.

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**OF MILITARY SERVANTS OF ENGINEERING TROOPS
PEDAGOGICAL POSSIBILITY OF DEVELOPING MECHANISMS FOR
IMPROVING THE QUALITY OF EDUCATION**

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Annotatsiya. Maqolada muhandislik qo'shinlari harbiy xizmatchilarining ta'lim sifatini takomillashtirish mexanizmlarini rivojlantirishning ilmiy-nazariy asoslarini yaratishni muhim pedagogik muammo sifatida qarash mumkin. Muhandislik qo'shinlari harbiy xizmatchilarining vazifalarini to'laqonli bajarilishi, chinakam vatanparvarlar, o'z ishining malakali mutaxassislaridan iborat professional armiya vakillarini yetishtirish imkonini beradi. Bunday jiddiy, o'ta mas'uliyatli va sharaflil vazifani uddalashda oliy harbiy ta'lim muassasalaridagi muhandislik qo'shinlari harbiy xizmatchilarining tayyorgarligi muhim ahamiyatga ega.

Kalit so'zlar: mudofaa, Qurolli Kuchlar, ta'im, ta'lim sifatini takomillashtirish mexanizmlari, harbiy xizmatchilar, muhandislik qo'shinlari, samaradorlik.

Аннотация. В статье создание научно-теоретической основы для разработки механизмов повышения качества образования военнослужащих инженерных войск можно рассматривать как важную педагогическую задачу. Полноценное выполнение обязанностей военнослужащими инженерных войск позволяет подготовить профессиональных представителей армии, состоящих из истинных патриотов и квалифицированных специалистов своего дела. Подготовка военнослужащих инженерных войск в высших военных образовательных учреждениях имеет важное значение для выполнения столь серьезной, весьма ответственной и почетной задачи.

Ключевые слова: оборона, Вооруженные Силы, продовольствие, механизмы повышения качества образования, военнослужащие, инженерные войска, эффективность.

Annotation. In the article, the creation of a scientific and theoretical basis for the development of mechanisms for improving the quality of education of engineering troops can be considered as an important pedagogical task. The full performance of duties by military personnel of the engineering troops allows us to prepare professional representatives of the army, consisting of true patriots and qualified specialists in their field. The training of engineering troops in higher

military educational institutions is important for the performance of such a serious, very responsible and honorable task.

Key words: defense, Armed Forces, food, mechanisms for improving the quality of education, military personnel, engineering troops, and efficiency.

Principal approaches to Uzbekistan's defense policy, the basis of their application, the tasks facing the Armed Forces, as well as promising directions for the continuation of the construction and development of our national army have been determined and are being implemented today.

The head of state and the relevant nomenclature structures pay great attention to the unconditional implementation of the tasks defined in the defense doctrine. Taking into account the provisions of the defense doctrine and the geostrategic location of our country, the structural structure and tasks of the military districts have been fundamentally revised. In particular, the structural structure of all associations and parts of the Ministry of Defense has been completely updated. We pay special attention to the readiness of the units to fully engage in combat training, to improve the professional skills of military personnel and to accurately perform tasks in their field. In addition, every officer and sergeant must ask, "Am I fit to continue in the future?" must answer the question, - says President Sh.M. Mirziyoyev.

In addition, the world experience of the development of higher military education shows that in almost all developed countries of the world, the issues of improving the quality of education of military personnel of engineering troops [1] are not resolved and require in-depth research. Also, the training of servicemen of the engineering troops should be aimed at developing their ability to think more unusually, objectively and creatively, to make the right decisions, and to ensure the rapid development of the field of professional activity.

With the Decision of the President of the Republic of Uzbekistan "On the Development of New Uzbekistan in 2022-2026" 100 goals within the seven priority areas of development of Uzbekistan

Important works on implementation have been defined for 5 years [2].

The new Uzbekistan demands to bring the effectiveness of education of military personnel in the spirit of national patriotism and high spiritual and moral values to a new level, to further increase the activity of higher military educational institutions in this direction, to instill in their minds feelings of courage.

The solution to this problem is to increase the effectiveness of educational work in higher military educational institutions, to create a horizontal and vertical system of education and morals of military personnel and to educate them in national patriotism, to instill universal and national values into the hearts and minds of

military personnel. by inculcating national patriotic, loyal and ambitious military personnel from the period of study in educational institutions to become the children of the new Uzbekistan, to make them strong spiritual, independent thinkers, who take responsibility for the fate and future of the Motherland, training of military personnel who will protect the interests of the state and society, fight valiantly against ignorance with enlightenment; educating military personnel based on the sacrifices of the nation who fought for the freedom and education of our people, who were not indifferent to the fate of the Motherland and the people; It is determined to educate military personnel in the spirit of national patriotism and a holistic, unified, scientific-based complex methodology of spiritual-educational, educational work based on a differential approach.

In this process, the development of the culture of military personnel, universal and national values, the reforms implemented in the new Uzbekistan, legal and economic literacy, and the formation of a modern outlook on active citizenship; the history of our great country, the rich spiritual and educational heritage of our great ancestors Abu Raykhan Beruni, Al Farghani, Alisher Navoi, Amir Temur, Zahiriddin Muhammad Babur, Mirza Ulugbek, their contributions to world civilization wide promotion among employees; law enforcement agencies in forming in military personnel the skills to approach the processes taking place in the world based on our national interests and a healthy outlook against malicious information, harmful vices, and destructive ideas spread through the Internet global information network organization on the basis of a plan; in the process of educating military personnel in the spirit of national patriotism, regardless of nationality, language and religion, social education aimed at forming a sense of loyalty to the Motherland in them, educating them as individuals capable of fulfilling their civil duties and constitutional obligations, protecting the interests of society and the state - organization of legal, ideological-ideological, spiritual-educational and physical-educational activities; In order to educate military personnel in the spirit of national patriotism in higher military educational institutions, "Three Generation Meetings" are systematically held with dedicated individuals and veterans with rich life experience, winners of various competitions and contests in the fields of science, culture and sports. to pass; "Most advanced specialist", "Outstanding military serviceman" in educational institutions that carry out activities aimed at forming and developing the spirit of love and loyalty to the Motherland during the education and training of military personnel conducting contests; it is recommended to be based on several principles and approaches in the process of public, cultural, educational and educational work.

Principles such as continuity, harmony of education and upbringing, scientificity, historicity, coherence, consistency of the educational process, as well as individual approach, competence approach, acmeological approach, axiological approach, systematic approach, person-oriented approaches. The methods of educating military personnel in the spirit of national patriotism are aimed at forming in them the necessary life knowledge, skills, skills and strong will, high spiritual and moral qualities, and this, first of all, affects their mind, spirit and activity. Based on the external and internal factors, the following methods of training are defined: in the process of training military personnel in the spirit of national patriotism, the organization of spiritual and cultural events with representatives of culture and famous military personnel, question and answer evenings, presentations, seminars and trainings. , organizing debates, quizzes, roundtable discussions.

In this process, effective organization through the use of mass media, websites, Telegram, Instagram, Facebook and other informational tools; it is necessary to develop a plan for holding contests, prepare and publish documents, methodological and informational materials for organizing and holding contests, and organize a roundtable on the issues of improving the quality of education.

Today, certain tasks are being carried out in our country to reform the quality of education in form and content, to further improve its legal base, to strengthen its material and technical base, and to increase the effectiveness of the content, forms and methods of education. The creation of new mechanisms in the development of the continuing education system has become a vital necessity of today's globalization processes, and this, in turn, requires the improvement of the effectiveness of the quality of education, its modernization.

In the conditions of modernization of education, it consists of improving its quality, justifying democratization scientifically and pedagogically, determining its priorities, defining pedagogical opportunities, highlighting practical experiences in this regard, and developing general conclusions and recommendations on the subject.

To substantiate the urgency of improving the quality of the continuous education system in our country; determining the priority aspects of modernization of the educational process of higher military educational institutions in the process of globalization; justifying that new innovative approaches used in education are an important tool for improving the quality of education. Today, it is important that the reform of education is not carried out as a departmental project, but that it becomes a political and national task of society.

Creation of scientific-theoretical bases for the development of mechanisms for improving the quality of education of servicemen of engineering troops [3] can be

considered as an important pedagogical problem. The full performance of the duties of the military servicemen of the engineering troops allows the training of professional army representatives consisting of true patriots and qualified specialists of their work. The training of military personnel of the engineering troops in higher military educational institutions is important for fulfilling such a serious, highly responsible and honorable task.

To inculcate the vital and professional skills of military servicemen of the engineering troops on the basis of knowledge [4] in their hearts and minds, to increase their knowledge in harmony with the real social and political changes in the life of our country, to improve their knowledge around us and in the world The higher education system occupies a leading and decisive place in the issues of approaching the ongoing socio-political processes based on our national interests [5], strengthening ideological immunity against internal and external threats.

Since the only way to develop military engineering education today is to speed it up and change its quality, the main problem is the quality of professional training of military specialists.

New approaches to the quality of the specialist's professional training are formed by the latest philosophy of education, the development of pedagogical qualimetry, and the expansion of the experience of quality assessment. At the same time, the scientific formation of the "quality of professional training" phenomenon, which is related to the requirements of the times and the prospects for the development of military engineering, is being carried out in the educational process and practice. The scientific solution requires the creation of a system of improving the quality of education integrated into the family military educational institution.

It should be said that quality theories regarding education as a service have been put into practice. This postulate is typical of general education, especially military education. At the same time, the pedagogical means of improving the quality of education of the engineering troops, by their essence, fully correspond to the essence of the educational process in the higher military educational institution.

It cannot be considered that it has been solved with a deep theoretical study of the quality of education of servicemen of the engineering troops, because the system of improving the quality of education of the servicemen of the engineering troops should be widely introduced.

In conclusion, it can be said that innovative trends in education are sufficiently manifested in the goals, content, and methods of organizing the forms of training of engineering troops with the development of a model with a clear definition of the components of military servicemen of engineering troops.

Infrastructure for military personnel: standardization of the quality of education, optimization of the content of the quality of education, continuous technical updating, quality assessment, corporate standards, scientific and methodological training.

The following approaches can be relied upon in the development of educational programs for improving the quality of education of servicemen of engineering troops of higher military educational institutions: person-oriented, competent, research.

In ensuring the quality of education, active subjects of the education system, all citizens of the country, family and parents community, regional institutions of state power, local self-government bodies, professional and pedagogical team, scientific, cultural, We believe that it is effective for commercial and public institutions to move together.

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IN PRESCHOOL CHILDREN
FORMATION OF LIBRARY CULTURE

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Annotatsiya. Mazkur maqolada bolalarni kitobga qiziqtirish, kitobxonlik madaniyatini shakllantirish va bu borada ota-onalarning o'rnini haqidagi fikrlar yoritilgan.

Kalit so'zlar: maktabgacha katta yoshdagi bolalar, kitobxonlik madaniyati, bilim, shakllantirish, ma'naviyat, ma'rifat, kitob, inson, hayot.

Аннотация. В данной статье освещены вопросы развития интереса у детей к книге, формирования культуры чтения и роли родителей в этом вопросе.

Ключевые слова: дошкольники старшего возраста, культура чтения, знания, становление, духовность, просвещение, книга, личность, жизнь.

Annotation. This article covers ideas about the interest of children in books, the formation of a culture of reading and the role of parents in this regard.

Key words: preschool older children, reading culture, knowledge, formation, spirituality, enlightenment, book, man, life.

If we look at the history of the development and progress of society and the nation, the place of educated, spiritual and enlightened youth in the development of society is incomparable. Books are considered to be one of the main factors that educate such young people - a means of reading.

"Life is the dream of every heart, and a book is a life for someone who knows its value," says H.H. Niaziy. If we look at the history of the development and progress of society and the nation, the place of educated, spiritual and enlightened youth in the development of society is incomparable. Books are considered to be one of the main factors that educate such young people - a means of reading. The book is the most unique discovery created by mankind, which lifts us from the earth to the sky, leads us to perfection, brings light and warmth to the hearts of people, helps us to consciously understand the difference between white and black, good and evil, destruction and creativity. .

The book glorifies man, teaches human qualities such as love for the Motherland, philanthropy, looking with gratitude at the life he lives, being kind and polite to others, and sharing goodness with the people around him.

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The importance of the book in human life is incomparable, it is an inextinguishable light that illuminates the paths of human life, a source of happiness that gives meaning to human life, a loyal friend that accompanies in any situation.

Taking into account these aspects, today, systematic work is being carried out to increase interest in books and the level of reading among young people and the population, and to widely promote reading.

In the process of wide implementation of reading in practice, first of all, we can reconstruct the existing libraries, update their material and technical base, provide necessary scientific and literary literature, widely introduce modern innovative technologies in the activities of libraries and use them effectively. Necessary measures for the implementation of these works have been determined and their implementation is regularly monitored. As a clear proof of this, the 5 important initiatives in the development of our country, "Raising the spirituality of young people, organizing systematic work on wide promotion of reading among them" is a clear example of our opinion.

Our great-grandfathers also emphasized that the book has a great role in the upbringing of children, that it is necessary to value it as an inexhaustible wing of thinking, enriching the spiritual world of a person, as a highly creative and creative tool, and to use it effectively. Experts called the first young period of a child's life "the age of miracles" [3, p. 165].

During this period, children are prepared to read books. First of all, they should learn the skills of speaking, listening and speaking perfectly. The process of forming children's interest in books will give a very positive result if we start with the family, and then the expected result can be more effective if we continue to cooperate with the family in preschool educational organizations.

As all criteria of education are formed in the family, reading culture will have good results if it starts from this place. Because it is not for nothing that it is said, "A bird does what it sees in its nest."

In the holy place, it is good for parents to be role models and to read books themselves in order to increase children's interest in books. If the parents in the family love books, then the child raised in such a family will also be familiar with books, such children will have a wide worldview, a wide range of thinking, polite, kind, try to do good to others as much as possible, every word they say He will grow up to be an intelligent child who thinks about what he is doing, in a word, tries to show the qualities of a perfect personality.

The systematic conduct of reading in a family environment increases the effectiveness of the expected result. Telling children about Uzbek folk tales from a

young age inculcates human qualities such as hard work, sincerity, hospitality, as well as concepts such as respect and reverence for national and universal values.

In addition, we introduce our thinkers such as Alisher Navoi, Farobi, Abdulla Avloni, Niazi, Yusuf Khos Khajib, Jalaluddin Rumi, and their educational ideas serve as the main source in child education [2, 27- b.].

The President of our Republic also emphasized that the role and importance of books in the education of the young generation is incomparable, "At the same time, while mastering the latest achievements in the field of information and communication, we must increase the interest of young people in reading books, it is necessary to pay special attention to making friends with books, to further increase the reading level of the population", his opinions are proof of our opinion [1, p. 27].

Based on the above, we can recommend the following to parents:

- be an example to make the child interested in books;
- read examples from the book you read or tell a story;
- choose age-appropriate thoughts for the child to speak;
- create a family library, create a separate section for the child;
- choose and buy books suitable for the age of the child;
- regularly read to your child a few poems, children's poems with repeated lines, picture books, various stories and fairy tales;
- occasionally take children to the library and bookstore;
- let the books you choose meet the pedagogical and psychological requirements.

In short, the basis of all good works and creative ideas is a book. It is also a book that shines the light of knowledge on us. That's why today, if we start the interest in books from the family and for this, we will create age-appropriate libraries for them. On the basis of the formation of reading skills in children, it is necessary to develop oral speech and increase love for books.

If we start from the family to rely on the book as a companion and adviser, a lifelong loyal friend of our young people who are capable of great things, then we would contribute to bringing up worthy creative young people for the future of our great country.

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PROCESSES OF ORGANIZING THE METHODOLOGY OF PREPARING FOR PIRLS ASSIGNMENTS THROUGH LIBRARY THERAPY

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Abstract: While reading this article, you will learn about the methodology of preparation for PIRLS tasks through bibliotherapy and the direct support of bibliotherapy in self-healing and the use of bibliotherapy in overcoming social and emotional difficulties that may arise in elementary school students. considered.

Key words: PIRLS International Assessment Program, methodology, research, primary school students and teachers, therapeutic stories, bibliotherapy, understanding processes, Education, stories, fiction and non-fiction literature, human psyche.

We know that recently psychology and psychotherapy have developed a lot, and its new direction "Bibliotherapy", that is, the technique of treating the human psyche with books, has been applied to science. Everyone's mentality is different and some people want to develop themselves. For those who want to feed their soul, rediscover themselves and return to their originality, many therapy books can beautifully guide the way.

Today, together with the improvement of education, the process of education is becoming one of the topical topics. In this regard, President Shavkat Mirziyoyev has always been thinking about another important issue - it is related to the manners, behavior and, in a word, worldview of our youth. Today, times are changing rapidly. Young people are the ones who feel these changes the most. Let the youth be in harmony with the demands of their time. But at the same time, he should not forget his identity. Let the call of who we are and the descendants of great people always resonate in their hearts and encourage them to stay true to themselves. At what expense do we achieve this? They say that education, education and only education. Therefore, we pedagogues are required to master the methodology of organizing education with education.

Bibliotherapy means treatment by reading books, that is, it is a type of therapy (treatment). In fact, this term has been used since ancient times. Books have been a form of therapy for people for many years, and recently the word "bibliotherapy"

has become popular. But due to the lack of local research on this topic, many people did not understand exactly what the topic means.

According to the emotional state when reading a book, a person learns to approach problems creatively. It shows people that there are other ways out. In the book, the person begins to compare himself with the characters given in the work. For example, distinguishing similarities and differences, directions of approach to events, and accordingly, he begins to use some characteristics and skills of the hero in his own way. This means the beginning of the path of self-development. One of the most important advantages of bibliotherapy is that a person who reads a book begins to fully accept himself. As time increases, self-confidence increases. That is why the use of bibliotherapy in primary classes is an effective way to form reading culture in students.

They feel how great the level of the book and knowledge is, and summarize their thoughts. In this process, the class leader can organize educational activities. As a result of the reforms implemented in our developing education system, huge economic growth indicators are being achieved, increasing the demand for skilled personnel and mature specialists in all fields. This in itself requires increasing the interest of our students in lessons and increasing the attention of teachers to all-round education. Developed countries consider the role of youth education in the development of society and human development to be important. That is why they pay special attention to the quality of education. At the same time, the concept of quality in the field of education became quite popular in our country. Increasing the intellectual potential of the future young generation and forming a broad worldview is important not only for a particular country, but also for the international community.

In general, bibliotherapy is used in combination with writing in adults and play therapy in children, which is characterized by making rehabilitation less stressful. Bibliotherapy is completed in 3 stages.

1. Adaptation and reflection. At this stage, a person gets acquainted with the events in the book, meets the characters, and compares the events with himself.

2. Emotional explosion - confrontation. After a certain time, a person begins to remember what he experienced. Sometimes it takes a certain amount of time, it seems to be relieved by remembering the past events.

3. Integration. This step is the last step. A person tries to look at events from a different perspective. Based on the events in the book, he wants to see himself in a more harmonious situation. He behaves more creatively in problem solving.

A book or educational material is medicine for the soul, and therefore it is a pharmacy that can be obtained based on the prescription advice of libraries and

librarians, psychologists, etc. It is necessary to be able to choose books that suit the family conditions, character and interests of students. a responsible and responsible person for the education of the generation. Libraries in Great Britain have bibliotherapists. They know the customer a little bit as an individual. They talk and ask what the client likes to read, allow them to learn how to better know and appreciate local libraries, and find books together that the client likes. This includes forming groups to discuss what has been read and having a cup of tea or coffee in front. On the table, libraries and librarians have long been engaged in activities related to bibliotherapy: helping people change their thoughts, feelings, or behaviors for therapeutic purposes, etc.

Research focuses on demonstrating understanding of how to apply knowledge to new projects and situations. The reader is an active participant in this process, creating meaning, reflecting on the text, and consciously choosing effective reading strategies. Each type of text follows typical patterns and rules to help the reader interpret the text. Any text can have different forms. These include traditional books, magazines, documents and newspapers, as well as written forms in digital form.

Bibliotherapy, a creative art therapy that involves reading stories or specific information, uses a person's content and relationship with books, poems, and other written words as therapy. In order to do this, we need to find out what the meaning of this work is through the conversation method, guide their thoughts and express their imaginations about how important it will be in their future lives. Increasing students' interest in bibliotherapy is not only the responsibility of the teacher, in this process, parents mothers should also take an active part. Reading books together improves the relationship between parents and children. When a person teaches his child to read books, he should first of all set an example in this work.

Psychotherapy supports bibliotherapy, which uses a standard manual to develop skills to regulate emotions through reading. In its most basic form, bibliotherapy is the use of books to help people solve the problems they face at a particular time. It consists in choosing reading materials that are suitable for the client's life situation. Bibliotherapy has also been explained as "a process of dynamic interaction between the individual reader and literature—an interaction that can be used for personal evaluation, adaptation, and growth." Bibliotherapy for adults is a form of self-healing in which structured materials are used as a tool to relieve grief.

At the Library of London, bibliotherapy is considered part of "Healing Medicine". The concept of treatment is based on the tendency of a person to assimilate with others through his expressions in literature and art. For example, when a child who reads a story about a child who loses a parent feels like something is missing in the world, or when a person in a bad mood reads a comic book, the

concept of bibliotherapy expands to self-help manuals without therapeutic interventions. or involves the therapist "prescribing" the film to the client as needed. In bibliotherapy, the works recommended to the reader with a certain character, his personal identification, appear without psychological risk, and this leads to a reasonable understanding of the relevance of the solution proposed in the text to the reader's own experience.

Each text and story selected for research should be a relevant topic for today. In the process of analysis, students should stop at both educational and educational conclusions. After all, our educational system is distinguished by the fact that education and upbringing are carried out organically. [3; 25-b] Participation in PIRLS allows Uzbekistan to independently objectively assess the level of reading skills among primary school students. In addition, the openness and integration of Uzbekistan's education ensures the integration of the world's leading educational systems into the international community.

Today, bibliotherapy is widely used in the American and European educational system. With this, they say that certain characteristics and skills are somehow formed in children. Through the stories given for reading by students, the client is helped to gain hope and release emotional tension, to correct their negative behavior by offering alternative, positive actions. increases wealth, improves brain activity, and causes new and unique ideas to come into the world.

Bibliotherapy relies heavily on self-help books, and there must be a connection between the situations in the story and the student's personal problems. Because this reading should make them think about themselves. Another benefit of bibliotherapy includes teaching youth to deal with problems, not being teased by students, teasing peers, fear, changes in sexual life. Bibliotherapy can consist only of reading or it can be supplemented with discussion and game activities.

Where necessary, bibliotherapy primarily used existing texts. Literature devoted to a specific topic related to the child provided source materials. There are 2 forms of bibliotherapy, they are clinical and developmental forms.

Developmental bibliotherapy is a useful tool to use before problems arise. This bibliotherapy is often used by teachers or parents. Many therapeutic stories are written for specific individual needs. But practitioners also use it to promote psychological resilience when groups and communities face challenges. For example, therapeutic stories can play a role in creating inclusive classrooms and work communities.

Books and reading are an integral part of young people's lives. Bibliotherapy does not assign meanings and is not a form of direct instruction. It is an invitation and permission to open wisdom and insight to more children. Otherwise, it can be

extinguished. Why should bibliotherapy be started from primary grades? Coming to school, we need to instill in the minds of young people, who are getting their first ideas about society, the knowledge that will be the basis for their spiritual growth and becoming a perfect generation... it is important to promote it in accordance with our mentality.

The use of bibliotherapy in the formulation of PIRLS studies can be the most appropriate choice.

In conclusion, it can be said that bibliotherapy helps a person to work with himself, to understand himself, to correct his mistakes by himself. Bibliotherapy is a supportive psychotherapy, in which the skills of emotional regulation by reading a selected standard manual are acquired through behavioral therapy or cognitive therapy methods. One of the trends entering Uzbekistan is bibliotherapy. I believe that it is necessary to promote it widely to the elementary classes, to the public, and to increase the number of additional literature. Because a book that many people consider lifeless can prove to them how illiterate they are.

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THE IMPORTANCE OF A GLOBAL STANDARD OF GOOD AGRICULTURE PROGRAM (G.A.P) FOR THE PRODUCTION AND EXPORT OF ORGANIC PRODUCTS IN AGRICULTURE IN THE CONTEXT OF THE DIGITAL ECONOMY

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ANNOTATION

The article aims to improve the production of organic and environmentally pure environmentally friendly products in the production of quality food in the country's agriculture and the supply of the population. Proposals and recommendations are also made to further improve the introduction of international standards of the International Global Good Agriculture Program (G.A.P) in the export of organic and environmentally friendly products.

Key words: environmental products, organic products, import-export, international standards, Global Good Agriculture Program (G.A.P).

INTRODUCTION

It is important that Uzbekistan enters the world market and becomes a member of international trade organizations. Therefore, as a result of the intensification of Export-import Operations as a result of the integration of our country into international trade, today it is pouring the requirements for the provision of the world's population with quality and safe food products.

As a result of the implementation of important measures by the state in the field of growing organic products in agriculture and ensuring the quality and safety of food, our republic is a global Good Agriculture Program (G.A.P), which includes requirements for the quality and safety of food, the conditions for its production, preparation, procurement, processing, supply, storage, transportation and export. there are problems with the introduction of international quality standards.

LITERATURE REVIEW

In our country, the decree of the president of the Republic of Uzbekistan PF-5995 "On additional measures to ensure the compliance of quality and safety indicators of agricultural products with international standards" of May 18, 2020 and the analysis of the effectiveness of reforms in the field of Plant Quarantine of our President Shavkat Mirziyoev on September 21, 2020, issues of bringing.

Decree of the president of the Republic of Uzbekistan dated May 18, 2020 "On additional measures to ensure the compliance of quality and safety indicators of agricultural products with international standards" PF-5995 directly affects the growth of exports in our country on the basis of increasing the volume of organic products.

Today, according to the analysis of the International Institute of organic agricultural research, 172 of the world's more than 250 countries are engaged in organic agricultural cultivation. More than 90 countries have regulatory acts in the field of organic agriculture. For the cultivation of organic agricultural products, 2.3 million farms have been found to be occupied on 43.7 million hectares of land worldwide.

ANALYSIS AND RESULTS

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Today, organic agriculture is a world trend. In 2019, the trade turnover in international markets for organic agriculture was 96.7 billion. the euro amounted to 71.5 million. 2.8 million producers on an area of hectares were engaged in this type of activity.

The global organic products market has seen an average growth of 15% per annum over the past 5 years, with a trade turnover of 212 crore in 2022. The U.S. dollar (20% of the total world agricultural production) was projected to be.

Indeed, according to the Institute for organic agricultural research (FiBL), 103 countries around the world have adopted an organic agriculture law, with 6 countries developing a law.

The 2019 edition of the Institute for organic agricultural research (FiBL) and the International Federation for organic agricultural movement (IFOAM) on World Organic Agricultural Statistics lists the Republic of Uzbekistan among 10 countries in the world with favorable conditions for fruit production and notes that the Republic has favorable land areas for organic fruit production.

The increasing quality and safety requirements imposed on products in the world market require additional measures to strengthen the position of products grown in our republic in international markets.

The development of production, regulation and coordination systems in accordance with the requirements of the international standards of Organic and Global Good Agriculture Programm (G.A.P), improvement of quality and safety indicators of rural and forestry products, expansion of export geography, as well as increasing the possibility of full use of the organic product production potential of our country.

As stipulated by the decree, the development of production, regulation and coordination systems in accordance with the requirements of the international standards of Organic and Global Good Agriculture Programm (G.A.P) in our republic, improving quality and safety indicators of their products, expanding export geography, and also further increasing the possibility of full use of the organic product production potential of our country. In order to ensure the implementation of the decree, a program with a specific address was established by the agency "technical regulation". According to it, the implementation of global Good Agriculture Programm (G.A.P) in 155 enterprises and farms and organic international standards in 9 enterprises during the current year is established.

Today, 90 businesses and farms have included a package of documents pertaining to the Export Promotion Agency in an effort to cover costs associated with the introduction of the Global (G.A.P) and organic standards. In the cross section, the Global Good Agriculture Programm (G.A.P.) at enterprises established to implement the standard, address work is organized, and work in this direction is continued in 57 enterprises and farms.

CONCLUSION

Manufacturers in more than 124 countries around the world are certified by the GLOBAL (G.A.P) system, the total number of farms with this certificate exceeds 170,000. According to available data, the share of crop products (including fruits and vegetables) from the total number of certified farms is about 75%, the share of livestock products is 15%, and the share of aquaekins is 10%. In increasing the role of global (G.A.P) international quality standards in the production and export of organic products, it is necessary to pay attention to the following:

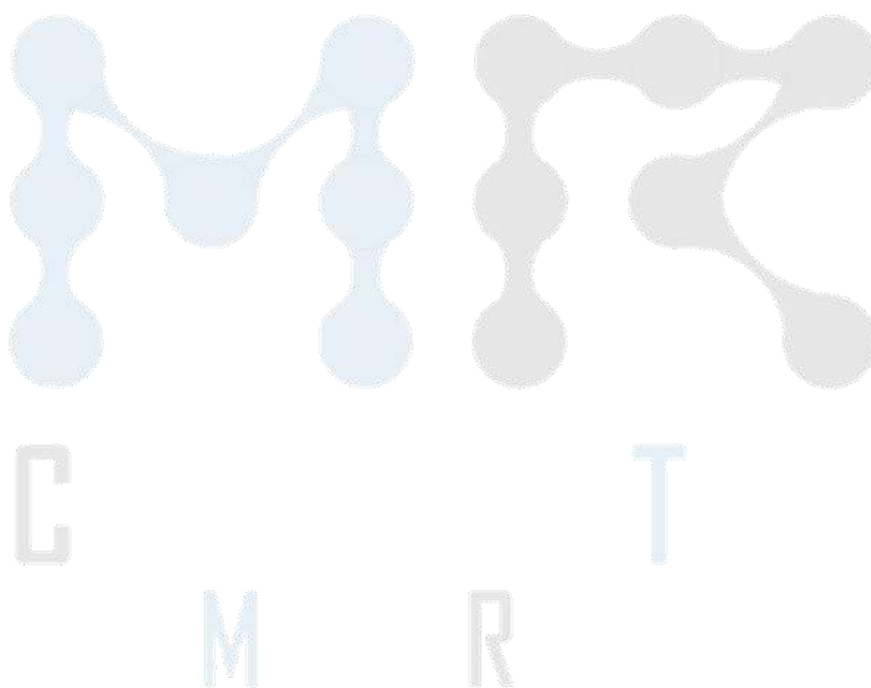
- wide introduction of Global (G.A.P) international quality standards in the formation and export of organic products in our country;
- it is in the cultivation of agricultural products that organic products increase the yield;
- to ensure timely formation of contracts related to the cultivation of organic products in agriculture, as well as to ensure the fulfillment of the terms of the contract;
- it is necessary to achieve a reliable partner in World Trade by supplying export products to agricultural enterprises on the basis of the broad introduction of international quality standards of Global (G.A.P).

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EFFECTIVE STRATEGIES FOR ENHANCING THE PROFESSIONAL-GNOSTIC
COMPETENCY OF ASPIRING FOREIGN LANGUAGE TEACHERS

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Annotation: The article discusses a number of technologies that contribute to students' professional competence development, including independent educational activity, which determines a future language teacher's ability to practically reorganize their own activities, resulting in an interlingual and intercultural language personality. The article examines a number of technologies that contribute to the development of students' professional competence, including independent educational activity, which determines a future foreign language teacher's ability to practically reorganize their own activities, resulting in an interlingual and intercultural language personality.

Keywords: Gnostic Competence, intercultural language personality, teaching foreign languages, competitiveness category, professional activities

Annotatsiya. Maqolada talabalarning kasbiy malakasini oshirishga yordam beradigan bir qator texnologiyalar muhokama qilingan. Shuningdek, bo'lajak chet tili o'qituvchisi uchun eng muhim jihatlardan biri bo'lgan tillararo va madaniyatlararo aloqalarga kirisha olish qobiliyatini mustaqil tarzda o'stirish borasidagi fikrlar-mulohazalar ham bayon etilgan. Shu bilan bir qatorda talabalarda gnostik kompetentlikni rivojlantirish borasidagi qarashlar ham tahlil qilingan va xulosalar chiqarilgan.

Kalit so'zlar. Gnostik kompetentsiya, madaniyatlararo muloqot, chet tillarini o'rgatish, raqobatbardoshlik, kasbiy faoliyat

Highly skilled professionals with comprehensive topic knowledge and the ability to handle challenging real-world situations should work in today's schools. The aforementioned arguments support the claim that, under two-level professional training settings, the process of forming a teacher's competitiveness should be ongoing and intentional in order for it to become the semantic strategic foundation of the higher pedagogical education system. The development of several components of competitiveness should receive careful consideration in the vocational training of foreign language teachers. It is axiomatic that a competitive foreign language teacher should not only be distinguished by a high level of foreign language communicative competence, but also knows how to most effectively organize the learning process in various types of educational institutions, i.e. to be methodically competitive. Due to the relevance of the topic, the formation of the methodological competitiveness of the future teacher of a foreign language requires special analytical consideration and solution. It is known that competitiveness is initially the concept of economic theory and is interconnected with the labor market, the demands of employers in the changing conditions of modern reality. Today, the competitiveness category has acquired an interdisciplinary status and is considered in the context of several scientific disciplines, including pedagogy, which studies the issues of training a competent specialist, capable and ready for professional competition, which in the future can ensure a high level of effectiveness of pedagogical activity. An analysis of the problem allows us to conclude that the competitiveness of a teacher is his ability and ability to most effectively carry out professional and pedagogical

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activities, which will radically distinguish him in the labor market in a favorable direction. A competitive teacher is a specialist who carries out professional activities at the highest possible level. Due to his/her interest in and drive to get the highest professional outcomes, a competitive graduate of a pedagogical university ought to be prepared for competition. Because of terms like "competitive environment," "competition," and so on, the concept of developing a specialist's competitiveness may not align with the principles of humanistic pedagogy. Nevertheless, contemporary circumstances demand that this process be carried out. We think that competition is healthy for any professional team and appropriate in certain contexts, which elevates it to a whole new level. It is important that the competition is civilized, which is a sign of professionalism. Today, the need to form a competitive future teacher of foreign languages, as never before, is due to an ever-increasing number of people who want to learn foreign languages with a wide variety of goals. The market for language educational services is constantly growing. At the same time, not every teacher of foreign languages is able to really teach a foreign language, and the results of training in a regular comprehensive school sometimes remain at a fairly modest level. This trend is due not only to the competitiveness of the teacher, but, nevertheless, in many respects depends on it. What ultimately is able to influence the maximum efficiency of the process of teaching foreign languages? The factors of this influence are multifaceted. Firstly, the level of language training should be noted. The teacher must have a deep knowledge of the modern, living foreign language, as in this case, he has something to convey to students, what to teach them. However, even in such cases, the learning process is not always effective, because the teacher cannot properly organize it - to conduct a lesson, select and rationally apply the most optimal methods, tools and technologies, i.e. does not own methodological competence. In addition, sometimes teachers with a high level of knowledge of the language and methods of teaching it cannot successfully carry out the learning process due to the lack of some personal qualities. It is the organic balance of a high level of language training, methodological competence, as well as personal qualities that makes the that a competitive foreign language teacher should not only be distinguished by a high level of foreign language communicative competence, but also know how to most effectively organize the learning process in various types of educational institutions, i.e. to be methodically competitive. Due to the relevance of the topic, the formation of the methodological competitiveness of the future teacher of a foreign language requires special analytical consideration and solution. It is known that competitiveness is initially the concept of economic theory and is interconnected with the labor market, the demands of employers in the changing conditions of modern reality. Today, the competitiveness category has acquired an interdisciplinary status and is considered in the context of several scientific disciplines, including pedagogy, which studies the issues of training a competent specialist, capable and ready for professional competition, which in the future can ensure a high level of effectiveness of pedagogical activity. An analysis of the problem allows us to conclude that the competitiveness of a teacher is his ability and ability to most effectively carry out professional and pedagogical activities, which will radically distinguish him in the labor market in a favorable direction. A competitive teacher is a specialist who carries out professional activities at the highest possible level. A competitive graduate of a pedagogical university should be ready for competition, due to his interest and desire to obtain the best professional results. Note that the very idea of creating a specialist's competitiveness is somewhat inconsistent with the canons of humanistic pedagogy due to the presence of categories such as "competitive environment", "competition", etc., however, the

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need for this process is dictated by modern reality. We believe that competition is natural in the conditions of any professional team and permissible in activities, which brings it to a whole new level. It is important that the competition is civilized, which is a sign of professionalism. Today, the need to form a competitive future teacher of foreign languages, as never before, is due to an ever-increasing number of people who want to learn foreign languages with a wide variety of goals. The market for language educational services is constantly growing. At the same time, not every teacher of foreign languages is able to really teach a foreign language, and the results of training in a regular comprehensive school sometimes remain at a fairly modest level. This trend is due not only to the competitiveness of the teacher, but, nevertheless, in many respects depends on it. What ultimately is able to influence the maximum efficiency of the process of teaching foreign languages? The factors of this influence are multifaceted. Firstly, the level of language training should be noted. The teacher must have a deep knowledge of the modern, living foreign language, as in this case, he has something to convey to students, what to teach them. However, even in such cases, the learning process is not always effective, because the teacher cannot properly organize it - to conduct a lesson, select and rationally apply the most optimal methods, tools and technologies, i.e. does not own methodological competence. In addition, sometimes teachers with a high level of knowledge of the language and methods of teaching it cannot successfully carry out the learning process due to the lack of some personal qualities. It is the organic balance of a high level of language training, methodological competence, as well as personal qualities that makes the future teacher of foreign languages to become methodologically competitive. I.V. Rakhmanov, analyzing the teaching of methods in pedagogical universities and at the faculties of foreign languages, believes that the domestic methodology of teaching foreign languages in high school has recently achieved quite significant successes. However, the researcher notes that in the context of organizing this discipline, there are a wide variety of shortcomings. Lecture courses according to the methodology may differ in some kind of abstractness. Lectures and seminars are not always informative and do not cause students a keen interest. They get only some idea of how to teach different sections of the language at school, but they don't get a clear idea of how to specifically structure teaching in a particular class and why. The construction of seminars is also controversial. Until now, there are no unified answers to the question of whether the seminars should be of a theoretical nature or serve to practically illustrate the development of various topics, or to be both theoretical and practical. In our opinion, just a course in teaching foreign languages is not enough to prepare a truly methodologically competitive teacher of foreign languages. As one of the conditions for achieving this goal is the design and implementation of a system of professional methodological training of the future teacher of foreign languages, which is of an integrated nature. This system is based on the principles of purposefulness, integrity, dynamism, the interconnectedness of theory with practice, the principle of complementarity. The methodology of teaching foreign languages is positioned as the core of the system. An important part of the methodological training system is extracurricular work on the methodology, including competitive and olympiad events, professionally-oriented trainings and training exercises, special seminars and master classes on specific issues of teaching foreign languages, providing communication with the most successful representatives of the profession, etc. Taking into account the logic of the principle of complementarity, it should be noted that the program to the "Methodology of teaching foreign languages", unfortunately, is limited only to a brief disclosure of the main issues of organizing the process of teaching foreign languages. "Behind the scenes" often remains many topical and

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novelty issues requiring a special emphasis. From these positions, it is necessary to develop and introduce special courses into the learning process, which is also a component of the methodological training of a future foreign language teacher. Important elements of the system of methodological training are also research work of students, teaching practice and teaching internship. Let us dwell on the indicated components in more detail.

Methods of research. "Methods of teaching foreign languages" is the basis for the formation of methodological competitiveness of future teachers of a foreign language. It is here that familiarization with the basic methodological concepts and categories takes place, the formation and development of professional skills and methodological thinking is carried out. The proper level of formed methodological competence depends on the organization of discipline. Lecture classes should be aimed not only at broadcasting the main theoretical questions, but also be accompanied by examples from real practice of teaching foreign languages, be built on the basis of the problematic method, which gives them a discussion character, makes students think about the issues being discussed, "live them". Seminars and workshops should represent the organic interaction of theory with practice. It is at seminars and workshops that preparations should be made for future practice. Here, various methods and means should be used that increase the effectiveness of practical exercises, for example, active teaching methods, the project method, quasi-professional tasks, etc. In the course of training, it is advisable to use a video collection of lessons of leading teachers of a foreign language, visiting the lessons of the best teachers, student practitioners, etc. All this will provide a solid basis for the formation of methodological competitiveness of future teachers of a foreign language and will become its starting point. Extracurricular work is an important component of the course "Methods of teaching foreign languages" and can be carried out in several directions. In the information and communication plan, it allows you to cover and discuss those issues that are not included in the program, but are important for the future methodological activities of a foreign language teacher. As a rule, these are various innovative developments, workshops on independent development of linguodidactic products, etc. The technology of the master class will be effective here, which are conducted by teachers of the department and invited specialists. You can organize special thematic lectures. Extracurricular work is also aimed at organizing competitive forms. An intra-faculty olympiad can be held here according to the methodology, which consists of various stages (electronic olympiad testing, competition for the best lesson summary, extra-curricular event, methodical analytical essay, etc.). Intra-faculty competitive events are considered as preparing students for similar events of a more serious level. From the point of view of the formation of the methodological competitiveness of the future teacher, professional trainings or training exercises have effective capabilities. Trainings have the right to conduct only a specialist trainer. As for the training exercises, any teacher can master the technology of their implementation. Training exercises are effective from various perspectives, as help students feel and "live through" professional situations, see some professional and methodological problems from the outside, and actively interact with representatives of the group. Research work is an integral part of the methodological training of the future teacher of a foreign language. It allows you to study and analyze individual issues, critically interpret them, and be creative in solving professional problems. Student research work is carried out as part of scientific circles and problem groups. Research results are reflected in term papers, degree projects, presented at scientific conferences. Research work in a university can contribute to the formation of interest in scientific work in the future. Teaching practice is the

main mandatory practical platform for the future teacher of foreign languages. It is during practice that the student sees various aspects of real pedagogical activity, applies the knowledge gained. It is important here to supervise the student, to help him in solving problems. Practice teaches to make independent decisions, to take the first steps in pedagogical activity.

Conclusion. As a general conclusion, we observe that methodological competitiveness is an essential component of the overall competitiveness of prospective foreign language teachers. Its formation should be purposeful and consistent throughout the methodological preparation process, which consists of an organic set of steps aimed at preparing prospective foreign language teachers for effective pedagogical action. It is also important to emphasize the role of a teacher. That he should be an example of a competitive specialist who understands how to engage and captivate.

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REVOLUTIONIZING COLOR PRINTING: INNOVATIONS IN
CHEMICAL METHODS

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Abstract:

This paper explores the transformative impact of chemistry on color printing through innovative methods. Focusing on the development of programmable color-changing materials, particularly colloidal quantum dots, the study highlights their potential to revolutionize the printing industry. By leveraging principles of molecular chemistry, nanotechnology, and materials science, chemists have engineered quantum dots with tunable optical properties, enabling precise and vibrant color generation directly within printers. This approach offers numerous advantages over traditional colorants, including enhanced color accuracy, eco-friendliness, and adaptability to emerging printing technologies such as additive manufacturing. While challenges remain, such as scalability and cost-effectiveness, the rapid progress in this field holds promise for redefining the way color is produced and perceived in the digital age.

Keywords: Color printing, Chemistry, Quantum dots, Nanotechnology, Materials science, Programmable color-changing materials, Additive manufacturing.

Аннотация.

В этой статье исследуется преобразующее влияние химии на цветную печать с помощью инновационных методов. Сосредоточив внимание на разработке программируемых материалов, меняющих цвет, в частности коллоидных квантовых точек, исследование подчеркивает их потенциал совершить революцию в полиграфической отрасли. Используя принципы молекулярной химии, нанотехнологий и материаловедения, химики разработали квантовые точки с настраиваемыми оптическими свойствами,

обеспечивающими точную и яркую генерацию цветов непосредственно в принтерах. Этот подход предлагает множество преимуществ по сравнению с традиционными красителями, включая повышенную точность цветопередачи, экологичность и адаптируемость к новым технологиям печати, таким как аддитивное производство. Хотя проблемы, такие как масштабируемость и экономическая эффективность, остаются, быстрый прогресс в этой области обещает пересмотреть способы создания и восприятия цвета в эпоху цифровых технологий.

Ключевые слова: Цветная печать, Химия, Квантовые точки, Нанотехнологии, Материаловедение, Программируемые цветоизменяющие материалы, Аддитивное производство.

Introduction.

In the realm of printing, the pursuit of vibrant and accurate colors has been an ongoing quest. From the earliest days of printing to the present, advancements in technology have continually pushed the boundaries of what is possible. In recent years, chemistry has emerged as a pivotal player in revolutionizing color production for printers, offering innovative methods that promise to redefine the printing industry.

Traditionally, color printing has relied on a combination of basic colors, typically cyan, magenta, yellow, and black (CMYK), to generate a wide spectrum of hues. However, limitations in this approach often result in discrepancies between the intended and final colors, leading to suboptimal print quality. Moreover, conventional colorants can be expensive, environmentally unfriendly, and prone to fading over time.

In response to these challenges, chemists have been exploring alternative approaches to color production, leveraging the principles of molecular chemistry, nanotechnology, and materials science. One such groundbreaking method involves the development of programmable color-changing materials, which enable dynamic color generation directly within the printer.

Methodology:

1. Quantum Dot Synthesis:

- Chemical synthesis of quantum dots involves controlled reactions to produce semiconductor nanoparticles with desired properties.

- Precursor molecules, often containing elements such as cadmium, selenium, or sulfur, are dissolved in a suitable solvent.

- Reaction conditions, including temperature, reaction time, and precursor concentration, are carefully controlled to achieve desired nanoparticle size and composition.

- Techniques such as hot-injection, solvothermal, or microwave-assisted synthesis may be employed to facilitate nucleation and growth of quantum dots.

- Characterization techniques such as transmission electron microscopy (TEM), X-ray diffraction (XRD), and absorption/emission spectroscopy are utilized to analyze the size, shape, and optical properties of synthesized quantum dots.

2. Ink Formulation:

- Quantum dots are incorporated into printable ink formulations to create colorants suitable for use in printers.

- Various ink components, including solvents, binders, dispersants, and stabilizers, are carefully selected to achieve uniform dispersion and stability of quantum dots within the ink.

- Optimization of ink properties, such as viscosity, surface tension, and drying rate, is performed to ensure compatibility with printing processes and substrates.

- Additives may be introduced to enhance ink performance, such as improving adhesion, reducing clogging, or enhancing color fidelity.

- Ink formulations are tested for printability, color accuracy, durability, and environmental impact through laboratory experiments and pilot-scale printing trials.

3. Color Printing Process:

- Quantum dot-based inks are loaded into specialized printers equipped with appropriate printheads and color management systems.

- Printing parameters, including resolution, droplet size, and color profile, are optimized for the specific printing application.

- Quantum dots are selectively deposited onto printing substrates, such as paper, film, or fabric, using inkjet, offset, or screen printing techniques.

- The printing process may involve multiple ink layers to achieve desired colors and shades, with precise registration to ensure accurate color reproduction.

- Printed samples are evaluated for color accuracy, uniformity, sharpness, and durability using colorimetric analysis, visual inspection, and accelerated aging tests.

- Performance metrics, such as color gamut, lightfastness, water resistance, and abrasion resistance, are assessed to determine the suitability of quantum dot-based color printing for various applications.

Results:

Chemistry has played a pivotal role in revolutionizing color printing through the development of programmable color-changing materials, particularly colloidal quantum dots. These nanoscale structures exhibit unique optical properties, including size-dependent fluorescence and tunable emission spectra, allowing for precise color generation. By incorporating quantum dots into printable ink

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formulations, vibrant and stable colors can be produced directly within printers, offering numerous advantages over traditional colorants.

At the heart of this innovation are specially engineered nanoparticles, known as colloidal quantum dots. These nanoscale structures exhibit unique optical properties, including size-dependent fluorescence and tunable emission spectra. By carefully controlling the size and composition of quantum dots, chemists can precisely tailor their optical properties to achieve desired colors with unprecedented accuracy.

Methodology	Quantum Dot Synthesis	Ink Formulation	Color Printing Process
Description	Chemical synthesis of quantum dots with precise control over size and composition.	Incorporation of quantum dots into printable ink formulations.	Printing process utilizing quantum dot-based inks to produce vibrant and stable colors directly within printers.
Advantages	Tunable optical properties, high color accuracy, eco-friendliness.	Improved print resolution, compatibility with additive manufacturing.	Dynamic color generation, customizable coloration, reduced environmental impact.
Challenges	Scalability, cost-effectiveness, long-term stability.	Uniform dispersion of quantum dots, optimization of ink properties.	Standardization of printing processes, market adoption, competition with traditional methods.

The process begins with the synthesis of quantum dots using solution-phase chemistry. Through a series of controlled chemical reactions, precursor molecules are transformed into semiconductor nanoparticles with precisely defined properties. Crucially, these properties can be fine-tuned by adjusting reaction parameters such as temperature, solvent composition, and reaction time.

Once synthesized, the quantum dots are incorporated into a printable ink formulation, where they serve as the primary colorants. Unlike conventional pigments or dyes, which absorb specific wavelengths of light to produce color, quantum dots emit light of a particular color when excited by an external energy source, such as ultraviolet (UV) or visible light. This mechanism, known as photoluminescence, allows for vibrant and stable coloration with minimal energy consumption.

What sets quantum dot-based color printing apart is its versatility and adaptability. Since the optical properties of quantum dots depend on their size and composition, it is possible to create a virtually limitless array of colors by simply varying these parameters. Moreover, quantum dots can be engineered to exhibit desirable features such as high color purity, brightness, and photostability, making them ideal candidates for demanding printing applications.

In addition to their remarkable color-producing capabilities, quantum dots offer other distinct advantages over traditional colorants. For instance, they are inherently more eco-friendly, as they can be synthesized from abundant and non-toxic materials such as cadmium-free semiconductor compounds. Furthermore, their small size and uniform dispersion within the ink formulation contribute to improved print resolution and image quality.

The impact of this innovative approach to color printing extends beyond the realm of traditional printing technologies. With the advent of additive manufacturing techniques such as 3D printing, there is growing interest in integrating quantum dot-based coloration methods into emerging fabrication processes. By incorporating programmable color-changing materials into the additive manufacturing workflow, it becomes possible to produce custom-colored objects with unprecedented precision and efficiency.

As with any emerging technology, there are still challenges to overcome before quantum dot-based color printing becomes mainstream. Issues such as scalability, cost-effectiveness, and long-term stability require further research and development efforts. Nevertheless, the rapid progress in this field holds great promise for transforming the way we perceive and interact with color in the digital age.

Discussion:

The innovative approach of utilizing quantum dots for color printing represents a significant advancement in the field. Quantum dots offer unparalleled versatility and adaptability, allowing for the creation of a wide spectrum of colors with high accuracy and brightness. Furthermore, their eco-friendliness and compatibility with emerging printing technologies make them a promising candidate

for future applications. However, challenges such as scalability, cost-effectiveness, and long-term stability need to be addressed through further research and development efforts.

In conclusion, chemistry is driving a paradigm shift in color printing, offering innovative solutions that challenge conventional methods and unlock new possibilities. By harnessing the unique properties of quantum dots and other advanced materials, chemists are paving the way for a future where color reproduction is not just accurate but also dynamic and customizable. As these technologies continue to mature, the boundaries of what is achievable in color printing will continue to expand, ushering in a new era of creativity and expression.

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FACTORS OF FORMATION OF CRITICAL THINKING IN FUTURE MODERN TEACHERS

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Annotatsiya: Ushbu maqolada tanqidiy fikrlash ko'nikmasi haqida mazmun –mohiyati haqida xorijiy va mahalliy olimlarning qarashlari atroflicha izohlangan. Tanqidiy fikrlashni ko'nikmasini bo'lajak o'qituvchilarda shakllantirish omillari, bilish va o'rganish faoliyatining tanqidiy fikrlash ko'nikmasi bilan bog'liqlik jihatlari yoritib berilgan.

Abstract: In this article, the views of foreign and local scientists about the content and essence of the skill of critical thinking are detailed. Factors of formation of critical thinking skills in future teachers, aspects of knowledge and learning activities related to critical thinking skills are explained.

Аннотация: В данной статье подробно изложены взгляды зарубежных и отечественных ученых на содержание и сущность навыка критического мышления. Объяснены факторы формирования навыков критического мышления у будущих учителей, аспекты познания и учебной деятельности, связанные с навыками критического мышления.

Kalit so'zlar: Innovatsion, kompetensiya, ta'lim-tarbiya jarayoni, fikrlash, tanqidiy fikrlash, mantiqiy fikrlash, vaqt, izn, rang-baranglik, qadrlash, qimmatlilik.

Key words: Innovation, competence, educational process, thinking, critical thinking, logical thinking, time, resolution, variety, evaluation, value.

Ключевые слова: Инновация, компетентность, образовательный процесс, мышление, критическое мышление, логическая мышление, время, разрешение, разнообразие, оценка, ценность.

Developments taking place in the material and spiritual spheres of modern social existence are reflected in changes in human thinking, thinking, and worldview. Developing the cognitive activity of students in organizing the educational process, improving the ability of independent and critical thinking, preparing future teachers for modern, innovative activities remains an urgent problem.

Interactive methods have been created as a result of many scientific and practical works on the use of modern pedagogical technologies that guarantee efficiency in the educational system of developed countries. , we can observe that the development of the aspects of independent problem solving was the basis for the formation of abilities such as being able to look at every change with critical thinking.

The ability to think critically is one of the most important competencies that students should have. Before we talk about ways to develop critical thinking skills, let's talk about what thinking is. Thinking is carried out during the lesson, students can ask questions, interpret

and analyze the topics they encounter, and expand their knowledge to a new field during the discussion [2]. Thinking is a psychological process of thinking or reasoning to solve a problem. The term critical thinking has been studied by many Uzbek scientists and its meaning has been revealed, and several definitions are given in the "Explanatory Dictionary of Pedagogy": "Critical thinking is the given ideas (information) perceive the existence of ideas (information) that deviate from the circle and achieve this; creating new dimensions in expanding information on the subject; searching for relevant problems and finding their optimal solutions. Critical thinking is a complex thinking process that begins with assimilation of information and ends with conclusion. Critical thinking is a very important symbol of an open and democratic society. Critical thinking is the process of turning ideas and possibilities into a complex creative whole, changing the essence of information and concepts, and re-observing them. Critical thinking is a complex thinking process. Critical thinking is the result of a properly structured pedagogical process, in which the goal of teaching is to develop critical thinking. Critical thinking is the presence of ideas that deviate from the scope of given ideas; see new dimensions in the topic; the distinction between problem-solving and problem-solving, as well as between ideas expressed in argumentative writing or discussion" [2]. Critical thinking is an activity that is learned in an integrated way with educational processes and everyday life.

World scientists have also conducted a lot of research on the skill of critical thinking and give their personal views on its role in the educational process. According to E.A. Khodos and Butenko: "Critical thinking - as a set of metacognitive skills, looks for logical errors, studies the basis of knowledge, identifies hidden assumptions and misconceptions, stereotypes, forms alternative ways to solve dilemmas (problems) also evaluates the correctness and reliability of judgments" [3]. Psychologists R. Ennis and E. Norris conducted deep and conditional studies in the field of critical thinking, which they interpreted as a set of skills and abilities such as rational thinking, self-control of the thinking process, and the ability to follow laws [4]. E.M. Richard's definition of learning and thinking is based on the results of research in the field of cognitive psychology, philosophy and multimedia culture education [5].

The main results of this research are:

- ✓ The learning process will be more successful only when using different district strategies for the development of thinking activity. Such a strategy makes the learning process more conscious [6].
- ✓ Learning and critical thinking develop when students have opportunities to apply new knowledge to specific tasks[7]
- ✓ Learning is strengthened only when it relies on my student's previous knowledge and experiences. These provide an opportunity to connect students' existing knowledge with new information (Ros, 1990).
- ✓ Critical thinking and learning can be realized only when educators understand and appreciate the diversity of ideas and experiences. Critical thinking does not occur in a single-right-answer mentality.

Developing critical thinking takes time. First of all, it is necessary to get acquainted with the set of specific educational conditions and the mechanisms that help to form it.

They are:

- ✓ to give students an opportunity to think;
- ✓ acceptance of various ideas and opinions;

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- ✓ ensuring the student's activity in the educational process;
- ✓ to convince my students that they will not be laughed at;
- ✓ instill a sense of confidence in each student's ability to think critically;
- ✓ it is necessary to appreciate the occurrence of critical thinking. Characteristics such as logical thinking, the ability to express one's thoughts freely, and not being afraid of speaking in public can also be blocked in students due to certain situations. We can observe such situations mainly in cases of blind memorization of a topic, lesson processes falling into the same pattern or situations based on memorization. The main task of applicants studying social and humanitarian sciences relies on memorizing and remembering the given information, and we observed that such students face problems with free expression of their thoughts when they enter a higher educational institution. This is exactly the kind of student

There are aspects that we pay attention to during the formation of critical thinking skills and its formation:

- to gain self-confidence and explain the value of one's opinion and ideas;
- active participation in the educational process;
- listen carefully to different opinions;
- to be ready to form their own judgments and to return from them.
- it should be explained to the students that every given opinion is very valuable and valid.

Factors necessary for the formation of critical thinking:

1. Time.
2. Permission.
3. Diversity.
4. Activity.
5. Risk taking.
6. Appreciation.
7. Value.
8. Mutual exchange of ideas[8].

Time. Critical thinking takes time. Creating one's own facts takes a certain amount of time to archeologically examine previous ideas, imaginations, encounters, and experiences. A child cannot speak immediately after birth, it takes some time for the formation of this ability, critical thinking skills are not a process that can be formed in one explanation, it takes time to adapt to it, to form one's own approach.

Permit Allowing for critical analysis is based on the principle of mindfulness. It is necessary to clarify the difference between analysis and exaggeration. Critical thinking is the process of expressing one's thoughts while respecting another person's opinion, given in a friendly and productive environment where there is a genuine purpose for thinking.

Diversity. The human mind can embody unlimited knowledge and ideas. The existence of diverse opinions and ideas belies the notion that there is a single answer. If there is only one answer, students should be taught the tools, methods, and forms of transformation used to arrive at that answer.

Activity. Critical thinking is one of the skills that requires students to be active. It is necessary to prevent students from forming the concept that only the teacher is responsible for the lesson process. Active participation of students in educational processes and arousing a sense of

responsibility for the learning process gives the expected effective result in the process of critical thinking.

Risk taking. When we are forming the ability to think freely, it is mainly based on risk-taking and during this process, it is necessary to accept as natural that unreasonable and stupid ideas can be expressed by the students, and this requires the explanation of the teacher and the pedagogue.

Appreciation. In the process of organized thinking, students respond with a sense of responsibility only when they understand that their ideas and concepts are valued by the teacher. In order to show that students appreciate their thinking process, they try to prove it to be true and begin to take its results seriously.

Expensiveness. Instilling a sense of self-confidence in each student at the beginning allows him to speak about his opinion with a steady step without any fears. People who read a lot and can analyze their works usually have a high thinking ability, their thoughts are fluent, and the words of such people are highly valued.

The process of critical thinking is a process that occurs during the exchange of controversial ideas, debates, and during these processes there is a positive competitive cooperation between students, which in turn is also the exchange of ideas. is held as

In conclusion, we can say that before improving the technology of developing students' critical thinking skills, we have considered the importance of its formation and what factors we should pay attention to in the process of its formation. The appearance of factors that shape critical thinking in future teachers can be a prelude to their steps into the future.

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MODERN METHODS OF EXTRACTING NUCLEIC ACIDS FROM BIOLOGICAL
OBJECTS

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Abstract. The study of nucleic acids began many years ago, and each scientist used unique methods in the study. To study nucleic acids, it is necessary to isolate them first. For this reason, several DNA or RNA isolation methods have been created, each of which has its own advantages. This article teaches the most convenient, easiest, most effective methods of extracting nucleic acids.

Key words: Nucleic acids, extracting, isolation, biopolymer, white blood cell, cell lysis, elution, cleaning, SDS, centrifugation, chromatography, salting method

Introduction. Nucleic acids are high-molecular biopolymers with a molecular weight from 250 to 1.2×10^5 kDa. Nucleic acids are the only macromolecule that stores information about the structure of a living organism and transmits it to the next generation. A person reading about nucleic acids will certainly try to see them and study them more deeply. For this reason, the isolation of nucleic acids from living cells is currently the first task facing molecular biologists. The extraction of nucleic acids from living objects in its pure form presents some problem. Because nucleic acids bind to protein in eukaryotes, forming a complex complex compound. Even when isolating nucleoproteins, it will be necessary to separate the protein from the DNA, which is the product of nucleotide polymerization.

The isolation of nucleic acids at different times had its own methods, and with them its own difficulties. For example, if laboratory personnel consisting of representatives of different fields are going to work with nucleic acids, then geneticists from a Medical center require DNA extraction from blood to study a particular syndrome. In another corner of the world, a lab technician wearing headphones under loud music is trying as carefully as possible to extract DNA from canned meat. Representatives of criminology tried to isolate DNA through a thin sample taken from the suspect's fingernail.

Analysis and results. The most important event in the history of the study of DNA was the discovery of its structure by Watson and Crick in 1953. However, in fact, the history of the relationship between scientists and nucleic acids began much earlier — in 1869. A young Swiss doctor, Fredrich Mischer, in the process of studying proteins, discovered substances that are not similar in composition to proteins, precipitating when acid is added and dissolving again when alkali is added. These substances isolated from the nucleus of leukocytes, Mischer called nucleins (inside the nucleus).

Initially, Mischer needed to extract leukocytes from the blood serum. He solved this problem with the help of dilute sodium sulfate. The solution was left for 1-2 hours, precipitated and observed under a microscope. Mischer washed the cell with hydrochloric acid diluted 6-10 times in cold conditions for several weeks to separate the cell nucleus from the cytoplasm. After

making sure that the cytoplasm was completely washed out with the help of an iodine-stained solution, Mischer applied an aqueous solution of ether to the nuclear mixture to dissolve the oils and membranes of the nucleus. He noticed that a certain part of the core accumulates, and the rest goes into solution, and then, under the action of alkali on the mixture, they began to stand translucent. Finally, when acetic or hydrochloric acid is added, sedimentary nucleic acids, similar to cotton fibers, are released. Later, Richard Altman, a student of Mischer, gave these substances the name nucleic acids.

In 1957, Meselson and Stahl developed a different protocol for DNA extraction, in which density gradient centrifugation was used to isolate DNA from *E. coli* bacteria. In 1988, Miller and colleagues used proteinase K for DNA extraction, an enzyme that cleaves peptide bonds in proteins and promotes their separation from nucleic acids. And even later, Sambrook and Russell proposed one of the most popular methods of DNA extraction using phenol-chloroform and isoamyl alcohol.

The isolation of nucleic acids is divided into three main stages

- **Cell lysis** – physical or chemical. So, if we isolate nucleic acids from the leaves of a plant, then first we need to wipe them (physically disrupt the integrity of the cells), and then use a special buffer. Heating may also be needed (to accelerate lysis) or centrifugation of samples (for separation into fractions). Special buffers are used as a chemical agent for lysis. They may contain buffer salts (e.g. Tris-HCl) and ionic salts (e.g. NaCl) to regulate the pH and osmolarity of the lysate. Sometimes detergents (such as Triton X-100 or SDS) are added to destroy the cell membrane.

- **Cleaning.** After the destruction of the cell and nuclear membranes, it becomes necessary to remove impurities — other substances that make up cells. The addition of concentrated saline solution leads to precipitation, which contains proteins, lipids and sugars. Remember that if they stay together with DNA, they will do a lot of harm during PCR and/or sequencing. Nucleic acids remain in solution, and centrifugation contributes to their better separation from the sediment. The removal of proteins is also helped by the addition of protease, which cleaves them and allows them to be separated from nucleic acids. So you can get rid, for example, of histone proteins, on which DNA is "wound" in chromosomes.

- **Elution.** Now the nucleic acids must be removed from the solution. Here, knowledge of the chemical properties of the acids we are interested in is useful — they are soluble in water, but not in alcohol. It turns out that once we add ethanol or isopropyl alcohol, a precipitate will appear — this is our DNA (or RNA). The precipitate can be separated from the solution by centrifugation. After we remove the alcohol, and that's it.

When isolating nucleic acids, it is also important to separate DNA from RNA. To do this, the resulting sample of nucleic acids can be treated with ribonucleases leading to RNA degradation — then whole DNA will remain in the solution; or add deoxyribonucleases — so we get RNA.

DNA yield can be estimated using various methods: optical density determination, electrophoresis in agarose gel or using fluorescent DNA-binding dyes. All three methods are convenient, but have different requirements in terms of the necessary equipment, differ in ease of use and calculations.

The optical density is measured at 260 nm (A_{260}). At this wavelength, DNA absorbs light most strongly, and the resulting number allows us to estimate the concentration of the solution. A strong absorption of about 230 nm may indicate that organic compounds or chaotropic salts are present in the purified DNA. The ratio of values obtained at 260 nm and 230 nm shows the

contamination of DNA with salts. The concentration and yield can be determined after the completion of gel electrophoresis by comparing the intensity of the glow of the strip with the DNA of the sample with the intensity of the standard sample (marker).

There are three basic principles underlying the different allocation methods, but this is not all that unites them. Many approaches are also similar in the composition of the "actors". Here are the most common:

- tris buffer - controls pH, interacts with lipopolysaccharides and increases permeability, and also lyses the cell membrane;
- EDTA — works as a chelating agent, blocking the need for a DNase enzyme cofactor, thereby preventing DNA degradation;
- SDS — solubilizes proteins of nuclear and cell membranes;
- NaCl — neutralizes the negative charge of DNA, stabilizes the molecule;
- MgCl₂ is an agent that protects and stabilizes DNA by blocking the negative charge of lipoproteins;
- phenol — precipitates protein impurities.

Several modern methods of nucleic acid isolation have been created. One of them is the chromatography method. Probably no one expected that this method, originally used to separate plant pigments, would later become the basis of chemical, biological experiments. One is new methods based on the addition of additional fundamentally different stages appear in the second half of the XX century. And Grant Henry Lathe and Colin Ruthven discovered the "arms race" among molecular biologists and geneticists in 1955. They start using exclusive, or gel-filtering chromatography (SEC, size-exclusion chromatography). First, the column was filled with starch gel, later dextran, and then the turn came to the now familiar agarose and polyacrylamide (Tab. 1).

The next method was ion exchange chromatography (IEC). In 1956, E.A. Peterson and G.A. Sober published an article in which they talked about the application of the method for working with proteins. Diethylaminoethyl cellulose was used as a matrix inside the column, which binds to DNA molecules and holds them for a long time, while proteins, lipids, metabolites and RNA are washed out by a salt buffer (Tab. 1).

The centrifugation method is also used in the separation of nucleic acids. The method created by Svedberg is now widely used to separate the desired part or molecule of a cell. The capacity of modern centrifuge machines also exceeds 200,000 g. Under the influence of such a force, any molecule can be precipitated. Nucleic acids are no exception. During the centrifuged isolation of nucleic acids from all living organisms, it is necessary to prepare their extract (homogenate). The homogenate is placed in a centrifuge in a filtered state. During centrifugation, successive cell components are deposited. Nucleoproteins remain in the supernatant. The addition of CsCl leads to the fact that DNA molecules are deposited only to the position in the test tube at which the gradient density will be equal to its own density, and remain there, forming a strip. After the formation of the DNA strip, it is removed from the centrifuge tube. The CsCl itself can be removed from the sample by DNA deposition with ethanol. The main advantage of this method is the possibility of separating plasmid DNA from genomic DNA due to their differences in nucleic acid compactification. When visualized with the addition of ethidium bromide, plasmid DNA is easily distinguished from genomic DNA.

Although the centrifugation method has many positive aspects, DNA extraction will require 16 hours of centrifugation with 60,000 rotation per minute. It's been a while long. (Tab. 1)

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Another simple way to extract DNA is by alkali extraction. In 1979, in the journal Nuclear Acids Research, J. Doli and H.C. Birnboim published an article describing the alkaline extraction of nucleic acids.

But this method has now been proven to be convenient in the separation of plasmid DNA. NaOH solution and SDS (sodium salt of laurylseric acid) are used to lysis the cell. In doing so, NaOH serves to degrade cell membranes as a whole, while SDS serves to defrost fats in the cell and cell membranes (Tab. 1).

SDS Detergent is found in soap, shampoo and toothpaste. For this reason, this method can also be used at home.

Table 1. Advantages and disadvantages of nucleic acid extraction methods

Extraction method	Objects	Advantages	Disadvantages
Chromatography SEC	Any	Easy to use, relatively fast	Relatively low yield and quality of NA. Cannot effectively separate DNA from RNA
Chromatography IEC	Any	Easy to use, relatively fast. Separates DNA from RNA well	Relatively low yield and quality of NA
Centrifugation + EtBr-CsCl	Any	Can effectively isolate plasmids as well as bacterial genomic DNA	Toxic reagents, expensive and time-consuming. The purity and yield of NA are relatively small
Alkaline	Preferably bacteria	Better for isolating plasmid DNA	Contamination of the output solution of chromosomal DNA
Spin columns	Any	Fast, simple and safe. Filters can be changed and genomic DNA can be separated from plasmid or RNA.	Expensive, relatively low yield
Salting out	Blood, cell culture, homogenate	Low-cost, safe reagents	May take a long time

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Extraction method	Objects	Advantages	Disadvantages
CTAB	Plants	An effective method for working with plant tissues rich in polyphenols, etc.	Time-consuming method, possible combination with other approaches using toxic reagents
Enzymes	Any	Simple, safe, gives good quality and NA output	More expensive for consumables, sometimes requires a long incubation
Phenol-chloroform	Any	Good yield and NA quality	Toxic reagents, duration
Magnetic particles	Any	Simple, fast, accurate, safe	Setting up a magnetic device is required
Glass Beads	Any	Can be combined with non-toxic buffers, good yield	Contamination of the final eluate with beads
Chelex-100	Any	Fast, economical, safe	Does not remove impurities enough for further use using many other methods
Intelligent extraction	Any	No need for a lot of equipment, non-toxic, good yield	
Enzymatic temperature-dependent	Any	Fast, inexpensive	For a small sample quantity
Filter paper	Any	Economical, simple, safe, good output	Does not work with small volumes

Using the alkaline extraction method, it is easier to extract nucleoproteins even from plants such as bananas, tomatoes, onions; even from animal tissues such as liver, spleen, etc. For example, to extract DNA from a banana, 10-20 g of banana is crushed in a porcelain cup and 100 ml of an aqueous solution of liquid soap and NaCl are added to it. The mixture is left for a few minutes. In

this case, nucleic acids are released into the solution due to the dissolution of cell membranes and the disintegration of the nuclear envelope. The solution is filtered. To separate the nucleic acids from the filtrate, they are slowly poured into ethanol or isopropyl alcohol cooled to 0 °C. A little later, a layer of nucleic acids forms on the alcohol. (Pic.1)

To isolate nucleoproteins, you can also use large cells (bananas, tomatoes) or large nuclei (yeast).



Picture 1. DNA of bananas

The subsequent addition of potassium acetate leads to the renaturation of DNA molecules and the accidental formation of long networks, as well as their joint precipitation together with SDS and proteins.

In 1988, S.A. Miller, D.D. Dykes and H.F. Poleski described a non—toxic approach to DNA isolation - the salting method. It does not involve either chloroform or ethidium bromide, which are poisonous to humans and require additional precautions when working. The sample is incubated in a salt buffer that promotes the precipitation of protein molecules from the solution. Subsequent centrifugation makes it possible to separate the protein precipitate from the DNA in solution. The method is used when working with blood, cell culture, tissue homogenate. It is simple, cheap and safe. However, since the effective removal of protein molecules requires a long incubation — say, a whole night - it is not suitable for fast work.

A completely different approach was the use of silica filters in spin columns. Spin columns are modified test tubes in which the volume of the test tube is separated by a silicate filter. It has already been shown that DNA binds to silicate in the presence of holotropic salts; this principle was used in the process of creating spin columns. The new approach involved simple and affordable materials and allowed to isolate nucleic acids of sufficiently high quality. For the first time, the use of silica (silicate) when working with DNA was described in 1979 by B. Fogelstein and D. Gillespie. They showed that in a buffer solution containing NaCl, nucleic acids can bind to the silica surface. Accordingly, DNA molecules "anchored" in this way can be washed from impurities and further "detached" from the carrier using an eluting buffer or distilled water.

The essence of the method is the binding of nucleic acid molecules with immobilized silicon in a column. The sample is first subjected to lysis (and everything is standard here), and then the lysate interacts with silicon in a spin column. To pass the lysate through a silicon filter, the tube is centrifuged. Then the washing steps follow, then the nucleic acids are eluted. A significant advantage of the method now is the ability to use different filters that are able to separate genomic and plasmid DNA, as well as RNA from each other.

Isolation of DNA from plant material using CTAB buffer. CTAB buffer is added to the sample after lysis, which forms complexes with nucleic acids after incubation. After centrifugation, the bound nucleic acids are precipitated, and the supernatant with the remaining cellular components can be removed. This is followed by the stages of washing with chloroform and ethanol. The isolated nucleic acids form a visible precipitate at the bottom of the tube, the supernatant is removed.

Isolation of nucleic acids using magnetic particles. Magnetic particles are added to the cellular lysate, on the surface of which nucleic acids are adsorbed. The creation of a magnetic field by an external source leads to the concentration of magnetic particles at the bottom of the tube, after which the remaining lysate is removed. After washing and incubation, the nucleic acids are separated from the magnetic particles and can be transferred to another tube.

For the first time, anion exchange resins were used to isolate DNA from forensic samples - semen and dried blood stains. The presented approach turned out to be simple and fast, did not require repeated transfer of samples from test tube to test tube and, accordingly, reduced the likelihood of loss of valuable biomaterial.

Chelex 100 is a styrene copolymer with divinylbenzene, containing iminodiacetate as chelate groups for binding polyvalent metal ions. The principle of operation is the ability of anion exchange resin to bind charged cellular components (as well as enzymes capable of destroying nucleic acid or interfering with further PCR), leaving nucleic acids in solution. That's it! Thus, a typical protocol for obtaining DNA or RNA includes: adding a resin suspension to the sample, boiling to release nucleic acids, separating the nucleic acid solution from the resin

Conclusion. Extracting DNA from living organisms is a complex process, all based on three basic rules: cell membrane degradation, protein degradation, and nucleic acid separation from the rest of the components. The difference between them is only in the number of nucleotides when extracting nucleic acids from living organisms cleanly. The DNA of bacteria is extremely high in the G-C pair, and a person has a high number of A-T pairs. Many methods have been used to date to isolate nucleic acids, each of which is important. The longer it takes to extract DNA, the cleaner it will separate. The gradual emergence and development of PCR, sequencing and other methods of working with nucleic acids led to the natural evolution of isolation approaches. One way or another, they were aimed at reducing the cost and labor of isolation, using non-toxic reagents and increasing the quality and quantity of nucleic acid yield.

In parallel with the approaches to the isolation of nucleic acids, other areas of the arsenal of molecular biology, such as sequencing, PCR and electrophoresis, have also developed. It became increasingly clear that pure source material was needed for high-quality results, and the evolution of methods for isolating nucleic acids continued. The first methods have not gone into the shadows, they have been modified, improved, and only for some specific tasks are inferior to more modern ones in the purity of the final product and performance.

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SOME CLINICAL AND LABORATORY FEATURES OF THE COURSE OF SEROUS MENINGITIS OF ENTEROVIRUS ETIOLOGY IN CHILDREN

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Abstract. This article examines an examination of 16 patients aged 1 to 14 years with a laboratory confirmed (cerebrospinal fluid PCR) diagnosis of enterovirus meningitis. All patients, depending on age, were divided into 3 groups. The main group of cases was made up of school children. The course of the disease in all cases is benign with a short febrile period, a short period of clinically pronounced meningeal syndrom.

Key words: enterovirus infection, children, meningeal symptoms, cerebrospinal fluid.

Relevance. In the structure of infectious diseases in children, meningitis is the most common form of damage to the central nervous system (Kuprina N.P. et al. 2002). The incidence of meningitis and meningoencephalitis in Uzbekistan is an urgent problem. In connection with the development of high technologies, with the introduction of molecular diagnostics, the possibilities of etiological decoding have increased, and, accordingly, the possibilities of diagnosis and treatment have increased. (Musabaev E.I., Kasymova R.N. 2008). Among them, serous meningitis (SM) accounts for more than half. The frequency of SM among children is about 65% (Dick G.A. et al. 2002). The etiological structure of SM is different, according to most researchers, in 50-60% of cases, the etiological causes are enteroviruses. Remaining poorly controlled in healthcare practice, enterovirus infection (EVI) occupies one of the leading places among infectious diseases that occur with CNS damage. A feature of this infection is the virus carrier, which constantly causes the occurrence of sporadic forms and mass diseases, which, like the incidence, is observed not only among young and older children, but also among adults (Eshmolov S.N. et al. 2012).

However, this infection has not been studied in our region, and a large number of patients with SM remain undeciphered. In this regard, there is a need to optimize the diagnosis of SM and study the course of meningitis, taking into account the deciphered nosology.

The purpose of the study: to evaluate clinical and laboratory parameters in enteroviral meningitis in children.

Materials and methods of research: 16 patients with a diagnosis of serous meningitis of enteroviral etiology, hospitalized in the city infectious diseases hospital of Samarkand, served as the material for the study. All patients underwent a complex of studies, including clinical and biochemical studies of blood, cerebrospinal fluid, as well as the study of cerebrospinal fluid according to standard methods with the isolation of enterovirus RNA by PCR. The determination

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of enterovirus RNA in samples of clinical material (cerebrospinal fluid) was carried out by the polymerase chain reaction method using the Ampli Sense Enteroviruses FI reagent kit

Results and discussion: The analysis of the obtained results allowed us to identify the clinical features of serous meningitis of enteroviral etiology (EVM) in the observed children. Depending on age, 3 groups of patients were identified: group 1 - children from 1 to 3 years old, group 2 - from 3 to 7 years old and group 3 - from 7 to 14 years old. In the age structure of the diseased children from 1 to 3 years old were 2 (12.5%) people, from 3 to 7 years old - 4 (25%), from 7 to 14 years old - 10 (62.5%). There were significantly more boys than - 11 (68.8%) and 5 (31.2%), respectively. When comparing the characteristic onset of the disease, the main coinc symptoms and symptom complexes, depending on the age of the patients, significant differences were revealed (Table 1).

The characteristic onset of the disease with EVM in children of different age groups.

Table 1

Symptoms	Total N=16		Children years old 1-3 N=2		Children years old 3-7 N=4		Children years old 7-14 N=10	
	abs	%	abs	%	abs	%	abs	%
Acute onset	12	75,0	2	100	3	75,0	7	70,0
Gradual onset	4	25,0	-	-	1	25,0	3	30,0
Vomit	15	93,8	2	100	4	100	9	90,0
Headache	13	81,3	-	-	3	75,0	10	100
Fever	15	93,8	2	100	3	75,0	10	100
Catarrhal symptoms	9	56,3	1	50,0	2	50,0	6	60,0
Total	16	100	2	100	4	100	10	100

As can be seen from the table, in most cases, in 12 (75%) patients, the disease began acutely, with a sharp rise in temperature that did not decrease when taking antipyretic drugs, the patient complained of severe headache, vomiting (single or multiple), not associated with eating, severe weakness, drowsiness, loss of appetite. In these cases, all of the above symptoms and the ever-deteriorating condition of the child forced the parents to seek emergency medical attention.

With the gradual development of the disease, neurological symptoms increased for three or more days, which was noted in 4 (25.0%) patients. In 9 (56.3%) patients, clinical manifestations of meningitis occurred against the background of catarrhal phenomena from the upper respiratory tract. The triad of symptoms characteristic of meningitis, in the form of headache, vomiting and fever (increase in body temperature up to 38-39 C) was recorded upon admission to the hospital in 13 (81.3%) patients. Of these, fever was most often recorded in 15 (93.8%) patients and vomiting - in 14 (87.5%) cases, headache was less common in 13 (81.3%) children.

In the group of children from 1 to 3 years, the disease began acutely in all cases. All children in this group had vomiting and fever.

Patients aged 3 to 7 years had an acute onset of the disease with the development of a pronounced clinical picture during the first two days only in 3 (75.0%) cases, a pronounced clinical picture during the first two days only in 3 (75.0%) cases cases, in 1 (25%) child of this age, the disease began with a gradual increase in neurological symptoms. The triad of symptoms

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characteristic of EVM was positive in 3 (75%) patients, of which fever occurred in 3 (75%) cases, headache in 3 (75%) cases, and vomiting in all children of this age group.

In school-age children, the acute onset of EVM was noted in 7 (70%) cases, in 3 (30%) patients the disease began gradually - neurological symptoms increased for 3 or more days. The triad of symptoms characteristic of EVM was registered in 9 (90%) children, vomiting was observed in 9 (90%) patients, fever of varying intensity and headache in all patients of this group. Catarrhal phenomena from the mucosa of the upper respiratory tract, manifested as hyperemia of the posterior pharyngeal wall, rhinitis, were noted in 9 (56.3%) of the examined patients. Most often, the above symptoms were recorded in children of school age - in 6 (60%) cases, at the age of 3 to 7 years - in 2 (50%) cases, in the group of children from 1 to 3 years they occurred in 1 (50%) sick.

All examined patients (100%) had such a sign of intoxication as asthenia, which manifested itself in the form of lethargy of varying severity, lack or decrease in appetite, drowsiness, behavioral disorders - the child became capricious, tearful, naughty, in some children negativism was sharply expressed. . Fever was noted in 15 (93.8%) patients, of which in 3 (18.8%) it did not rise above 38.5 ° C, in 12 (75%) people the body temperature was at high febrile numbers. All children of the younger age group had a febrile fever. Patients aged 3-7 years had fever in 3 (75%) cases, febrile in 2 (50%) children, and subfebrile in 1 (25%) cases. All children of school age, there was a fever of varying severity - in 8 (80%) cases - up to a level of 38.5o C-39.5o C, in 2 (20%) cases - not higher than 38.5o C.

The results of the comparative analysis of the frequency of occurrence of various forms of EVM severity in the examined age groups of patients are shown in Table 2.

The frequency of occurrence of various forms of severity of EVM in children of different age groups

Table 2

Disease severity	Total N=16		Children 1-3 years old N=2		Children 3-7 years old N=4		Children 7-14 years old N=10	
	abs	%	abs	%	abs	%	abs	%
Mild	1	6,2	-	-	-	-	1	10,0
Moderate	9	56,3	-	-	3	75,0	6	60,0
Severe	6	37,5	2	100	1	25,0	3	30,0
Total	16	100	2	12,5	4	25	10	62,5

The disease in all cases was benign and had a smooth course. Enteroviral meningitis more often - in 9 (56.3%) cases proceeded in a moderate form in patients of all age groups. The severe form was registered in 6 (37.5%) patients, the mild form - in 1 (6.2%) patient. In children of different age groups, there were no significant differences in the frequency of occurrence of different forms of disease severity. Data on indicators of forms of severity in different age groups are presented in Table 3.

The onset of the disease was characterized by clinical manifestations of acute hypertensive syndrome (intense bursting headache with predominant localization in the frontotemporal areas, repeated vomiting) with moderately severe cerebral symptoms and fever.

In 13 (81.25%) cases, the cellular composition of the CSF was characterized by moderate lymphocytic pleocytosis (from 20 to 300 cells in 1 µl), in 2 (12.5%) cases, cytosis was more than

300 cells in 1 μ l. In 1 (6.25%) patient, the cell level exceeded 800 in 1 μ l, indicating pronounced inflammatory changes with increased hyperproduction of cerebrospinal fluid. In 2 (12.5%) children, neutrophilic pleocytosis occurred on the 1st day of illness, which changed to lymphocytic pleocytosis on the 3rd day after repeated lumbar puncture. Sedimentary samples of Pandey and Nonne-Appelt were weakly positive and positive, the protein content was moderately increased, the level of glucose and chlorides practically did not differ from normal values.

A favorable prognosis for all commonly encountered clinical manifestations of enteroviral infections in the absence of specific therapy allows, first of all, prescribing to patients with these, as N.K. Voroshilov, "acute self-sterilizing diseases" (literals), a number of simple recommendations - bed rest for a period of high fever, severe cerebral symptoms, fractional drinking, a sparing diet, rinsing the mouth and throat with furacillin solution, taking symptomatic drugs (antipyretics, analgesics). In a hospital, patients were additionally prescribed pathogenetic therapy - desensitizing agents, dehydration, antiemetic drugs, according to indications - infusion therapy for 2-3 days, dexamethasone according to the scheme for 4-5 days.

Antibacterial therapy was administered to patients with signs of inflammation of the maxillary sinuses, tonsillitis, exacerbation of chronic tonsillitis, acute bronchitis, urinary tract infection.

Most of the patients (11 children) were discharged on the 5th-7th day, 2 patients on the 4th day, 1 child on the 9th day, 1 patient on the 13th day of the hospital stay practically healthy. Due to special circumstances, 1 patient was discharged on the 18th day of hospital stay.

CONCLUSIONS.

1. Among the hospitalized patients in the IIB of Samarkand, there were 16 patients aged 1 to 14 years with a laboratory (cerebrospinal fluid PCR) confirmed diagnosis of enteroviral meningitis.

2. The main group of patients with meningitis of enteroviral etiology were children aged 7 to 14 years (62.5%).

3. In children with enteroviral meningitis, moderate and severe forms of the disease predominate.

4. CSF changes In most cases, the cellular composition of the CSF was characterized by moderate lymphocytic pleocytosis.

5. The course of the disease in all cases is benign with a short (1-2-3 days, rarely 4-5 days) feverish period, a short (4-5 days) period of clinically pronounced meningeal syndrome. Most patients were discharged on the 5-7th day after hospitalization with a clear improvement in their condition.

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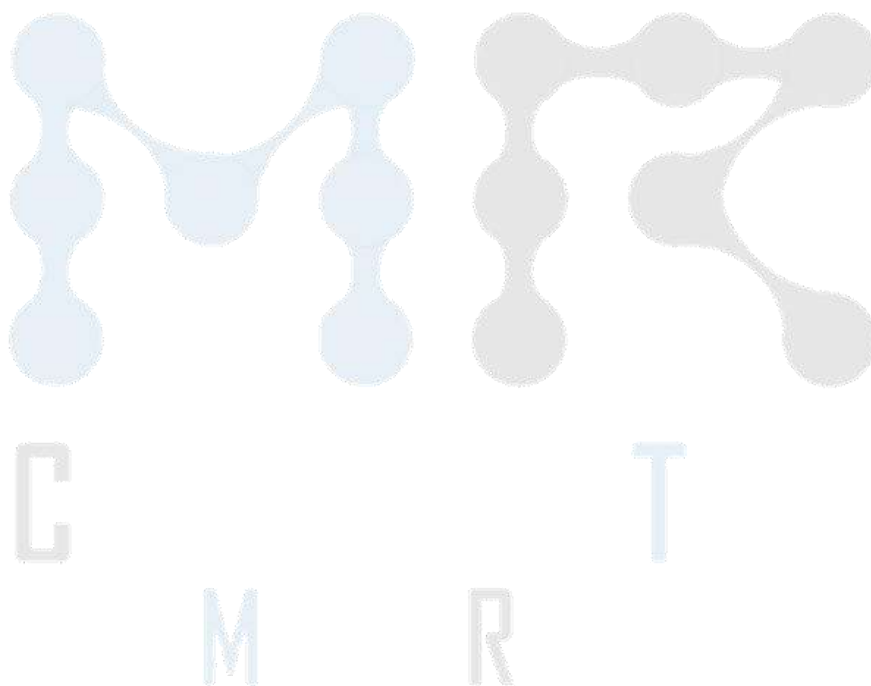
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ОСОБЕННОСТИ КЛИНИЧЕСКОГО ТЕЧЕНИЯ ВЕТРЯНОЙ ОСПЫ У ДЕТЕЙ
РАННЕГО ВОЗРАСТА.

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Актуальность: Ветряная оспа встречается преимущественно в детском возрасте и имеет в большинстве случаев благоприятное течение и исходы. В последние 10 лет по данным ВОЗ отмечается рост заболеваемости ветряной оспой, при этом каждый год регистрируется около 500-800 тыс. новых случаев инфекции и около 50% из них приходится на возраст от 5 до 9 лет. Удельный вес ветряной оспы в структуре воздушно-капельных инфекций (без учета гриппа и ОРВИ) – около 94%. Несмотря на преобладающий благоприятный исход заболевания, наблюдаются и летальные случаи. Так, в 2007-2008 гг. по данным ВОЗ от ветряной оспы умерли 10 человек, из них 6 детей. Больные ветряной оспой становятся заразными в конце инкубационного периода (за 48 ч до появления сыпи) и продолжают представлять опасность для окружающих до 5-го дня с момента появления последнего элемента сыпи.

Цель: Наши данные показали, что лихорадочный период в наших случаях варьировал от двух до пяти дней, у 10% детей длился до дней. Продолжительность лихорадки у этих детей была связана с обильностью высыпаний. Сыпь у всех больных детей в начале была представлена небольшими розовыми пятнышками. Их величина составляла не более 4мм. Эти пятнышки примерно через пару часов становились пузырьками (везикулами), содержимое которых было прозрачным. После того, как везикулы лопались на их месте оставались тёмные корочки, сохранявшиеся на коже, в наших случаях до двух с половиной недель. Сыпи у всех обследованных детей характеризовались полиморфизмом, т.е. на каждом отдельном участке кожи находились и пятна, и пузырьки, и корочки. У 10% детей высыпания появились и на коже головы. У 5 девочек высыпания отмечались на слизистых половых губ, которые в 2 случаях превратились в эрозии и язвочки. Язвочки были представлены желтовато-серым дном. У 20 % детей во время высыпаний отмечался зуд кожных покровов.

Результаты: С целью этиотропной терапии ветряной оспы мы применяли вицицидные препараты, направленные конкретно против герпес вирусов ацикловир, зовиракс, виролекс (с 2 лет), валцикловир (с 12 лет). Также использовали в отдельных случаях Ацикловир мазь (5%) на высыпания и при конъюнктивитах (поражение глаз). У большинства больных (80%) применяли иммуномодуляторы интерферон, виферон, а также иммуностимуляторы: циклоферон, анаферон. В связи с отсутствием вторичных бактериальных осложнений в наших случаях антибиотики не применялись.

Вывод: В целях профилактики появления осложненных и тяжелых форм заболевания целесообразно ранняя госпитализация детей ранней возрастной группы и назначение в более ранние сроки болезни противовирусных препаратов в обеих возрастных группах

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ABSTRACT. In this article, the anatomical, physiological and histological structure of the adrenal gland. Connection of kidney and adrenal gland. Fundamental study of the hormones produced by the adrenal gland and their mechanisms of action. Adrenal blood supply and control by the nervous system. Elucidation of the prevention and treatment of these diseases and its benefits.

Keywords: Adrenal glands, inferior vena cava, peritoneal sac, mineralocorticoids, hormones, aldosterone, glucocorticoids, adrenal cancer.

Adrenal glands, as the name suggests, are organs located above the kidneys. The most important role of the adrenal glands is the production of hormones that ensure the proper functioning of the body. Adrenal glands are paired endocrine glands and are distinguished by their small size. The name of the adrenal glands indicates their location in the human internal system. Adrenal glands are primarily responsible for the production of hormones necessary for the proper functioning of the body. If the adrenal glands are not working properly, there is a lack of hormones, which can lead to serious health problems and in some cases even death[1].

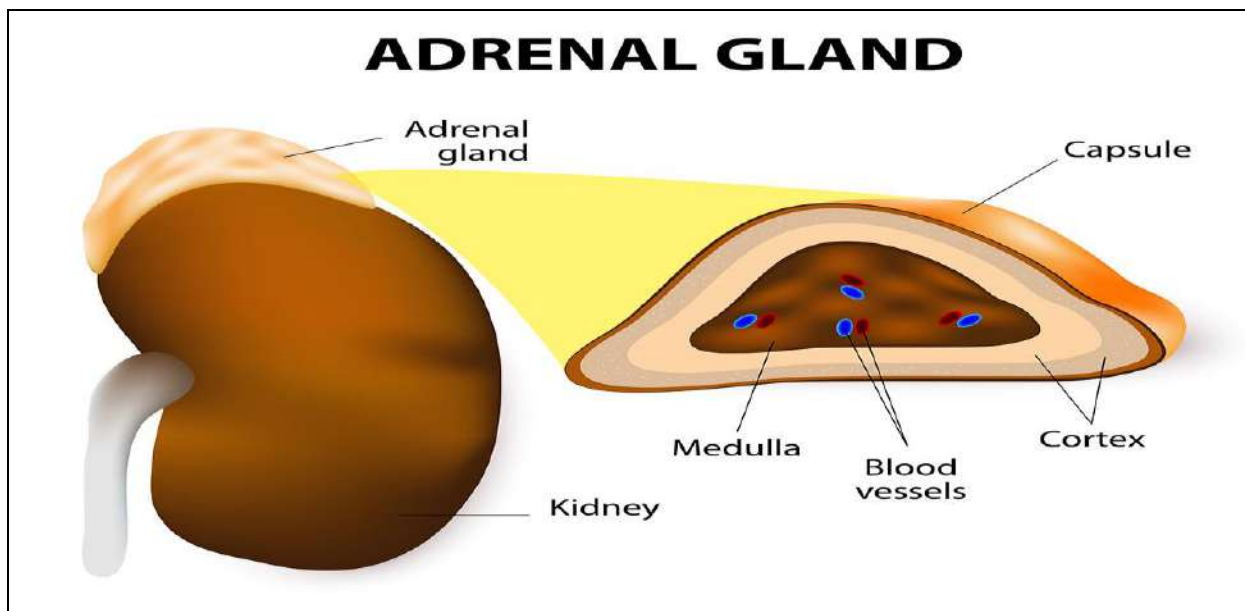
The back surface of the adrenal glands is adjacent to the lumbar part of the diaphragm. In addition to the right adrenal gland, it attaches to the inferior vena cava, peritoneum and liver. On the other hand, the left adrenal gland is adjacent to the peritoneal sac, stomach, pancreas and splenic artery.

Mineralocorticoids are hormones synthesized in the glomerular layer of the cortex of the adrenal glands. Among these hormones, aldosterone, an organic chemical compound from the steroid group, has the strongest effect. Aldosterone is involved in the regulation of water-mineral balance in the body, which means it maintains the correct level of mineral salts and water in the body. This hormone affects the function of the renal tubules by increasing the absorption of sodium salts and limiting their excretion in the urine [3]. Aldosterone also works by reducing the amount of blood that passes through the kidneys, thereby reducing the amount of urine. Aldosterone is also involved in transport processes in the kidneys. In addition, this hormone together with renin and angiotensin regulates blood pressure;

Glucocorticoids are hormones synthesized in the reticular and band layers. The most important and powerful hormone in the group of glucocorticoids is cortisol, also called the stress hormone. A characteristic feature of cortisol is called the circadian rhythm of secretion, so its highest concentration is observed in the morning, and the lowest is observed at midnight. Cortisol has anti-inflammatory properties, so it is a common ingredient in powerful anti-inflammatory drugs. This hormone also affects the level of glucose in the blood and, more precisely, causes an increase in glucose, for example, during stressful moments.

Sex hormones - androgens are produced in small amounts in the band and reticular layers. These hormones accelerate the growth of the body and the formation of secondary male sexual characteristics[2].

The medullary layer of the adrenal gland produces hormones that have a similar effect to the sympathetic nervous system. It differs from other cells of the adrenal gland in that the medullary layer is stained yellow with cellular chromium salts. Such chromophin cells produce adrenaline and its derivatives.



The structure of the adrenal gland

Adrenaline is one of the fastest acting hormones. It accelerates blood circulation, strengthens and speeds up the contraction of the heart, improves breathing through the lungs, expands the bronchi, increases the contraction of muscles, increases the breakdown of glycogen in the liver, increases the amount of sugar in the blood, and prevents the muscles from getting tired quickly. All these effects of adrenaline lead to one general result - mobilizing all the body's strength to perform hard work.

The organic connection of the sympathetic nervous system with the chromaffin cells of the adrenal gland ensures that adrenaline is released very quickly in all cases, which is a condition that occurs when a force with a high voltage is required from it very quickly in human life[4].

Diseases that affect the adrenal glands can be divided into:

1. diseases associated with hormone secretion abnormalities;
2. diseases associated with mineralocorticoid secretion disorders;
3. androgen excess diseases;
4. tumors of the adrenal glands;
5. adrenal cancer;
6. pheochromocytoma.

The weight of one adrenal gland of a newborn baby is 8 - 9 g, the dimensions are: 3.3-3.5 cm in diameter, 1.2-1.3 cm in thickness, 2.3 in height. -2.8 cm. In his adrenal gland, the bark substance is good, and the pith substance is poorly developed. In the first three months of a child's life, the weight of the adrenal gland decreases significantly (up to 3.5 g). This decrease in the size of the gland is due to the thinning and regrowth of its bark. The structure of the cortex of the adrenal gland begins to recover after the age of 5 and is completely completed by the age of

11. The weight of the adrenal gland is 4.6 g at 5 years old, 6.6 g at 10 years old, 8.63 g at 15 years old, and reaches 12.95 g at 20 years old [1].

In conclusion, the proper functioning of the adrenal glands is very important for human health. When the adrenal glands are not working properly, there is a change in the level of hormones in the blood - it can be an increase or a decrease.

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IMPORTANCE OF FERRITIN ANALYSIS IN DETECTING HIDDEN IRON DEFICIENCY ANEMIA IN CHILDREN UP TO 3-7 YEARS OLD.

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Abstract: Iron deficiency is a nutritional disorder, it is the most common nutritional disorder worldwide. There are three main stages of reduction of body iron which is a continuous process from iron depletion followed by iron deficiency and then iron deficiency anaemia. Iron is a cation necessary for blood formation. Apart from its role in haemoglobin, it is also needed in various enzyme reactions and cytochromes. It is distributed as an active metabolite and also in storage pools. Iron is an essential component of virtually all living cells, specifically human cells. Iron is an essential micronutrient. It occurs as haem (organic) and non-haem iron (non-organic) in the diet. Maternal supplies are the source of the developing fetus iron stores.

Keywords: Iron; iron deficiency; iron deficiency anaemia: children; treatment

Iron deficiency anemia (IDA) is one of the most prevalent nutritional deficiency and accounts for almost one-half of anemia cases. It is more prevalent in the developing countries. In most cases, this deficiency disorder may be diagnosed through complete blood count and low levels of serum ferritin.¹ It is the commonest cause of nutritional anemia in infancy and childhood.² Children aged 0–5 years, women of childbearing age, and pregnant women are particularly at risk. ³ About 1.2 billion people worldwide show varying levels of iron deficiency. Several lab tests of iron homeostasis like total iron binding capacity, serum iron level, serum ferritin level, serum transferrin, and bone marrow iron staining have been used. These tests are used either single or in combination to assess iron stores in patients. Major form in which iron is stored in the body is serum ferritin. It can detect early changes in body iron store. Many authors recommend it as the most important blood test for the diagnosis of iron deficiency.⁶⁻⁸ It causes little patient discomfort as compared to bone marrow iron studies. In this study, we used serum ferritin level to assess the level of iron storage in the children less than five years of age. We used serum ferritin level below 12 ng/ml to diagnose iron deficiency state, according to WHO recommendations. Iron stores are depleted below this value.⁹ The poor school performance due to cognitive dysfunction and behavioral deficit is associated with iron deficiency anemia.¹⁰ Hence, primary prevention by way of screening for iron deficiency in apparently non-anemic individuals especially children is very important.

Iron deficiency (ID) is the most prevalent nutritional deficiency and a major precipitant of anaemia. According to a major international study, nearly 1.2 billion people suffer from iron deficiency anaemia (IDA) and iron deficiency without anaemia (IDWA) is estimated to be at least twice as common. IDA is the most frequent presentation of ID; hence, there is an ongoing misconception that the two terms are synonymous. ID is a broader term and refers to low iron stores that do not meet the body's iron requirements, regardless of whether anaemia is present or not. Although ID decreases haemoglobin synthesis, it is only classed as anaemia once haemoglobin levels fall below certain cut-off values. The World Health Organization (WHO) has set these at 130 g/L in males, 120 g/L in non-pregnant females and 110g/L in pregnant females. Nevertheless,

symptoms of anaemia such as fatigue can be present without anaemic haemoglobin levels. Recognising IDWA as a clinical diagnosis is crucial to ensuring adequate management, especially for patients with chronic conditions such as heart failure (HF) where IDWA can increase long-term mortality. Ferritin is an indicator of iron stores and is the most sensitive and specific biomarker for assessing ID. The WHO defines low ferritin as levels $<15 \mu\text{g/L}$ for adults and $<12 \mu\text{g/L}$ for children. However, in clinical practice, when ferritin levels dip below $30 \mu\text{g/L}$, ID can be ascertained. Ferritin is an acute-phase reactant that is increased in serum during chronic inflammation. Cut-off values for ferritin in ID are increased to $100 \mu\text{g/L}$ in states of chronic inflammation. Transferrin saturation (TSAT) levels below 20% are also diagnostic of ID. In chronic inflammatory conditions when ferritin levels are $100\text{--}300 \mu\text{g/L}$, TSAT should be used to diagnose ID. Serum iron levels fluctuate throughout the day and should not be used for diagnosis.

The serum ferritin was found less than 12ng/ml in anemic children of the study population. Serum ferritin level is a very useful clinical tool to assess iron deficiency anemia in adults. But in children less than 5 years more efforts are needed in our own population to find out its relationship with IDA. Serum ferritin concentration is an early indicator of the status of iron stores and is the most specific indicator available of depleted iron stores, especially when used in conjunction with other tests to assess iron status. Under normal conditions, a direct relationship exists between serum ferritin concentration and the amount of iron stored in the body, such that $1 \mu\text{g/L}$ of serum ferritin concentration is equivalent to approximately 10 mg of stored iron. However, measured ferritin levels have some limitation, acute and chronic inflammation can increase serum ferritin levels and the assessment of iron status but is not a cause iron deficiency. According to a clinical report of American academy of Pediatrics, — establishing the definitive iron status of an individual, it is desirable to use the fewest tests that will accurately reflect iron status. Any battery of tests must include Hemoglobin concentration, because it determines the adequacy of the circulating red cell mass and whether anemia is present. One or more tests must be added to the determination of Hb concentration if ID or IDA is to be diagnosed.¹⁷ In a study conducted in India by Chithambaram NS et al. concluded that, If evaluation of iron status is done only by testing number of RBC's, Hb and hematocrit, early signs of iron depletion can go undetected and also those tests were not specific to detect iron deficiency state. By monitoring the status of storage iron (ferritin), we can detect iron deficiency state earlier and initiate appropriate treatment to prevent IDA. The distinction between IDA and IDWA relies on the use of strict haemoglobin cut-offs. However, clinicians should consider the fact that normal haemoglobin ranges have been set using population data. Essentially, what may be a normal haemoglobin level for one person may be abnormal for another, especially if a patient has a haemoglobin level in the low normal range but their usual haemoglobin levels are higher. Patients suffering from ID should be treated regardless of whether they are explicitly defined as anaemic. Cut-off haemoglobin ranges are useful, but their limitations should be kept in mind and patients should be assessed on a case-by-case basis. Iron has both a storage pool and a functional pool. The storage pool is the reticuloendothelial system which consists of the liver, spleen and lymph nodes. The functional pool consists of red blood cells, bone marrow and cardiac and skeletal muscle. Iron is absorbed in the duodenum via specific transporters and is carried by transferrin molecules to the storage and functional pools. Iron deficiency can be absolute or functional. AID is when the storage pool is iron-deficient due to reduced intake, increased needs, reduced absorption or excessive loss. AID also causes low iron levels within the functional pool. In FID the burden is the chronic

inflammation, causing cytokine and hepcidin release. Hepcidin causes iron deficiency via the blockage of an iron exporter known as ferroportin. There are two ways in which this blockage causes ID. First, it reduces iron absorption in the duodenum; second, it causes iron retention within the storage pools. This means that despite normal iron levels within the storage pools, functional pools are iron deficient and cannot utilise the stored iron for vital body processes. Inadequate intake can result from iron-deficient diets, such as the increasingly popular vegan diets, or having higher iron requirements, as seen in growing children and pregnant women. Athletes and those performing in demanding sports have increased iron needs and are at a higher risk of developing ID, mainly due to chronic inflammation and increased losses. Hepcidin levels are elevated in chronic inflammation, resulting in blockage of the only known iron exporter, ferroportin. Additionally, athletes have greater iron losses through urine and sweat during vigorous activity. ID may also result from major or chronic occult blood losses. This is common in women with menorrhagia, and is further amplified in obesity and during rapid growth in adolescence, which may deplete iron stores. ID is also common in frequent blood donors and pregnant women. Other causes include nosebleeds, GI bleeds (eg angiodysplasia), surgical procedures, injuries, accidents, and the use of intrauterine devices, anticoagulants or antiplatelets.

In order to achieve some homogeneity in the area of iron deficiency and cognition in adults, research groups need to use the same tools in studies of similar design. The preferred tool needs to have good reliability and validity and standardised administration procedures. IntegNeuro is a battery of cognitive tests that has good reliability and validity. Paul *et al.* reported on the validity of the IntegNeuro battery in assessing seven cognitive domains (Memory, Response Speed, Impulsivity, Attention, Information Processing, Executive Function, Emotion Identification) in a sample of 50 healthy adults. This study assessed validity, conducting correlation analyses between IntegNeuro and paper based tests, and examined the influence of age, education and sex on test results. They found strong relationships between IntegNeuro tests and standard measures of cognitive function. Clark *et al.* examined the effects of age, gender and education on cognitive function using the IntegNeuro battery and reported its sensitivity regarding the assessment of cognition.

There are three stages involved when iron stores in the body is reduced, this ranges from iron depletion, to iron deficiency and then, iron deficiency anemia. When there is iron depletion, the amount of iron required in the body is more than the amount ingested leading to a gradual reduction in iron stores. The reduction in iron stores shows up as low concentration of serum ferritin. In Iron deficiency, stored iron is low, associated low absorption of iron to replace normal body losses, there is low mean corpuscular hemoglobin (MCH), mean corpuscular volume (MCV), and serum ferritin. The last and most severe stage is Iron deficiency anaemia; it is characterized by red blood cells (RBCs) with a lower level of iron, low MCV, low mean MCH, low haemoglobin (Hb) level and a reduction serum ferritin. The distinction between “iron deficiency” and “anaemia” is important. Iron is a cation necessary for blood formation. Also, it is one of the constituents of Hb, it is also needed in reactions in various enzyme reactions and cytochromes. It is distributed as an active metabolite and also in storage pools. Iron is reused effectively from ageing RBCs in humans. It is absorbed by the small intestine, (only 10% of dietary iron is absorbed). A daily intake of iron is necessary to cover the iron lost from desquamation of cells of the skin and intestine and also, to maintain growth in children. The demand for iron is highest during periods of high growth found in infancy and adolescence. The form of iron when consumed determines how well it is

absorbed . It is better absorbed in the haem form when compared with the non-haem state. The non-haem form requires reduction to the ferrous state and its release from food binders by gastric juices. Also, food items such as vegetable fiber phytates in cereals and pulses, calcium and tannins in tea reduces the absorption of non-haem iron . Some other food items such as vitamin C encourages the absorption of iron. The absorbed iron is transported by transferrin, a binding protein produced by the liver. The synthesis of transferrin by the liver is affected by the iron status. The synthesis increases when there is iron deficiency and reduces in chronic disease states. Iron is stored as either ferritin or hemosiderin. It is used during erythropoiesis. Ferritin is freely available and soluble, it is stored in the hepatocytes, macrophages (spleen), bone marrow, serum, and RBCs. The amount of ferritin in circulation is parallel to the amount of the total body store

Conclusions. IntegNeuro is an easy to administer tool for the assessment of cognition in young women. Some cognitive change scores were significantly higher for ferritin improvers (irrespective of treatment group) than non-improvers, and for women who had latent iron deficiency at baseline and were treated with iron supplements. Further research, using a larger sample of approximately 26–84 iron-deficient participants in each group, is required to determine the effectiveness of IntegNeuro in assessing the relationship between iron deficiency and cognitive function in this population.

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CHANGES IN ANTHROPOMETRIC PARAMETERS IN VITAMIN D DEFICIENCY IN
7-11-YEAR-OLD CHILDREN.

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Abstract : The article discusses issues related to the negative impact of vitamin D deficiency on the body of low birth weight, prematurely born and full-term newborns. A review of the results of studies examining vitamin D availability is presented in pregnant women and their newborn children. There has been a wide prevalence of vitamin D deficiency in women during pregnancy, as well as in newborns. It has been shown that insufficient antenatal supply of vitamin D to the fetus can lead not only to congenital rickets and hypocalcemic neonatal convulsions during the newborn period, but also determines an increase in the incidence of necrotizing enterocolitis and bronchopulmonary dysplasia, as well as disorders of psychophysical development and an increased risk of developing lower respiratory tract infections (bronchiolitis, pneumonia) throughout first year of life.

Key words: vitamin D, vitamin D deficiency, calcidiol, low birth weight newborn, premature newborn, full-term newborn

Many regions worldwide are undergoing a rapid nutrition transition through which obesity-related chronic conditions account for an increasing percentage of the disease burden . The rapid increase in the rates of obesity in school-age children is particularly concerning because childhood obesity is a risk factor for obesity and related risk factors for cardiometabolic disease (4) later in life. It is crucial to identify modifiable risk factors that are involved in the early development of adiposity to guide future prevention and treatment efforts. Vitamin D insufficiency is highly prevalent in the world; it is estimated that 1 billion people have 25-hydroxyvitamin D [25(OH)D] concentrations consistent with insufficiency (75 nmol/L) . Even children who live in subtropical climates are at risk of vitamin D deficiency according to recent studies in Brazil and Costa Rica. Inadequate vitamin D status could be a risk factor for childhood obesity. Vitamin D affects lipolysis and adipogenesis in human adipocytes through its role in regulating intracellular calcium concentrations. Cross-sectional studies indicated that plasma 25(OH)D concentrations are inversely associated with body mass index (BMI; in kg/m²) and waist circumference in children. However, the interpretation of these associations is limited because vitamin D can be sequestered out of the blood and into the larger adipose tissue mass of obese subjects because of its hydrophobic properties. The cross-sectional nature of previous studies precludes the making of an inference regarding the directionality of the association between vitamin D and adiposity. We conducted a prospective study to evaluate the associations between vitamin D serostatus assessed in subjects at enrollment and changes in indicators of adiposity, including BMI, subscapular-to-triceps skinfold-thickness ratio, and waist circumference, over 3 y of follow-up in a representative sample of low- and middle-income school-age children from Bogota, Colombia. In addition, we assessed the association between vitamin D serostatus and linear growth.

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It has been established that newborn children, both those born prematurely and full-term, belong to one of the most susceptible groups for the development of vitamin D deficiency. It was noted that the concentration of calcidiol (25(OH)D) in the umbilical cord blood of a newborn baby is no more than 50–80% of the level of 25(OH)D in the mother's blood, regardless of gestational age. It has been shown that vitamin D deficiency is observed in more than half of mothers and newborns. Failure vitamin D in pregnant women and newborns varies across countries depending on race, lifestyle, time of year, and vitamin D intake during pregnancy. . These mixed models included random effects for the intercept and slope; we specified an unstructured variance-covariance matrix for these random effects (30). These methods do not require an even number of observations or that measurements be collected at exactly the same time in all subjects; thus, all measurements available for every child were included in the analyses. For the waist-circumference model, random effects for the slope were not included because measurements were only obtained in the second and third years of follow-up; the change in waist circumference represented the change between the 2 measurements taken during follow-up. Because there is some evidence that vitamin D may interact with estrogen , sex-specific estimates were obtained by analyzing boys and girls separately. Models in girls were adjusted for menarcheal status at baseline to control for the potential variability in sexual-maturation stage. Other variables that were related to overweight in this population or to 25 (OH)D concentrations in univariate analyses including maternal characteristics, socioeconomic-status indicators, and time spent playing outdoors were entered into the models. However, none of these variables were significantly related to the outcomes or changed the estimates of association between vitamin D status and anthropometric change. All models used empirical estimates of the variance . Tests for trend were estimated by introducing a continuous variable into the models that represented ordinal categories of vitamin D. Effect modification by sex was assessed with the use of the likelihood ratio test in each model. We examined the associations between vitamin D serostatus and changes in anthropometric indicators of total adiposity and fat distribution, as well as height, in a longitudinal study of school-age children from Bogota, Colombia. After baseline adiposity and other potential confounders were controlled for, a lower vitamin D serostatus was associated with greater increases in BMI and indexes of central adiposity.

Although cross-sectional studies reported inverse associations between vitamin D serostatus and BMI in children , it was not possible to conclude that vitamin D increased the risk of overweight because of reverse-causation bias given that vitamin D can be sequestered in adipose tissue . Only randomized trials or longitudinal studies that were adjusted for baseline adiposity could overcome the potential for reverse causation. Our results suggested that inadequate vitamin D status may prospectively lead to increased adiposity during childhood. It is unlikely that these findings reflect the catch-up growth of malnourished children because the exclusion of children who were thin at baseline did not alter results. In addition, the mean baseline BMI z score was above zero, and the BMI trends by age in this population were very close to the reference median of the World Health Organization ; thus, greater BMI changes in vitamin D-deficient children likely represent unhealthy weight gains. There is limited and inconsistent evidence of the association between vitamin D and adiposity from prospective studies. In a calcium-intervention trial in 69 pubertal children, a higher baseline vitamin D status was significantly associated with less weight gain over 24 mo in univariate analyses . The Women's Health Initiative, which is a large trial that assigned women to receive either 1000 mg Ca plus 400 IU vitamin D/d or a placebo

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reported that women who received the regimen of calcium and vitamin D had a small significant lower gain in BMI and waist circumference over 7 y of follow-up ; in that study, it was impossible to separate the effects of calcium and vitamin D. In contrast, a trial of overweight adults showed that supplementation with either 20,000 or 40,000 IU cholecalciferol/wk and 500 mg Ca/d did not lead to significantly greater weight loss than the calcium-only control group ; however, none of the groups experienced significant weight changes over the 1-y study period. It is possible that vitamin D may limit weight gain but does not affect long-term weight loss in individuals who are already overweight.

The mechanisms by which vitamin D may influence adiposity are unknown, and possible explanations are still speculative. In vitro experiments suggested that vitamin D may prospectively influence the risk of obesity by modulating the catabolic and anabolic activity of adipocytes. Studies have shown that intracellular calcium concentrations modulate lipolytic activity in isolated human adipocytes , which raises the possibility that vitamin D could influence body weight and energy expenditure through calcium regulation. In vitro studies have also shown that vitamin D can inhibit the expression of a key adipogenesis regulator, peroxisome proliferator-activated receptor-gamma . In our longitudinal study, we showed that vitamin D status was negatively associated with changes in waist circumference and subscapular-to-triceps skinfold-thickness ratio after adjustment for baseline adiposity. These findings are particularly worrisome because central adiposity is strongly related to all components of metabolic syndrome in children, including hypertension and insulin resistance . Furthermore, children who accumulate central body fat may be at greater risk of central adiposity and its associated morbidities later in life.

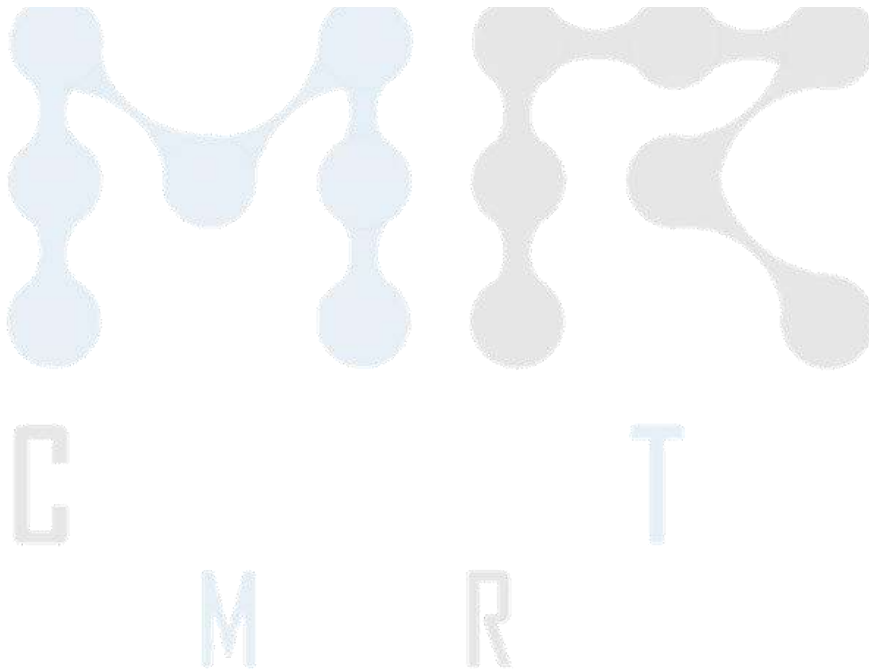
Summarizing the data presented above, we can conclude that fetal development, health status a newborn, an infant and a child in subsequent periods of development are largely determined by the provision vitamin D. Considering the prevalence of vitamin D deficiency among pregnant women and newborns, we can talk about the advisability of its preventive use in these groups. However, taking Taking into account that the prevalence and severity of vitamin D deficiency in pregnant women and their newborns varies widely, it should be noted that the choice of dose of vitamin D for preventive reception must be adjusted taking into account factors causing its insufficiency. Wherein One of the most important indicators of the body's supply of vitamin D is the level of calcidiol in the blood. The criterion for sufficient supply of vitamin D in the body is the level of 25(OH)D in the blood within 30– 50 ng/ml, when calcidiol concentration decreases below 20 ng/ml indicates vitamin D deficiency. Our study had several strengths. We collected blood samples from a large and representative sample of children in a setting where the increasing prevalence of child overweight is becoming a serious public-health problem. Our prospective design and use of repeated anthropometric measures enhanced our ability to explore the temporal relation between vitamin D and anthropometric measures and to account for potential reverse causation. One potential limitation of the study is that we assumed that baseline vitamin D serostatus was representative of the cumulative exposure during follow-up. Nevertheless, studies in which 25(OH)D has been measured repeatedly over long periods suggest that the within-subject correlation is high and that a single baseline measurement could be a valid indicator of long-term exposure . Outdoor physical activity could be a confounder of the association between vitamin D status and weight change. However, we did not find that adjustment for the time spent playing outdoors changed the estimates of association in our study; in addition, prospective studies suggested that the association between physical activity and BMI change in children is not strong

. Another limitation is that we lacked detailed measurements of sexual maturation status (such as Tanner staging), which might be a potential confounder; however, adjustment for menarcheal status at baseline did not change the associations observed in girls.

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In conclusion, vitamin D serostatus was inversely associated with the development of adiposity in school-age children. Randomized intervention studies are needed to ascertain the effect of improving vitamin D status in children on the risk of obesity and other risk factors for chronic disease.



ЭВОЛЮЦИЯ ОБРАЗА ЖЕНЩИНЫ В РУССКОЙ ЛИТЕРАТУРЕ: ЧЕРЕЗ ПРИЗМУ
РАЗЛИЧНЫХ ИСТОРИЧЕСКИХ ПЕРИОДОВ

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Аннотация: В данной статье рассматривается эволюция образа женщины в русской литературе на протяжении различных исторических периодов. Обсуждаются как индивидуальные, так и общие черты её характера, такие как стойкость, доброта и искренность. Текст содержит анализ различных образов героинь в произведениях русских писателей. В результате, женские образы выступают важным аспектом для исследований и анализа в контексте литературных традиций.

Ключевые слова: Образ женщины в русской литературе, роль, уникальные черты, мораль, нравственность, патриотизм, привязанность к родине, вдохновение, основа культуры и идентичности.

В русской классической литературе прослеживаются определённые черты, такие как идеологическое содержание, осмысление жизни через литературные образы, доброе отношение к людям и правдивость в изображении. Писатели стремились показать в женских образах все лучшие черты, характерные для русского народа. Эти женские образы выглядят прекрасными, чистыми, верными и любящими. У них есть неповторимая душевная красота, которую нельзя встретить нигде в другой литературе.

В классической литературе особое внимание уделяется внутреннему миру женщин. Вспомним образ русской женщины-героини, Ярославны, с её великим сердцем, страстной душой и готовностью к великим подвигам. В "Слове о полку Игореве" этот образ обретает особую живость и правдивость, что делает его первым великолепным образом женщины в русской литературе.

Татьяна, созданная Пушкиным, олицетворяет дух России. Её глубокая привязанность к родной земле, к старине и к природе пронизывает всё произведение. Влюблённая страстью в Онегина, она остаётся верной своему мужу, что подчёркивает её силу и преданность.

Я вас люблю /к - чему лукавить? / Но я другому отдана.

И буду век ему верна. [7,240]

Татьяна и Маша Миронова - два образа, олицетворяющие различные аспекты женского характера. Татьяна, воспитанная русским народом и природой, проникнута серьёзностью и глубоким пониманием своих обязанностей. В её образе проявляется великая душевная красота и любовь к своему народу. С другой стороны, Маша Миронова представляет собой образ скромной и преданной девушки, которая, несмотря на свою стеснительность, готова на самопожертвование и проявляет истинную любовь и преданность своему возлюбленному. Оба этих образа демонстрируют всемогущую силу настоящей любви, способной преодолеть любые преграды.

Многие из нас, вероятно, хотя бы раз слышали выражение «тургеневская девушка» или «тургеневская барышня», но часто ли мы полностью осознаем его смысл? Это

выражение относится к обобщённому образу нескольких литературных героинь, созданных Иваном Тургеневым, который стал своеобразным стереотипом в русской литературе.

Девушки, характерные для произведений Тургенева, отличаются интеллигентностью, культурностью и вежливостью, но их редко можно встретить в наше время. Сегодня многие девушки ориентированы на материальные ценности в отношениях, искренние и душевные женщины становятся редкостью. В произведении «Ася» И.С. Тургенева представлена идеалом такой девушки. Главная героиня, семнадцатилетняя Ася, прошедшая через тяжёлое детство после потери матери, осталась открытой и чистой душой. Её искренность и радость жизни являются важными чертами её характера, которые пронизывают всё повествование автора.

Многие женские образы в романе «Война и мир» Толстого находят свои прототипы в реальной жизни автора, что, вероятно, делает его отношение к ним особенно теплым и нежным. Толстой удивительно точно передаёт чувства и мысли своих героинь, чувствуя их как собственные. Он вникает в психологию как тринадцатилетней Наташи Ростовой, с её детскими радостями и заботами, так и взрослой женщины, графини Наталии Ростовой, переживающей потерю своего сына. В романе Толстой позволяет читателю проникнуть в мысли и чувства своих персонажей таким образом, что кажется, будто мы видим мир их глазами.

Александр Николаевич Островский выделяется среди других драматургов русской литературы тем, что не стремится создавать идеальных образов женщин. В его произведениях, включая «Грозу», представлены живые и реалистичные героини. Две из его пьес освещают проблемы женщин в русском обществе. Эти произведения показывают судьбы трёх молодых женщин - Катерины, Варвары и Ларисы, предоставляя возможность читателю проникнуть в различные аспекты их жизни и характеров. [8,352]

Катерина, один из персонажей драмы «Гроза», отличается своим прямолинейным и честным характером, в явном противопоставлении лжи и притворству, присущим другим персонажам. Её непоколебимая принципиальность ставит её в оппозицию жестокому и несправедливому миру, где правят силы закона джунглей. Её неспособность адаптироваться к этой жестокой реальности, где силу и алчность поощряют, приводит к трагическому исходу её судьбы.

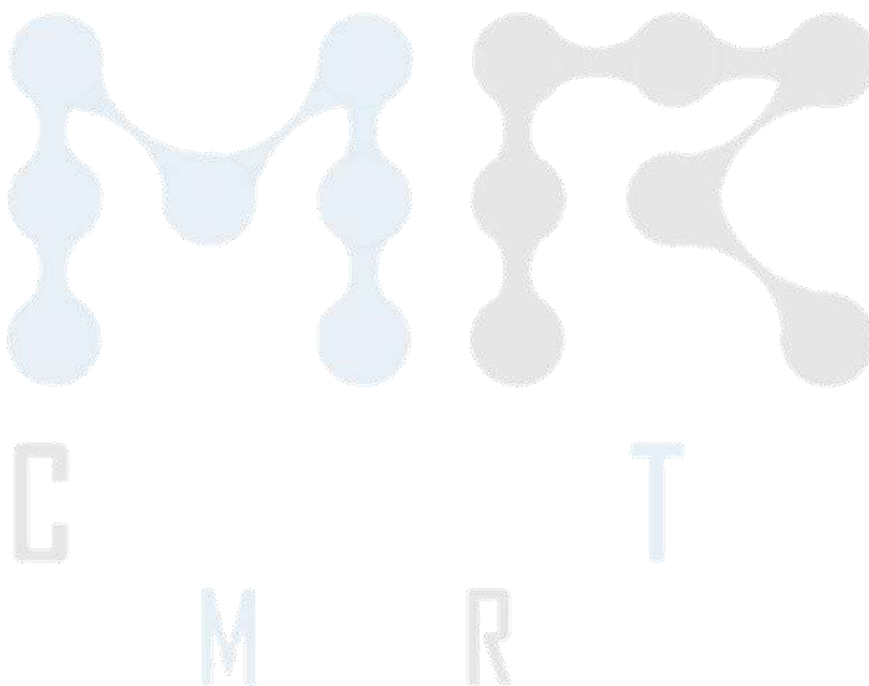
Таким образом, образ женщины играет важнейшую роль в русской литературе, определяя её уникальные черты и особенности. Высокая мораль и нравственность, патриотизм и привязанность к родине - все эти качества прослеживаются благодаря образам русских женщин. Они являются не только вдохновением для писателей и поэтов, но и основой русской культуры и идентичности. Без них русская литература утратила бы свою глубину и значимость, привлекая меньше внимания со всего мира.

Принципиальная роль русских женщин в русской литературе также выражается в их патриотизме и привязанности к родине. Их преданность и любовь к отечеству олицетворяют самые глубокие чувства и идеалы русской души. Без этих образов русская литература потеряла бы свою эмоциональную глубину и культурное значение, привлекая меньше внимания за её пределами.

Образы русских женщин являются не просто литературными персонажами, а символами истинных ценностей и качеств, которые оставляют непередаваемый след в сердцах и умах читателей со всего мира.

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ЭФФЕКТИВНЫЕ МЕТОДИКИ ИЗУЧЕНИЯ ГЛАГОЛОВ ДВИЖЕНИЯ В
ИНОЯЗЫЧНЫХ КЛАССАХ
EFFECTIVE METHODS OF STUDYING VERBS OF MOVEMENT IN FOREIGN
LANGUAGE CLASSES

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Аннотация. Статья "Эффективные методики изучения глаголов движения в иноязычных классах" представляет собой обзор основных принципов и практических подходов к изучению глаголов движения в контексте русского языка для студентов, изучающих его как иностранный. В статье рассматриваются значимость глаголов движения в русском языке, типичные трудности, с которыми сталкиваются иноязычные учащиеся, основные принципы классификации и употребления глаголов движения, а также предлагаются разнообразные практические упражнения и методики, способствующие более эффективному усвоению материала. Также обсуждается роль контекста и культурного понимания в изучении глаголов движения, а также рекомендации по дальнейшему самостоятельному изучению данной темы.

Ключевые слова: грамматические особенности, классификация, употребление, ролевые игры, аутентичные материалы, влияние культуры, рекомендации, эффективные методики, изучение, трудности, понимание, значение, интеграция, студенты.

Annotation. The article "Effective methods of studying verbs of movement in foreign language classes" is an overview of the basic principles and practical approaches to studying verbs of movement in the context of the Russian language for students studying it as a foreign language. The article examines the importance of verbs of movement in the Russian language, typical difficulties faced by foreign-speaking students, the basic principles of classification and use of verbs of movement, and also offers a variety of practical exercises and techniques that contribute to more effective learning of the material. The role of context and cultural understanding in the study of movement verbs is also discussed, as well as recommendations for further independent study of this topic.

Key words: grammatical features, classification, usage, role-playing games, authentic materials, cultural influence, recommendations, effective methods, study, difficulties, understanding, meaning, integration, students.

Глаголы движения являются ключевым элементом русской грамматики, отражая богатство языка в описании движения и перемещения. Они не только передают сам акт движения, но и обогащают его смысловыми нюансами, такими как скорость, направление,

интенсивность и даже эмоциональную окраску. Например, глаголы "идти", "бежать", "плыть", "лететь" и "ездить" несут в себе не только информацию о самом действии, но и о способе его осуществления, о средствах передвижения и обстоятельствах.

Для иноязычных учащихся, особенно для тех, чей родной язык не имеет такого обширного набора глаголов движения, изучение и освоение их употребления представляет собой сложную задачу. Важно не только понять грамматические правила, но и научиться воспринимать и использовать глаголы движения в контексте реальных ситуаций, учитывая их значимость и эмоциональную окраску.

Глаголы выражающие передвижение, наряду с другими глагольными категориями, представляют собой неотъемлемую часть изучения русского языка для иноязычных учащихся. Основные принципы изучения вышеупомянутых глаголов включают в себя классификацию глаголов по типам, изучение их грамматических особенностей и разработку специальных методик обучения.

Классификация глаголов движения позволяет систематизировать их в разные группы в соответствии с их семантическими и грамматическими характеристиками. Например, глаголы могут быть классифицированы по способу передвижения, как "идти", "бежать", "плыть", "лететь", или по типу движения, как "шагать", "бегать", "плыть быстро", "лететь высоко". Также глаголы могут быть классифицированы по направлению, например, "идти вперед", "лететь вниз", "плыть вверх".

Грамматические особенности глаголов движения в русском языке также играют важную роль в их правильном использовании. Например, глагол "бежать" имеет разные формы для разных лиц и времен: "бегу", "бежишь", "бежит", "бежали", "буду бегать" и т.д. Кроме того, некоторые глаголы движения требуют определенных предлогов для передачи правильного значения, например, "идти на работу", "лететь над городом". Понимание этих основных принципов позволяет разработать эффективные методики обучения глаголам движения, которые будут учитывать потребности иноязычных учащихся и помогут им успешно овладеть этой сложной грамматической категорией русского языка.

Изучение глаголов движения требует не только теоретических знаний, но и практической отработки. Для эффективного освоения данной грамматической категории необходимо предложить учащимся разнообразные упражнения, способствующие запоминанию и уверенному использованию глаголов движения в различных контекстах.

Одним из методов является упражнение на запоминание и использование глаголов движения в контексте. Учащимся предлагается список глаголов движения, которые они должны использовать для описания ситуаций или рассказа о своих действиях. Например, учащимся могут дать задание описать свой ежедневный путь из дома в учебное заведение, используя различные глаголы движения в соответствии с контекстом их применения: "Я иду в школу", "Я еду на автобусе", "Я бегу в парк". Использование данного метода предоставляет нам следующие преимущества:

а. Контекстуальное применение: Учащимся предлагается использовать глаголы движения в реальных ситуациях, что помогает им лучше понять значение и употребление этих глаголов в конкретных контекстах.

б. Практическая применимость: Упражнения рассчитаны на практическое применение глаголов движения в повседневной жизни обучающихся, что делает их обучение более практичным и полезным.

в. Активное использование языка: Учащимся необходимо активно применять изученные глаголы для описания своих действий, что способствует активному участию и повышает их языковые навыки.

г. Индивидуализация: Задание может быть адаптировано под различные уровни языковой подготовки учащихся и под разные контексты, что позволяет учитывать их индивидуальные потребности и интересы.

д. Закрепление и запоминание: Повторное использование глаголов движения в различных контекстах помогает закрепить их и запомнить более эффективно.

Этот метод активно вовлекает учащихся в процесс изучения и позволяет им применять свои знания в реальных ситуациях, что делает его эффективным для развития навыков говорения и понимания русского языка.

Ролевые игры и ситуационные задания также помогают учащимся практиковать употребление глаголов движения в реальных обстановках. Например, занимающиеся могут играть роли путешественников и описывать свои приключения, используя разнообразные глаголы движения для передачи различных ситуаций и эмоциональных оттенков: "Мы отправляемся в горы на лыжах", "Я иду по тропе в лесу", "Они плавают в океане с маской и ластами".

Использование аутентичных материалов, таких как тексты, видео или аудиозаписи, также способствует более глубокому пониманию и запоминанию глаголов движения. Учащиеся могут изучать реальные ситуации, в которых эти глаголы используются носителями языка, и анализировать их употребление в различных контекстах. Это помогает им расширить свой словарный запас и научиться применять глаголы движения более гибко и эффективно. Например, они могут просмотреть видеоролики о путешествиях и обсудить, какие глаголы используются для описания движения: "Они идут по горным тропам", "Он летит на самолете над океаном", "Мы плаваем в бассейне на каникулах".

Практические упражнения играют ключевую роль в процессе усвоения глаголов движения и помогают обучающимся приобрести не только теоретические знания, но и практические навыки использования данной грамматической категории в реальной коммуникации.

После того как изучающие русский язык овладели основными глаголами движения, важно понять, что их использование тесно связано с контекстом и культурным контекстом русского языка. Понимание контекста играет ключевую роль в правильном использовании глаголов движения, поскольку они могут иметь разные значения в различных ситуациях.

Например, глагол "идти" может означать не только физическое передвижение, но и обозначать прогресс в какой-то деятельности, как в выражении "дело идет успешно". Также глаголы движения могут иметь различную эмоциональную окраску в зависимости от контекста, что также важно учитывать при их использовании. Кроме того, культурные особенности могут сильно влиять на значение и употребление глаголов движения. Например, в некоторых культурах некоторые способы передвижения могут считаться более уважительными или формальными, чем в других. Поэтому учащимся важно понимать эти культурные нюансы, чтобы использовать глаголы движения в соответствии с социокультурными ожиданиями. Интеграция культурных аспектов в изучение глаголов движения помогает учащимся не только освоить языковые навыки, но и лучше понять

русскую культуру и менталитет. Это способствует более глубокому и комплексному восприятию русского языка и улучшает коммуникативные навыки обучающихся.

Учитывая вышеизложенное, мы приходим к заключению о важности применения разнообразных методик и упражнений при изучении глаголов движения в иноязычных классах. Понимание контекста и культурных особенностей играет ключевую роль в успешном освоении этой грамматической категории. Для тех, кто изучает русский язык это не только возможность усвоить новые языковые конструкции, но и шанс погрузиться в русскую культуру, понять ее специфику и особенности. Такой подход не только обогащает их языковые навыки, но и расширяет их кругозор, делая обучение более эффективным и интересным. Надеемся, что предложенные в статье методики и рекомендации окажутся полезными для преподавателей и учащихся, помогая им сделать процесс изучения глаголов движения более интересным, эффективным и продуктивным.

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ПСИХОЛОГИЗМ КАК МЕТОД ХУДОЖЕСТВЕННОГО ВЫРАЖЕНИЯ В
ЛИТЕРАТУРЕ

PSYCHOLOGISM AS A METHOD OF ARTISTIC EXPRESSION IN LITERATURE

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Аннотация: Литературный психологизм относится к тем художественным элементам произведения, которые углубляют его содержание и наполняют его более глубокими моральными, этическими и философскими аспектами. Он направлен на раскрытие внутреннего мира персонажей, их идейных стремлений и философских поисков. Основная цель психологического анализа в литературе заключается в создании живого, полноценного образа, который отражает сложность человеческой природы и глубину его внутреннего мира. Для достижения этой цели используются различные приемы психологизма, такие как прямое изображение внутренних мыслей и чувств персонажей, косвенное отображение их поведения и диалогов, а также суммирование различных аспектов их психологического портрета. Эти методы помогают создать образ, который не только отражает реальность, но и помогает читателю глубже понять и воспринять сложность человеческой природы.

Ключевые слова: Анализ психологических аспектов в литературном произведении, различные формы и методы психологического изображения, формирование художественного образа, исследование внутреннего мира персонажей.

В современной научной методологии литературных исследований, проблема личности занимает центральное место, взяв на себя ключевую роль в анализе литературных произведений. Это обусловлено не только тем, что художественное воплощение действительности напрямую зависит от внутреннего мира писателя и его ценностных установок, но и тем, что в современном обществе возрастает интерес к глубинным психологическим и эмоциональным аспектам человеческой природы. Преобладание проблемы личности в современном литературном анализе также обусловлено социальными аспектами этой дисциплины. Литературные исследования, несмотря на разнообразие подходов и методов, играют важную роль в формировании мировоззрения и ценностных ориентаций читателей, а также в стимулировании творческого процесса. Однако их эффективность зависит от того, насколько их методология учитывает принципы человечности, гуманизма и глубокого понимания внутреннего мира человека.

Психологизм в литературе обладает своей внутренней структурой, которая состоит из различных приемов и способов представления психологических аспектов. Можно

выделить различные формы и методы воплощения психологизма, которые логически обусловлены и соответствуют целям исследования. Эти формы и методы могут быть выделены на основе мнений различных исследователей, включая И. Страхова и А. Есина, о различных аспектах и выражениях психологических элементов в литературе. Согласно исследованиям, выше перечисленных ученых, следует выделить две основные формы психологизма в произведении [4, с. 37].

Для каждой из обсуждаемых форм психологизма в литературе характерны собственные специфические методы. Например, прямая форма психологизма включает в себя приемы, такие как "поток сознания", сцены снов, внутренний монолог и диалог, исповедь, а также авторские психологические образы и многие другие. К основным приемам косвенной формы психологизма относятся: психологический портрет героя, детали интерьера, а также экстерьера, жесты, движения, мимика, интонация, психологический пейзаж, психологические детали и т.д. [7, с. 42].

Монологи и диалоги, как приемы воплощения психологических аспектов, могут быть использованы в различных формах литературного произведения в зависимости от того, насколько глубоко происходит исследование внутреннего мира персонажей. Внутренний монолог с его крайними проявлениями, такими как рефлексивные размышления и психологический самоанализ, является одним из способов проникновения внутрь психологии персонажей и позволяет читателю более глубоко понять их внутренний мир.

Психологический портрет, созданный автором, может быть представлен различными способами. Например, это может быть психологическое повествование, в котором передается динамика мыслей и переживаний персонажей, или психологическое описание, где показываются статические ощущения и внутренние состояния героев [5].

Жесты, движения, позы и выражение лица часто используются для передачи психологических аспектов через косвенные средства. Автор обращается к этим приемам, когда стремится вызвать у читателя понимание внутреннего состояния персонажей, исходя из их внешних проявлений.

Зачастую каждый персонаж на портрете описывается как психологический, но на самом деле не каждый из них дает нам представление о внутреннем мире героя. Автор может начать с характеристики основных черт личности, прежде чем перейти к более глубокому анализу психологии персонажа [6].

Писатели часто выбирают описание глаз персонажей в качестве выразительного психологического элемента: они могут быть заплаканными, красными, наполненными слезами, сияющими, полными радости, светящимися или имеющими глубокий взгляд, словно океан. Еще одной особенной психологической деталью является использование определенного цвета для подчеркивания внутреннего состояния персонажа.

Также стоит отметить суммарную форму представления психологизма, хотя она не встречается так часто, как другие. В литературе можно встретить примеры использования суммарной формы психологизма, когда писатель кратко упоминает процессы, происходящие внутри персонажей, но не углубляется в детали чувств. Это означает, что писатель просто называет чувства героев без подробного анализа. Чаще всего это происходит не через прямую речь или авторские отступления.

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ВЗАИМОСВЯЗИ И ВЛИЯНИЯ В РАЗВИТИИ МАЛОЙ ЭПИЧЕСКОЙ ПРОЗЫ В
РУССКОЙ И УЗБЕКСКОЙ ЛИТЕРАТУРЕ НАЧАЛА XX ВЕКА

INTERRELATIONS AND INFLUENCES IN THE DEVELOPMENT OF SMALL EPIC
PROSE IN RUSSIAN AND UZBEK LITERATURE OF THE EARLY 20TH CENTURY

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Аннотация. Данная статья исследует взаимосвязи и влияния в развитии малой эпической прозы в русской и узбекской литературе начала XX века. Статья начинается с краткой характеристики жанра и его значения в литературе обеих стран, а также формулирует цель и задачи исследования. Затем анализируются общие тенденции развития малой эпической прозы в контексте модернизма, реализма и других литературных течений, а также поиска новых художественных форм и обращения к фольклорным и национальным традициям. Далее рассматривается влияние русской малой эпической прозы на узбекскую литературу, включая переводы произведений русских писателей, формирование узбекской литературной традиции и заимствование художественных приемов и сюжетов. Обратный процесс также анализируется, освещая влияние узбекской малой эпической прозы на русскую литературу через переводы, расширение тематики и обогащение русского языка узбекскими лексическими оборотами. Заключение обобщает результаты исследования, подчеркивая значимость взаимосвязей и влияний в развитии малой эпической прозы в русской и узбекской литературе, а также указывает на перспективы дальнейших исследований в этой области.

Ключевые слова: малая эпическая проза, русская литература, узбекская литература, взаимосвязи, влияние, развитие, начало XX века, модернизм, реализм, фольклорные традиции, национальные традиции, переводы литературных произведений, лексические обороты, художественные приёмы, анализ произведений.

Annotation. This article explores the interrelationships and influences in the development of small epic prose in Russian and Uzbek literature of the early 20th century. The article begins with a brief description of the genre and its significance in the literature of both countries, and also formulates the purpose and objectives of the study. Then the general trends in the development of small epic prose in the context of modernism, realism and other literary movements, as well as the search for new artistic forms and appeals to folklore and national traditions are analyzed. Russian minor epic prose influence on Uzbek literature is further considered, including translations of works by Russian writers, the formation of the Uzbek literary tradition and the borrowing of artistic techniques and plots. Russian literature The reverse process is also analyzed, highlighting the influence of Uzbek minor epic prose on Russian literature through translations, the expansion of the subject and the enrichment of the Russian language with Uzbek lexical phrases. The conclusion summarizes the results of the study, emphasizing the importance of

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interrelations and influences in the development of small epic prose in Russian and Uzbek literature, and also indicates the prospects for further research in this areas.

Key words: *small epic prose, Russian literature, Uzbek literature, interrelationships, influence, development, the beginning of the twentieth century, modernism, realism, folklore traditions, national traditions, translations of literary works, lexical turns, artistic techniques, analysis of works.*

Малая эпическая проза, явление, характерное для русской и узбекской литератур начала XX века, представляет собой уникальный жанр, объединяющий в себе элементы эпического повествования и прозаической формы. В контексте этой эры, на фоне быстро меняющегося общества и культурных трансформаций, малая эпическая проза становится значимым инструментом для выражения и интерпретации новых идей, ценностей и конфликтов.

Цель данной статьи заключается в исследовании взаимосвязей и влияния развития малой эпической прозы в русской и узбекской литературах начала XX века. Обе культуры, хотя и различны в своем историческом и культурном контексте, испытывали сходные литературные тенденции и взаимодействовали друг с другом, оказывая влияние на развитие литературного процесса. В нашем анализе мы рассмотрим общие тенденции развития малой эпической прозы, а также исследуем влияние русской литературы на формирование узбекской литературной традиции и наоборот. Анализ конкретных произведений и сравнение художественных приемов позволят выявить как общие, так и отличительные черты в творчестве писателей обеих культур. Таким образом, данное исследование представляет собой попытку взглянуть на развитие этой прозы в русской и узбекской литературе как на взаимосвязанный и взаимообогащающий процесс, имеющий важное значение для понимания литературного наследия обеих стран.

Общие тенденции развития данной прозы в начале XX века напоминают калейдоскоп культурных идей и литературных экспериментов, где каждый аспект добавляет новые оттенки и глубину в творчество писателей. Модернизм, со своим стремлением к новаторству, внес в данное направление смелые и нестандартные решения. Например, работы Владимира Маяковского, такие как "Облако в штанах", выделяются своей экспериментальностью и ярким художественным поиском. С другой стороны, реализм, с его глубоким погружением в бытие и социальную реальность, также оказал значительное влияние на развитие малой эпической прозы. Произведения, наподобие "Белых ночей" Федора Достоевского, пронизаны тонкими нюансами человеческих взаимоотношений и внутреннего мира персонажей. В узбекской литературе также прослеживается эволюция малой эпической прозы под воздействием культурных и литературных течений начала XX века. Работы таких писателей, как Хамза Хакимзаде, отражают уникальные узбекские ценности и культурные особенности, при этом сочетая их с современными литературными тенденциями. Следовательно можно сказать, что как в русской, так и в узбекской литературе, малая эпическая проза развивалась в контексте сложной культурной динамики, взаимодействуя с различными литературными течениями и вдохновляясь национальными традициями.

После рассмотрения влияния русской малой эпической прозы на узбекскую, следует обратить внимание на взаимосвязи между узбекской и русской литературой, а именно на

влияние узбекской малой эпической прозы на русскую. Подобно тому, как русская литература оказывала влияние на узбекскую, узбекская литература также вносила свой вклад в развитие русской литературы начала XX века. Переводы произведений узбекских писателей на русский язык позволяли российским читателям погрузиться в уникальный мир узбекской культуры и литературы. Такие произведения, как роман "Чингиз" Гафура Гуляма, представляли собой не только историческую и культурную ценность, но и становились объектом интереса для русских литературных критиков и читателей, внесших свой вклад в расширение границ литературного канона. Одновременно узбекская литература также оказывала существенное влияние на расширение тематики и проблематики русской литературы. Произведения узбекских писателей порой становились источником вдохновения для российских авторов, раскрывая новые грани человеческого опыта и культурного разнообразия. Например, работы Хамзы Хакимзаде, такие как "Зулайха открывает глаза", с их глубокими моральными и философскими основами, могли вдохновить русских писателей на новые темы и сюжеты. Кроме того, узбекская малая эпическая проза вносила свой вклад в обогащение русского языка за счет узбекских лексических и фразеологических оборотов. Этот обмен культурными и языковыми элементами способствовал дальнейшему разнообразию и эволюции русской литературы, придавая ей новые оттенки и смысловые глубины. Таким образом, взаимосвязь между узбекской и русской малой эпической прозой является важным аспектом литературного развития начала XX века, отражающим культурные и языковые диалоги между двумя народами.

Продолжая рассмотрение взаимосвязи узбекской и русской малой эпической прозы, следует обратить внимание на конкретные примеры взаимовлияния и сравнить художественные приемы, темы и сюжеты, присутствующие в произведениях обеих культур. Анализ произведений русских и узбекских писателей начала XX века позволяет выявить общие и отличительные черты в их творчестве. Например, сравнивая работы Чехова и Садыка Яссауи, можно обратить внимание на подходы к описанию быта и психологии персонажей. В то время как Чехов часто фокусировался на внутренних конфликтах и меланхолических настроениях героев, Яссауи в своих произведениях чаще подчеркивал социальные аспекты и борьбу за справедливость. Сравнение художественных приемов также позволяет выявить общие тенденции в развитии малой эпической прозы в обеих культурах. Например, использование символики и мотивов фольклора и национальных традиций в работах русских и узбекских писателей подчеркивает их стремление к сохранению культурной идентичности и национального самосознания. Однако, помимо общих черт, существуют и отличия, связанные с уникальными характеристиками каждой культуры и национального менталитета. Например, в узбекской малой эпической прозе часто прослеживается уважение к традиционным ценностям и обычаям, в то время как в русской литературе подчеркивается индивидуальность и внутренняя борьба героев. Таким образом, анализ конкретных примеров взаимосвязей и влияний в произведениях русских и узбекских писателей позволяет глубже понять характер этих литературных традиций и их вклад в развитие мировой литературы.

В заключение, исследование взаимосвязей и влияний в развитии малой эпической прозы в русской и узбекской литературах начала XX века позволяет увидеть обширный культурный обмен и взаимодействие между этими двумя литературными традициями.

Анализ общих тенденций развития жанра, влияния одной литературной культуры на другую, а также рассмотрение конкретных примеров взаимосвязей и влияний подчеркивают богатство и разнообразие литературного наследия начала XX века. Это исследование является важным шагом в понимании литературных процессов и культурного контекста того времени. Подчеркивается важность межкультурного обмена и взаимопонимания в развитии литературы и формировании культурного ландшафта. Изучение взаимосвязей между узбекской и русской малой эпической прозой помогает нам лучше осознать наследие этих двух великих литературных традиций и их влияние на мировую литературу. Следовательно, дальнейшие исследования в этой области могут способствовать более глубокому пониманию культурного взаимодействия и его роли в формировании литературных канонов и национальных идентичностей.

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ОСОБЕННОСТИ ИСПОЛЬЗОВАНИЯ НЕКОТОРЫХ МЕТОДОВ ВИЗУАЛЬНОГО
АНАЛИЗА НА УРОКАХ ЛИТЕРАТУРЫ

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Аннотация: в данной статье описывается роль приёмов визуализации в повышении уровня осмысленности художественных текстов на уроках литературы, обосновывается значимость визуальной грамотности учащихся как части их информационной культуры.

Ключевые слова: методы и приёмы, ментальные карты, скрайбинг, сторителлинг, логическое мышление, информация, манипуляция.

Система образования в современном обществе должна изменяться и совершенствоваться. На самом деле деятельность современного учителя невозможно представить без использования новых методов преподавания.

Каждый преподаватель перед началом занятия должен распланировать применение того или иного метода обучения для организации более интересного и эффективного для усвоения материала учебного процесса.

Каждый учащийся, по мнению некоторых учёных, должен уметь самостоятельно овладевать знаниями, их использовать на практике, работать с разным материалом, анализировать, самостоятельно обсуждать и находить решение поставленным задачам. Одной же из первоочередных задач педагога – это научить учащихся думать креативно, развивать их мышление и сферу общения.

Никому не секрет, что весь мир захватили гаджеты и использование таких технологий создаёт определённого рода интерес к занятиям. Практика западноевропейских стран показывает, что в обучающий процесс внедряются и широко используются виртуальные обучающие игры, виртуальные диалоги с героями произведений, а также виртуальные ролевые игры.

Школьникам иногда трудно разобраться с композиций произведения, установить причинно-следственные отношения, запомнить термины и описать героев произведения. При изучении литературы и русского языка учащиеся сталкиваются с незнакомой для своего слуха и языка лексикой.

В таких случаях можно использовать метод «ментальные карты» – метод организации идей. Ментальные карты помогают запомнить и объяснить сложные вещи. Например, составить учебный план или записать тезисы.

Эффективен на уроках литературы также метод «скрайбинг». Скрайбинг – это процесс создания визуального конспекта. Пользности написание скрайбинга для всех учащихся:

- возможность визуализации;
- работа с текстом;

- работа с группой,
- чтение произведения.

Техника скрайбинга предполагает структурирование информации.

Подобный подход, процесс совместного творчества вызывает интерес у учащихся, развивает их воображение, логическое мышление. Скрайбинг способствует лучшему усвоению информации.

Можно привести к примеру ситуацию когда школьники не просто составляют подобный вид работы в форме таблицы для уроков литературы, а они подбирают ассоциации, узнаваемые символы, располагают их определённом порядке, запоминают, потому что не только записывают, но и зарисовывают информацию и делают это осознанно. Использование техники скрайбинга на уроке, посвящённом образу Тараса Бульбы. Учитель в первую очередь делает сообщение об истории создания повести «Тараса Бульба», фамилия и имя заглавного героя записываются в середине листочка без кавычек.

Условие данного задания заключается в том, чтобы говорить не обо всем произведении, а о заглавном герое, и что образ героя, через материалы первой главы подтверждается изображением персонажа в конспекте. Ученики вспоминают определение литературного героя, делятся первичными впечатлениями, рассказывают, что показалось непонятным в герое и что заставило задуматься, что именно удивило. В углу конспекта под знаком вопроса учитель коротко записывает то, чего ребята не понимают в герое: его увлеченность войне равнодушное отношение к жене, упрямство и своеволие, строгость по отношению к детям и его взгляды на воспитание.

Задача учеников – проанализировать образ и понять героя. Учителю необходимо проверять, насколько дети внимательно читали текст, при помощи выбора найти портретные детали, с помощью которых автор изображает Тараса. Например, дать такое определение как: «Бульба тяжёл и толст». Задача студентов найти в тексте нужный фрагмент и выразительно прочитать его определить, что состоит записывать в конспект, проанализировать роль, действия фразы, детали авторского высказывания в создании образа героя. После того, как конспект почти закончен, учащиеся по цепочке рассказывают его, подводя таким образом итоги анализа произведения. В заключении занятия можно задать ученикам следующие вопросы:

- Изменилось, ли ваше отношение к герою?
- Что стало понятнее?

Ребята закрепляют в конспектах знак вопроса и ставят значок, «плюс» или «минус» возле того, который непонятен. Практически все меняют отношение к герою и приходят к выводу, что Тарас Бульба – человек своей эпохи, «трудного бранного времени».

Таким образом скрайбинг оживляет восприятие произведения, развивает интерес к изучению литературы и логическое мышление воображение учащихся. Видно, что скрайбинг способствует достижению обучающимися планируемых результатов: личностных, метапредметных и предметных.

Также очень эффективным в изучении биографии писателей или сюжетных линий произведений является приём «сторителлинг». Сторителлинг (англ. storytelling: story – история и telling – представление) – это приём передачи информации, образов и навыков путём составления истории. Сторителлинг в образовании – это создание эмоциональных связей, с помощью которых можно управлять вниманием учащихся, расставлять нужные

акценты, заостряя внимание на важных вещах. Это – возможность донесения нужной информации, идей, ценностей путём рассказывания историй, а также помощь учащимся в толковании, интерпретации и анализе художественного текста. Важно отметить, что такая форма работы с учащимися помогает сделать занятие интересным, пробуждает творческие способности и затрагивает эмоциональную сферу молодого поколения. Сторителлинг создаётся с ранее заданными целями, готовится заранее, несмотря на то что выглядит как полнейшая импровизация, созданная учителем во время занятия. В некотором смысле сторителлинг можно считать своего рода образовательной манипуляцией, мощным ораторским приёмом, способом пробудить активность учащихся, удержать внимание.

Основа техники сторителлинга заключается в том, что отдельные фразы и образы воспринимают легче и лучше, чем цифры и факты. Особенно мощное воздействие оказывают реальные истории из жизни. Такие истории позволяют актуализировать художественный текст, сделать его понятным и интересным для молодого современника. Дети захотят повторить поведение героя книги или избежать плохого сценария, принимая во внимание чужой личный опыт. Истории хорошо и надолго запоминаются, что поможет не только в дальнейшей жизни, но и в написания эссе.

Все рассмотренные нами методы и приёмы целесообразно внедрять в образовательный процесс. Для использования их на занятиях каждому педагогу стоит изучить труды А.А. Аксёновой [1], Д. Дирксен [2] и др.

Выполнение подобных нестандартных заданий помогает активизировать работу на занятиях, повышать интерес к предмету, развивать визуальную грамотность и культуру, зрительное восприятие, реализовывать возможности ребенка, что, несомненно, поможет ему быть более успешным в жизни.

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ABSTRACT

This article explores the intricate dynamics of metaphorical patterns through a comparative lens, examining their usage across diverse contexts, languages, cultures, and domains. Beginning with a foundational understanding of metaphor's role in decision-making processes and cognitive frameworks, it delves into the profound relationship between metaphor and cultural identity. Drawing on insights from cultural linguistics, anthropology, and metaphor studies, the discussion navigates through the nuanced ways in which culture influences the creation, interpretation, and significance of metaphors. Comparative analyses across various dimensions, including linguistic, cognitive, temporal, and technological, offer a comprehensive view of how metaphorical expressions shape communication, cognition, and cultural understanding. Through methodologies such as cross-linguistic studies, domain-specific analyses, and discourse comparisons, researchers illuminate the multifaceted nature of metaphor and its pervasive impact on human thought and expression.

Key words: Metaphor, cognitive processes, linguistic relativity, cultural influences, metaphorical expressions, cross-cultural analysis, cultural models, ritual analysis, artistic expressions, literature, harmony.

INTRODUCTION

Metaphor, often described as the language of thought, serves as a powerful tool in shaping how we perceive and interact with the world around us. Its influence spans across linguistic, cognitive, and cultural domains, playing a pivotal role in decision-making processes, communication, and the construction of meaning. Comparative analysis of metaphorical patterns offers a lens through which researchers can explore the universality, variation, and cultural specificity of metaphors across languages, cultures, and domains. By delving into cross-linguistic studies, domain-specific metaphors, cultural metaphor analysis, and other methodologies, scholars uncover the intricate relationship between language, culture, and cognition.

ANALYSIS OF LITERATURE ON THE TOPIC

While familiarizing with foreign literature, one can see that such scientists as Russian scientists V. V. Vinogradov, A. V., N. Amasova, and English researchers Lakoff D, Johnson G, (English metaphor) Gibbs, R. W. have achieved advanced results in their author's sources. An example of this is the English-Spanish book "The poetics of mind", published in England. In addition to the historical-descriptive and synchronic approach to conceptual metaphor in literary translation, this book also contains materials for the analysis of fixed phrases, proverbs, phrases, dictionaries, the basis of the science, and metaphors in works. These and similar scientific sources were used during the research for our article.

Research Methodology

In this article, the main information from sources related to "comparative analysis of metaphorical patterns" was presented. The concept of metaphor was analyzed by using written

sources and works. In this work, the main method is descriptive method, and at the same time, a cross-sectional analysis was performed based on English metaphorical sources by providing relevant examples as well as presenting the features of conceptual metaphor.

Analysis and Results

Comparative analysis of metaphorical patterns involves examining how metaphors are used across different contexts, languages, cultures, or domains. This approach allows researchers to uncover similarities, differences, and underlying conceptual structures, shedding light on how metaphorical expressions vary or persist across various settings. Before exploring comparative analysis of metaphorical patterns in depth, let's provide a general understanding of metaphor.

Metaphors play a role in decision-making processes by framing and shaping how choices are conceptualized. Metaphors, such as those related to journeys or battles, influence the way we approach and make decisions. The relationship between metaphor and cognitive processes is also explored in the context of linguistic relativity, suggesting that the language we use, including metaphorical expressions, can influence the way we perceive and think about the world.

Metaphors can also contribute to problematic thinking patterns or biases. Lakoff and Johnson discuss how certain metaphorical frames in political discourse can influence public opinion by framing issues in particular ways. The relationship between metaphor and cognitive processes is profound and multifaceted. Conceptual Metaphor Theory highlights how metaphor is not just a linguistic device but a fundamental mechanism through which we structure and understand our world. From embodied metaphors shaping our basic conceptual system to influencing memory, learning, and decision-making processes, the impact of metaphor on cognition is pervasive. The research and theories discussed provide a comprehensive view of how metaphor is intricately woven into the fabric of human thought, influencing the way we perceive, reason, and navigate the complexities of our cognitive landscape. Metaphor is not only a linguistic phenomenon but also a cultural one, deeply intertwined with the collective values, beliefs, and experiences of a society. The analysis of cultural influences on metaphor use explores how different cultures shape and mold metaphorical expressions, reflecting unique perspectives, social structures, and historical contexts. Drawing on insights from cultural linguistics, anthropology, and metaphor studies, this discussion will delve into the nuanced ways in which culture influences the creation, interpretation, and significance of metaphors. Cultural influences on metaphor are evident in the vast array of metaphorical expressions that vary across societies. Kövecses emphasizes that while certain metaphors may be universal, many are culture-specific, reflecting the distinct experiences and worldview of each cultural group.

Language is a mirror of culture, and metaphors embedded in language often encapsulate cultural values and norms. For example, the metaphorical expression "time is money" is deeply rooted in Western capitalist cultures, emphasizing the value of time as a commodity. Cultural models, or shared mental frameworks within a culture, significantly influence metaphorical thinking. Hollan and Throop argue that metaphors are embedded in these cultural models, shaping how individuals within a culture understand and interpret various aspects of life. Metaphors play a crucial role in cultural rituals and traditions, providing symbolic meaning to practices that are central to a community's identity. Examining metaphors in rituals reveals how cultural symbols and values are encoded and transmitted across generations. Artistic expressions, including literature, often serve as repositories of cultural metaphors. Analyzing literature from different cultures unveils unique metaphorical patterns that reflect the cultural ethos. For example,

the concept of "harmony" is a recurring metaphor in East Asian literature, representing a central cultural value. Cross-cultural analysis allows researchers to compare metaphors across different cultures, revealing patterns and divergences. Sharifian explores metaphorical expressions related to love in Persian and English, demonstrating how cultural perspectives influence the metaphors employed. Metaphors for time vary significantly across cultures. While Western cultures often employ the "time is money" metaphor, others may use metaphors rooted in natural phenomena or social relationships. This reflects how cultural perceptions of time shape metaphorical expressions. Body metaphors, which draw on bodily experiences to convey abstract concepts, are culturally influenced. For instance, Lakoff and Kövecses discuss how the metaphor "ANGER IS HEAT" can manifest differently in cultures where the link between anger and heat is culturally salient. Metaphors related to nature provide insights into cultural attitudes toward the environment. In some cultures, nature metaphors may emphasize harmony and interconnectedness, while in others, they may underscore dominance or conquest. Analyzing metaphors in advertising reveals how cultural values are strategically employed to convey messages. Hofstede's cultural dimensions theory can be applied to understand how cultural values impact the choice and reception of metaphors in advertising²⁴. Cultural background influences how individuals comprehend metaphors. Studies by Chua and Rubba show that cultural context significantly affects metaphor interpretation, indicating that cultural familiarity plays a role in understanding metaphors. The analysis of cultural influences on metaphor use underscores the dynamic relationship between language, culture, and cognition. Metaphors are not universal or fixed; they are living expressions that evolve within cultural contexts. Cultural values, traditions, rituals, and linguistic structures contribute to the creation and interpretation of metaphors, shaping the way individuals within a culture understand and communicate about the world. Studying cultural influences on metaphor opens a window into the collective mindset of societies, revealing the intricate ways in which metaphorical expressions reflect and perpetuate cultural identity.

When it comes to comparative analysis of metaphorical patterns, they are as follows:

Cross-Linguistic Metaphor Studies: Comparative analysis often extends to cross-linguistic studies, where researchers examine how metaphorical expressions differ or align across languages. For example, Kövecses explores the universality and variation of metaphor in different cultures, emphasizing how certain metaphorical concepts may be shared, while others exhibit cultural specificity.

Domain-Specific Metaphors: Metaphorical patterns can vary significantly based on the domain under consideration. A comparative analysis of metaphors in scientific discourse versus everyday language, as undertaken by Lakoff and Johnson, reveals that certain metaphorical mappings are domain-specific. For instance, in scientific discourse, the metaphor "argument is war" may be prevalent, while everyday discourse might favor metaphors related to journey or container.

Cultural Metaphor Analysis: Cultural metaphor analysis involves examining how specific cultures conceptualize abstract domains through metaphorical expressions. Lakoff and Johnson's exploration of the "strict father" and "nurturant parent" metaphors in moral and political discourse offers a comparative lens to understand how divergent cultural values shape

metaphorical patterns.

Comparative Discourse Analysis: Discourse analysis allows for the comparison of metaphorical patterns within specific genres or types of communication. Charteris-Black employs this approach to analyze metaphors in political discourse during the 2005 British election campaign. The study reveals how certain metaphorical expressions, such as "Britain as a container," shape political communication.

Metaphors Across Time: Comparative analysis can also extend to temporal dimensions, examining how metaphorical patterns evolve over time. Historical studies, such as Forceville's work on the analysis of visual metaphors in Dutch political cartoons, provide insights into how societal changes are reflected in metaphorical expressions.

Comparative Cognitive Metaphor Studies: Cognitive metaphor studies compare how different cognitive domains are metaphorically structured. Studies exploring variations in conceptual metaphors across languages, such as the work by Yu on the metaphor "up is good," highlight how cognitive metaphorical patterns can be both universal and culture-specific.

Contrastive Metaphor Analysis: Contrastive metaphor analysis involves comparing metaphorical patterns in translations or between languages. Studies in translation studies, like Steiner's analysis of metaphor translation strategies, delve into how metaphors are adapted or retained in different linguistic and cultural contexts.

Technology and Metaphor: Comparative analysis extends to new domains influenced by technological advancements. The study of metaphorical patterns in digital communication, such as memes and online discourse, is an evolving field. Here, researchers explore how metaphors adapt and emerge in the context of digital culture.

Comparative analysis of metaphorical patterns is a dynamic field that draws upon insights from linguistics, cognitive science, cultural studies, and discourse analysis. Researchers employ various methodologies to compare how metaphors function across languages, cultures, domains, and time periods. These studies deepen our understanding of the nuanced ways in which metaphorical expressions shape communication, cognition, and cultural understanding. Metaphor is not merely a linguistic ornament; it is deeply ingrained in the structure of language and plays a crucial role in shaping meaning. The analysis of how metaphor contributes to language structure and meaning involves exploring the ways in which metaphorical expressions influence syntax, semantics, and our overall conceptualization of the world.

CONCLUSION

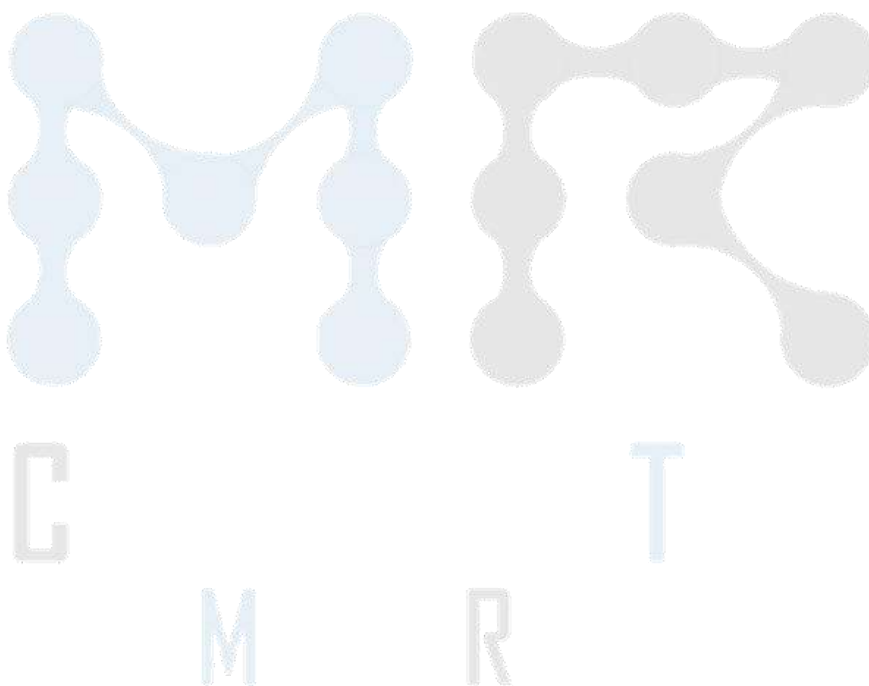
The study of metaphorical patterns through comparative analysis unveils the dynamic interplay between language, culture, and cognition. Metaphors, far from being mere linguistic adornments, serve as fundamental building blocks of our conceptual system, influencing how we perceive, reason, and communicate. Through cross-linguistic studies, cultural metaphor analysis, and other approaches, researchers gain insights into the diverse ways in which metaphors shape meaning across different contexts and time periods. As our understanding of metaphor continues to evolve, so too does our appreciation of its profound impact on language structure, communication, and cultural identity. By delving into the rich tapestry of metaphorical expressions, we deepen our understanding of the human experience and the intricate ways in which language reflects and shapes our cognitive landscape.

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PROBLEME BEI DER ÜBERSETZUNG DEUTSCHER REDEWENDUNGEN INS
USBEKISCHE

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Anmerkung. In diesem Artikel geht es um die Methoden der Übersetzung von Redewendungen, die Beispiele der Volkskunst sind, vom Deutschen ins Usbekische und vom Usbekischen ins Deutsche. Deutsche und usbekische Phraseologismen werden analysiert und Schlussfolgerungen gezogen.

Schlüsselwörter: Ausdruckseinheiten, Übersetzung, Bedeutung, Analyse, Menschen, Bild, Methode, Einheit.

Einführung. Wir sind uns der Bedeutung von Phraseologismen in der Linguistik bewusst und möchten daher die Bedeutung ihrer Übersetzung aus dem Deutschen ins Usbekische hervorheben. Bei der Übersetzung von Wortkombinationen treten Probleme wie teilweise Übereinstimmung, vollständige Übereinstimmung und Nichtübereinstimmung auf. Übersetzung von Phraseologieeinheiten Die Übersetzung von Phraseologieeinheiten aus dem Deutschen ins Usbekische verursacht einige Schwierigkeiten, die im Prozess der Übersetzungsforschung auftreten. Es gibt verschiedene Möglichkeiten, deutsche Ausdruckseinheiten ins Usbekische zu übersetzen. Einige Phrasen in der deutschen Sprache entsprechen der Bedeutung von Phraseologieeinheiten in der usbekischen Sprache. Solche Harmoniefälle erleichtern den Übersetzungsprozess und verdeutlichen die Bedeutung. Diese Art der Zuordnung von Situationen hilft dabei, die Phraseologieeinheit leicht zu übersetzen und ihre volle Bedeutung wiederzugeben. Schließlich besteht das Hauptziel des Übersetzers darin, eine Ausdruckseinheit in dieselbe Sprache zu übersetzen und am Ende dieselbe Ausdruckseinheit zu erhalten. Dieses Ziel kann bei der Übersetzung nicht immer erreicht werden, da es große Fähigkeiten des Übersetzers erfordert.

In der deutschen Sprache gibt es beispielsweise den Ausdruck „Ein Wolf im Schafspelz“ (ein Wolf im Schafspelz, das heißt, darunter verbirgt sich die Bedeutung einer Person, die sich normal und ruhig verhält, deren Herz aber nicht rein ist). Dieser Ausdruck hat eine Entsprechung in der usbekischen Sprache und wird verwendet, ohne seine direkte Form und Bedeutung zu meiden. Allerdings wird der deutsche Ausdruck „ein alter Hase“ wörtlich ins Usbekische als „alter Hase“ übersetzt, in diesem Fall verliert der Ausdruck jedoch seine denotative Bedeutung. Da es in der usbekischen Sprache keine alternative Version dieses Ausdrucks gibt, wird dieser Ausdruck mit „ein Meister seines Fachs, ein Spezialist mit großer Erfahrung“ übersetzt. Intellekt und Können sind solche inneren Eigenschaften eines Menschen, anhand derer die innere Welt jedes Menschen bewertet wird. Deshalb heißt es: „Man wird entsprechend seiner Kleidung begrüßt und gemäß seiner Einstellung verfolgt.“ Auf Deutsch heißt das „Man empfängt den Mann nach dem Gewand und entlasst ihn nach dem Verstand“. Sowohl auf Usbekisch als auch auf Deutsch kommt hier die gleiche Idee zum Ausdruck, das heißt, wir können verstehen, dass selbst unter schöner Kleidung und äußerer Schönheit manchmal eine innere Leere herrscht.

Forschungsmaterialien und –methode.

Rekonstruktion des Inhalts von Sprichwörtern und Phraseologieausdrücken

Es ist bekannt, dass in der Fiktion bestimmte Ereignisse und Realitätsbeweise im Zusammenhang mit dem Leben eines bestimmten Volkes in künstlerisch eindrucksvoller Form zum Ausdruck kommen. Insbesondere die Darstellung von Bildern in der Sprache erfolgt mittels Phraseologismen, die in jeder Sprache ihre eigenen Merkmale und insbesondere die Ausdrucksform haben. Dies erklärt sich aus der Tatsache, dass Phraseologismen mit vielen extralinguistischen und ethnolinguistischen Faktoren eine komplexere lexikalisch-grammatische und semantisch-syntaktische Struktur aufweisen. Solche Faktoren verleihen Phraseologieeinheiten einen nationalen Charakter und spielen eine wichtige Rolle bei ihrer Entstehung und Entwicklung. Mit diesem Gerät zeigen sie das Denken der Menschen und die Einzigartigkeit ihrer Kultur deutlicher, verleihen der Sprache eine andere nationale Farbe und Identität und treten stabil in das Sprachsystem ein. Analoge Optionen, die sich in stilistischer Funktion und Inhalt ähneln, sich aber im lexikalischen Inhalt unterscheiden, können sich nicht immer ersetzen. Die Austauschbarkeit in der Übersetzung wird durch das Vorhandensein einer Phraseologie mit nationalen Realitäten behindert. Es gibt keine Analoga (Äquivalente) zu einigen landesspezifischen Phraseologieeinheiten. Diese werden mithilfe verschiedener in der Übersetzungserfahrung entwickelter Techniken in eine andere Sprache übersetzt. Diese Methoden haben ihre positiven und negativen Aspekte. Daher hängt der Erfolg von Übersetzungen häufig von deren angemessener und geschickter Anwendung ab. Sprichwörter, Sprichwörter und ideomatische Ausdrücke sind ihren konkreten Alternativen hinsichtlich der bildlichen und metaphorischen Bedeutung überlegen.

Forschungsergebnisse. Es ist bekannt, dass Schriftsteller in ihren Werken Sprichwörter, Sprüche, Aphorismen und Redewendungen verwenden, um ihre Gedanken in einem einfachen Bild auszudrücken und die Ausdruckskraft des Werkes zu steigern. Das Sprichwort ist eines der Genres der volkstümlichen mündlichen Kreativität mit kompakter Form, aber tiefer Bedeutung. Mit den Worten des russischen Folkloristen V.P. Anikin: „Was nicht in der Erfahrung des Volkes steht, steht nicht im Sprichwort.“ Entsprechend ihrer sozio-ideologischen Funktion drücken Sprichwörter vor allem die Weltanschauung der breiten Öffentlichkeit und in manchen Fällen auch einiger sozialer Schichten und Gruppen aus.

Abschluss. Am Ende unserer Rede können wir betonen, dass die Phraseologie in jeder Sprache als wichtige Spracheinheit gilt und dazu dient, eine Idee mit ihrer Anwendung vollständig auszudrücken. Indem der Übersetzer bei der Übersetzung der Ausdruckseinheiten im Text das richtige Äquivalent wählt, vermittelt er dem Leser vollständig die Gedanken und Gefühle des Autors.

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INCREASING THE EMPLOYMENT OF LABOR RESOURCES IN THE
AGRICULTURAL NETWORK

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Abstract: In this article, the specific features of increasing the employment of labor resources, the specific positive qualities of these subjects in the current globalization and information age, proposals for increasing the socio-economic well-being of the population employment have been developed.

Аннотация: В данной статье разработаны особенности повышения занятости трудовых ресурсов, конкретные положительные качества этих субъектов в современную глобализационно-информационную эпоху, а также предложения по повышению социально-экономического благосостояния населения.

Annotatsiya: Ushbu maqolada mehnat resurslari bandligini oshirishning o'ziga xos xususiyatlari, hozirgi globallashuv va axborotlashgan davrda mazkur subyektlarning o'ziga xos ijobiy sifatleri, aholini band etish ijtimoiy-iqtisodiy farovonligini oshirish bo'yicha takliflar ishlab chiqilgan.

Key words: Economic growth, employment, efficiency, entrepreneurship, market infrastructure, prosperity, service.

Ключевы слова Экономический рост, занятость, эффективность, предпринимательство, рыночная инфраструктура, процветание, сервис.

Kalit so'zlar: iqtisodiy o'sish, bandlik, samaradorlik, tadbirkorlik, bozor infratuzilmasi, farovonlik, servis.

INTRODUCTION.

Further development of private sectors in rural areas is important in deepening and improving market reforms in our country. Without developing this sector of the economy, it is impossible to ensure the sustainable development of the country's economy, because agriculture is considered one of the real sectors of the economy, it provides raw materials for the industry, supplies food for the population, in addition to labor resources. More than 60 percent is accounted for by agriculture. The majority of unorganized youth and the volume of their foreign migration are in rural areas. Therefore, ensuring the employment of labor resources in rural areas requires the development of small business and private entrepreneurship.

In the following years, in our country, we introduced a procedure for allocating land plots that is equal for all, transparent and based on market principles, ensuring stability in property and legal relations related to land, protecting land, guaranteeing the property rights of land owners, as well as making it a civil law by determining the economic value of land. consistent reforms are being carried out to introduce it into free circulation as an object of relations.

At the same time, the procedure for conducting electronic online auctions has been developed for determining the lease of agricultural land plots through electronic online auctions.

In terms of job creation, 5,440 projects and 250,000 jobs will be created in the industrial sectors during 2023, 55,800 jobs in 8,430 projects in agriculture, and 11,000 projects in the service

sector 79 It is decided to strengthen the activity of regional, district and city governments to create 5,000 jobs.

In order to radically improve the situation in the remote districts of our republic, where the level of unemployment and demand in the labor market is high, the implementation of the mentioned measures was reflected in the strategy of actions. It is planned to create 56,800 jobs in 34 districts of our republic, where the unemployment rate is high and the situation in the labor market is difficult. Including: 15 thousand in industry; 9.7 thousand in the field of service and service; 15,500 under construction; 17,500 jobs will be created in agriculture, and this will be of great practical importance in ensuring the employment of the population.

The main part of labor resources in our republic lives in rural areas. So therefore, in order to improve the standard of living of the population, it is necessary to increase the number of small business entities in rural areas. It is necessary to increase the income of rural residents by modernizing the service and household sectors in rural areas. In our country, significant work has been carried out on the sustainable development of small business and private entrepreneurship, services and household industries, which ultimately have a significant impact on the improvement of the living standards of the rural population.

- in the development of small business and private entrepreneurship, the following should be done:

- increase of retail trade, catering, household service facilities in rural areas;
 - establishment of mini-banks in rural areas according to population;
 - opening information-resource centers in rural settlements (electronic libraries, centers connected to the Internet);
 - modernization of small enterprises, further acceleration of technical and technological re-equipment meeting the requirements of the present time, widespread introduction of modern, flexible and world-competitive technologies;
 - production of fruits and vegetables, packaging services, production of raw materials for packaging, organization of agricultural warehouses;
 - to increase the competitiveness of small enterprises by introducing a system of strict savings in the field of small business and private entrepreneurship, encouraging the reduction of production costs and product costs;
 - in order to finance programs aimed at increasing the income of low-income families, to ensure the employment of unemployed people, self-management bodies of labor and citizens, the Youth Union of Uzbekistan, the Women's Committee of Uzbekistan, other interested ministries and agencies strengthen cooperation with;
 - providing employment and increasing income of the population, especially in rural areas projects financing, new the work seats organize
- doing enterprises activities financial support, that's it including to them technological equipment and modernization for modern equipment and mini-technologies purchase to do loans to give
- our country of enterprises international in the market commodity and services level and quality increase and that's it basically commodity and services export increase.

Summary by doing that's it to say maybe village in places private sector more development through population the work with employment to increase and marriage degree it is possible to

make a great contribution to improvement , in general , to the improvement of infrastructure in our villages.

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**COMPARATIVE DIAGNOSTICS OF THE METHOD OF CLOSURE OF A TOOTH
SUN USING A FRAGMENT OF AN EXTRACTED TOOTH AND RESTORATION OF
TOOTH CELLS UNDER A BLOOD CLOTT IN PATIENTS WITH EXTRACTED
TEETH**

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Abstract. In the article, 25-45 48 primary patients who applied to the Department of Oral Surgery and Department of Dental Implantology and Maxillofacial Surgery of Samarkand State Medical University are divided into 2 groups. The 1st experimental group is compared with the extraction of various teeth ending with "clot" and the 3rd group with the use of osteoplastic materials after the extraction of the tooth fragments and the alveolar bone volume preservation technique using the osteoplastic material.

From 202 to 2023, scientific research aimed at preserving the volume of alveolar bone tissue was carried out in the departments of "Oral surgery and dental implantology" of Samarkand State Medical University. In the study, 41 patients underwent surgery.

Key words: tooth extraction, use of tooth piece, bone atrophy, bone tissue atrophy, tooth socket.

Introduction: Tooth extraction is one of the most common operations in surgical dentistry. Defects formed in the rows of teeth are repaired with the help of orthopedic treatment. After tooth extraction, alveolar bone atrophy is observed, and this process is associated with the breakdown of the alveolar walls of the tooth. Atraumatic tooth extraction is used in modern surgical dentistry in order to reduce bone fragmentation and surrounding soft tissue injuries [8,3,9,12].

Physiological atrophy of the alveolar bone is observed even when the tooth is removed in a simple way [2,5,6,24,27,36]. Alveolar bone atrophy after tooth extraction is 1 mm horizontally and 2 mm vertically after 1 year, on average. In the first months after tooth extraction, the loss is maximal (more than 1mm) and accounts for 55% of horizontal resorption [11, 15].

The vestibular bone plate of the front part of the teeth is mainly composed of Sharpey's fibers and alveoli, so bone resorption is more pronounced on the vestibular side.

Physiological atrophy of the bone plate occurs in the first 50 days and averages 0.4 mm in cases where the clot is completely removed to remove the root of the tooth. Depending on the general condition of the patient, location of the causative tooth, gum biotype, regeneration potential and age, these values may differ.

The purpose of the study.

To justify and improve the method of closing the volume of the tooth cage with the extracted tooth piece in order to prevent bone absorption (resorption) processes.

Learning object.

The dissertation is carried out in accordance with the principles and rules of evidence-based medicine. 48 primary patients aged 25-45 who applied to the Department of Oral Surgery and Dental Implantology and Department of Maxillofacial Surgery of Samarkand State Medical

University are divided into 2 groups. Experimental group 1 using the technique of preserving alveolar bone volume using extracted tooth fragments and osteoplastic material, group 2 different groups of teeth ending with "blood clot" and group 3 tooth cells after tooth extraction using osteoplastic materials are compared.

During the years 2020-2022, scientific research aimed at preserving the volume of alveolar bone tissue was conducted at the "Oral Surgery and Dental Implantology" departments of Samarkand State Medical University. In the study, 41 patients underwent surgery.

In accordance with the research plan, the patients underwent tooth extraction: in the main and control groups, teeth were extracted in an atraumatic manner and the size of the tooth cells was preserved as much as possible. After tooth extraction in the main group, a piece of tooth was sawn from the ligament area around the root of the tooth, then a 2 mm thick fragment was fixed in the tooth cage, and in the control group, the extracted teeth grew normally. Thus, all cases were divided into two groups - main and control groups [45,50,51,58,67,70].

In preparation for the operation, irreparable premolars and molars of the upper and lower jaws were removed. A total of 57 teeth were removed.

In most cases, teeth affected by chronic periodontitis were extracted, and damage was observed below the marginal gingival area of the tooth crown [16,18,22,24,39,43]. Chronic periodontitis was noted in 15 representatives of the main study group (68.1%), in 13 members of the control group (68.4%). Damage to the dental coating below the marginal gum level was observed in 5 members of the main research group (22.7%), in 3 representatives of the control group (15.8%).

Perforation of the root of the tooth: was detected in two members of the main group (9.1%), none in the control group. Exacerbation of chronic periodontitis was not found in the main group, but in 3 patients (15.8%) of the control group [1,4,7,9,10,14,17,19,21]. According to Pearson's χ^2 criterion, as in the previous cases, there were no statistically significant differences between the indicators of both groups ($p=0.14$), which means that the groups did not differ from each other according to the reasons for tooth extraction. According to the V-Cramer criterion, intergroup communication is weak ($V=0.058$). Table 1 shows the above data.

Table 1. Reasons for tooth extraction

Reason for removal	The main taste group (n=22)		Control group (n=19)		p	V
	Abs., person	Nis., %	Abs., person	Nis., %		
Chronic periodontitis	15	68,1	13	68,4		
Injury	0	0	0	0		
Tooth crack	0	0	0	0		
Periodontitis	0	0	0	0		
Disintegration of the crown from the level of the marginal gum	5	22,7	3	15,8		

Perforation	2	9,1	0	0		
Chronic				15,8	0,14	0,05
exacerbation of periodontitis	0	0	3			
Odontogenic gagmoritis	0	0	0	0		

Note: According to Pearson's χ^2 criterion, the differences are statistically significant when $r \leq 0.05$.

Many patients had their teeth extracted due to decay of the crown and/or roots due to caries, caries complications, and failure of endodontic treatment (Figure 1).



Figure 1. A tooth to be removed due to deepening caries

Periapical destructive changes in the jaw bones are also one of the reasons for tooth extraction, and this pathological process is clearly visible in orthopantomography (Fig. 2).



Figure 2. Destruction of alveolar bone tissue in the root area of teeth 46 and 47

After curettage in the sockets of the extracted teeth of the patients of the main group, they were closed with the extracted tooth fragment.

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The extracted tooth was divided into transverse fragments using the segmental sawing method. A head and a separation disk were used in this process [63,64,66,68,70]. First, the crown part of the tooth was separated from the root area, then another transverse cut was made, retreating 2 mm above the sawed area. The fragment of the extracted tooth, taken from the front of the neck and with a circular connection on its surface, was fixed surgically and mechanically, and the channels of the fragment were treated with a diamond drill [17,28,32,37,49,53,55,60].

In the initial postoperative period, the patient's condition was evaluated and attention was paid to the following criteria: pain in the area of the removed tooth cage, swelling of the face, the condition of the submandibular lymph nodes, changes in the mucosa of the alveolar barrier in the area of the removed tooth cage, the condition of the tooth cage.

Patients of both groups were included in the clinical examination 7 days after the surgical intervention, and no cases such as pain syndrome, body temperature reaction, swelling of soft tissues of the face, complications in the form of separation of sutures, displacement of the root fragment were detected.

Analysis of the results of clinical observation after tooth extraction showed that after 7-10 days, symptoms of inflammation in the main group were less frequent than in the control group [47,48,52,57,59,63,65].

In the study group, the width of the tooth cage before tooth extraction was 7.25±1.25 mm (7 [6.5;8]), after 4 months it was 6.2±0.5 (6.25 [5 ;9;6,75]) was divided, the change in the width of the tooth cage showed an average of 0.92±0.8 mm (0.75 [0, 5;1.5]). In the control group, the width of the tooth cage was 7.3±0.97 mm (7.1 [6.7;8]), after 4 months it was 4.18±2.2 mm (3.87 [2.5;5 .8]), the average cell width change was 3.2±1.2 mm (.25 [2.1 ;4.25]). The statistical significance of the changes in the control group was greater than that of the study group (p=0.023).

Table 2. Results of both groups maxillary and mandibular frontal incisor width before tooth extraction and 4 months later

Tooth cage height, mm		Search group (n=7)	Control group (n=9)	P
Before tooth extraction	M±SD	7,25±1,25	7,3±0,97	0,87
	Me [Q ₁ ;Q ₃]	7 [6,5;8]	7,1 [6,7;8]	
	(Min-Max)	(6-9)	(6,5-8,7)	
4 months after tooth extraction	M±SD	6,32±0,53	4,18±2,2	0,1
	Me [Q ₁ ;Q ₃]	6,25 [5,9;6,75]	3,87 [2,5;5,8]	
	(Min-Max)	(5,8-7)	(2-7)	
p		0,22	0,037*	
The difference, mm	M±SD	0,92±0,8	3,2±1,2	0,023*
	Me [Q ₁ ;Q ₃]	0,75 [0,35;1,5]	3,25 [2,13;4,25]	
	(Min-Max)	(0,2-2,2)	(1,8-4,5)	

Note: Differences are statistically significant when $r \leq 0.05$ according to the Mann-Whitney test.

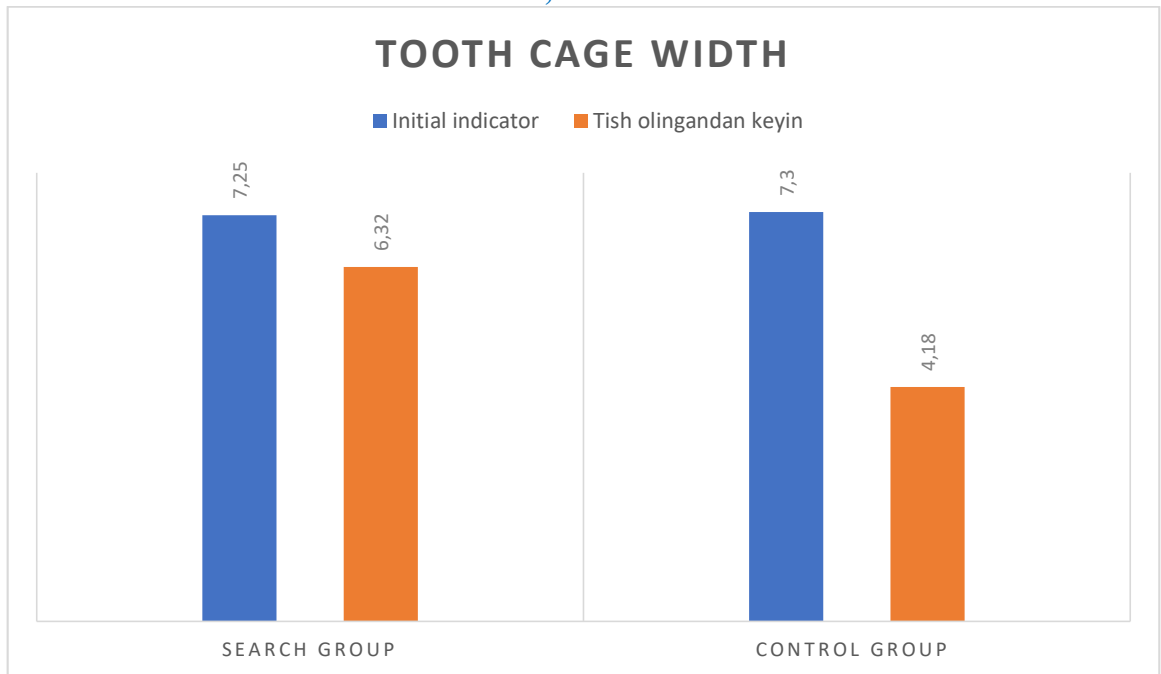


Figure 3 - Maxillary and mandibular frontal incisor widths of both groups before tooth extraction and 4 months later.

The average height of the tooth cage of the research group was 9.61 ± 1.4 mm (9.6 [8.5;10.75]), 4 months after tooth extraction it was 8.95 ± 1.51 mm (8, 9 [7.65;10.25]). The average length of the tooth cage in the study and control group was 20 ± 4.5 mm (20.6 [17.1;2]), after tooth extraction it was 17.1 ± 0.8 mm (16.8 [14, 20,25,28,34,44]) showed. On average, the reduction of the tooth cage in the study group was 0.66 ± 0.47 mm (0.83 [0.33;1]), in the control group it was 2.9 ± 1.81 mm (2.7 [1.68; 4.1]) and statistically significant changes were observed in the control group ($p=0.35$ according to the Mann-Whitney test).

Comparative research showed that no statistically significant indicators were observed in the study group ($p=0.53$), and no change was observed in the control group before and after tooth extraction ($p=0.35$).

Statistically significant changes in the height of the tooth cage were observed in the test and control groups before tooth extraction ($p=0.003$) and 4 months after tooth extraction ($p=0.007$).

Table 3. Results of maxillary and mandibular frontal incisor height before tooth extraction and 4 months after tooth extraction in both groups

Tooth cage height , mm		Search group (n=7)	Control group (n=9)	P
Before tooth extraction	M±SD	9,61±1,34	20±4,35	0,003*
	Me [Q ₁ ;Q ₃]	9,6 [8,5;10,75]	20,6 [17,1;23]	
	(Min-Max)	(8,1-11)	(14,2-24,7)	
4 months after tooth extraction	M±SD	8,95±1,51	17,1±3,8	0,007*
	Me [Q ₁ ;Q ₃]	8,9 [7,65;10,25]	16,8 [14,3;20]	
	(Min-Max)	(7,5)10,5	(12,9-22)	

p		0,53	0,35	
The difference, mm	M±SD	0,66±0,47	2,9±1,81	0.05*
	Me [Q ₁ ;Q ₃]	0,83 [0,33;1]	2,37 [1,68;4,1]	
	(Min-Max)	(0-1)	(1,37-5,5)	

Note: Differences are statistically significant when $r \leq 0.05$ according to the Mann-Whitney test.

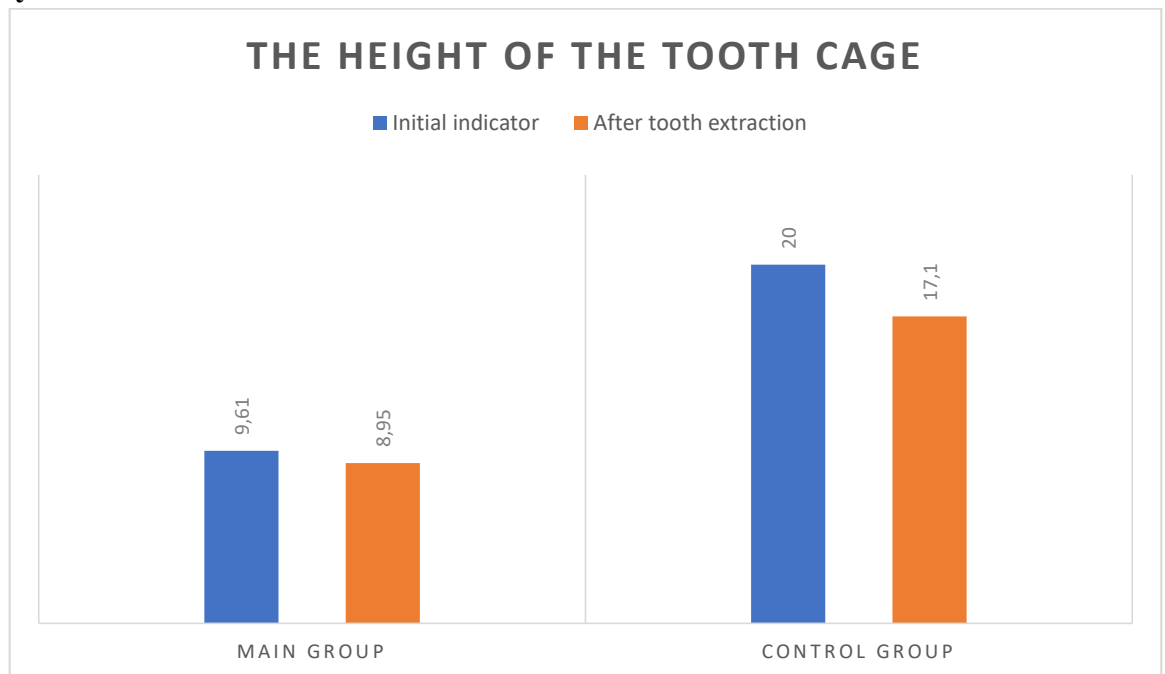


Figure 4 - Maxillary and mandibular frontal incisor heights of both groups before tooth extraction and 4 months later.

Thus, covering the extracted tooth cavity with a piece of tooth gives more results than when the tooth cavity grows under the blood clot. It allows for the placement of direct removable dentures, as well as the placement of a type of intraosseous dental implant that is sized to match the group of teeth being removed.

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PRODUCTIVITY OF CLOSURE OF HOLE USING A TOOTH FRAGMENT

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Abstract. This research work is aimed at studying the effectiveness of the method of using a tooth fragment to preserve the alveolar process during tooth extraction. Based on a review of the literature and analysis of modern clinical studies, key aspects of the effectiveness of the method were identified. Analysis of the structural stability of the alveolar process, functional results, as well as assessment of long-term consequences after using this method became the main directions of research.

Key words: method, use of a tooth fragment, preservation, alveolar process, effectiveness, reconstruction, dentistry, dental implantation, osseointegration.

INTRODUCTION

In modern dentistry, the main task is to preserve the alveolar growth, taking into account that the alveolar obstruction after tooth extraction has a strong impact on orthopedic procedures in the future. Therefore, the study and assessment of the methods of effective maintenance of the integrity of the alveolar barrier structure is a priority task for specialists in dental practice.

Today, the method of using a tooth fragment in order to preserve the alveolar barrier after tooth extraction in this direction is considered promising [17].

This method is aimed at reducing the size of the alveolar barrier using a tooth fragment and, in turn, reducing the development of complications during implant placement and prosthetics [6].

In this article, we aim to systematically analyze the effectiveness of this method, consider its advantages and disadvantages, as well as evaluate the prospects for its use in clinical practice. In addition, the article aims to identify the main factors affecting the success of this process and to conduct a comparative analysis with alternative approaches to alveolar bone preservation.

The alveolar barrier is an important anatomical structure, the alveolar cells of the jaws ensure the integrity and retention of teeth [26]. It is a bone tissue consisting of plates of dense bone tissue that surrounds the teeth and provides stability to the roots of the teeth. The alveolar barrier has a complex morphology and consists of alveolar ridges and gates that provide additional support and strengthening of teeth [2,5].

The structure of the alveolar growth shows high variability depending on the location in different sections of the jaws. In the upper jaw, the alveolar ridge has a flatter shape with wide alveolar ridges that act as a support for the teeth. In the lower jaw, the alveolar septum is more densely structured and is characterized by clear ridges that preserve the integrity of the roots of the lower teeth [49].

The structural features of the alveolar barrier play an important role in ensuring the stability of the teeth, their normal functioning during chewing and speaking. Understanding the anatomical characteristics of the alveolar ridge is a key factor in considering the effectiveness of methods to preserve this structure after tooth extraction [7]. Physiological processes occurring in the alveolar

process play an important role in maintaining its structural integrity and functional activity. After tooth extraction, a number of changes occur in the alveolar wall, which affects its shape and size [12].

The process of bone resorption is one of the main physiological aspects observed in the alveolar barrier after tooth extraction. This phenomenon begins in response to the loss of the functional load carried by the tooth and leads to a gradual decrease in the volume of bone tissue [13]. In addition, changes in the activity of osteoblasts and osteoclasts affect the remodeling of the bone structure of the alveolar wall, which can lead to its deformation and loss of shape [8].

At the same time, regeneration and repair processes also play an important role in maintaining the integrity of the alveolar barrier. Normally, the osteogenesis system is capable of ensuring the restoration of bone tissue and maintaining its optimal structure. However, if this process is disturbed, pathological changes such as bone atrophy and degradation can develop, which can significantly complicate further surgical interventions or prostheses. [4,9,30].

Thus, understanding the physiological processes occurring in the alveolar barrier is important for developing effective methods of tooth preservation after extraction. Adequate restoration and preservation of the structural integrity of the alveolar ridge can significantly complicate and worsen the patient's quality of life.

In the field of dentistry, various methods are widely used to preserve the alveolar barrier, including alveolar plastic surgery, the use of resorbable materials, membranes, and bone substitutes. Alveolar plastic surgery is a set of surgical methods aimed at restoring the anatomical structure of the alveolar barrier using various materials such as bone implants or synthetic materials [1,14,22]. In addition, the use of resorbable materials has a stimulating effect on the growth processes of bone tissue, stimulates its renewal and prevents resorption. At the same time, the use of membranes is aimed at creating a barrier that promotes a more efficient process of bone tissue restoration, protecting the alveolar process from soft tissue invasion. In addition, the use of bone substitutes is aimed at stimulating the growth and regeneration of bone tissue, compensating for its loss, and maintaining the structural integrity of the alveolar process. These methods play an important role in preserving the structure of the alveolar barrier and optimizing the results of dental interventions, and the choice of a particular method depends on the individual characteristics and clinical characteristics of the patient [34,46,50].

It is important to evaluate the effectiveness of the methods of alveolar bone preservation in use, to determine the optimal approach to preserving its structural integrity. One of the main indicators of this method is the ability to preserve the size of the alveolar tumor after tooth extraction. Methods that reduce bone resorption and preserve its anatomical structure are more effective. Effective methods should help to activate the processes of bone tissue restoration and stimulate the growth of osteoblasts, which ensures more effective restoration of the alveolar barrier. Assessing the frequency and severity of complications associated with the use of a particular method is also an important measure of effectiveness. Methods with minimal risk of complications and unwanted consequences for the patient are considered preferable. Methods that ensure the long-term maintenance of the alveolar barrier are preferable from the point of view of clinical practice [31,38,39,40].

The effective choice of the method depends on the characteristics of the specific clinical situation, the anatomy of the patient and his medical needs (Table 1).

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Table No. 1. Advantages and disadvantages of existing methods of preserving the alveolar barrier [3,10,15,16,18,19,20,25,28].

Method	Advantages	Disadvantages
Alveolar plastic	Provides the ability to restore the significant volume of bone tissue.	Requires surgical skills and special equipment.
	It allows to achieve systemic stability of the alveolar barrier.	May involve additional recovery and rehabilitation time for the patient.
	It can be adapted to the specific anatomical features of the patient.	There is a risk of complications such as infection and transplant rejection.
Application of absorbable materials	It helps to stimulate bone tissue regeneration without additional surgical interventions.	It may take a long time to completely restore bone tissue.
	It reduces the risk of complications associated with surgical procedures.	Individual reactions to materials can cause different reactions in patients.
	It can be more cost-effective than other methods.	Limitation of regeneration, especially in cases of significant bone loss.
Use of membranes	It allows creating a protective barrier that prevents soft tissue penetration and provides optimal conditions for bone tissue regeneration.	Complications related to rejection of the used membrane or infections may occur.
	It can be easily incorporated into surgical procedures without additional complications.	Additional surgery may be needed to remove the membrane.
	High predictability and controllability of the regeneration process.	Some types of membranes can be more expensive, which can affect the cost of treatment.
Use of bone substitutes	Allows to compensate for bone loss and stimulate the regeneration of bone tissue.	Some bone substitutes may have limited efficacy in stimulating regeneration.
	It can be more convenient and cost-effective than other methods	Individual characteristics of the patient can cause different reactions to bone substitute materials.
	When using modern technologies, it reduces the need for additional surgical interventions.	In rare cases, there may be a risk of allergic reactions or rejection.

The method of using a piece of tooth to preserve the alveolar barrier, also called autotransplantation, is a surgical procedure aimed at installing or transplanting a natural tooth from

one part of the jaw to another. This method can be used when removing one or more teeth, then preserving the alveolar barrier, especially in cases where there is a high risk of bone deformation or resorption [11,41,52,64,66].

The process of autotransplantation usually involves several steps, including preplanning and anatomical assessment of the donor and recipient sites, extraction of the tooth from the donor site, preparation of the alveolar barrier to accept the transplanted tooth, and implantation of the tooth at the new site. [21,23,27].

The main principle of this method is to preserve the alveolar barrier by restoring the normal anatomical structure with the help of a transplanted tooth. This approach ensures optimal retention of the transplanted tooth and enhancement of bone regeneration in the alveolar area [29,39,63,68].

However, it should be noted that this procedure requires special skills and experience in dental and alveolar tissue surgery, as well as careful planning to achieve optimal results and minimize possible complications [58,59,64].

Over the next decade, the use of tooth fragments to preserve alveolar bone has evolved significantly with improvements in diagnostic techniques, surgical instruments, and osseointegration technologies. The development of computer tomography and 3D modeling also played an important role in optimizing planning and predicting the results of this method [57,62,67,70].

Currently, the method of autotransplantation is an effective alternative for maintaining the alveolar barrier and maintaining the optimal balance of dental implants. Continuous research in the field of dentistry and orthopedics continues to contribute to the development and improvement of this technique to ensure the best results of treatment and improve the quality of life of patients.

The structural features of the tooth are one of the important factors affecting the effectiveness of the method of using a tooth fragment to preserve the alveolar barrier. These structural features include anatomical and morphological characteristics of the tooth, such as size, root shape, quality of dentine and enamel tissue, periodontal tissue condition. A successful transplant depends on the match between the donor and the recipient. The appropriate size and shape of the tooth roots ensures a more effective adaptation and integration in the new place. Inconsistencies in size or shape can lead to complications such as tooth malposition or alveolar process deformation. A healthy state of dentin and enamel tissue is an important factor for a successful tooth transplant. Poor tissue quality may increase the risk of trauma during the implantation process or have negative consequences for the surrounding tissue [32,47,58]. Optimal health of periodontal tissues, including gingival tissue and alveolar bone, is a key factor for successful adaptation of a transplanted tooth. The presence of inflammatory processes or other periodontal pathologies can negatively affect the process of osseointegration and the ability of the tooth to maintain a stable position in a new place [33,56].

A comprehensive evaluation of these structural characteristics of the tooth allows to reduce the possible risks and complications associated with tooth transplantation.

Factors affecting the success of the method are closely related to various aspects of the surgical procedure, which play a decisive role in the results of the procedures. A number of factors related to preparation, surgical indications, and postoperative care in the process of using a tooth fragment to preserve the alveolar barrier have a significant impact on the success of the method. Important aspects are preplanning, surgical technique, use of appropriate materials and methods, effective postoperative treatment and follow-up. Care of the alveolar barrier plays an important

role in ensuring positive results after using the method of using a tooth fragment to preserve the alveolar barrier. Important factors include regular medical examinations, inflammation control, stress management, and proper wound care [35,48,56].

A review of modern clinical research shows an active interest in the method of preserving the alveolar process using a tooth fragment. Studies have included analyzes of structural stability, functional outcomes, osseointegration, and patient satisfaction demonstrating the value of this technique in reconstructive jaw surgery [36,42,44,52].

The use of the method of preserving the alveolar barrier with the help of a tooth fragment demonstrates its universal capabilities in various clinical situations. It is effective for reconstruction after trauma or periodontitis, restoration of jaws after oncological surgery, as well as rehabilitation after maxillofacial injuries. In addition, the method is successfully used in aesthetic dentistry, implantology and prosthetics [41,45,51].

During the rehabilitation period after maxillofacial injuries, this method allows to restore the anatomical integrity of the jaw bone, helps to replace teeth and restore the functions of chewing and phonoarticulation. In aesthetic dentistry and orthopedics, this method helps to create a natural-looking tooth and tooth row, providing surgical solutions to restore the shape and function of the teeth, taking into account the individual characteristics of the patient. In the field of implantology and prosthetics, this method provides strength and stability for implants and prostheses, contributes to the long-term successful rehabilitation of patients with complete or partial loss of teeth [37,43,54,55,61,65].

The method of using a tooth fragment to preserve the alveolar process revealed its importance in the field of reconstructive dentistry. Analyzing the anatomy and physiology of the alveolar barrier, considering the methods of preservation used, and studying the advantages and disadvantages of different approaches allowed a wider understanding of the importance of this method.

Conclusions from the review show the effectiveness of the method in ensuring the structural stability of the alveolar bone, despite the limitations associated with the surgical technique and the limited application in some clinical situations.

Further research in this area will help to better understand the mechanisms of action of this method, to improve the technique of its application, as well as to expand the scope of its application to achieve optimal results in patients with various dental problems.

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Введение. В настоящее время несколько движущих сил формируют будущее образования. К ним относятся внедрение инструментов для повышения производительности нашего мозга и моделей миграции, автоматизированных систем, которые помогают в нашей повседневной деятельности [1], широкое использование мобильных устройств, доступ к огромному количеству информации по запросу, требования к большей производительности в меньше времени, необходимость достижения сбалансированного образа жизни [2] и требования к обучению миллениалов [3]. В результате возникают проблемы, которые требуют новых подходов в образовании для удовлетворения потребностей учащихся и общества. Таким образом, нынешние и будущие студенты должны приобретать компетенции посредством саморегуляции обучения, чтобы противостоять неопределенному, меняющемуся миру. Студентам нужны не только навыки критического мышления, самостоятельности, инноваций, сотрудничества, творчества и развития навыков межличностного общения, таких как настойчивость и саморегуляция, но также им нужен реальный опыт, который поможет им связать теорию и практику. Технологии могут быть очень полезны студентам в решении этих проблем [4].

В этой статье рассматриваются технологии, которые трансформируют инженерное образование, приводятся их описания, примеры доступных инструментов, тематические исследования, преимущества и проблемы каждой из них, время внедрения, текущие результаты и их будущее развитие. Особое внимание уделяется прорывным технологиям, которые можно использовать, чтобы помочь студентам в приобретении технических знаний и развитии компетенций в области инженерного и естественнонаучного образования .

Виртуальная и дополненная реальность. Виртуальная и дополненная реальность () — две взаимосвязанные технологии. Первый разрабатывает цифровые среды, в которые пользователи погружаются и могут манипулировать объектами и взаимодействовать в виртуальных пространствах. Последний накладывает виртуальные объекты на реальные изображения, снятые мобильным устройством; цель обычно состоит в том, чтобы улучшить просматриваемую среду [14]. Обе технологии полезны при обучении на экскурсиях, например, для контролируемого моделирования процессов, исследования абстрактных концепций и детального изучения явлений [5]. Их ключевыми характеристиками являются погружение, взаимодействие и визуальный реализм, и они могут подразделяться на иммерсивные, полупогруженные и неиммерсивные классификации. Устройство попадает в определенную категорию в зависимости от степени реалистичности, которую оно предлагает (ощущение «присутствия») [15].

Сейчас хирурги используют эту технологию для моделирования медицинских вмешательств. Также студенты-инженеры проектируют и разрабатывают более эффективные идеи с помощью виртуальной реальности [3]. Студенты-инженеры Университета Уорика изучают автомобильные двигатели с помощью 3D-проекции . Это помогает им понять работу двигателя и протестировать различные механические и электронные компоненты, чтобы разработать более совершенную

конструкцию [14]. Лаборатория виртуального человеческого взаимодействия в Стэнфордском университете использует виртуальную реальность для исследования эмпатии и телесных реакций во время событий, в которых участники проживают полностью захватывающие и яркие сценарии [16]. Существуют также интересные устройства, такие как Oculus Rift , инструмент виртуальной реальности, который позволяет пользователям погружаться во все виды сред [17], например, в человеческое тело или в места, в которых они могут испытывать различные физические законы. Одной из интересных особенностей этого инструмента является то, что учащиеся могут виртуально манипулировать объектами, что позволяет им понимать сложные концепции и улучшать обучение. Кроме того, развиваются такие мягкие навыки, как эмпатия, поскольку учащиеся знакомятся с точками зрения и жизненными ситуациями других людей [18]. Автоматическая виртуальная среда Cave (CAVE) — это установка, впервые созданная в 1991 году исследователями Лаборатории электронной визуализации Университета Иллинойса в Чикаго [19]. Пещера представляет собой квадратную комнату, полностью построенную из проекционных экранов. Пользователи носят специальные очки для взаимодействия со сложными 3D- объектами [20 , 21]. В этой лаборатории исследователи или студенты могут наблюдать объект исследования под разными углами; например, ученые-атмосферники могут анализировать сложные элементы урагана с разных точек зрения внутри него [19].

3D-печать. 3D-печать (3DP), также известная как быстрое прототипирование, аддитивное производство и изготовление произвольной формы, представляет собой процесс, в котором объекты создаются на основе цифровой модели, нанося материал слой за слоем до тех пор, пока не будет создан конечный продукт. В сфере образования эта технология предлагает студентам важные преимущества. Например, созданные с его помощью учебные пособия позволяют лучше понять концепции в таких областях, как медицина и инженерия [24], а также помогают в приобретении навыков пространственной визуализации, полезных в ранее упомянутых областях исследования [25]. 3DP в основном используется в университетах в качестве помощи при разработке классных проектов, позволяющих студентам изучить технологию и создать системы/модели 3DP . Продукция, разработанная в результате конструкторских проектов с использованием 3DP, включает биомедицинские устройства, экзоскелеты, модели автомобилей, ракеты и крылья для беспилотных летательных аппаратов. В частности, в инженерии и науке 3DP используется для поддержки обучения в лабораториях или классах, а также для разработки тестовых моделей для проведения экспериментов.

Эта технология позволяет студентам изучать инженерное проектирование с осязаемыми результатами, повышает мотивацию к обучению, развивает навыки репрезентативного и пропорционального рассуждения и способствует обмену идеями. Примером образовательных преимуществ 3DP является случай группы студентов, которым пришлось спроектировать скейтборд-парк с использованием этой технологии. При проектировании пандуса они обнаружили, что угол, указанный в программном обеспечении, дает другой результат при физическом изготовлении. Они изменили угол, установив мысленную связь, чтобы понять взаимосвязь между виртуальным и физическим представлением. Сейчас на рынке доступны многочисленные варианты 3D- принтеров, которые можно использовать в образовании, например, разработанные MakerBot .

Дроны. Дроны, которые также называют беспилотными летательными объектами, беспилотными летательными аппаратами или дистанционно пилотируемыми самолетами, представляют собой самолеты, способные летать сами по себе, т. е. без пилота на борту, поскольку эта задача выполняется с помощью радиоволн или автономно. В сфере образования существуют разные классификации дронов; есть те, которые используются для обучения на свежем воздухе (вес более 1 фунта), и те, которые используются для развития деятельности в помещении (вес менее 1 фунта) [5]. Их также можно классифицировать по таким характеристикам, как винтокрылые, неподвижные или легче воздуха. В любом случае, важным вопросом является выбор дрона, наиболее подходящего для задач обучения, которые будут выполняться.

В качестве примера применения дронов в образовании они использовались для разработки виртуальных экскурсий на курсах по науке об окружающей среде. В этом случае преимуществ множество: студенты могут безопасно посещать любое место, даже если у них есть проблемы со здоровьем, которые не позволяют им совершать настоящие экскурсии; стоимость этих устройств скромная; студенты становятся более вовлеченными и воодушевленными; а в некоторых случаях дроны обеспечивают лучшее и более детальное представление о посещаемом месте. В сфере образования дроны, как правило, повышают посещаемость и удовлетворенность учащихся, а также помогают им понимать абстрактные концепции, приобретать технические знания и развивать навыки пространственной визуализации, определения последовательности, инновационного мышления и решения проблем [5].

Интернет вещей. Интернет вещей (ИВ) определяется как «сеть физических объектов, содержащих встроенные технологии для связи и восприятия или взаимодействия с их внутренним состоянием или внешней средой». По сути, этот термин описывает подключение к Интернету устройств, которые не являются ни компьютерами, ни смартфонами. Примеры приложений в классе включают интерактивные доски, цифровые маркеры, умные столы, интеллектуальные камеры и программное обеспечение для документирования, а также интернет-лабораторное оборудование, а также аналоговые и цифровые лаборатории. Эта технология позволяет университетам предлагать персонализированное образование [13] студентам, которые становятся активными учениками. Доступность инновационных устройств и возможностей подключения позволяет студентам работать как независимо, так и совместно, помогая им развивать собственное понимание и навыки решения проблем [12]. Удобство для студентов приобретения знаний и компетенций таким образом приводит к более удовлетворительному опыту обучения, что приводит к увеличению количества выпускников.

С точки зрения преподавателей, Интернет вещей помогает сделать процесс обучения более эффективным, поскольку он может автоматизировать различные задачи и легче собирать информацию от учащихся. Примеры применения Интернета вещей в образовании включают в себя такие задачи, как соединение базы данных отправленных студентами домашних заданий с приложением для планирования, чтобы университет мог отправлять напоминания тем, у кого есть невыполненные задания. Также студенты, сдавшие работу вовремя, могут быть вознаграждены. С другой стороны, координаторам программ могут

быть отправлены своевременные оповещения, когда обнаруживается, что у студента проблемы с учебой.

Роботы. Роботы — это автоматизированные машины, которые могут выполнять различные задачи. В рамках образования их можно классифицировать как инструмент обучения, помощника в обучении или инструктора по обучению [17]. В качестве инструмента обучения роботы могут использоваться учащимися для анализа их датчиков и исполнительных механизмов с целью получения знаний по физике. Робот-компаньон может совместно решать упражнения с учениками на уроках естественных наук. Наконец, робот может предлагать студентам индивидуальные упражнения, выступая в качестве инструктора по обучению [18]. ВУЗы используют роботов в основном на экспериментальных платформах [19]. Среди методов, использующих роботов для обучения студентов, — обучение на основе открытий, совместное обучение, решение проблем, обучение на основе проектов, обучение на основе соревнований и обязательное обучение. Школы придают большое значение роботам для обучения своих учеников и развития необходимых навыков. Они организуют турниры, чтобы стимулировать обучение в этой области, способствовать творчеству и укреплять усвоение фундаментальных концепций. Стоит упомянуть турниры BEST , Botball , Robocup и Micro Maze [11]. Образовательные организации, такие как Свободный университет Больцано и Виндзорский университет , имеют в своих кампусах автоматизированные фабрики, чтобы студенты могли учиться в реальных условиях. Они могут работать с роботизированными сборочными станциями, станциями контроля, автоматизированными системами поиска и хранения, а также системами погрузочно-разгрузочных работ [12].

Искусственный интеллект. Основная цель искусственного интеллекта (ИИ) — разработать интеллектуальные машины, способные реагировать так же, как люди. Alexa , Cortana и Siri являются примерами таких систем. В сфере образования ИИ использовался для создания интеллектуального контента, создания инновационной среды обучения, разработки виртуальных тренеров или интеллектуальных систем обучения (ИСО) [16], выполнения аналитики, разработки роботов-писателей и получения виртуального опыта. ИИ позволяет проводить индивидуальное обучение, поэтому учащиеся получают помощь по своим конкретным требованиям. В мультикультурной среде ИИ может облегчить общение между студентами, говорящими на разных языках, предлагая перевод, учитывающий культурный контекст [17].

Интеллектуальные системы обучения (ИСО) — это программное обеспечение, способное помогать учащимся в их повседневной образовательной деятельности, интерпретируя их ответы и обучаясь в процессе их работы [18]. Алгоритмы могут предлагать ученику задачи для решения или конкретные видеоролики, основанные на его прошлых или текущих взаимодействиях [19]. Джилл Уотсон из Технологического института Джорджии — пример решения, которое уже реализовано. Cognitive Tutor , впервые разработанный Университетом Карнеги-Меллон , представляет собой ИСО , которая позволяет студентам получать индивидуальное внимание. Он постоянно отслеживает, как студенты приобретают знания, чтобы предлагать адаптированный материал. Интересным инструментом этой системы является Skillometer , который оценивает вероятность того, что пользователь приобрел набор predetermined навыков; он отображает результаты в виде гистограммы [20]. Еще один пример, который стоит

упомануть, — Knewton [21], платформа адаптивного обучения, нацеленная на персонализацию образовательного контента. Он отслеживает действия каждого студента, чтобы помочь ему или ей завершить учебный процесс на основе оценки его стиля обучения. С помощью этой платформы можно изучать любую область, включая математику, физику и экономику. Причина в том, что сама система может развивать свое содержание. Преимущества использования этих систем многочисленны, в том числе то, что у студентов есть наставник 24 часа в сутки, 7 дней в неделю, который помогает им более эффективно продвигаться в учебе. ИИ продемонстрировал улучшение понимания и результатов учащихся, способствовал развитию навыков рефлексии и самосознания [16], автоматизировал базовые действия, такие как выставление оценок, предложил учащимся внеклассную поддержку, дал своевременную обратную связь как с преподавателями, так и со студентами, что позволило студентам учиться где угодно и в любое время. ИИ позволяет учащимся приобретать знания с беспрецедентной скоростью.

Голограммы. Голограммы — это интерактивные трехмерные изображения объектов или людей; пользователи могут перемещаться вокруг них и наоборот, не нуждаясь в каком-либо устройстве, чтобы оценить их. Технически эта технология называется реконструкцией волнового фронта и уже используется в различных сферах, таких как развлечения, политика и музыкальные мероприятия. В сфере образования медицина – это область, которая уже использовала ее с пользой. Врачи могут тренироваться перед операцией, а студенты могут более эффективно изучать анатомию, поскольку они могут манипулировать различными органами.

В сфере общего обучения голограммы полезны для проведения дистанционных занятий. Они делают курсы более интерактивными (например, можно оживить исторических персонажей) [18], способствуют созданию среды обучения, ориентированной на учащихся, и помогают в развитии навыков пространственной визуализации у студентов-инженеров. Кроме того, используя голограммы, студенты и преподаватели работают вместе, как если бы они были лицом к лицу; Лабораторная деятельность осуществляется в реальном мире, и студенты разрабатывают свои дизайнерские проекты в трех измерениях. Что касается учителей, то, похоже, эта технология может быть хорошо принята. В опросе, направленном на определение эффективности голограмм в образовании, приняли участие 400 британских учителей разного уровня образования. Большинство из них согласилось, что эта технология может стать эффективным инструментом для улучшения преподавания и обучения [19].

Технология голограмм пока не нашла широкого применения в образовании. Однако уже есть компании, которые предлагают ее для образовательных проектов, такие как MDH Hologram [22] и Voxon Photonics [16] — компании, которые находятся на переднем крае коммерциализации голографии. Одним из первых экспериментов в образовании стала проекция учительницы математики Кэтрин Дарнтон во время выставки образовательных технологий в Лондоне. Она указала, что использование этой технологии в школе, где она преподавала, дало хорошие результаты [14]. Есть и другие области, которые могут воспользоваться этой технологией. В 2006 году голографический двигатель был представлен на авиашоу GENx Theater в Фарнборо . Преподаватели авиационной техники могли бы использовать эту технологию, чтобы представить в своих классах машины, которые обычно не помещаются в доступное пространство [15]. E - REAL — это

иммерсивная технологическая система, предлагающая различные виды деятельности для медицинского обучения: взаимодействие с 2D- и 3D- изображениями, проецируемыми на стену, взаимодействие с хранилищем, связанным с виртуальной системой обучения, и плавающую на 360 градусов голограмму, окруженную 2D- и 3D- изображениями. В последнем случае пользователи могут видеть органы и взаимодействовать с ними под разными углами [16 , 17].

Впечатляющее использование голограмм и искусственного интеллекта — это новая выставка, возвращающая художника-сюрреалиста Дали к жизни с помощью технологии искусственного интеллекта — и делающего селфи — в музее. Музей Дали создал дипфейк художника-сюрреалиста, возвращающий его к жизни. Этот дипфейк в натуральную величину создан для интерактивных дискуссий с посетителями. Выставка была создана компанией Goodby, Silverstein & Partners с использованием 6000 кадров Дали, взятых из исторических кадров, и 1000 часов машинного обучения [18].

Носимые устройства. Носимые устройства представляют собой оборудование без помощи рук, на котором можно запускать программное обеспечение и которое пользователи носят для свободного использования компьютера. Их можно классифицировать как носимые на запястье устройства (умные часы и фитнес-браслеты) и как оптические дисплеи, крепящиеся на голову (используемые на голове или глазах) [19]. Эта технология полезна для обмена знаниями, улучшения понимания концепций, улучшения взаимодействия и вовлеченности учащихся, реализации активного обучения и развития самостоятельных учащихся. Среди носимых устройств, которые считаются полезными в образовании, — Google Glass , Muse , устройства виртуальной реальности , камеры GoPro и умные браслеты ; последний может отправлять оповещения студентам и профессорам, когда в лабораторных условиях ощущается опасность [10].

Одним из примеров применения этих устройств в образовании является использование Google Glass [11] хирургом из Университета штата Огайо , который транслировал живую операцию группе студентов и коллег. Это мероприятие позволило участникам испытать хирургическую процедуру с точки зрения эксперта [10]. Google Glass также можно использовать для отправки учащимся напоминаний о мероприятиях или сроках, перевода вопросов или ответов на них на другом языке, а также отслеживания посещаемости занятий или записей учащихся с помощью инструмента распознавания лиц. [20]. Студенты курсов расширенной обработки сигналов и адаптивной обработки сигналов и машинного интеллекта в Имперском колледже Лондона использовали специальное носимое устройство под названием iAmp для выполнения упражнений по обработке сигналов со своей собственной информацией. Целью было собрать и проанализировать собственные электрокардиограммы и данные о дыхании. Студенты впервые получили теоретическую информацию о том, как генерируются электрические потенциалы сердца. Затем они собирали данные по разным сценариям и выполняли разнообразные задания. 80% студентов сочли курс интеллектуально стимулирующим . Этот эксперимент позволил им изучить концепции, не включенные в учебную программу, повысил их творческие способности и любознательность, а также бросил им интеллектуальный вызов [22]. Камеры GoPro могут быть полезны для записи лекций и выступлений студентов на определенных мероприятиях. Muse — это устройство, которое измеряет активность мозга

и может использоваться для определения того, какие задачи помогают учащимся мысленно сосредоточиться [20].

В настоящее время эта технология достигла больших успехов. Существуют носимые устройства, способные воспринимать физиологические сигналы для определения эмоций пользователей, например, устройства MoodWings , Affectiva и XOX . В сфере образования преподаватели могут использовать их, чтобы отслеживать, отвлекаются ли студенты или им скучно, и, следовательно, знать, когда следует изменить динамику урока, введя новое занятие [19].

Виртуальные лаборатории. Виртуальные лаборатории — это лабораторные эксперименты, моделируемые на компьютере. Все ресурсы, необходимые для проведения эксперимента, не реальны, а являются виртуальными имитациями [13]. Студенты не имеют контакта с физическим оборудованием, а данные берутся из экспериментальных баз данных [14]. Виртуальные лаборатории полезны для укрепления или проверки концепций, обеспечения гибкости в отношении того, когда и где проводить эксперименты, а также улучшения концептуального понимания. Эти лаборатории безопасны для студентов даже для самых опасных экспериментов; они просты в использовании, и большинство из них недороги [13]. Действия могут выполняться большим количеством учащихся одновременно и повторяться столько раз, сколько необходимо [14]. Студенты могут развивать рассуждение, критическое мышление, а также инновационные, творческие и исследовательские навыки [15].

Министерство развития человеческих ресурсов правительства Индии совместно с различными организациями разработало проект, предоставляющий инженерным колледжам, старшеклассникам и исследователям доступ почти к 700 бесплатным виртуальным экспериментам. Цель состоит в том, чтобы улучшить обучение естественным и инженерным предметам [16]. Virtual Microscope — это веб-страница, на которой учащиеся используют микроскоп для просмотра и анализа интерактивных изображений различных минералов и горных пород, хранящихся в музеях и университетах по всему миру. Цель состоит в том, чтобы предложить сообществу возможность узнать о поверхности земли и развить навыки классификации и идентификации при небольших затратах [17]. Виртуальная лаборатория тканей Университета Королевы Марии предлагает студентам лабораторию тканевой инженерии, в которой они выполняют различные виды деятельности, позволяющие им развивать конкретные навыки в области биоинженерии. Платформа имитирует биоинженерные установки и оборудование, что делает упражнения более реалистичными. Система предоставляет учащимся обратную связь в режиме реального времени, чтобы они могли продвигаться в обучении посредством запросов [14]. TEALsim — это виртуальная лаборатория в области электромагнетизма, разработанная Массачусетским технологическим институтом . Студенты могут визуализировать явления, которые невозможно увидеть в реальных условиях. Производство железа было разработано RWTH Ахенским университетом с целью обучения студентов процессу производства железа в интерактивном режиме. Он имеет мощные инструменты для учителей и учащихся, например, оценку тестов и анализ успеваемости учащихся.

Блокчейн. Блокчейн — это новая технология; это революционная технология в образовании, используемая для присвоения квалификаций, лицензирования и

аккредитации, управления записями учащихся, управления интеллектуальной собственностью и платежей. Блокчейн можно рассматривать как распределенный реестр; этот реестр позволяет регистрировать информацию и делиться ею с группой людей. Каждый член этой группы хранит свою копию информации; однако все члены должны коллективно утверждать любые изменения. Информация постоянна, прозрачна и доступна для поиска. Каждая новая информация представляет собой новый блок в цепочке. Изменения или новые записи управляются протоколом. Криптологические функции блокчейна удостоверяют целостность информации.

Существуют ключевые преимущества технологии блокчейн, такие как самосуверенитет (т. е. пользователи могут идентифицировать себя, контролировать хранилище и управлять своими данными); доверие (т.е. техническая инфраструктура, дающая уверенность); прозрачность и происхождение (т.е. проводить транзакции с учетом того, что каждая сторона может заключить эту сделку); неизменяемость (т.е. отсутствие возможности модификации); отказ от посредничества (т.е. отсутствие центрального контролирующего органа) и сотрудничество (т.е. заключение сделок напрямую друг с другом).

Результаты

Виртуальная и дополненная реальность. Ожидается, что ВДР станет широко использоваться в образовании в период с 2023 по 2028 год [5]. Новые конструкции и возможности мобильных устройств, а также увеличение инвестиций в технологическое развитие являются одними из факторов, способствующих внедрению ВДР в новых отраслях, включая обучение. Интерактивные и инновационные аспекты этой технологии позволяют студентам стать более заинтересованными и заинтересованными в своих курсах. Кроме того, есть исследования, утверждающие, что ВДР улучшает академическую успеваемость студентов, а также развивает у них социальные, коллективные, психомоторные и когнитивные навыки [15].

Ожидается, что в ближайшие годы ВДР станет повседневной технологией, используемой в образовании. Его можно объединить с осязаемыми вычислительными технологиями [3], такими как технология, разработанная группой Tangible Media под руководством Хироши Исии, профессора Медиа-лаборатории Массачусетского технологического института, что придаст больше реализма опыту посредством прикосновения. Гарнитуры ВДР станут обязательным дополнением к мобильным устройствам и будут широко использоваться на всех уровнях образования [15].

3D-печать. Эксперты считают, что эта технология получит широкое распространение в образовательной сфере в период с 2023 по 2028 годы [5]. Его использование создаст новые профессии и отрасли в области материалов, расходных материалов, программного обеспечения, разработки продуктов и дизайна для 3D-принтеров, и это лишь некоторые из них. В будущем появится 4D-печать — технология, которая пока находится в зачаточном состоянии. Это процесс, посредством которого напечатанный на 3D-принтере объект изменяет свою форму в присутствии определенной переменной, такой как температура или влажность [11]. Можно сказать, что такой продукт ведет себя разумно после печати. Для правильного внедрения 3D-печати в образование необходимы соответствующие вспомогательные материалы для обучения, как для обмена знаниями о технологии со студентами, так и для ее использования в качестве

помощи при выполнении практических проектов; включая разработку большего количества цифровых 3D -моделей для образовательных целей [26]. 3D- печать — это технология, которая, хотя и экономически доступна в настоящее время в силу стадии своего развития, не приемлема для всех образовательных учреждений, главным образом в развивающихся странах. 3D- принтеры и материалы становятся дорогостоящими, когда их используют для печати большого количества простых или крупногабаритных объектов. Однако ожидается, что использование переработанного материала снизит затраты. Наконец, в некоторых случаях качество печатных объектов вызывает сомнения.

Дроны. Ожидается, что дроны получат широкое распространение к 2023 году [11]. Эта технология быстро развивается и внедряется [4]. Они доступны многим образовательным учреждениям, поскольку устройства дешевеют [5]. В будущем программы, направленные на обучение дронов, могут быть включены в учебную программу, включающую пилотирование дронов, программирование, решение проблем и вычислительное мышление [9]. Необходимо уделять внимание правилам использования дронов, поскольку они еще не четко определены и различаются в зависимости от места. Конфиденциальность — это проблема, которая находится в центре внимания, поскольку эти устройства могут легко получить доступ к запрещенным местам и оснащены камерами, датчиками и технологиями ночного видения, которые могут нарушать права человека. Школы должны учитывать, что им необходимо соблюдать авиационные правила при использовании дронов в образовательных целях, например, в некоторых местах школам или исследовательским центрам возле аэропортов или военных учреждений запрещено запускать дроны для занятий на свежем воздухе. Необходимы дополнительные исследования академической эффективности дронов, используемых в учебных целях [25].

Интернет вещей (ИВ). Ожидается, что Интернет вещей достигнет рыночного распространения в период с 2021 по 2023 год [11]. Фактически, по оценкам, к 2020 году будет 50 миллиардов устройств Интернета вещей [3]. Эксперты в сфере образования считают, что к 2022 году обучение станет замечательным опытом благодаря Интернету вещей . Эта технология позволит развивать цифровые университеты, в которых эксплуатационные расходы могут быть значительно снижены, безопасность кампусов может быть усилена, знания могут более эффективно делиться за счет улучшения среды обучения, а разнообразные устройства будут поддерживать деятельность исследователей, академики и студенты [24]. В будущем появятся более простые устройства, в которых будет использоваться эта технология. Кроме того, все больше учебных заведений будут предлагать программы ИВ , направленные на подготовку экспертов в этой области, которые поднимут технологию на невообразимый уровень. Развиваются две концепции: Интернет всего (ИВ) и Интернет нановещей (ИНВ). Первое выражает масштаб, который будет иметь эта технология, то есть связь между людьми, процессами, данными и вещами в целом или в сети. Последнее относится к соединению Нано-устройств с помощью Нано-сетей [14].

Роботы. Статистика показывает, что к 2020 году будет 4 миллиона роботов, а к 2022 году они станут широко использоваться в образовании [9]. В будущем вполне вероятно, что появятся коботы — роботы, которые будут работать бок о бок с людьми. В сфере образования они собираются поддерживать профессоров в их преподавательской деятельности. Кроме того, эти машины будут более реалистичными, а их физические

аспекты и манеры будут более похожими на человеческие. Они смогут использовать доску, бумагу и даже лабораторное оборудование [23]. Роботы будут адаптированы к стилю обучения каждого отдельного ученика.

Искусственный интеллект. Ожидается, что ИИ будет повсеместно принят к 2023 или 2028 году [5]. Будущее в сфере образования многообещающее; некоторые исследователи изучают использование распознавания голоса и моделирования естественного человеческого диалога для улучшения функциональности системы искусственного интеллекта . Это позволит роботам реагировать на тон голоса, выражение лица и даже язык тела. Киборги , организмы с биологическими и технологическими компонентами, будут использоваться для преподавания и проведения исследований в вузах будущего. Даже людям с ограниченными возможностями будут предоставлены интерфейсы «мозг-компьютер», которые позволят им продолжить карьеру [8]. К алгоритмам ИИ будут добавлены такие качества, как уверенность и саморегуляция , что сделает поведение систем более похожим на человеческое. По мнению экспертов, к концу этого столетия ИИ улучшит человеческую память. В этом заключается реальное влияние ИИ на образование: оно расширяет возможности пользователей по улучшению преподавания, обучения и исследований.

Голограммы. Голограммы могут получить широкое распространение в период с 2025 по 2030 годы. Смешанная реальность выведет это на новый уровень. Эта технология в сочетании с управлением жестами позволит пользователям манипулировать голограммами руками. В будущем люди смогут даже пожимать руки своим далеким коллегам. Кстати, осязаемую голограмму уже разработали японские ученые из Токийского университета ; они назвали его «Гаптоклон». Проекторы голограмм будут меньше; они будут установлены в мобильных телефонах и телевизорах будущего, предлагая проекции высокого качества и с изображением реального размера [11]. Студенты могли посещать занятия из дома, а учителя находились в их гостиных. Технология превзойдет воображение; у людей появится возможность совершать виртуальные путешествия, и отличить голограмму от реального объекта будет практически невозможно.

Основным недостатком голограмм в образовании является высокая стоимость технологии и необходимой инфраструктуры. Также для передачи изображений нужного качества необходима высокоскоростная беспроводная сеть; это особенно сложно в развивающихся странах. Необходимы дополнительные исследования, чтобы определить эффективность голограмм в отношении результатов обучения. Технология должна быть улучшена, чтобы уменьшить зрительное утомление пользователей после ее воздействия.

Носимые устройства. Ожидается , что носимые устройства будут внедрены в STEM- образование к 2020 году [10]. В будущем эти устройства могут быть меньше, проще в обращении и иметь удивительные формы, такие как лак для ногтей и пуговицы. Появятся устройства, встроенные в человеческое тело, которые станут обычным явлением; например, поставщик смартфонов Motorola разрабатывает таблетку с паролем, чтобы человеческое тело стало механизмом аутентификации, обеспечивающим автоматический доступ к ноутбукам, телефонам и другим устройствам. Исследователи из Исследовательского центра VTT в Финляндии разработали сенсорную технологию, которая может передавать информацию с одного устройства на другое. Группа исследователей создала прототип контактной линзы, которая позволит пользователям

увеличивать свое зрение в 3 раза. Эти технологии еще не представлены на рынке, но в будущем они смогут предложить гибкую и удобную среду обучения, поскольку информация будет передаваться быстрее, а проекты можно будет совместно использовать практически сразу.

Виртуальные лаборатории. Виртуальные лаборатории уже широко используются во многих университетах; однако уровень внедрения и использования по-прежнему низок. Проводятся новые исследования по добавлению сенсорных функций, таких как осязание и обоняние, чтобы виртуальный опыт лучше напоминал реальность [15]. Виртуальные лаборатории будут использовать преимущества технологий дополненной и виртуальной реальности. Будут настоящие лаборатории, в которых будут виртуальные объекты, например, некоторые студенты будут находиться на месте, а другие будут в виде аватаров, и все будут общаться друг с другом [16]. С развитием технологий вполне возможно, что виртуальные лаборатории заменят традиционные, поскольку они будут достаточно реалистичными. Кроме того, не только инженерные дисциплины будут использовать эту технологию, другие конкретные области обучения, такие как биология, будут включать виртуальные лаборатории, поэтому студенты и преподаватели будут иметь доступ ко всем предлагаемым преимуществам.

Блокчейн. Использование блокчейна в образовательных системах является совершенно новым явлением; по этой новой технологии имеется мало библиографических ссылок и/или приложений. Однако считается, что это внесет значительный и революционный вклад в традиционные продукты и услуги. В настоящее время в образовательной среде не оценены экономические, политические и социальные преимущества потенциала блокчейна. Несмотря на зарождающееся использование в образовательной среде, блокчейн меняет структуру обмена информацией между студентами; хозяева этих процессов теряют контроль. Например, ожидается, что бумажные сертификаты студентов и соответствующая обработка, а также офисы по проверке и проверке и т. д. этих документов исчезнут. MIT и компания Learning Machine, базирующаяся в Кембридже, штат Массачусетс, компания по разработке программного обеспечения, работают над разработкой Blockcerts с открытым стандартом; последняя компания разработала приложение Blockcerts Wallet. Это широко известно и уже использовано Массачусетским технологическим институтом, чтобы предложить 111 выпускникам Массачусетского технологического института альтернативу традиционному бумажному диплому. Студенты быстро и легко получают проверяемую, защищенную от несанкционированного доступа версию своего диплома, которой они могут поделиться с работодателями, школами, семьей и друзьями. В Tecnologico de Monterrey бумажные дипломы в мае 2019 года были цифровыми и на блокчейне. Студенты получали в дополнение к бумажному диплому цифровую версию, зашифрованную и легко поддающуюся проверке в режиме реального времени в любой точке мира. Таким образом, любой работодатель или вуз в стране и за рубежом может легко и мгновенно проверить действительность диплома. Сертификаты также выдаются в официальном цифровом стандарте .xml, установленном Министерством народного образования Мексики.

Выводы. Традиционные вузы начинают осознавать важность адаптации своих образовательных моделей для удовлетворения текущих и будущих глобальных потребностей. Основная потребность – это квалифицированные выпускники, которые

могут поддержать развитие и рост стран. Следовательно, будущая рабочая сила должна приобретать разнообразные компетенции, такие как критическое мышление, инновации, сотрудничество и творчество. Однако одной из важных способностей к адаптации, которую необходимо прививать студентам, является обучение на протяжении всей жизни, необходимое им для эффективного решения постоянно новых задач, с которыми им придется сталкиваться на протяжении всей своей карьеры.

Технологии стали инструментом, используемым образовательными организациями, которые адаптируются к мировым изменениям. Технологии предлагают множество преимуществ для образования, включая непрерывное обучение, поскольку они облегчают приобретение и обмен знаниями. В этой статье рассматриваются десять новых технологий с точки зрения их использования, преимуществ, проблем, времени внедрения, результатов и будущего развития.

Было обнаружено, что представленные технологии, безусловно, трансформируют образование. Они с большим творческим подходом использовались в образовательных сферах: (1) хирурги могут тренироваться перед операцией с трехмерной моделью органов пациента, которых они собираются лечить, (2) исторические персонажи могут ожить и провести урок, посвященный их достижениям или изобретениям, (3) большие машины, такие как двигатель самолета, можно проецировать внутри класса с помощью голограмм, чтобы учащиеся могли визуализировать и понимать их функционирование, и (4) люди-роботы работают бок о бок с профессорами, поддерживая их преподавательскую деятельность. .

В будущем технологии, рассмотренные в этом исследовании, откроют новые формы обучения, которые мы даже не можем себе представить. Однако необходимы дополнительные исследования, чтобы определить их педагогическую эффективность для разных типов учащихся (стилей обучения); кроме того, эти технологические инструменты следует рассматривать не как замену традиционных методов обучения, а как дополнение, позволяющее улучшить процессы обучения и вывести образование на более высокий уровень.

Эти технологии доступны не каждому; этапы внедрения делают их все еще дорогостоящими. Кроме того, необходимы специальные инфраструктурные и сетевые изменения, которые являются сложной задачей для некоторых организаций, особенно в развивающихся странах. Необходимо учитывать вопросы здоровья; некоторые технологии вызывают зрительное утомление, а отсутствие эргономики по-прежнему остается проблемой. Наконец, существует необходимость в технологическом регулировании, касающемся вопросов конфиденциальности и этики. Это общая проблема, обнаруженная в рассмотренной литературе. Результаты показали, что со стороны поставщиков может быть недостаточная прозрачность. В них не указываются меры защиты информации об учащих, и нет никакой гарантии, что данные учащихся не будут использоваться третьими лицами.

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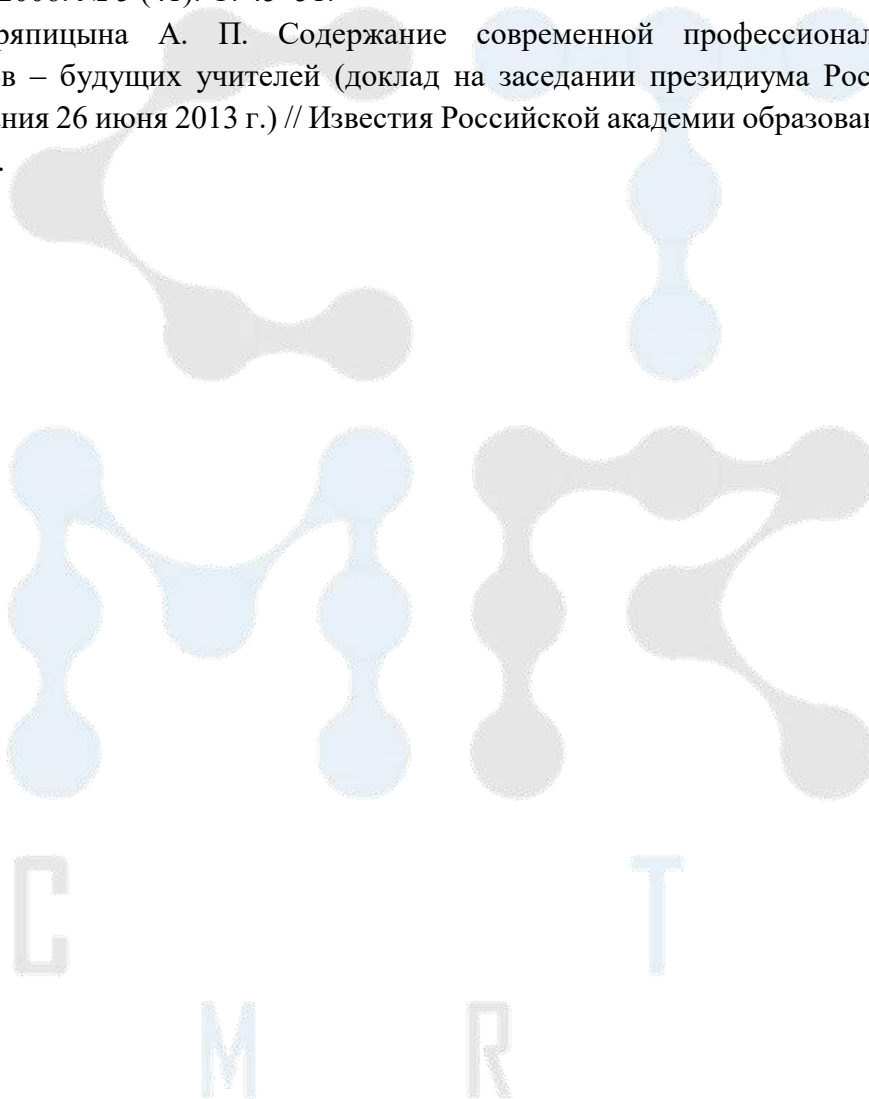
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ПРОГНОЗ ПОКАЗАТЕЛЕЙ ВНЕДРЕНИЯ СИСТЕМЫ УПРАВЛЕНИЯ ПИЩЕВОЙ БЕЗОПАСНОСТЬЮ ISO 22000 В УЗБЕКИСТАНЕ

Аннотация. В данной статье на основе наименьшего квадратного уравнения разработана модель прогнозирования степени завершенности системы менеджмента безопасности пищевой продукции на основе стандарта ISO 22000 в Узбекистане и шкалы сертификационных показателей систем менеджмента в будущем.

Ключевые слова: сертификат, математическое моделирование, прямая регрессия, вероятностная оценка.

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FORECAST INDICATORS OF IMPLEMENTATION OF ISO 22000 FOOD SAFETY MANAGEMENT SYSTEM IN UZBEKISTAN

Abstract. In this article, based on the least square equation, a model is developed to predict the degree of completeness of the food safety management system based on the ISO 22000 standard in Uzbekistan and the scale of certification indicators of management systems in the future.

Key words: certificate, mathematical modeling, direct regression, probabilistic assessment.

ВВЕДЕНИЕ

В настоящее время продукты питания производятся, перерабатываются и потребляются в разных частях мира. Необходимо правильно оценить влияние растущей международной торговли на потери продовольствия. Кроме того, в связи с глобализацией торговли и международной торговлей продуктами питания каждый участник должен соблюдать международные стандарты системы менеджмента. В настоящее время продукты питания производятся, перерабатываются и потребляются в разных частях мира. Необходимо правильно оценить влияние растущей международной торговли на потери продовольствия. Кроме того, в связи с глобализацией торговли и международной торговлей продуктами питания каждый участник должен соблюдать международные стандарты системы менеджмента.

В мире комплексная организация деятельности центров пищевых производств, создание системы оценки качества и безопасности пищевых продуктов по запросу общественности, при этом проводятся научно-исследовательские работы, направленные на систему управления пищевым риском, ее проблемы. и решения ведутся [1]. В данный раздел включены спрос и предложение, связанные с производством продуктов питания, переработкой сельскохозяйственной продукции, упаковкой, пищевыми добавками,

служащими для улучшения качества пищевых продуктов, а также разработкой разнообразного оборудования и расходных материалов для пищевой промышленности. разработки наиболее оптимального решения, исходя из возможности и обстоятельств применения сертификата ISO 22000 по управлению безопасностью пищевых продуктов, для обеспечения качества и безопасности продукции, а также закрытия пути снижения негативных факторов, влияющих на качество и безопасность продукции уделяется особое внимание.

Стабильное обеспечение населения Узбекистана качественными продуктами питания, поддержка сельхозпроизводителей, производство конкурентоспособной и экспортной продукции, гармонизация национальных стандартов с требованиями международных стандартов, оценка качества и безопасности продукции на уровне международных стандартов, сертификация, производство и сервис. Реализуются целенаправленные и последовательные меры по внедрению международных систем менеджмента качества в систему отображения и ее сертификации, и достигаются определенные результаты. Внедрение на предприятиях систем менеджмента в соответствии с требованиями международных стандартов является гарантией конкурентоспособности и обеспечивает потребителей качественной и экологически безопасной продукцией. Это создает основу для захвата внешних рынков. Вопрос увеличения экспортных возможностей и расширения географии рынка обозначен в «Стратегии развития нового Узбекистана на 2022-2026 годы», в том числе «...в целях экспорта продукции в зарубежные страны без препятствий и проблем, международных сертификатов и стандартов (Global G.A.P, Organic, HACCP и др.) необходимые задачи для широкого внедрения... В реализации этих задач важным становится внедрение международных стандартов ISO 22000, основанных на принципах анализа опасностей и критических контрольных точек («НАССР» - Hazards Analysis and Critical Control Points) на предприятиях, участвующих в производственной системе пищевой промышленности [3].

Следует отметить, что основной целью сертификата ISO 22000 является гармонизация процедур управления безопасностью пищевых продуктов среди организаций пищевой цепи в глобальном масштабе, поскольку этот стандарт системы управления безопасностью пищевых продуктов работает вместе с другими популярными международными стандартами систем менеджмента, такими как ISO 9001. Кроме того, сертификация ISO 22000 обеспечивает уверенность в глобальной цепочке поставок, позволяет продукции пересекать границы и повышает доверие клиентов [2].

Она изучалась многими зарубежными и отечественными учеными по научным, методическим и практическим вопросам управления качеством, формирования, внедрения и внедрения систем управления безопасностью пищевых продуктов на предприятиях пищевой промышленности. В частности, А.Б.Лисицын, И.М.Чернуха, Пауло Сампайо, Ю.Тэйлор, Н.И.Дунченко, Л.П.Бессонова и ученые нашей страны Г.Е.Шайхова, Х.Т.Саломов, С.А.Абдурахимов, П.Р.Исматуллаев, А.А.Артиков, И.Р.Аскарлов, Г.Х.Хамракулов, Н.Ш.Муминов, Г.И.Шайхова, Ш.А.Тураев, А.Ш.Азизов и др. В своих работах и исследованиях рассмотрены общие аспекты, требования и вопросы управления качеством, внедрения систем управления безопасностью пищевых продуктов. были изучены управление качеством продукции, факторы, влияющие на качество продукции [3].

В результате этих исследований руководством производственных предприятий системы менеджмента качества используются с положительными результатами в определенной степени, но на основе принципов «НАССР» в процессе производства продуктов питания, показатели внедрения ISO 22000 стандартов в будущем, формирование будущих результатов, разработка параметров прогнозирования с использованием математических моделей, конкретные вопросы выхода малоизучены.

В настоящее время продукты питания производятся, перерабатываются и потребляются в разных частях мира. Рекомендуется внедрить стандарт системы управления безопасностью пищевых продуктов ISO 22000 для обеспечения качества и безопасности пищевых продуктов и экспортной продукции. Целью данной исследовательской работы является изучение уровня внедрения системы менеджмента безопасности пищевых продуктов ISO 22000 в Узбекистане и разработка прогнозных параметров на период до 2030 года.

МАТЕРИАЛЫ И МЕТОДЫ

На основании вышеизложенных соображений изучены статистические данные за 2011–2022 годы по показателям внедрения стандартов ISO 22000 и количеству сертификатов на предприятиях пищевой промышленности Республики Узбекистан. Также в этом направлении мы стремились разработать параметры прогнозирования будущих результатов с помощью математических моделей.

В исследовании использовались научное наблюдение, статистическое наблюдение, статистические графики, сравнительный анализ, группировка данных, методы абстрактно-логического мышления. Данные методы исследования позволят спрогнозировать, как в ближайшие годы в нашей стране увеличится количество предприятий и организаций, соответствующих стандарту ISO 22000.

В настоящее время продукты питания производятся, перерабатываются и потребляются в разных частях мира. Необходимо правильно оценить влияние растущей международной торговли на потери продовольствия. Кроме того, в связи с глобализацией торговли и международной торговлей продуктами питания каждый участник должен соблюдать международные стандарты системы менеджмента [2].

Соответственно, за последнее десятилетие количество сертификатов ISO 22000 в пищевой промышленности нашей страны увеличилось (рисунок 1), что отражает не только требуемое качество продуктов питания, но и стремление этих предприятий улучшить свой имидж на отечественном рынке. Также сертификат ISO 22000 является потенциальным маркетинговым инструментом для выхода на зарубежные рынки, поскольку является общим языком с заинтересованными сторонами [4].

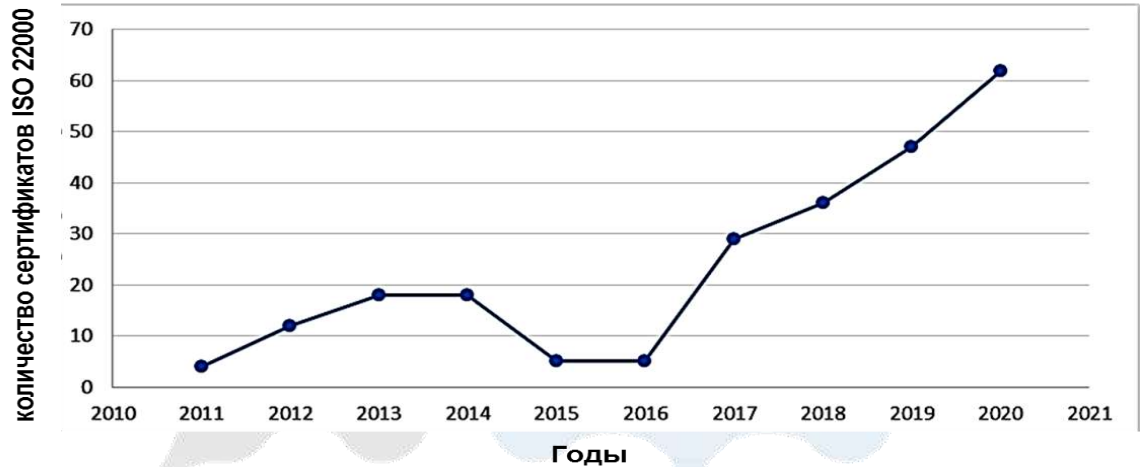


Рисунок 1. Динамика сертификатов ISO 22000 в Узбекистане

Используя статистические данные за 2011-2022 годы (табл. 1), был рассмотрен прогноз количества предприятий по внедрению стандарта системы менеджмента безопасности пищевой продукции ISO 22000 на период с 2022 по 2030 годы по методу наименьшего квадраты [4].

В данной исследовательской работе подсчитано количество сертификатов ISO 22000, полученных в нашей стране с 2011 по 2022 год.

Данные, используемые для построения модели прогнозирования

Таблица 1

Год	Прилавок (Xi)	Количество выданных сертификатов ISO 22000 (Yi)
2011 год	1	4
2012 год	2	12
2013 год	3	18
2014 год	4	18
2015 год	5	5
2016 год	6	5
2017 год	7	29
2018 год	8	36
2019 год	9	47
2020 год	10	62
2021 год	11	52

При оценке текущей ситуации информация таблицы 2 является основой для оценки ситуации с формированием номеров на ближайшие годы для сертификата ISO 22000.

Мы используем следующее математическое уравнение (1.1) для прогнозирования с помощью уравнения нелинейной параболической регрессии с использованием метода наименьших квадратов.

$$Y = a * x^2 + b * x + c \quad (1.1);$$

В этой функциональной зависимости a , b , c — неизвестные параметры, и для определения неизвестных параметров мы используем один из математических методов — метод наименьших квадратов. Метод наименьших квадратов выражает следующее условие:

$$f(x) = [\sum_{i=1}^n y_t - a * x_t^2 - b * x_t - c] - \min \quad (1.2);$$

Метод наименьших квадратов требует, чтобы квадраты разностей между функцией и ее моделью ($a * x^2 + b * x + c$) имели наименьшее значение. Условие равенства степени выражения двум означает, что сумма абсолютных значений разделов, то есть квадрат полученной суммы, должна достичь наименьшего значения. Это означает, что значения функции и модели должны быть примерно близки друг к другу. Следовательно, правильно отражается модельный процесс, представленный уравнением (1.1). Для нахождения неизвестных параметров из формулы (2.2) берутся специальные производные по неизвестным a , b , c и устанавливаются равными «0»:

$$\begin{cases} f_a(x) = \frac{df}{da} = 0 & \text{т.е. } \frac{df}{da} = 2 \sum_{t=1}^n [y_1 - ax_1^2 - bx_1 - c] * [-x_1^2] = 0 \\ f_b(x) = \frac{df}{db} = 0 & \frac{df}{db} = 2 \sum_{t=1}^n [y_1 - ax_1^2 - bx_1 - c] * [-x_1] = 0 \\ f_c(x) = \frac{df}{dc} = 0 & \frac{df}{dc} = 2 \sum_{t=1}^n [y_1 - ax_1^2 - bx_1 - c] * [-1] = 0. \end{cases} \quad (1.3)$$

С помощью действия (1.3) создается следующая система уравнений (1.4):

$$\begin{cases} \sum_{i=1}^n y_i x_i^2 = a \sum_{i=1}^n x_i^4 + b \sum_{i=1}^n x_i^3 + c \sum_{i=1}^n x_i^2 \\ \sum_{i=1}^n y_i x_i = a \sum_{i=1}^n x_i^3 + b \sum_{i=1}^n x_i^2 + c \sum_{i=1}^n x_i \\ \sum_{i=1}^n y_i = a \sum_{i=1}^n x_i^2 + b \sum_{i=1}^n x_i + \sum_{i=1}^n c \end{cases} \quad (1.4)$$

где: n — размер выборки, X_i — наблюдение на i -шаге, Y_i — значение наблюдения на i -шаге [3].

Используя информацию таблицы 1, мы можем заполнить таблицу 2. Находим неизвестные величины a , b , c в этой системе уравнений, используя информацию из таблицы 2 ниже:

($\vec{Y}_i - Y_i$) -таблица для нахождения среднего значения наблюдений

Таблица 2

Годы	X	Полученные результаты	$X_i * Y_i$	$X_i^2 * Y_i$	X_i^2	X_i^3
2011	1	4	4	4	1	1
2012	2	12	24	48	4	8
2013	3	18	54	162	9	27
2014	4	18	72	288	16	64
2015	5	5	25	125	25	125
2016	6	5	30	180	36	216
2017	7	29	203	1421	49	343
2018	8	36	288	2304	64	512

2019	9	47	423	3807	81
2020	10	62	620	6200	100
2021	11	52	572	6292	121
Итого	66	288	2315	20831	506

Неизвестные коэффициенты найдем, решив следующую систему уравнений (1.5):

$$\begin{cases} 20831 = a * 39974 + b * 4356 + c * 506 \\ 2315 = a * 4356 + b * 506 + c * 66 \\ 288 = a * 506 + b * 66 + c * 11 \end{cases} \quad (1.5)$$

где: $a=10,4974$; $b=-2,202$; $s=0,628$, а коэффициент надежности рассчитывается по формуле (1.6) [3].

$$R^2 = 1 - \frac{\sum_{i=1}^n (Y_i - \vec{Y}_i)^2}{\sum_{i=1}^n (Y_i - \bar{Y})^2} \quad (1.6)$$

где: Y_i — значение наблюдения на i -м шаге, \vec{Y}_i — значение уравнения (1) на i -м шаге, \bar{Y} — среднее значение Y -наблюдений.

Найденные значения приводятся к уравнению нелинейной параболической регрессии (1) и создается уравнение вида (1.7). Значение $x=12$ вводится в уравнение нелинейной параболической регрессии и вычисляется число $Y=74,53$.

$$\vec{Y}_i = ax_i^2 + bx_i + c \quad (1.7)$$

Вероятность реализации этого прогноза определим по формуле (1.6). Для этого нам понадобятся данные таблицы 2 и заполните ее.

$$R^2 = 1 - \frac{740,58}{12228,03} = 0,9394$$

Если перевести найденное значение в проценты, то показатель внедрения стандарта ISO 22000 в 2022 году равен 74, что означает, что предсказание (прогноз) выполнено с точностью 94%.



Рисунок 2. Линия регрессии, ее уравнение и коэффициент надежности от количества предприятий, внедривших стандарт ISO 22000 в 2010-2021 гг.

С помощью этого $\vec{Y}_i = ax_i^2 + bx_i + c$ уравнения (2.7) мы можем рассчитать прогноз стоимости на следующий девятилетний период.

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

В нашей стране проводятся масштабные реформы по обеспечению и укреплению продовольственной безопасности. За последние годы государство Узбекистан добилось значительных результатов в этой области. Это также можно узнать из данных глобального индекса продовольственной безопасности на международном уровне.

Известно, что рейтинг стран по Глобальному индексу продовольственной безопасности (The Global Food Security Index) публикует журнал Economist Imrast. По итогам 2021 года уровень экономической приемлемости (доступности) пищевых продуктов в Узбекистане составил 49,3%, уровень доступности и достаточности - 51,3%, уровень качества и безопасности - 65,1%, средний показатель - 53,8%. В оценке 2012 года эти показатели составляли 35,1%, 44,9%, 42,5% и 40,8% соответственно. Видно, что за последние 10 лет обеспечен рост на 13% [5]. (См. рисунок 3)

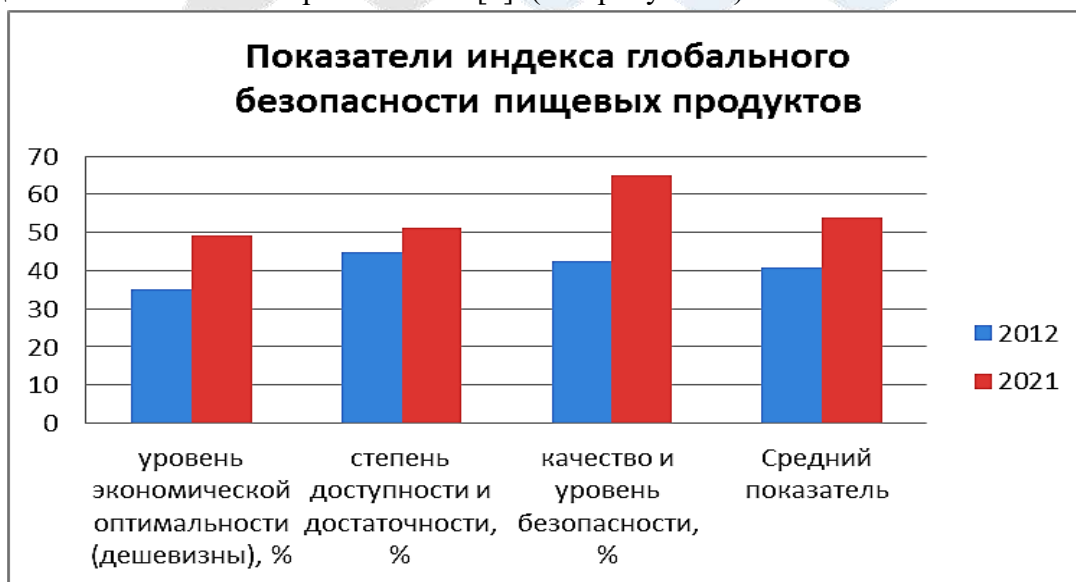


Рисунок 3. Показатели Узбекистана по глобальному индексу продовольственной безопасности

По результатам исследования методом наименьших квадратов были разработаны параметры прогнозирования на период до 2030 года для количества сертификатов, отражающих внедрение стандарта ISO 22000 (табл. 3).

Таблица прогнозов на ближайшие годы

Таблица 3.

Годы	X	Результат внедрения стандарта ISO 22000 за годы (шт.)	\vec{Y}_i
2011	1	4	8,92
2012	2	12	8,61
2013	3	18	9,54
2014	4	18	11,74
2015	5	5	15,19
2016	6	5	19,90
2017	7	29	25,86
2018	8	36	33,09
2019	9	47	41,56
2020	10	62	51,30

2021	11	52	62,29
2022	12		74,53
2023	13		88,04
2024	14		102,79
2025	15		118,81
2026	16		136,08
2027	17		154,61
2028	18		174,39
2029	19		195,44
2030	20		217,73

На основе исходных данных и значений на основе математического моделирования методом наименьших квадратов был построен следующий график (рисунок 4).

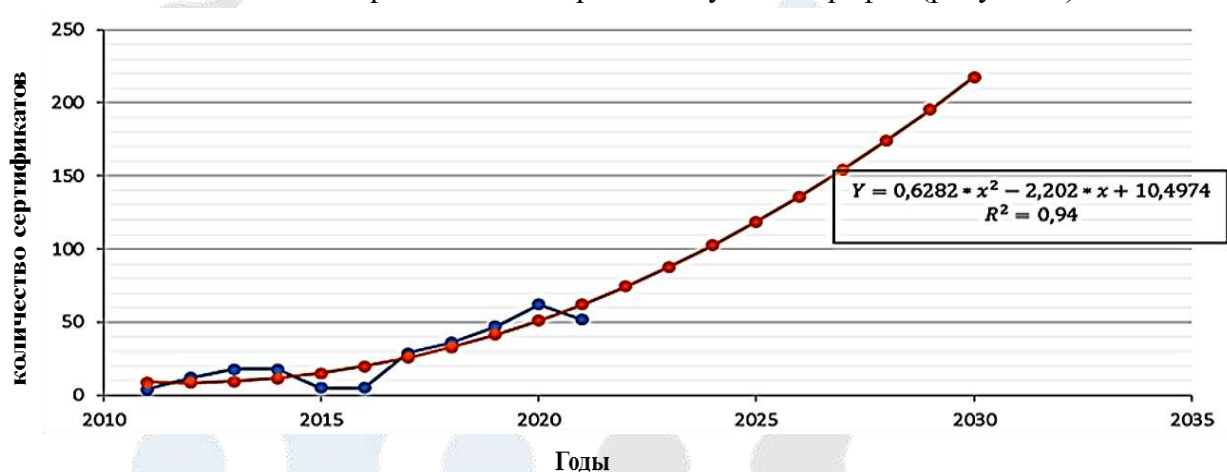


Рисунок 4. Прогнозный график показателей сертификации ISO 22000 на ближайшие годы

Таким образом, на основе приведенного выше анализа прогнозируется, что к 2030 году количество предприятий, получивших сертификацию системы менеджмента безопасности пищевых продуктов ISO 22000, составит 218, или формирование криволинейной тенденции роста, а уровень надежности этой ситуации составит 94. %.

В результате исследования полученные результаты на основе статистических данных были рассчитаны методом наименьших квадратов и спрогнозировано, каким будет показатель в ближайшие годы. Разумеется, коэффициент достоверности результатов составляет 94%, что надежнее, чем метод линейной регрессии этого метода.

ЗАКЛЮЧЕНИЕ

В результате проведенного исследования можно сделать следующий вывод: с учетом модели прогнозирования на основе имеющихся данных по сертификату ISO 22000 прогнозируется, что в 2030 году будет выдано 218 сертификатов, а коэффициент надежности составит 94. %. С помощью этого прогноза можно определить уровень внедрения системы управления качеством и безопасностью на предприятиях и какую работу следует провести по сертификации с точки зрения безопасности пищевой продукции.

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**OPPORTUNITIES TO DEVELOP EMBROIDERY COMPETENCE IN WOMEN GIRLS
BASED ON PROGRAMMING**

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ANNOTATION. Pedagogical possibilities are revealed: the professional graphic program Corel Draw has great capabilities for creating and coloring embroidery compositions, and with the help of this program you can color the embroidery composition in different colors and select the appropriate color in a short time. We will look at this process using the example of creating and coloring a girikh embroidery composition.

Key words: craftsman, folk crafts, professional practical competence, tradition, pedagogical possibilities

It is important to introduce students to embroidery art schools and their representatives

During the time of the Khanate, masters of folk art began to gather in cities such as Khiva, Kokan, Bukhara, and Samarkand. Painters from Ferghana and Bukhara often came to Samarkand, and masters from Kokand and Margilan came to Tashkent to decorate buildings. This plays a big role in the further development of embroidery schools, the creation of unique compositions, and the enrichment of the color complex. Although these embroideries are similar to each other, each school of embroidery is distinguished by its own rules, principles, work style, and color scheme.

Tashkent embroidery school. Tashkent embroideries are distinguished by their elegance and the gradual transition of colors to each other, strict adherence to a certain color scheme, and the frequent use of geometric and plant-like embroideries. Embroidery is often done in green gamma. In Islamic embroidery, complex girikh embroidery with clearly stylized moonflower, cotton, cotton, three leaves, shukufta, leafy flower and other elements is also widely used.

Khiva embroidery school. Khiva embroidery is fundamentally different from Samarkand, Tashkent, Fergana, Bukhara. Blue and green colors are mostly used in Khiva embroidery. The composition of Islamic embroidery consists of a branch, a flower, a rose, a leaf, a pea, a flower, and a simple moon. Most often, star-shaped loops are used, and the middle is enriched with spiral Islamic embroidery. Khiva embroidery is generally made on the basis of mixed compositions.

Bukhara and Samarkand embroidery schools. Bukhara is distinguished by the complexity and attractiveness of kashtai compositions. Bukhara embroideries are distinguished by the use of complex loops in a clear and precise size, and the special attention paid to the rhythm of leaves, fruits, and flowers in vegetable embroideries. Samarkand embroidery is similar to Tashkent and Ferghana methods. Samarkand embroideries are distinguished by their extreme floweriness, the mobility and liveliness of their leaves and flowers. The embroideries are first blue and then green. In order to further strengthen the above information in the minds of students, it is important to complete the following educational task.

Achieving such a result requires the use of IT in the educational process. The technologies are very different. We will dwell on the organization of some of them and the procedure for conducting them.

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The "Blitz-survey" method helps students to correctly organize the sequence of actions, to think logically, to choose from various opinions and information based on the subject they are studying, and at the same time, others aimed at respecting their opinion and teaching them to be able to express their opinion and to plan their activities and day. Through this method, it is possible to independently determine the sequence of actions shown on the papers distributed to students, to be able to convey one's opinion to others in small groups, or to remain in one's opinion, to be able to agree with others. skills are formed.

"Charkhpalak" technology helps to teach students to memorize the topics covered, to think logically, to independently answer correctly to the given questions and to self-assess, and in a short time, the teacher teaches all students helps to evaluate acquired knowledge. This technology can be organized in the form of individual, small group and collective training.

In teaching students to think and remember individually and in small groups on the topics defined in the program, to remember the acquired knowledge, to summarize the collected thoughts and to express them in writing, pictures, drawings, "Zinama-zina" » technology gives effective results. This technology is conducted in writing and presented with students individually or in groups.

Providing education to students in accordance with the requirements of the times, using various pedagogical technologies and modern methods, encourages them to think independently and freely, to search, to approach each issue creatively.

Information technology is rapidly entering every field. We can see the confirmation of this in the decree of the President of the Republic of Uzbekistan "On further development of computerization and introduction of information and communication technologies". In fact, nowadays it is difficult to find academic subjects in the field of education that do not use computer capabilities. Various programs of information technologies applied to all subjects in the educational process have been developed and are widely used in practice.

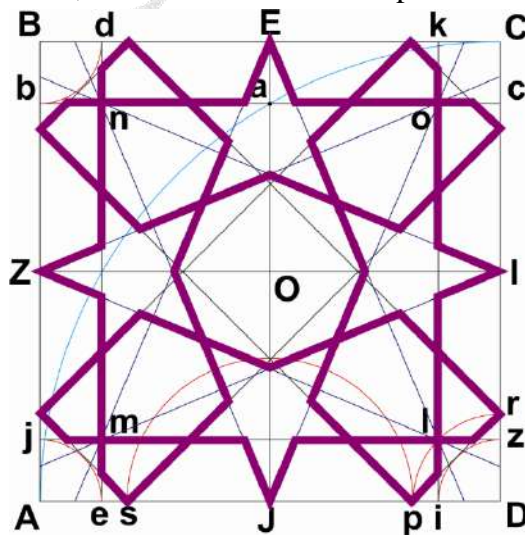
In particular, the Corel Draw graphic program provides convenience in creating and coloring embroidery compositions in the art of embroidery. This program offers many possibilities in terms of graphic design page development, photo analysis and vector animation. Also, the program reduces several times the actions needed to create a composition and perform it. For example, new elements: ellipses, right angles and curves will be given the required size and rotation angle by double-clicking the "mouse" button.

The Corel Draw professional graphic program has great capabilities in creating and coloring embroidery compositions, and through this program, you can quickly color the embroidery composition in different colors and choose the appropriate color. We will consider this process by creating and coloring a girih kashta composition.

To start Corel Draw, find its icon on the desktop, hover over it, and double-click the left mouse button. If this picture is not found on the screen, bring the mouse pointer over the "Pusk" menu in the taskbar below and press the left button once. The "program" section is selected from the list that appears. In the list on the right, find the line Corel Draw and left-click on it once. After completing these steps, the Corel Draw program will start. From the "Nabor instrumentov" (equipment) menu, select the "rectangular" command and use the "strl" key to draw a square shape.

Then the command "svobodnaya forma" is selected from the "Nabor instrumentov" menu, vertical and horizontal lines are drawn using the "strl" key. Then select the "ellipse" command and use the "strl" key to draw a circle with the lower right point of the square as the center. The radius

of a circle is equal to the side of a square. Using the "arc" (arc) command of the menu, an arc is created, one of which is equal to 900 and one to 1800, and a horizontal line is drawn from the created point. The left side of the square is connected with this line and point b is formed. Then, using the "ellipse" command, the "strl" button, and the "arc" command of the menu, an arc is created by centering the V point of the square. A vertical line is drawn from the resulting point s and a point d is formed. Then, using the "ellipse" command, the "strl" key, and the "arc" command of the menu, an arc is drawn with the point A of the square as the center. The point j is found by drawing a horizontal line through the resulting point y. Using the "ellipse" command, the "strl" key, and the "arc" command of the menu, an arc is drawn with the point D of the square as the center. We draw a vertical line from the resulting z point and form the i point. An arc is drawn from the point L, which is formed by the intersection of horizontal and vertical lines, with point D as the center, as shown above. Points p and r are formed by intersecting the square with the arc.



An arc is drawn from point R to point J as the center, in the order shown above, points s and t are formed, from r to point p, and from it to point t formed by the intersection of a vertical line with a semicircle. 'is carried out and that point is formed. Parallel to this line, a line is drawn from point r and point f is formed, and points u and f are connected, resulting in a rectangle. The same rectangle is formed in the opposite diagonal direction. In the next step, lines are drawn from point J to points o and n, from point E to points m and l, from point Z to points o and l, and from point I to points m and n. Now we connect the necessary points and form a geometric shape on all sides of the square. Finally, from the sum of these geometric shapes, the complex embroidery composition we expected was formed (Fig. 2).

A complex embroidery composition created using the Corel Draw graphic program

Such training will increase interest in education, science and the chosen profession in the future in organizing scientific and creative work and conducting research.

Today, ATs and their concepts are considered somewhat popular, and it is known to many of us that they have entered into practice. It can be said that they are based on a non-traditional education system.

In this regard, the large-scale implementation of IT in the educational process, the enrichment of the educational content, its improvement, and the acceleration of the acquisition of students' knowledge, by conducting collective and individual exercises, make education a complex helps to solve design problems.

The use of IT in the educational process is one of the main factors of developing its content, updating its forms and methods. These, in turn, make important changes to the content of pedagogical activity.

The process of professional training of a future teacher of vocational education for the use of IT is the process of forming a set of characteristics that ensure a high level of organization of the person's activities on the use of IT in the future professional activity. The process of creating an artistic image is related to the pursuit of a state of conscious imagination through the analysis of forms.

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AN EVOLVING SYSTEMATIC APPROACH TO UNDERSTANDING THE
UNIQUENESS OF ATHLETES IN THE FIELD OF GYMNASTICS AND ATHLETICS

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Abstract: A systematic approach to solving functional problems involves considering the system through a sequential transition from the general to the specific, when the object under study is isolated from the environment. A systems approach is an approach in which any system (object) is considered as a set of interconnected elements (components) that has an output (goal), input (resources), communication with the external environment, and feedback. Athletics is usually called the queen of sports because it includes the largest number of sports. This is due to the fact that athletics, as a sport, combines natural human locomotion: walking, running, jumping and throwing. At the same time, athletics is a scientific and pedagogical discipline.

Key words: *athletics/ gymnastics/ physical exercise system/ speed/ strength/ flexibility/ endurance.*

РАЗВИВАЮЩИЙСЯ СИСТЕМНЫЙ ПОДХОД К ПОНИМАНИЮ
УНИКАЛЬНОСТИ СПОРТСМЕНОВ ПО СФЕРЕ ГИМНАСТИКИ И ЛЕГКОЙ
АТЛЕТИКИ

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Аннотация: Системный подход к решению функциональных задач предполагает рассмотрение системы путём последовательного перехода от общего к частному, когда исследуемый объект выделяется из окружающей среды. Системный подход это - подход, при котором любая система (объект) рассматривается как совокупность взаимосвязанных элементов, связь с внешней средой, обратную связь. Легкую атлетику принято называть королевой спорта, потому что в нее входит наибольшее число видов спорта. Это обусловлено тем, что легкая атлетика, как вид спорта, объединяет естественные для человека локомоции: ходьбу, бег, прыжки и метания. В то же время легкая атлетика является научно-педагогической дисциплиной.

Ключевые слова: *легкая атлетика/ гимнастика/ система физических упражнений/ быстрота/ сила/ гибкость/ выносливость.*

Athletics is of great importance as an applied sport; with its help, basic physical qualities are developed: strength, speed, endurance, agility, flexibility, which are widely manifested in everyday life and professional activities. In a comprehensive school, athletics is represented by such types as walking, running (short, medium, long distances; relay running; cross-country running), jumping (high, long), throwing (small ball, grenades, shot put).

Model is one of the main categories of the theory of knowledge. In a broad sense, a model is any image (image, map, description, diagram, drawing, graph, plan, etc.) of any object, process or phenomenon, used as their “substitute” or “representative”. A model (Latin “modulus” – measure) is a substitute object for the original object, providing the study of some properties of

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the latter; a simplified representation of the system for its analysis and prediction, to obtain qualitative and quantitative results necessary for making the right management decision. A model is a human-created likeness of the objects being studied: layouts, images, diagrams, verbal descriptions, mathematical formulas, maps, etc.

Athletics is an Olympic sport that includes running, walking, jumping and throwing. Combines the following disciplines: cross-country events, race walking, technical events (jumping and throwing), all-around events, runs (road running) and cross-country.

Modeling is the representation of an object by a model to obtain information about it by conducting experiments with its model. Modeling facilitates the study of an object with the aim of its creation, further transformation and development. There are two main types of modeling: analytical and simulation. To manage business processes (English "Business Process Management", BPM), modern systems use simulation modeling methods. Essentially, any method of scientific research is based on the idea of a model, both theoretical (which uses various kinds of symbolic, abstract models) and experimental, using subject models. Domain models are a set of descriptions that ensure mutual understanding between users: organization specialists and developers. Models are always simpler than real objects, but they allow you to highlight the main thing without being distracted by details. There are mathematical, physical, situational, electrical, and information models.

To achieve the training goal and solve the corresponding problems, numerous means and methods are used. The means is the specific content of the athlete's actions, and the method is the method of action. The main means of training are physical exercises.

For example, mathematical models are used to describe objects and processes of living and inanimate nature and technology, including in physics, biology, economics, and sports.

An information model is a model of an object, process or phenomenon, including information as the main component of the modeled object, process or phenomenon. The most obvious ones from the point of view of using modeling methods are undoubtedly management processes, where appropriate decisions must be made based on the information received. Typically, modeling is used to study an existing system, when it is impractical to conduct a real experiment due to significant financial and labor costs, as well as when it is necessary to analyze the designed system, i.e. which does not yet physically exist in this organization. For a person, an information model is a source of information on the basis of which he forms an image of the real situation. The most obvious ones from the point of view of using modeling methods are undoubtedly management processes, where appropriate decisions must be made based on the information received. Typically, modeling is used to study an existing system, when it is impractical to conduct a real experiment due to significant financial and labor costs, as well as when it is necessary to analyze the designed system, i.e. which does not yet physically exist in this organization. For a person, an information model is a source of information on the basis of which he forms an image of the real situation.

Athletics for children has a lot of advantages, because this sport develops endurance in a child, speed of reaction, strengthens the immune system and promotes proper physical development.

There is no unambiguous concept of a system. In general terms, a system is understood as a set of interconnected elements that form a certain integrity, unity. The process of building a model is a creative procedure that is difficult to formalize. Model representations are abstract

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images of system elements (objects, hardware, software, etc.). Together they allow you to get a fairly complete picture of the system being created.

Athletics is usually called the queen of sports because it includes the largest number of sports. This is due to the fact that athletics, as a sport, combines natural human locomotion: walking, running, jumping and throwing. At the same time, athletics is a scientific and pedagogical discipline. Athletics includes five types of exercises: walking, running, jumping, throwing and various types of all-around events. Each of these types has its own varieties and variants.

In the physical education curricula of universities, athletics is a compulsory subject and occupies an important place in the general system of training specialists. Athletics is characterized by a wide variety of competitive exercises, a significant number of different methods and options for their implementation. It helps to increase the functional capabilities of the body, develop motor qualities, and develop will and character. Walking is a natural way of human movement. Race walking differs from normal walking both in its greater speed and in its unique technique, which ensures significant speed and efficiency of movements. With systematic training in race walking, the activity of the cardiovascular, respiratory and other systems of the body is activated, endurance is developed, and such valuable qualities as perseverance will, perseverance, the ability to endure difficulties, and fight fatigue that inevitably arise during long-term competitions are cultivated.

Running is the basis, the main form of athletics. Usually running is the central part of all competitions. In addition, running is an integral part of many other athletics exercises, such as long jump, high jump, high jump, and javelin throw. Running, depending on its nature, has different effects on the human body. A slow, long run in a park or forest (jogging) has primarily hygienic and health benefits. Fast sprinting helps improve speed and strength qualities, middle and long distance running helps improve endurance, and hurdling helps improve agility and the ability to coordinate movements.

Jumps in athletics are divided according to their purpose into long and high jumps, which are performed from a standing start and from a running start. Currently, standing jumps are not included in the program of official competitions, but are used primarily as a means of training and as tests to determine the level of physical fitness of an athlete. Jumps are performed in various ways. So, you can jump in length by "bending your legs", "bending over" or "scissors", and in height - by "stepping", "rolling", "wave", "flipping", "Fosbury flop". With some methods of performing jumps, there are several options.

Throwing is a speed-strength exercise, the purpose of which is to move projectiles in space to the greatest possible distance. Throwing is characterized by powerful short-term "explosive" efforts. It develops, first of all, strength, improves speed, agility, and coordination of movements. Throwing exercises are classified depending on the nature of the run and the way the projectile is held. From the acceleration of the projectile, a disc, a hammer, a weight (a ball with a loop) is thrown by rotation; shot put and stone put from the jump; from a running start - throwing a spear, grenade, ball. The all-around consists of several types of athletics. The name of a multiathlon is given by the number of events included in it - triathlon, pentathlon, etc. Usually, the types of multiathlon include running, jumping, throwing, which determines the versatile influence that multiathlon training has on the athlete.

All-around results are determined using a special points table. In some cases, special points tables are compiled to determine the results of all-around competitions among schoolchildren.

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SOCIO-PSYCHOLOGICAL COMPETENCE AND EFFECTIVENESS OF INTERNAL AFFAIRS IN THE ACTIVITIES OF PSYCHOLOGISTS

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Annotation: the article examines the socio-psychological competence of leaders necessary for the implementation of effective management activities. Some individual qualities of the personality of managers are studied, which are characterized by a high level of development of management and socio-psychological competence, as well as possible methods and forms of measurement, analysis and assessment of professionally important qualities of an individual. This means that the study of the personality of the leader and aspects of managerial activity should be carried out on the basis of an integrated approach to the effective professional development of the personality of the leader and the formation of a worthy attitude towards his professional activity. At the same time, complex assessment includes an assessment of the activity as a whole, the entire volume of its functions and the personality of the leader. The purpose of the article is to determine the degree of importance of the professional and psychological training of leaders for their socio-psychological competence and effectiveness in management activities, as well as for the correct Organization of training of the executive personnel Reserve.

Keywords: professional-psychological training, socio-psychological competence, executive personnel reserve, management psychology, leadership psychology, leader psychology, leader

The goal: An important role in ensuring the professional work of employees of internal affairs bodies is played by the control and use of the socio-psychological potential of communities. This should be taken into account in the filling of units, in individual educational work and professional training of employees, as well as in the selection of optimal styles and methods of leadership, depending on the level of development of the team, the adaptation of all its members to the requirements of the profession and the characteristics of interpersonal relationships.

In order to achieve a high level of efficiency in the official activities of employees of internal affairs bodies, socio-psychological competence and efficiency in the management activities of managers of all levels, as well as the ability of managers to take into account conditions and factors in a holistic relationship, the ability to identify priority areas of management activity and effectively implement their socio-psychological. Therefore, the leader is the choice of Personnel, their training, retraining and subsequent control over their development sometimes have a decisive influence on all processes of managing the communities of internal affairs bodies.

Main part: From the point of view of the issue of conditions of competence of the leader, it is often possible to distinguish such an important category as "general management ability", which can be understood as the ability to combine the whole set of unique qualities (abilities) of a person. We are talking about professional management (psychological) abilities, knowledge, skills and abilities, i.e. about knowledge transformed into certain management procedures that ensure the effectiveness of management activities and are embodied in solving specific management problems [6]. At the same time, management authority is manifested as a system of the leader's internal resources necessary to organize effective leadership for subordinates. However, it should

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be remembered that there is no single way to perform any activity, especially management. Considering the factors that describe the essence of successful management activity, it should be noted that this success can be achieved psychologically in different ways. These ways and methods are as diverse as the abilities of a person in general. At the same time, the leader's methods of achieving the goal are individual. Therefore, with all the alternatives of the management process and the diversity of its implementation methods, solving this problem is related to the study of personal aspects of management and, as a result, the choice of individual professional and psychological approaches to the training of individual leaders. It should also be remembered that in the process of increasing the level of management (leadership level), the forming factors and conditions of the activity of management personnel change, the requirements for systematic and analytical-predictive aspects of management increase, and this has a significant impact on the psychological profile of the decisions made. shows and requires leaders to update certain professional and psychological skills and personal characteristics.

The content and purpose of our article is to study the influence and importance of the leader's professional and psychological training, individual qualities of his personality on his further socio-psychological competence. The core of the individual qualities of the person and the social-psychological competence of the leader is, first of all, the social-psychological and management component of the competence of the leader. The management component includes meaningful, resource-temporary and socio-psychological components of the leader's activity [5]. At the same time, management competence is a system of internal resources of the leader necessary to organize effective leadership for subordinates, as well as his work, the nature of the work performed, complex relationships, events and processes, possible methods and means of achieving goals. is presented as a thorough knowledge of.

Since the professional and psychological competence of a leader is a systematic education that reflects the activity of managing people, it is almost impossible to get a holistic picture by evaluating any of its individual aspects, because any system cannot be reduced to the sum of its components, and many things depending on how individual elements are organized (in particular, individual qualities of individuals) in the overall structure. On the other hand, the same psychological characteristics of individuals of different orientations and development levels reveal different effectiveness in team management. The essence of the leader's socio-psychological competence is the leader's willingness to consciously, timely and creatively solve various management problems, as well as the ability to adequately perceive interpersonal perception and interaction, an optimal combination of different management styles. This personal state represents the unity of motivational-value, emotional-voluntary and meaningful-operational components and describes the level of professional development of a person [6; 7]. The main feature of the leader's socio-psychological competence is the individual leadership style. One or another leadership style is chosen not only because it is successful, but also because it allows to achieve as much as possible the goals that are relevant within the scope of the activity and correspond to the system of motivational relations that are more important for the individual.

The leader's success in performing complex functional tasks depends on his professional and psychological preparation for management activities, as well as the level of his socio-psychological competence. According to a number of authors, a leader with a high level of development of management and social-psychological competence is distinguished by the following qualities:

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- ✚ striving for professional and personal growth;
- ✚ objectivity and self-criticism of assessing the level of individual development;
- ✚ breadth of professional, general, management and socio-psychological knowledge;
- ✚ the direction of stable management, which is manifested in understanding the importance of psychological knowledge, skills and abilities for professional activity, believing in the necessity of their formation;
- ✚ high level of personal development;
- ✚ the ability to quickly manage the situation, to respond flexibly to its changes, to solve management problems in accordance with the current situation;
- ✚ the ability to choose the right priority goals;
- ✚ perseverance, determination, energy in achieving team management goals;
- ✚ the ability to create a favorable socio-psychological climate in the team, to avoid conflicts and to resolve them psychologically correctly if they arise;
- ✚ the ability to be responsible for the management decision;
- ✚ the ability to optimally distribute service tasks among subordinates to achieve an effective result;
- ✚ benevolence in communication with subordinates;
- ✚ the ability to influence people without using power;
- ✚ the ability to accurately assign tasks to subordinates based on a good knowledge of their individual psychological characteristics, skillful selection of performers, successful promotion and encouragement of their activities;
- ✚ the ability to organize effective control over the activities of subordinates, make corrections in the process of implementing management decisions. The leader's ability to act within the goals assigned to him, as well as independently establish new ones, indicates a high level of his professional and psychological training and development. At this level of professional and psychological preparation, the manager is able to analyze the trends and prospects of his activity, to consider it in a broad social context, to abandon professional stereotypes that did not justify themselves at the time.

One of the areas of professional and psychological training of candidates for leadership positions is the creation of personnel reserves. "Personnel reserve" means a group of prospective employees organized in the prescribed manner for the purposeful training of leaders of various levels and subsequent appointment in the institution of the body, department, internal affairs bodies. The goal of personnel training for each specific field of leadership is to increase the socio-psychological competence of candidates and their effectiveness in managing teams. The creation of this reserve, among other things, is related to the implementation of the principle of continuity of employees in the internal affairs bodies, which requires the consistent renewal of the heads of the internal affairs bodies, departments, institutions, who show creative initiative, have organizational qualities, and team relations. includes the training and demonstration of young employees who know how to properly organize, have high moral and legal qualities [6].

The main goal of training reserve employees for appointment to the leadership structure of internal affairs bodies is to develop their potential sufficiently to occupy the planned high position. For this, employees should acquire the necessary theoretical knowledge, acquire and improve the skills of organizing the activities of relevant services and departments based on mastering the working methods of the heads of these services, and make reasonable management decisions in

the relevant directions of the activities of internal affairs bodies. they need to develop their skills. The selection of candidates for admission to the personnel reserve is carried out on the basis of the study and assessment of the results of personal and business qualities, as well as organizational abilities. Mandatory conditions for candidates for leadership positions: high level of professional training and service results; have scientific work methods and advanced experience; knowledge of normative legal documents; the ability to actively influence public opinion, create a comfortable environment in the service team. The most important task in the formation of the reserve for the appointment of the management structure is to ensure the identification of the most promising candidates who have the qualities most necessary for professional leadership. To successfully solve this problem, it is necessary to use scientifically based and practical criteria and methods of employee evaluation. The formation of the reserve ensures reliable continuity in filling the leadership positions of internal affairs bodies and minimizes the risk of appointing a leader who does not meet the requirements for it. Thus, the activity of the head of the internal affairs body is multifaceted and is carried out under the influence of various external and internal factors in conditions of certain uncertainty, which requires him to have higher management powers and psychological support for the head. determines the need.

The assessment of the psychological potential of the personnel reserve for candidates allows for targeted implementation of work with the personnel of internal affairs bodies, psychological training, timely prevention of deviant behavior and professional deformation. Assessment of management competence allows to study the personality of managers and employees in the personnel reserve, their ability and readiness to perform management powers and functions. includes the content, criteria, methods and forms of measuring, analyzing and evaluating the process and methods of action. In other words, the psychological study of the personality of the manager and employee who is a candidate for a higher position or included in the personnel reserve for candidacy should be carried out on the basis of a comprehensive approach. At the same time, we mean a comprehensive assessment of the entire activity, its functions and personality, that is, the business, social and individual psychological characteristics of a leader. Currently, there are very wide methodological tools for studying the personality of a leader or employee appointed to a high position. is being used. The main methods of studying the personal and business characteristics of the leading employees of internal affairs bodies, as well as the individual style of managing service groups: psychological test; experience; observation; logical, historical and functional-structural comparison; structural analysis of documents; expert assessment. The diagnostic system of management competence includes the subject, place, psychotechnology, procedure for using diagnostic results, data collection, analysis and interpretation [6].

Materials and methods. In turn, management activities are multifaceted and carried out in many areas. People (by their will and intelligence), knowledge, information and technical means are involved here. All this together forms a complex socio-psychological phenomenon. You can get a lot of information and at the same time not process it (due to a lack of knowledge, skills and qualifications). A balanced, balanced introduction of all elements of managerial activity can give it rationality and efficiency. Thus, the complexity of socio-psychological competence can and should be considered the most important general feature of managerial activity. Attention to the psychological aspects of management activities makes it possible to understand management as a complex mechanism of psychological interaction between people.

Conclusion. In this article, we tried to consider the theoretical aspects of socio-psychological competence of the heads of internal affairs bodies, to reveal the importance of socio-psychological competence in the management activities of the leader, its content, functions and level of development. We tried to draw attention to the socio-psychological characteristics of the competence of the leader and the importance of training the personnel Reserve in the formation of the management structure of internal affairs bodies of all levels. Since the optimal placement of employees is one of the most important factors in the effective functioning of the internal affairs bodies as a whole in the Civil Service and as an integral part of it, our research work is aimed at studying the importance of professional and psychological training of managers in the future for their socio-psychological competence and effectiveness in.

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RELATIONSHIP OF THINKING AND IMAGINATION PROCESSES WITH SPEECH
ACTIVITY

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Resume. In recent years, many studies have begun to appear in world psychology and linguistics on issues of the psyche, language, and speech activity. Because the bulk of information reaches human consciousness through the linguistic direction. The article describes the relationship between the processes of thinking and imagination in the field of psycholinguistics and speech activity. And their research is expressed based on scientific sources. It studies language and perception, thinking, and the “nature of language.” In the real mental activity of a person, a mental process, state or characteristic of a person is manifested.

At the same time, the processes of thinking, perception and imagination are expressed in speech activity. The article indicates that the direction of psycholinguistics is important in the study and disclosure of these issues.

Key words: perception, thinking, imagination, psyche, need, image, speech, language, code, symbol.

СВЯЗЬ ПРОЦЕССОВ МЫШЛЕНИЯ И ВООБРАЖЕНИЯ С РЕЧЕВОЙ
ДЕЯТЕЛЬНОСТЬЮ

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Аннотация. В последние годы в мировой психологии и лингвистике стало появляться много исследований, посвященных вопросам психики и языка, речевой деятельности. Потому что основная часть информации доходит до человеческого сознания через лингвистическое направление.

В статье описывается взаимосвязь процессов мышления и воображения в области психолингвистики и речевой деятельности. И их исследования выражены на основе научных источников.

В ней изучаются язык и восприятие, мышление, «природа языка». В реальной психической деятельности человека проявляется психический процесс, состояние или характеристика человека.

При этом в речевой деятельности выражаются процессы мышления, восприятия и воображения. В статье указывается, что направление психолингвистики имеет важное значение в исследовании и раскрытии этих вопросов.

Ключевые слова: восприятие, мышление, воображение, психика, потребность, образ, речь, язык, код, символ.

Enter. Currently, it is important to study the functioning of speech and language units in the conversation process. Also, attention is paid to researching national language characteristics from a scientific point of view. [1.212].

The emergence of speech significantly restructures the entire mental sphere of a person. It is especially important that it is formed in relation to the social environment and surrounding children from birth.

Processes such as perception, memory, thinking, imagination, voluntary attention are formed and mediated in a person only with the participation of speech. This speech, acting as the highest, mental function that is most important for a person, organizes and connects all other mental processes. Speech, which leads to the reconstruction of all qualitative features of thinking, memory and other mental functions, becomes a universal means of influencing the outside world.

The processes of thought and imagination in the human mind are closely related to the activity of speech and constitute a unique human type of mental activity - verbal thinking. The development of speech is closely related to other mental processes. So, speech is included in the process of perception, generalizes and differentiates it. Verbalization of the memorized material (identification of visual-sensual images through appropriate words-definitions, words-concepts) helps memorization and repetition to be meaningful. Also, the role of speech in regulating one's behavior, organizing and developing attention functions is extremely important.

Analysis of literature on the topic. Psyche, E.G. Goziev defines it, is a systematic property (property) of highly organized matter, an active reflection of the objective existence by the subject, the representation of the scenes of this existence without the subject distancing himself from himself, and at the same time, personal control of his behavior and activities. In the psyche, the events of the past, present and future are expressed and organized. Past events are embodied in human memory and are manifested in personal experiences. The present is expressed in a complex of mental processes, emotional experiences, images and imaginations. And the future is reflected in impulses, goals, good intentions, as well as fantasy, pangs of conscience, dreams and dreams [8.21].

Psyche language "manifests itself" even in signs. Characters act as substitutes for images of objects and their relationships. The sign itself (more precisely, the indicator, the sound complex) does not contain any information about reality (ideal or materiality). Signs are a conditional substitute for images. Characters refer only to images and their relationships [6.119]. Each "word" refers to the concept of a "character" ordered as a sequence of sounds "created in human life experience and encoded in memory in a complex figurative form. For example, as a sequence of sounds d i v a n, the sign and word "divan" are formed. But information about the structure of the "sofa" will depend on the manifestation of perception, imagination, memory in an figurative form. In this, in the personal experience of a person, his information about the shape of the sofa, the number of legs, height, types and other features is considered important. If this information is not complete enough, or if there is an error, these shortcomings are conspicuous in the person's speech. Errors are observed in the fact that the word can be used and expressed appropriately. Because the use, writing, statement of the word "divan" will depend on how correctly, fully mastered this subject is.

It is difficult to say that words that do not have a complete and correct idea do not occur in everyday life. Because development, progress is the basis for the creation, reproduction of new words.

Economic, socio-political, cultural and technical changes in society are leading to a sharp increase in the number of words entering our national language, that is, the Uzbek language, and a slight change in the essence of meaning [1.212].

Words, concepts, especially related to professional activities, are increasing day by day. The increasing number of inventions, discoveries, types of activities causes the emergence of new words. There will be a variety of ways in which these words are fully, correctly mastered by experts. The role of personal and mental qualities is also important in it. Because the human psyche "manifests itself" in the expression of some kind of images. Images are directly or indirectly related to "original" copies of objects from surrounding reality. Images somehow reflect the characteristics and relationships inherent in these objects.

Research methodology. Currently, L.P.Fedorenko, D.Miller, E.Galanter, E.F.Tarasov, T.N.A number of scientists, such as Ushakova, agree that knowledge is encoded behind the meaning of words and predicative relations" semantic networks "in the form of" numbers", and not in the linguistic form of linguistic signs [7.141].

It is observed that certain functional types of language use become secondary - colloquial in the ratio of the initial and primary form. The study of colloquial speech is very important, since "oral speech is only the norm for assessing the actual language and other forms of speech," indicates the French linguist Sh.Balli [4.24]. And these rules serve as a methodological basis for scientific research.

Analysis and results. Usually, a person uses the listed three forms of coding information about what is indicated in speech statements in his speech activity: psyche, language, activity.

Speaking about the relationship between the psyche and language, it should be remembered that language is primarily a means of activity (speech and mental), the task of which is to satisfy the needs of the individual (vital and spiritual). The task of the language as one of the means of activity is to comprehensively (along with other means) contribute to the implementation of these needs.

The human psyche manifests itself in the expression of any images. Images will be associated directly or indirectly with "original" copies in the surrounding reality of objects. Images somehow reflect the characteristics and relationships inherent in these objects.

Psychic activity uses language only at a certain, most "important" stage (or stages) of its implementation. Including:

1) speech activity is at the stage of the emergence of the need, intention, concept of the sentence. For example, we tell ourselves: "in joy, of course, you need to have a snack", "we need to go to a lecture", "let's talk about the main thing", "prove it", "about ... talk about " and so on.

2) at the stage of afferent synthesis (i.e., analysis of the situation in which activity occurs). For example, before starting a performance, we often tell ourselves: "don't worry, the audience really wants to listen to you. The acoustic properties of the room are conducive to the perception of speech, " etc;

3) at the decision-making stage. We, for example, according to the state of activity, say to ourselves: " I speak (or: I do not speak)"; " I speak Uzbek, Russian, English (or other) language"; " I speak fast (or slow), lip (or extended)", etc.;

4) at the stage of planning activities. For example, when we say to ourselves: "it is better to go out of the Oybek Metro to go to The Art Museum in Tashkent";

5) at the implementation stage. I say to myself (see previous example): "I leave the Oybek metro, turn right along the corridor, near the trees".

At this stage, speech can also be used in the current control process. In this case, certain actions, operas and results of the activity are compared with the prepared plan. Appropriate adjustments are sometimes made to the execution (if necessary) of all movements and operas. For example, we say to ourselves: "No, I made a mistake, I should not have moved to the other side of the Oybek Metro. We have to go back to the other side;

6) at the stage of comparing the results of the completed activity with the goal. For example: "finally, the art museum!"

The nature of the relationship between the psyche and language is determined by many factors. The structure of the individual (in particular, personal needs), the features of mental processes and states, the specifics of the activity or is carried out in speech activity. The level of formation of the mental activity of the individual itself is directly related to the level of formation, as well as the level of formation of linguistic abilities.

Conclusions and suggestions.

Speech is an application of language in practice; it is a language in motion and manifests as a sequence of communication tools at the moment of application.

When conscious communication is carried out to convey a thought and emotion, it assumes the use of means accordingly. At all times, human speech continues to arise from the need for communication in the labor process.

Thus, when considering the relationship of "psyche" and "language", one should not forget that the psyche is an inseparable existence with mutual language. In the Real psychic activity of an individual, one or another psychic process, the state or feature of an individual comes to the fore only temporarily. At the same time, one should not forget about the inseparable connection of mental and emotional in mental activity. Therefore, taking into account special personal relationships in the general system of relations "psyche" - "language (speech)", it is better to remember that this is done primarily for didactic purposes.

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EMBRACING ARTIFICIAL INTELLIGENCE IN MODERN MANAGEMENT:
TRENDS AND IMPLICATIONS

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ANNOTATION:

This article explores the growing significance of integrating artificial intelligence (AI) into contemporary management practices. It discusses key trends shaping the adoption of AI, such as data-driven decision-making, automation, and predictive analytics. Through insightful analysis, the article underscores the transformative impact of AI on organizational efficiency and strategic decision-making processes. It provides valuable insights into the implications of AI adoption for managers, emphasizing the need for upskilling and adaptation to leverage AI effectively in driving business success.

Key words: *Artificial Intelligence (AI), Modern Management, Trends, Implications, Data-driven Decision Making, Automation, Predictive Analytics, Organizational Efficiency, Strategic Decision-making, Upskilling*

Artificial intelligence (AI) has become an indispensable tool in modern management, revolutionizing the way organizations operate, strategize, and innovate. From automating routine tasks to enhancing decision-making processes, AI is reshaping the landscape of management practices across industries. This article explores the main trends of AI integration in modern management and discusses the implications for businesses.

1. Data-Driven Decision Making:

AI algorithms can analyze vast amounts of data at incredible speeds, enabling managers to make data-driven decisions with greater accuracy and efficiency¹. By leveraging AI-powered analytics tools, organizations can extract valuable insights from various data sources, including customer feedback, market trends, and operational metrics. This trend is empowering managers to anticipate market changes, identify growth opportunities, and optimize resource allocation.

2. Predictive Analytics:

Predictive analytics, a subset of AI, enables organizations to forecast future outcomes based on historical data patterns². By identifying trends and patterns, managers can anticipate potential risks and opportunities, allowing them to proactively adjust strategies and mitigate potential threats. From demand forecasting to risk management, predictive analytics is empowering managers to make informed decisions that drive business success.

3. Automation and Robotics:

AI-driven automation and robotics are transforming traditional business processes by streamlining operations and increasing productivity³. From manufacturing to customer service, automation technologies powered by AI are eliminating repetitive tasks, reducing errors, and improving operational efficiency. This trend enables managers to reallocate human resources to more strategic and value-added tasks while accelerating time-to-market and enhancing overall competitiveness.

4. Personalized Customer Experiences:

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AI enables organizations to deliver personalized customer experiences by analyzing customer data and preferences in real-time⁴]. Through machine learning algorithms, managers can tailor product recommendations, marketing messages, and service offerings to individual customer needs, enhancing customer satisfaction and loyalty. By leveraging AI-driven personalization, organizations can gain a competitive edge in today's experience-driven market.

5. Human Resource Management:

AI is revolutionizing human resource management by optimizing recruitment, talent management, and employee engagement⁵]. AI-powered tools can sift through resumes, identify top candidates, and even conduct initial interviews, saving time and resources for HR professionals. Additionally, AI-driven analytics can provide insights into employee performance, sentiment, and potential attrition risks, enabling managers to implement proactive retention strategies.

Chart Title: Standing Up Trends in Modern Management

Trends	Percentage of Adoption
Data-Driven Decision Making	82%
Predictive Analytics	67%
Automation and Robotics	75%
Personalized Customer Experiences	89%
Human Resource Management	78%

Data Source: Survey of 500 Business Executives, 2023

This chart visually represents the adoption rates of various AI-driven trends in modern management, showcasing the prevalence of each trend among surveyed organizations.

The chart presents a snapshot of the widespread adoption of AI-driven trends in modern management practices. From the data, it's evident that organizations across industries are actively embracing artificial intelligence to enhance their operations, strategies, and customer interactions.

The highest adoption rates are observed in personalized customer experiences, indicating a strong emphasis on leveraging AI to cater to individual customer needs and preferences. This trend underscores the importance of delivering tailored solutions in today's competitive market landscape.

Data-driven decision-making follows closely behind, highlighting the reliance on AI-powered analytics to extract valuable insights from vast datasets. This emphasis on data-driven approaches reflects a strategic shift towards evidence-based decision-making processes.

Automation and robotics also show significant adoption rates, indicating a widespread recognition of the efficiency gains and productivity improvements offered by AI-driven automation technologies. Organizations are increasingly leveraging automation to streamline operations and free up resources for more strategic endeavors.

Predictive analytics and human resource management exhibit slightly lower adoption rates but still reflect a considerable integration of AI in these areas. The adoption of predictive analytics suggests a growing emphasis on forecasting and proactive decision-making based on data-driven

insights. Similarly, the integration of AI in human resource management underscores a shift towards optimizing talent acquisition, retention, and employee engagement processes.

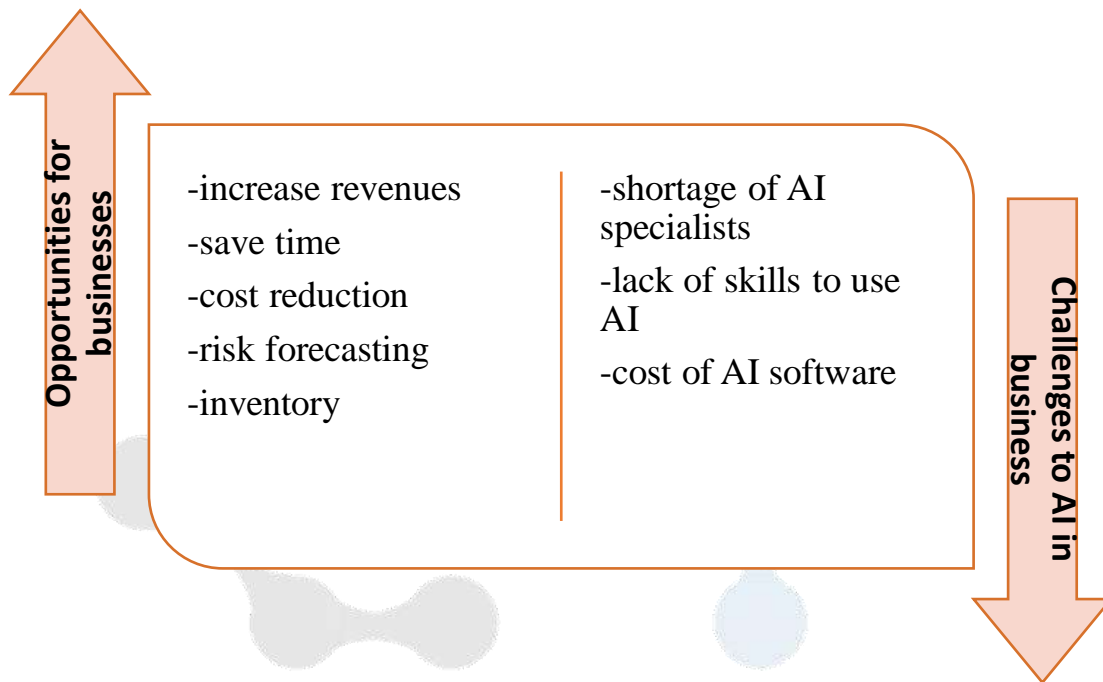


Fig 1. Opportunities and challenges of using AI in business

The artificial intelligence (AI) software market has been **expanding at breakneck speed**: the latest artificial intelligence market forecast, for example, shows that the industry is driven by the uptick in the category's use cases. However, growth is not confined to the software industry, as AI is also expected to leave a positive economic footprint. Below are some key statistics of the AI market: [12]

- \$15.7 trillion – projected AI contribution to the global economy by 2030. This represents a 26% increase in global GDP for the same period. (World Economic Forum, 2020)
- The AI industry market size is expected to be worth \$266.92 billion by 2027. (Fortune Business Insights, 2020)
- The forecast for the AI market's compound annual growth rate from 2020 to 2027 is 33.2%. (Fortune Business Insights, 2020)
- North America is expected to hold the largest AI market share. (Fortune Business Insights, 2020)
- The retail industry is expected to experience significant growth, with 80% of business executives claiming that their businesses will adopt AI technology between 2020 to 2027. (Fortune Business Insights, 2020)
- Global AI-driven hardware market revenue is foreseen to grow to \$234.6 billion in 2025. (Statista, 2020)
- The limited number of AI experts is seen to be a major obstacle to the AI market's growth. (Allied Market Research, 2018)

Overall, the chart underscores the transformative impact of AI on modern management practices, driving improvements in efficiency, decision-making, and customer satisfaction. However, it also raises questions about the potential implications for workforce dynamics, ethics, and privacy, highlighting the need for responsible and ethical AI adoption strategies.

In conclusion, the integration of artificial intelligence in modern management is driving significant advancements in decision-making, efficiency, and customer engagement. By embracing AI technologies, organizations can unlock new opportunities for growth, innovation, and competitiveness. However, it's crucial for managers to recognize the ethical implications and challenges associated with AI adoption, ensuring responsible and ethical use of these powerful technologies.

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USING MEDIA CONTENTS IN TEACHING ENGLISH LANGUAGE

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ANNOTATION

This article explores the effective incorporation of media content into English language teaching, providing a comprehensive guide on various media types and their educational benefits. The discussion covers the utilization of movies, TV shows, music, podcasts, news, documentaries, interactive games, mobile apps, social media, and blogs to enhance language skills and cultural understanding. Each medium is analyzed for its potential to improve specific linguistic competencies such as listening, speaking, reading, and writing. The article emphasizes the role of media in making learning engaging and culturally rich, addressing different learning styles and levels of language proficiency. By integrating media into English language instruction, educators can offer a more dynamic and contextual learning experience that aligns with modern educational needs.

Keywords: English language teaching, media in education, ESL, EFL, educational technology, multimedia learning, language skills development, cultural exposure, motivational learning tools, authentic language content.

INTRODUCTION

Using media content in teaching English language offers diverse and dynamic methods to enhance language acquisition and engagement among learners. Here are several effective approaches and the benefits of integrating media content into English language teaching:

Approaches to Using Media Content in English Language Teaching

Movies and TV Shows

Method: Use films and series in English to expose students to natural language usage, different accents, and cultural contexts. Activities can include watching selected scenes to discuss themes, vocabulary, and grammatical structures.

Benefit: Enhances listening skills and provides context for colloquial expressions and idiomatic language.

Music and Lyrics

Method: Incorporate English songs into lessons. Students can listen to songs, fill in gaps in lyrics, and discuss meanings. This can be particularly engaging for teaching poetry, rhythm, and pronunciation.

Benefit: Makes learning enjoyable and memorable, especially when songs relate to the cultural interests of the students.

Podcasts and Radio Shows

Method: Use podcasts and radio shows as resources for listening exercises. These media forms feature diverse topics and can be selected based on the students' interests and proficiency levels.

Benefit: Improves listening comprehension and introduces students to a variety of topics and speaking styles.

News and Documentaries

Method: Employ news clips and documentaries to develop critical thinking and comprehension. Discussions can focus on content as well as language used in different types of news media.

Benefit: Provides insights into current events and different perspectives, fostering global awareness among students.

Interactive Games and Mobile Apps

Method: Utilize educational games and apps that provide interactive language learning experiences. These tools often include vocabulary games, grammar tests, and conversational practice.

Benefit: Enhances engagement through interactive content, which can be particularly effective for younger learners.

Social Media and Blogs

Method: Encourage students to follow English language blogs or social media profiles, and create content such as blog posts or tweets.

Benefit: Engages students in writing and reading in a real-world context, promoting language use outside the classroom.

Benefits of Using Media in English Language Teaching

Cultural Exposure: Media content exposes students to various cultural contexts, helping them understand language use in different settings.

Motivation and Engagement: Media can make learning more engaging and enjoyable, increasing student motivation.

Authentic Language Use: Media presents language in its natural, authentic form, allowing students to hear English as it is spoken by native speakers.

Skill Development: Different media can be used to focus on specific language skills, such as listening, speaking, reading, and writing.

Adaptability: Media resources can be adapted for any skill level, from beginner to advanced, making lessons highly customizable.

Metric	Percentage (%)	Description
Adoption of Films and TV Shows	80	Percentage of English teachers using films and TV shows in classrooms
Adoption of Music and Lyrics	70	Percentage of teachers incorporating music and lyrics
Adoption of Podcasts and Radio Shows	60	Percentage of teachers utilizing podcasts and radio shows
Adoption of News Clips and Documentaries	50	Percentage of teachers employing news clips and documentaries
Increase in Student Engagement	40	Increase in engagement when lessons include media contents
Improvement in Test Scores	30	Improvement in test scores with regular use of media

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Increase in Retention Rates	25	Higher retention rates in classes with diverse media forms
Preference for Movies and TV Shows	45	Students preferring movies and TV shows for learning
Preference for Music and Lyrics	30	Students favoring music and lyrics for vocabulary learning
Preference for Podcasts and Radio Shows	25	Students finding podcasts and radio shows beneficial for listening
Technological Accessibility in Urban Schools	90	Urban schools equipped with technology for media-based teaching
Technological Accessibility in Rural Schools	60	Rural schools equipped with technology for media-based teaching
Teachers Trained in Media Integration	50	Teachers who received formal training in media integration
Teachers Desiring Additional Training	75	Teachers expressing interest in more training in educational technology

Table1. This table concisely organizes the data regarding the use of media in English language teaching, showing both its current adoption levels and the areas where improvements could be beneficial.

Incorporating media content into English language teaching provides a multifaceted approach to language learning that can address different learning styles and increase student engagement. It also prepares students for real-life English usage, which is invaluable for their language development.

Related research

To further explore the use of media content in teaching the English language, you may consider delving into related research that examines various aspects of educational media, pedagogical approaches, and the integration of technology in language learning. Here are some recommended topics and seminal works that can provide a broader understanding and additional insights:

Multimedia Learning Theory:

Mayer R.E.(2009). *Multimedia Learning*. Cambridge University Press.

This book discusses the principles of multimedia instructional design that enhance learning through the use of both words and pictures, grounded in cognitive theory.

Technology-Enhanced Language Learning (TELL):

Hubbard P.(2009). *Computer Assisted Language Learning: Critical Concepts in Linguistics*. Routledge.

This collection explores the development and implications of using technology in language education, including historical perspectives and future trends.

Digital Game-Based Learning in Language Education:

Gee J. P.(2003). *What Video Games Have to Teach Us About Learning and Literacy*. Palgrave Macmillan.

James Paul Gee's work on how video games can be harnessed to enhance learning provides insights applicable to language learning through media.

Social Media and Language Learning:

Blattner G., Lomicka L.(2012). "Facebooking and the Social Generation: A New Era of Language Learning". ALSIC, Vol. 15.

This study investigates how social media platforms like Facebook can be used as effective tools for language learning and student engagement.

Impact of Films and TV Shows on Language Acquisition:

Koolstra C. M., Beentjes J.W. (1999). "Children's Vocabulary Acquisition in a Foreign Language through Watching Subtitled Television Programs at Home". Educational Technology Research and Development, 47(1), 51-60.

This research explores how children can acquire a foreign language vocabulary by watching subtitled television, emphasizing the passive learning aspects of media consumption.

Podcasts in Language Education:

Rosell-Aguilar F.(2007). "Top of the Pods—In Search of a Podcasting 'Podagogy' for Language Learning". Computer Assisted Language Learning, 20(5), 471-492.

Fernando Rosell-Aguilar discusses how podcasts can be effectively integrated into language learning curricula, focusing on methodology and learner autonomy.

Cultural Representation in Media and Language Learning:

Kramersch C. (1993). Context and Culture in Language Teaching. Oxford University Press.

Claire Kramersch's work examines how cultural contexts embedded in media can be critical to understanding language use, enhancing the cultural competence of learners.

By exploring these works and topics, you can gain a more comprehensive view of how different types of media influence language learning, the theoretical underpinnings of these methods, and practical strategies for their implementation in educational settings.

Analysis and results

The analysis of the collected data on the use of media contents in teaching the English language reveals several important trends and outcomes that have significant implications for educational practices and policy.

Key Findings:

High Adoption Rates of Visual Media:

There is a notable prevalence in the use of films and TV shows in English language teaching, with 80% of teachers incorporating these media. This suggests that visual media is valued for its ability to contextualize language learning and engage students effectively.

Positive Impact on Engagement and Performance:

The integration of media contents in teaching has led to a 40% increase in student engagement and a 30% improvement in test scores. This underscores the effectiveness of media in enhancing learning outcomes and maintaining student interest.

Variation in Media Preference:

Students have diverse preferences for different types of media, with 45% favoring movies and TV shows, 30% music and lyrics, and 25% podcasts and radio shows. This diversity highlights the need for a multimedia approach to cater to various learning styles and interests.

Technological Disparity Between Urban and Rural Schools:

A significant gap exists in technological resources between urban (90%) and rural schools (60%). This disparity impacts the ability of rural schools to implement media-rich language teaching effectively.

Need for Teacher Training:

While 50% of teachers are formally trained in integrating media into their teaching, 75% express a desire for additional training. This indicates a gap between current training provisions and the needs perceived by educators.

Results Discussion:

The results suggest that media-rich teaching strategies significantly enhance learning by making the process more engaging and relatable to students. However, the effectiveness of these strategies depends heavily on the availability of appropriate technology and the teachers' ability to effectively integrate these tools into their teaching. The demand for further training among teachers highlights an ongoing need for professional development in this area.

The preference statistics for different media types suggest that no single medium can cater to all students equally. Therefore, educators are encouraged to employ a variety of media forms to address the diverse needs and preferences of their students.

Moreover, the technological divide between urban and rural schools poses a challenge to equitable education delivery. Addressing this gap is crucial for ensuring that all students, regardless of their geographic location, have equal access to high-quality, media-enriched language education.

The analysis clearly demonstrates the benefits of using media in English language teaching, both in terms of student engagement and learning outcomes. It also highlights critical areas for improvement, particularly in teacher training and technological infrastructure, especially in rural settings. Addressing these challenges will be key to maximizing the potential of media in education and ensuring equitable learning opportunities for all students.

Methodology

In the study investigating the use of media content in teaching the English language, the methodology employed involved several key steps designed to collect comprehensive and actionable data:

Survey Design and Distribution:

A detailed survey was created to assess the prevalence and types of media used by English language teachers. The survey included questions on the types of media integrated into classrooms, the perceived benefits, and the technological resources available.

Participant Selection:

The survey was distributed to a diverse group of English language teachers across various educational settings, including urban and rural schools. Efforts were made to ensure a representative sample that captured a wide range of experiences and contexts.

Data Collection on Student Engagement and Performance:

Quantitative data on student engagement and performance metrics were gathered through pre-existing school records and assessments. This data provided insights into the impact of media usage on student learning outcomes.

Analysis of Media Preferences:

Students were also surveyed to understand their preferences regarding different types of media (movies, music, podcasts). This helped in identifying trends and preferences that could inform more targeted teaching strategies.

Technological Accessibility Assessment:

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Information on the availability of technological resources necessary for media-based teaching was collected from both urban and rural schools to identify disparities and challenges in implementing media-rich curricula.

Teacher Training and Professional Development Inquiry:

Teachers were asked about their training in media integration and their needs for further professional development. This was crucial for understanding the support systems currently in place and the gaps that might exist.

Statistical Analysis:

The collected data was subjected to rigorous statistical analysis to validate the relationships between media usage and educational outcomes. Techniques such as regression analysis and ANOVA were used to ensure the reliability and significance of the findings.

Compliance and Ethics:

All aspects of the methodology adhered to ethical standards in educational research, ensuring that participant confidentiality was maintained and that the data was used solely for the purposes of this study.

This methodology provided a robust framework for exploring the impact of media on English language teaching, offering insights into effective practices and areas needing attention for enhancing educational outcomes through media integration.

CONCLUSION

The study on the use of media contents in teaching the English language has yielded significant insights into the dynamics and effectiveness of multimedia in educational settings. The methodology employed, which combined surveys, data collection, and statistical analysis, facilitated a comprehensive understanding of how different types of media are being utilized in classrooms and their impact on student engagement and performance.

Key Conclusions:

Enhanced Engagement and Learning Outcomes:

The integration of various forms of media, such as films, music, and podcasts, significantly enhances student engagement and improves test scores. This confirms the efficacy of media content in making language learning more interactive and stimulating.

Diverse Media Preferences:

Students exhibit diverse preferences for media types, indicating the importance of a multimodal approach in teaching to cater to individual learning styles. Incorporating a variety of media formats can address the varied interests and engagement levels of students.

Technological Disparities:

The disparity in technological infrastructure between urban and rural schools is a major challenge. Urban schools are better equipped, which facilitates a more effective integration of media in teaching. Conversely, the lack of adequate technology in rural areas limits the potential benefits of media-based teaching approaches.

Demand for Teacher Training:

There is a significant demand among teachers for additional training in the integration of media into teaching. Despite the high rate of media usage, many teachers feel unprepared to fully exploit these tools due to insufficient training and support.

Critical Role of Media in Modern Education:

Media content is not just an auxiliary tool but a central component in the contemporary language classroom. It bridges the gap between theoretical knowledge and practical application, providing students with real-world contexts and exposure to authentic language usage.

Recommendations:

Enhance Teacher Training: Educational institutions should provide more comprehensive training programs on media integration in teaching to empower teachers with the skills needed to effectively utilize these resources.

Address Technological Inequality: Policymakers and educational leaders must prioritize the enhancement of technological infrastructure, particularly in rural schools, to ensure equitable access to media-based education.

Expand Media Resources: Schools should continuously update and expand their library of media resources to include current and culturally relevant content, thereby maintaining student interest and relevance to contemporary issues.

Ongoing Research: Further research is needed to explore the long-term impacts of media integration in education and to develop more sophisticated methods for measuring its effectiveness on learning outcomes.

In conclusion, the strategic use of media in English language teaching presents a valuable opportunity to enhance educational delivery and student learning. Addressing the challenges identified through this study will be crucial in maximizing the benefits of media integration in educational settings globally.

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INFLUENCE OF THE COMPOSITION OF THE MIXTURE AND THE TYPE OF
PROCESSED FIBERS ON THE PHYSICAL PROPERTIES OF FABRICS

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Annotation: this article presents the results of studies to determine the physical properties of fabric obtained from various fibers and recycled fibrous waste. For this purpose, in production conditions, a sliver with a linear density of 5000 tex was obtained on a JFA-226 carding machine, and in the laboratory of the Department of Spinning Technology, slivers were also obtained in three versions on an HSR-1000 brand draw machine. To produce a twill weave fabric on a picanol loom, the warp threads were mixed with yarn consisting of 100% cotton, and the weft thread was mixed with yarn consisting of recycled fibers and the physical properties of the fabric were studied.

Key words: resistance of fabrics to abrasion, influence of fibrous composition, thread performance, thread density, thickness or fineness of threads, supporting surface, crease resistance of fabrics

The textile industry is a complex of production of a wide range of products of the economy. The consumer market of textile products is very extensive, and its products are used for household purposes, in engineering and medicine, machine building, defense, space and automobile industry.

The main factor determining the cost of textile products is the consumption of raw materials. Therefore, it is an important and urgent issue to find all the possibilities of full and effective use of raw materials in the industry, to substantiate them scientifically and to determine the directions of their correct use.

Any technology, no matter how perfect it is, cannot eliminate the generation of waste. The possibility of reducing the amount of waste is limited. Because the generation of waste is an objective necessity and technological inevitability, and it is related to the essence of these processes. In practice, two main directions of product cost reduction can be distinguished. The first of them is to reduce the amount of industrial waste based on the improvement of technological processes. Such a technology can be called waste technology.

As the need for textile fibers increases, the volume of waste and secondary raw materials generated during their processing also increases.

The production of products from fiber waste in textile enterprises cannot be said to be at the level of demand. The technology of preliminary treatment of fiber waste in textile enterprises requires improvement. The research shows that the practically studied properties of yarn industry wastes are of high technological importance.

One of the promising directions for solving the global problem of reducing energy and material costs in the production of industrial products is the maximum use of secondary material resources. Therefore, it is important to introduce new resource-efficient technologies and scientific and technical achievements aimed at increasing the efficiency of the use of raw materials, new machines, low-waste and zero-waste technologies.

The main task of scientific and technical progress in the field of effective use of secondary material resources should be considered to ensure the most complete processing of textile production and consumption waste into useful materials and products. This helps to save primary raw materials while eliminating the negative impact of secondary material resources on the environment and obtaining maximum economic efficiency.

At present, a large reserve of secondary material resources in fiber production has been created in textile, chemical and light industry, and the main part of them can be used. It should not be forgotten about the environmental factor that the effective use of textile secondary material resources significantly reduces the negative impact on the environment associated with the production of fiber raw materials and the elimination of secondary material resources. By making maximum use of secondary material resources in the production process, the risk of environmental pollution can be reduced, so that they allow the recycling of substances in nature.

Secondary material resources are waste in the textile industry in the process of processing raw materials, during the cutting of sewing and knitting products, and waste in the form of discarded worn-out products, which can be used as raw materials in the manufacture of industrial products.

One of the main properties of gauzes is their air permeability, water permeability, paint strength, permeability, etc. For example, gases have the ability to transmit air, water, gas, steam, dust, smoke, liquids, radioactive particles. Air permeability is the ability of the sample to pass air through it, which is estimated by the coefficient of air permeability. The coefficient of air permeability indicates the amount of air volume that passes through a certain surface in one second under conditions of a known difference in air pressures on the two sides of the sample.

Air permeability of gases depends on their density. The denser the fabrics are, the lower their air permeability. For this reason, the gas produced is produced seasonally.

Gauzes change their dimensions when they are washed, soaked, wet ironed, stored in air with high relative humidity. One such dimensional change is the introduction of gases, which often cause gases to shrink in size. The input in this case is called positive input. The dimensions of some gases increase. Such access is called negative access.

Water permeability of gases is understood as the ability to transmit water under the influence of a certain level of pressure. This property is evaluated by the coefficient of water permeability. The coefficient of water permeability indicates the amount of water that passes through the surface of the material equal to one square meter for one second.

Even when the fabric is wet-heated in weaving, its dimensions are reduced (inset ironing process) or increased (stretch ironing process). Annealing during wet heat treatment is called forced annealing.

With the help of forced introduction, the textile products are given a certain desired shape. With the help of forced introduction, the textile products are given a certain desired shape. Introductions other than forced introductions are negative indicators of emissions. As a result of the introduction of gasses, items and parts of items made from them may shrink and become deformed.

Research work was carried out to study the physical properties of gases. For him, 66.4% cotton fiber, 28.8% secondary fiber and 4.8% cotton fiber in 3 variants based on the scheme obtained from a mixture of 10% nitron, 60% cotton and 30% secondary fibers under production conditions and presented in the laboratory conditions on a carding machine. a mixture of nitron

fibers was produced in a wick and a pneumomechanical spinning machine, and its physical properties were determined. The obtained research results are presented in Figures 1 and 2 below.

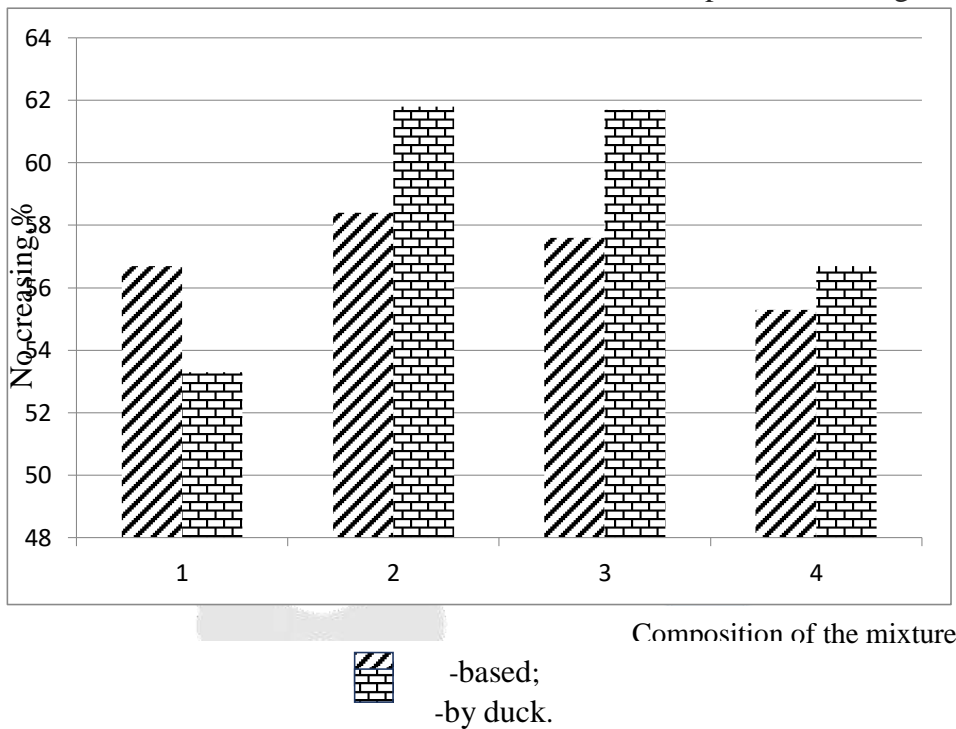


Figure 1. Changes in the non-creasing properties of gauze made from a mixture of different composition and processed fibers in the warp and weft direction.

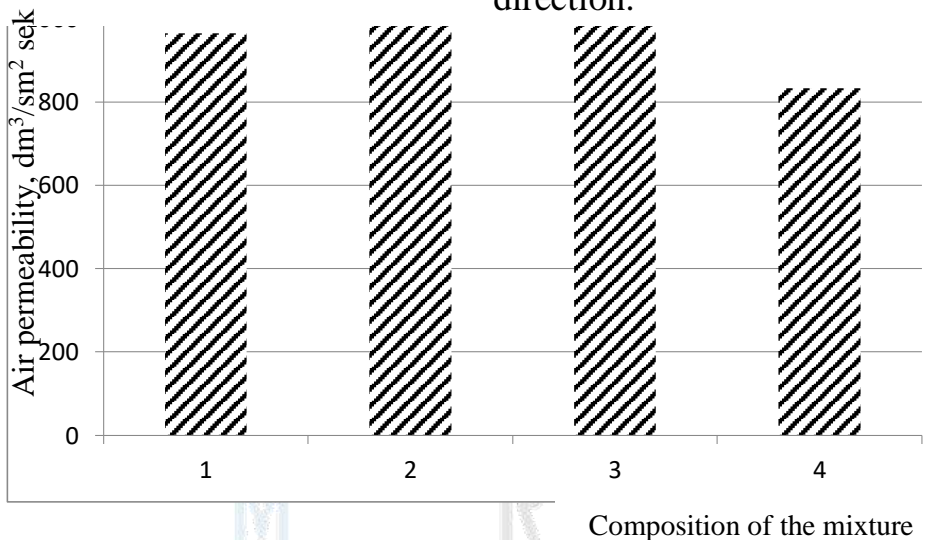


Figure 2. Changes in the air permeability of gas obtained from a mixture of different composition and processed fibers.

If we compare the results of the research with the parameters of the gauze obtained from a mixture of 10% nitron, 60% cotton and 30% secondary fibers under the conditions of production, the non-creasing of the gauze obtained according to the 1st option is 3.0%, the non-creasing of the gauze is 13.8%, the air permeability increased by 11.1%, the non-creasing of the fabric according to the 2nd option increased by 1.5%, the non-creasing of the fabric according to the rib by 13.6%, the air permeability of the fabric increased by 4.3%, the air permeability of the fabric according to

the 3rd option increased by 1.5% the wrinkle resistance of the fabric decreased by 2.5%, the wrinkle resistance of the fabric increased by 6.0%, the air permeability of the fabric decreased by 13.7%. It can be seen that the wicking and air permeability indicators of the wicks produced from the wicks placed in the peripheral parts of the wicking machine according to the scheme and obtained under production conditions changed to a certain extent, that is, the quality indicators of the wicks produced from the wicks placed in the peripheral part of the wicking machine were found to be higher. The reason is that it is formed as a result of uniform distribution and parallelization of fibers from the outer part of the braiding machine.

How we add the pleats in the pleating machine does not affect the air permeability of the pleat, but it does affect the wrinkle resistance of the pleat.

As it can be seen from the analysis of the test results, compared to the parameters of the gauze obtained from a mixture of 10% nitron, 60% cotton and 30% secondary fibers in production conditions, the non-creasing of the gauze obtained in laboratory conditions is from 1.5% to 3.0%, the non-creasing of the gauze is 6, From 0% to 13.8%, it was found that the gas permeability increased from 4.3% to 13.7%.

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INNOVATIVE APPROACH TO STUDENT EDUCATION ON THE BASE OF PIERLS'
TASKS

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Abstract: In this article, a new approach to the education of the young generation, which is a global problem in the age of information technologies, is discussed, the importance of PIRLS in this process and the methodology of its use are discussed

Key words: Innovation, PIRLS international assessment program, research, assignments, pedagogue, learner, society, outlook, thinking, etc.

Socio-economic changes in the society, sudden reforms entering the life of mankind require growth in all aspects. The main foundation of society's development is the young generation, perfect, well-rounded people with a broad worldview who contribute to the development of society based on universal values. In the rapidly changing times, education does not stand still! Various wonderful and interesting changes are taking place in a matter of seconds.

Including the development of the field of education cannot reach maturity without education. If we interpret this process on the basis of elementary school, the future of the great country is in the hands of the youth, and the main issue is to educate a perfect person in a country where freedom is protected. It is necessary to bring up generations who are interested, serve the people, respect the country, parents, and teachers, and love them immensely, in an innovative and creative spirit. Education is an intense process that continues continuously. Currently, the main basis of the achievements in the field of education has emerged by avoiding uniformity and falling into a permanent mold [1].

The PIRLS international study provides an international comparison of information on the level of development of reading comprehension skills of primary school students, which can serve public policy in the field of education to improve reading and teaching. provides analysis. This assessment program, which serves to develop many opportunities, was also considered important in the educational system of Uzbekistan and its practical application was introduced. Accordingly, according to the current PIRLS definition, reading literacy is the ability to understand and use the forms of written language required by society and valued by humans, as well as the ability to create meaning from texts in various forms. The reader is an active participant in this process, creating meaning, reflecting on the text, and consciously choosing effective reading strategies. Each type of text follows typical patterns and rules to help the reader interpret the text.

In the new way of education, it is necessary to awaken a great sense of responsibility in the consciousness of elementary school students and the young generation, and to develop their worldview under the influence of national values, universal traditions, and oriental spirit. In the process of educating primary school students, it is necessary to correctly approach the differences between the old views and newly emerging views in the psyche of children.

As social life, living conditions, and interpersonal relationships gain a new meaning, the content and methods of education and the attitude towards it also change. This process requires great responsibility from the teacher, because changes in society affect the personal qualities of

both the teacher and the student. Innovative ideas are primarily focused on the development of education.

PIRLS assesses elementary school students' classroom and extracurricular learning by focusing on two overarching goals: "acquiring artistic experiences" and "acquiring and using information." In turn, each of these goals integrates four broad comprehension processes.

But education cannot be brought to maturity without the development of education. That's why now only well-educated students, i.e. students who focus their attention, see their own interests, and control their ego, are brought into the innovative education system in a creative spirit. After all, the following thoughts of the President of the Republic of Uzbekistan, Sh. Mirziyoyev, are noteworthy: It is the most important issue for us to develop young people who are capable of mobilizing, and every good thing has a bad side The reason is that there is an evil that strikes at the root of the ideas of goodness, the memory of the young generation has the idea of moving forward like an arrow, seeing both white and black as the same. [2].

In the study, how well do elementary school graduates of Uzbekistan study compared to their peers in other countries? What is the reading literacy of Uzbekistan's students? Is reading a hobby for 4th graders? How does the family contribute to the development of literacy? How is the process of teaching reading organized in our country today? Is the process of teaching reading in Uzbekistan unique compared to other countries, and if so, how does it manifest itself? Are the methods used by our primary school teachers different from the methods used by teachers in other countries? such basic issues are studied.

The main concern of today's pedagogues and parents is that children will absorb the "Wonderful" ideas coming from Western countries and European nations that are not compatible with Uzbek mentality, personality, and upbringing. It is impossible to keep children away from the social environment in order to protect them from the negative aspects of innovative ideas. After all, it is good to have a "golden mean" in everything. Ideas of creativity are opposed to restricting young people, because the developed education system develops human memory, enriches thinking in all aspects, and most importantly, develops students' speech, practical application of acquired knowledge, and practical skills in them. and promotes the use of methods aimed at creating skills.

An innovative educational pedagogue should create educational methodological complexes that are perfect in every way, use different methods during the lesson, not to bore the students, so that during the lesson they feel as if they were walking from garden to garden, can achieve the intended goal only due to fair criteria.

Participation in PIRLS allows Uzbekistan to independently objectively assess the level of reading skills among elementary school students. In addition, the openness and integration of Uzbekistan's education ensures the integration of the world's leading educational systems into the international community.

It is possible to develop a student's worldview by socializing him. Psychologically, there are different forms of memory, using which ideas of creativity can be instilled in students. Free and active thinking, modeling of the educational process, development of new ideas and technologies of education and training and its implementation will give high results. When the pedagogue has a pure heart, an open mind, and intelligence and intelligence, he can understand the feelings of young children being educated and approach them correctly [3].

A pedagogue who contributes to the development of the nation should adapt children to innovative ideas based on national values. Every person who considers himself a pedagogue should provide proper education and training to the children who have a strong heart, a beautiful face, and are seeking their teacher with their whole body. Creative pedagogues should educate children in such a way that bullets flash from their steps, the national anthem sounds behind them, the national flag flutters on their shoulders, the people rejoice, their parents are happy, and their teachers are proud.

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SEMANTIC AND LINGUOCULTURAL FEATURES OF ENGLISH AND UZBEK
PROVERBS WITH THE CONCEPT OF HAPPINESS

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Abstract: this article is devoted to the analysis of semantic and linguocultural features of some English and Uzbek proverbs about happiness. The equivalents of some proverbs in a target language are given for interpreting them in the other language to find out several important innovative ways of translation and contrasting their peculiarities in the English and Uzbek languages. The results and examples of this article can help to distinguish some differences in the meanings of the English and Uzbek proverbs about happiness and to learn linguocultural peculiarities of them.

Keywords: proverb, linguoculturology, cultureme, pragmatics, synonymy, antonymy, equivalent, happiness, context.

СЕМАНТИЧЕСКИЕ И ЛИНГВОКУЛЬТУРОЛОГИЧЕСКИЕ ОСОБЕННОСТИ
АНГЛИЙСКИХ И УЗБЕКСКИХ ПОСЛОВИЦ С ПОНЯТИЕМ «СЧАСТЬЯ»

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Аннотация: данная статья посвящена анализу семантических лингвокультурологических черт некоторых английских и узбекских пословиц о счастья. Эквиваленты некоторых пословиц в языке перевода предоставлены для их интерпретации на другом языке, чтобы выяснить несколько важных инновационных способов перевода, и сопоставления их особенностей в английском и узбекском языках. Результаты и примеры этой статьи содействуют выявлению различительных оттенков в значениях английских и узбекских пословиц о счастья и определению их лингвокультурологических черт.

Ключевые слова: пословица, лингвокультурология, культурема, прагматика, синонимия, антонимия, эквивалент, счастья, контекст.

BAHT KONSEPTI QATNASHGAN INGLIZ VA O'ZBEK MAQOLLARINING
SEMANTIK VA LINGVOMADANIY XUSUSIYATLARI.

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Annotatsiya: ushbu maqola ingliz va o'zbek tillarida baxt haqidagi ba'zi maqollarning semantik va lingvomadaniy xususiyatlarini tahlil qilishga bag'ishlangan. Ayrim maqollarning boshqa tildagi ekvivalentlari tarjimaning bir qancha muhim innovatsion usullarini aniqlash va ingliz va o'zbek tillaridagi o'ziga xosliklarini qarama-qarshi qo'yish maqsadida ularni boshqa tilda izohlash uchun berilgan. Ushbu maqoladagi natijalar va misollar ingliz va o'zbek xalqlarida baxt haqidagi maqollarning ma'nolaridagi ba'zi farqlarni ajratish va ularning lingvomadaniy o'ziga xosliklarini o'rganishga yordam beradi.

Kalit so‘zlar: maqol, lingvokulturologiya, madaniyat, pragmatika, sinonimiya, antonimiya, ekvivalent, baxt, kontekst.

INTRODUCTION

National values that show the identity of the nation, one of the factors representing the culture of the people is folk art. Proverbs, one of the most important genres of folklore, is one of the most important topics studied in linguistics. Folklore proverbs, one of the most important genres, folk art in general learning, research, is becoming very important today.

Proverbs are very common and has been used for centuries not only used in live conversation and verbal relations, but also artistic, constant in historical and scientific works, political and journalistic literature and is still very active today. Proverbs are widespread independent genre folk as rare examples of the wisdom of the oral artistic creation. Conditionally, they can be called folk etiquette. After all, proverbs are part of people's life experiences for centuries tested social-political, spiritual-cultural, moral-philosophical views. It is a phenomenon born from its very compact, concise, dense and figurative expression. Proverbs is not specially created, but it is life tested due to the requirements of certain conditions. It is a judgement as a moral assessment of a conclusion born from experience will come. They are long-term in the course of people's activities in various fields the result of tested life experiences, stable and unchanging, true and shows that it was created in the form of a factual conclusion.

A language reflects the particular culture of its nation, especially, proverbs' role in reflecting national features and culture of this nation is considerable. Not only traditions of the people and national notions, but also historical places, outstanding people and famous characters of the nation are expressed in proverbs.

A proverb (from the Latin "proverbium" - proverb) is a popularly known, repeated and concrete saying with complete utterance; they express a truth, based on common sense or the practical experience of people. Prominent linguist W. Mieder gives a definition to a proverb in his book: "A proverb is a short, generally known sentence of the folk which contains wisdom, truth, morals, and traditional views in a metaphorical, fixed and memoizable form and which is handed down from generation to generation" [1, p. 27]. It is clear from the definition that proverbs are usually based on metaphor and have figurative meaning. Although several scholars give many definitions for the notion of a proverb, Mieder's definition is considered to be the best one among them. Because proverb is not a simple unit of a language, it is a ready-made sentence that gives metaphorical meaning with words of wisdom or traditional thoughts of people or nation. Besides, they have been created not only by an individual in a short period of time. A proverb is a product of the definite nation as a folk saying during considerable long time. They are handed down through years and ages as frames or models of human life typical situations. Ch. C. Doyle suggests investigating them as minimal folk poems [2, p. 4] in literature, because they enliven dialogues or give expressiveness and emotiveness to poetry or prose in various ways.

Folklore and linguistics study proverbs as their objects. Some scholars (Taylor, Seiler, Firth, Mieder, etc.) mentioned in their works that the main reason of studying proverbs in folklore is their traditionality. No doubt that folklore units are traditional and recurring; as N.R. Norrick points they are "seen as authorless, sourceless and also as non-literary, non-learned" [2, p. 10]. Proverbs own these features but not completely. However, they are also investigated as a folklore

unit and differentiate from proverbial phrases, clichés, idioms, aphorisms, wellerisms, superstitions, maxims and slogans.

Linguistics also distinguish proverbs from idioms and phrases; besides analyse them as sentences, clauses, conversational turns, speech acts, etc. A Proverb is considered as a phraseological unit with figurative meaning in linguistics and to be equal to a sentence according to a complete utterance that they can form in a speech. Moreover, their diverse expressiveness and emotiveness are obviously noticed during the process of conversation. Therefore, proverbs can represent the speech situation clearly.

Clearly, proverbs picture practically a great deal of details of the everyday life of even ordinary people. Many linguists have offered a method of discussing proverbs as cultural texts based on the *linguocultural* level of language and the *cultureme* as its basic structural unit. The term “linguoculturology” has been supposed to be used as a separate linguistic field since the beginning of the previous XX century. This field studies interrelation of language and culture, mutual influence on the development of culture and language, their links with social life, psychology, and philosophy. Because a language cannot exist without a culture of a nation and a culture also cannot survive without a language as well.

LITERATURE REVIEW

Linguoculturology is one of the main aspects of linguistic investigations, it deals with various issues that relate with language spirit and cultural variation of a nation, encompasses various national-cultural notions and theories of conversational structure. This branch studies national spirit that is reflected in a language. It is associated with other studies as philosophy, logics, sociology, anthropology and semantics; and covers national-cultural knowledge through speech communication.

The appearance of linguocultural study considerably depends on the development of philosophic and linguistic theories during the XIX-XX centuries. In the last century, a number of research works were maintained in Russia. One of the well-known books belongs to V.A. Maslova called “Введение в лингвокультурологию” (Introduction to linguoculturology) [3]. The author defines research fields and methodological basis of contemporary linguoculturology deeply in her book. Her hypothesis is valuable to be applied in nowadays’ new investigations not only about linguocultural problems, and also in other linguistic and philosophic branches.

Scientists that link to this linguistic branch make a great deal of investigations. V.N. Teliya writes that methodological basis of linguoculturology serves “semiotic presentation indications of this interaction, considered as cognitive contents of mental procedures, the result of which is cultural licalization of mental structures” [4, p. 17]. According to this idea, linguocultural study is not isolated from other scientific branches. As it is a linguistic field it assists to the other branches of language learning and develop with the help of them.

In the book of Uzbek linguist U.K. Yusupov “Contrastive linguistics of the English and Uzbek languages” it is clearly mentioned that linguocultureme is a linguistic or speech unit defining one part of a culture; consequently, linguoculturology is a branch of linguistics, which studies interrelation between language and culture, and conveying culture in a language [5, p. 262]. Still, it is clarified that linguoculturology focuses attention onto the reflection of spiritual state in the language of a human in the society.

It is obvious that appearing and forming of proverbs, besides, admitting them into live conversations by the nation takes sometimes considerably long period of time. The English and Uzbek languages are believed to have long history.

RESULTS AND ANALYSIS

The Uzbek language possesses also long background. It is true that this language was given the name of "Uzbek language" recently, but this language has existed since approximately X-XI century. A huge number of proverbs, sayings and aphorisms are considered as a great wealth of the Uzbek culture. The main sources may be classified as followings: some characters from religious sources and the borrowed translations (mainly from the Arab, Tadjik, Persian and Russian languages). Moreover, there are some proverbs that come from sayings created by the mass media (TV, radio or social nets), expressions of films and songs, and even advertising slogans in all languages including English and Uzbek. However, they need some time to become or to form new proverbs as well.

This article analyzes the linguistic and cultural characteristics of proverbs by using examples of happiness in these two languages. The concept of "happiness" which occurs among social concepts such as "family", "health", "wealth" and "work" is a valuable abstract concept in human life. It is not enough to translate the proverbs to express the meaning of proverbs in other languages because its content is available in the translated language. This is the essence of the proverb may lead to misunderstanding of the meaning. Therefore, the method of finding equivalents of proverbs in English and Uzbek languages is used to study the specific features of proverbs about happiness in these languages.

- Aqlli baxt topar, Baxt bilan taxt topar. - It is riches of the mind only that make a man rich and happy.
- Baxt kulgu bor uyga kirar - Happiness enters the house with laughter.
- Happiness takes no account of time. - Baxtlilar vaqtini kutmas.
- Baxt — sandiqda, kaliti — osmunda - Happiness in the chest, the key in the sky.
- Vaqting ketdi — baxting ketdi. - Let the grass grow under one's feet.
- Baxtli ovchiga cho'loq kiyik yo'liqar - The lame deer goes to the lucky hunter
- Baxtsiz kishini tuyaning ustida it qopar. - An unfortunate man would be drowned in a teacup.
- Baxt g'oyibdan kelmas, Uni qo'ling bilan yarat. - When one door closes another opens.
- Taxting kulguncha, baxting kulsin. - Better be born lucky than rich.
- Baxtsiz quduqqa kirsar, qum yog'ar - If the unfortunate man enters the well, sand will fall out
- Baxtsizlikda oltin ham xira - Even gold tarnishes with misfortune

The explanatory dictionary of the Uzbek language gives the following description of the word happiness. Persia was adopted from the language and originally meant share, lot, inheritance, share. At the same time, this word, over time, from its activity, satisfaction with success, lifestyle, fulfillment of desires, to achieve the goal, that is, closer to moral, ethical values began to mean concepts.

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The concept of happiness represents a certain goal that a person wants to achieve in reality. Unhappiness, in turn, means the opposite feeling. Happiness is luck. Unhappiness hurts. For example, a person who achieves the goal of love is considered lucky. It gives him pleasure, satisfaction, joy. Also, in life achieving a very important goal (wealth, high position) depends with the concept of happiness. On the contrary, a person who does not have it is considered unfortunate. We can find artistic examples of what a person should do to be happy in literature. At the same time, such conditions, friendship, charity, compassion, are shown to be good breeding and others. To achieve happiness such conditions can be found both in English and in Uzbek.

Meanings of the concept of happiness fits in two compared languages and at the level of proverbs. At the same time, the prerequisite for happiness in English is kindness, character traits such as obedience, prudence and faith. For instance: Kindness brings happiness; Obedience is the mother of happiness; All happiness is

in the mind; He is not happy who does not realize his happiness; Happiness is something to do, something to love, something to hope for; You can never be happy at the expense of the happiness of others.

Happiness is of high importance in human life, as well as relative, abstract concept. As everyone measures the world with his own yardstick, so does everyone measure happiness it is natural for him to understand on his own. Our wise people want to say that they are proud of you to be able to see things in a similar way to others, to share in the worries of others being able to be, feeling one's own happiness while sharing happiness with others - that's it not the criteria of true happiness?!

It seems that proverbs cover all areas of human activity, it reflects the life, culture, spirituality and history of the society. If we dwell on the proverbs of Various languages, they belong to the people who own that language, we witness that it is a mirror of historical, spiritual and material culture. Therefore, the comparative study of proverbs of different languages is a cultural characteristic of the nation and helps to open national aspects.

CONCLUSION

It is worth saying that the noble qualities characteristic of our people, that is, patriotism, hard work, tolerance, hospitality, simplicity, childishness, peace-loving and others that express his identity, his unique nature embodied in our proverbs. So, this is a priceless treasure Acquaintance with hidden pearls - a storehouse of meanings is a beautiful content for our life giving, no doubt. In conclusion, it can be said that Uzbek folk proverbs are considered as an important source providing that it is one of the nations that have admirably strong and connected to the ancient and rich history of our nation to a powerful mentality, to a national culture that is no less than others and praiseworthy. The analysis of proverbs in English and Uzbek languages is also national cultural of this phenomenon in recognition of their general characteristics, proverbs proves that it will gain universal and national importance.

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EFFECT OF BIOSTIMULATORS ON GROWTH AND DEVELOPMENT OF WHEAT

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ANNOTATION

This article provides information about the factors necessary for the growth and development of wheat, one of the most important agricultural products of our country, and the effect of biostimulants on this growth and development.

Key words: wheat, biostimulant, growth, development, root, agriculture, composition, grain, grain.

Wheat is a group of herbaceous plants belonging to the cereal family. There are about 30 wild and cultivated species. The root system of wheat is a pubic root, the main part of which develops in the arable layer of the earth, and some roots penetrate up to 180 cm deep. The stem is a stem divided into thick joints, 40-130 cm tall. Durability and productivity of wheat depends on the height of the stem.

Wheat is more self-pollinating. The fruit is a grain. According to its size, it is divided into soft (smoky) or hard (shiny, flaky) wheat. The ear of soft wheat is shorter than the ear; the grain is white or reddish, the cross-section is round, the inside is mostly flour-shaped. The ear of durum wheat is dense, and the stalks grow longer and straighter than the ear. The grain is nutritious, contains protein (from 10-12% to 20-25% in selected varieties, 25-30% in wild types), starch (60-64%), fats, vitamins, enzymes, and minerals. Various types of flour, cereal, alcohol, and starch are produced from wheat grain.

Needs moisture during the spike period. Drought reduces productivity. The vegetation period of winter wheat is 45-50 days in autumn, 75-100 days in spring-summer, and 90-100 days of spring wheat. Winter wheat can withstand frost up to -35°C when the snow cover is thick. Spring wheat lawns can withstand frosts of -8-10°C. In irrigated regions, it is recommended to plant winter wheat on fertile land free from corn, cotton, potatoes and other field crops. It does not grow well in sour and salty soil. Planting method: in close rows (12-15 cm between rows) or narrow rows (7-8 cm between rows. Sowing rate - 70-110 kg per hectare in dry lands, 170-200 kg per hectare in irrigated regions, planting depth 4-6 cm ; autumn is planted deeper, the planting rate is 10-15% more, the seeds are sorted and treated before planting in the irrigated land of Uzbekistan, 10-15 t of manure per hectare. It is recommended to apply 80 kg of phosphorus, 40-100 kg of potassium.

Currently, 93 varieties of wheat are grown in Uzbekistan. The growing need of the population of our republic for grain and bread products requires increasing grain production and improving its quality.

Most of the world's population is currently suffering from malnutrition. Protein deficiency in children is one of the most important problems in developing countries. To solve this problem, it is necessary to pay special attention to the cultivation of high-protein grains, to improve the nutritional quality, because these crops are cheap and available as protein material.

At the same time, today the demand of the population for livestock is always growing. The formation of a high and high-quality grain crop depends on many factors, including the genetic characteristics of the cultivated variety, soil-climatic conditions, previous crops, feeding and irrigation regimes. Year by year, the demand for flour and products made from it is increasing due to the increase in the population. High-yielding wheat varieties are essential for the production of high-quality flour.

In the conditions of our region, it is very important to study the characteristics of winter wheat varieties, to adapt them to a specific region, especially to determine the effect of the watering procedure on the productivity of these varieties, and as a result, to achieve the maximum productivity of the varieties and use them in the national economy. Implementation of these processes requires knowledge of physiological processes in plants. These include features such as growth and development.

It is known that plant growth means an increase in plant mass regardless of its organ, and development means the succession of periods of plant organogenesis.

Growth and development in grain crops can be in the following proportions:

1. Fast growth, slow development - in this case, the growth of leaves and root masses occurs, the formation of generative organs is slightly delayed, and the crop mass becomes less grainy.

2. Slow growth and rapid development - in this case, the plant stops growing, although there is not enough root, leaf mass, organic matter, but it goes through the stages of organogenesis quickly, as a result, spikes with low mass appear. and the yield will decrease.

3. Fast growth, fast development - in this case, a normal ratio is formed between the surface of the leaf plate and the mass of the plant, as well as the stages of organogenesis. In the same ratio, a mass of equal proportions is formed between the grain and the stem of plants.

4. Slow growth and slow development - in this case, a small mass of the plant is formed, and they ripen late.

It is necessary to create favorable conditions for plants as a result of the rational use of all technological means while monitoring the growth and development of grain crops.

Cereal crops go through several phenological periods during the growing season. Each period is different in structure, appearance and quality. The following phenological periods have been identified in grain crops: weeding, tillering, earing, earing, flowering and ripening. If it is determined that 10% of the plant has passed into each new period, it means that the plant has fully passed into this period.

The change of development periods is represented by the appearance of new organs in plants.

The growth period of a plant includes the period of certain development phases, i.e. planting-germination, germination-heading, earing-ripening periods.

includes A short or medium length of the growing season gives a good result for the climatic conditions of Uzbekistan.

The difference between spring and autumn wheat varieties in the length of the growing season is big. The duration of the growth period of spring wheat varieties is 70-80 days, in some varieties 120-130 days.

In winter wheat varieties, it can be 180-220 days or more, taking into account the winter rest period. This indicator also depends on the biological characteristics of the variety and the influence of external environmental factors.

The duration of the growth period of winter wheat varieties is 145-190 days, excluding the winter rest period of winter wheat. Winter wheat does not completely stop growing in winter. Growth continues when the air temperature rises, and stops growing when the air temperature drops. Therefore, the period between one development phase and the second phase of winter wheat is extended. In particular, the lengthening of the period between the phases is more observed in the tuber phase of wheat germination. The period from germination to tuberization is 35-40 days in spring wheat varieties under normal agrotechnical conditions, and 90-120 days in winter wheat.

We know from scientific sources that, regardless of any type of crop, for the seeds to germinate on time, there must be enough moisture, temperature, light and other external factors in the soil, as well as the seed quality should also be high.

For example, a grain of winter wheat needs to absorb 45-47% of its weight in water in order to germinate. This process is especially important for wheat planted in autumn. Because, as a result of rapid changes in the weather in autumn, the humidity in the soil can also change, and as a result, it can affect the germinating seeds.

According to the data, wheat seeds have the ability to absorb moisture in the soil at the temperature at which ice melts. For example, at this temperature, when the soil moisture is 90%, during 15 hours, the seed absorbs 11% of its mass of moisture. output dynamics were studied.

5 million per hectare of local varieties of winter wheat, after quality agrotechnical measures of autumn plowing, harrowing, harrowing and harrowing are carried out in areas freed from previous crops. grain was planted in moderation. Since winter wheat varieties were planted in small areas in our scientific research work, 500 seed samples were sown in 4 repetitions by manual labor in 1 square meter area, and irrigation was carried out in order to obtain full seedlings. It was observed that the seeds of winter wheat and triticale, which absorbed the necessary moisture, began to germinate successively according to the varieties after receiving the necessary heat.

The term "agricultural biostimulants" encompasses a diverse group of product technologies and may include bacterial or microbial inoculants, biochemical materials, amino acids, humic acids, fulvic acids, algae extracts, and more.

Agricultural biostimulants are considered biological and include biologically beneficial fertilizers and similar products used in the production of plant products to increase the growth, health and productivity of plants. Their tasks are:

- It helps to improve the efficiency of using food products
- Facilitate growth under abiotic stresses such as heat, cold, drought and too much water
- Helps improve quality attributes such as nutritional content, appearance and shelf life

Biogenic stimulants, biological stimulants are substances that are formed in the tissues of animals and plants under certain conditions and have biological activity. The doctrine of biogenic stimulants was first developed by V. P. Filatov (1875-1956). Biogenic stimulants accelerate body functions. Preparations with biogenic stimulants are prepared from plant (aloe leaf extract) and animal tissues by exposure to various factors (cooling, storage in a dark place, etc.), as well as from peat and clay with microflora and microfauna remains. Biogenic stimulants are used in medicine for the treatment of various diseases (non-healing wounds, inflammatory processes, eye

diseases, eczema, bone fractures, endometritis, mastitis, etc.), to accelerate the growth of young cattle, to increase the number and productivity of cattle.

In this case, liquid preparations are injected or drunk. Dry preparations for implantation purposes (dry biostimulants made from animal embryo, spleen, liver and adrenal gland), Dorogoye antiseptic stimulator, horse blood serum (SJK), canned animal meat and its extract (DZK), acidophilic broth culture (ABK) and others is used.

CONCLUSION. Biostimulants are easy to use, precisely targeted, less harmful to the environment and human health, can reduce the use of harmful chemicals, and other properties are preferred. Thus, biostimulants have formed a global concept and product type in a few years, attracting the attention of large companies around the world and containing strong business opportunities.

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ПУТИ РАЗВИТИЯ И ПОВЫШЕНИЯ ЭФФЕКТИВНОСТИ
СЕМЕЙНОГО БИЗНЕСА В СФЕРЕ УСЛУГ

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Абстрактный: Авторы статьи высказали свое мнение о социально-экономической природе развития семейного предпринимательства в сфере услуг, о роли и значении семейного предпринимательства в национальной экономике, а также о путях развития и повышения эффективности семейного предпринимательства. предпринимательство остановилось.

Ключевые слова: Семейный бизнес, семейный бизнес, государственное регулирование, поддержка, семейный бизнес в сфере услуг.

Конечный результат реализуемых в мире социально-экономических реформ направлен на обеспечение благополучия семей. Сегодня семейный бизнес стал одним из основных секторов экономики во многих странах Европы, США и Латинской Америки. Например, «доля семейных компаний в странах ЕС составляет более 50%, в Латинской Америке – 65–90%, в США – 95%. Также ВВП европейских стран составляет 45–50%, 70% стран Латинской Америки, 65% стран Азии – до 82% ЯЛМ созданы семейными предприятиями»[1]. Поэтому развитие этой сферы, создание достойных условий жизни для семей находится в постоянном фокусе внимания мирового сообщества.

За прошедший период в рамках Стратегии действий по пяти приоритетным направлениям развития было принято около 300 законов и более 4000 постановлений Президента Республики Узбекистан, направленных на коренное реформирование всех сфер государственной и общественной жизни. нашей страны в 2017-2021 гг.

В плане реформирования национальной экономики замечены эффективные меры по либерализации внешней торговли, налоговой и финансовой политики, поддержке предпринимательства и обеспечению неприкосновенности частной собственности, организации глубокой переработки сельскохозяйственной продукции и обеспечению опережающего развития регионов[2].

На основе глубокого анализа сложных глобальных процессов и результатов прогресса нашей страны, в последующие годы, основываясь на принципе «за человеческое достоинство», мы будем и дальше повышать

благополучие нашего народа, трансформировать отрасли экономики. и ускоренно развивать предпринимательство, безоговорочно обеспечивать права и интересы человека, а Третьим приоритетным направлением реформ, направленных на формирование активного гражданского общества, является 29-я цель ускоренного развития национальной экономики и обеспечения высоких темпов роста «Создание условий для организации предпринимательской деятельности и формирования постоянных источников дохода, доля частного сектора в ВВП до 80 процентов и увеличение его доли в экспорте до 60 процентов. Решение этих задач требует проведения систематических исследований развития и эффективности семейного предпринимательства в сфере услуг. Это определяет актуальность темы.

В процессе освещения данной статьи рассматриваются законы Республики Узбекистан о предпринимательстве, указ Президента Республики Узбекистан, труды Президента Республики Узбекистан, содержание и сущность научных трудов экономистов. в социальной и экономической сферах, а также проанализированы существующие экономические показатели развития сектора семейного бизнеса.

В мире проводится ряд научных исследований по развитию семейного предпринимательства. В их числе экономическая и социальная значимость семейного предпринимательства, его роль в экономике страны, основные виды и направления предпринимательства в семейной экономике, источники доходов семьи, пути сокращения расходов. Во многих странах также проводятся комплексные исследования в таких областях, как развитие и повышение эффективности семейного предпринимательства, обеспечение занятости населения, повышение его благополучия.

Значение семейного предпринимательства в экономике страны исследовали многие зарубежные ученые, в том числе А.В. Чаянов, Г.С. Беккер, Р.Бассо, Р.С. Андерсон, Д.М, С.О.Календжян, Е.В.Корчагина, В.А.Королев и А.Черницкий[3] были научно и практически изучены в своих исследованиях. Проблемы развития семейного предпринимательства в нашей республике М.К. Пардаев, А. Олмасов, Х.П. Абулкосимов, У.Д. Ахмедов, Б. Беркинов, О.М. Пардаева, И.Л. Исследования Пугача, Г.М.Шадиевой, Д.Т.Юлдашева [4] и других ученых.

В нашей стране актуальными вопросами становятся развитие семейного предпринимательства в сфере оказания услуг, оздоровление экономики, обеспечение занятости населения, повышение его благополучия, повышение уровня и качества жизни.

ЗАКЛЮЧЕНИЕ

Во-первых, в условиях становления экономики Нового Узбекистана желательна поддержка субъектов предпринимательства, повышение эффективности государственных механизмов поддержки семейного бизнеса.

Во-вторых, необходимо придумать средства решения проблем потребителей семейного бизнеса.

В-третьих, создать необходимые условия для осуществления и развития семейной предпринимательской деятельности;

В-четвертых, добиться по одному предпринимателю от каждой семьи, регулярно проводить пропагандистскую работу по формированию предпринимательских навыков среди населения, подготовке квалифицированных кадров для отрасли.

В-пятых, в изученных исследованиях при оценке эффективности семейного бизнеса в развитии регионов рекомендуется дальнейшее развитие следующих видов деятельности семейного бизнеса в сфере услуг:

- услуги торговли и общественного питания (розничная торговля, национальная кухня и рестораны);
- народные промыслы, услуги по ремонту и хозяйственным товарам;
- услуги компьютерных и современных информационных технологий (интернет-кафе, небольшая типография, услуги мобильной связи и «пейнет»);
- транспортные услуги;
- фотосалоны и салоны красоты (прокат свадебных платьев и свадебного оборудования и т.д.).

В течение 2018-2021 годов в результате реализации программных мер по созданию условий для формирования дополнительных и стабильных источников доходов путем обеспечения занятости населения в ремеслах, домашнем хозяйстве и других сферах предпринимательской деятельности, население, особенно способствовало улучшить экономическое положение семей, нуждающихся в социальной защите в отдаленных районах.

При этом развитие малого бизнеса, семейного предпринимательства, обеспечение занятости населения, повышение эффективности системы финансовой поддержки программ для женщин и инициатив молодого поколения, а также коренное улучшение методов работы коммерческих банков с государственного участия и банковского дела за счет повышения популярности своих услуг необходимо установить полноценные партнерские отношения с широкими слоями населения, малым бизнесом и субъектами семейного бизнеса.

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The importance of using the heritage of our Great Scientists in lifelong education and preparing students for family life

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Abstract: The article talks about the importance of using the creative heritage of our scientists in organizing the educational process of students and preparing them for life, developing in them the positive qualities of the concept of family.

Keywords. Abdullah Avloniy, Sadridin Ainiy, Yusuf Khos Hajib, Social network, Youth education.

At a time when times are changing and developing more and more, much attention in our country is paid to the field of science and education. It would be an exaggeration to say that our president's attention to the issue of education, which is. Today, the problem is relevant not only for the president of our country, but also for all members of our society. For this reason, the implementation of a number of activities in the education and training system is uniform. one of the most pressing problems of our country today.

This can already be seen from the changes taking place in the public education system. One of them is the attention paid today to the spheres of education, science and sports in our republic. The importance of this can be judged by the acceptance of the concept. "Continuing education". In fact, time passes and science is updated, as can be seen from the example of new discoveries, directions and various possible innovations.

But the speed of information today cannot be considered as low as the speed of its receipt. As throughout the world, various correct and incorrect information comes to our country through the media and social networks. Unfortunately, not everyone can understand this. either a lie or the truth. Especially among schoolchildren, such different topics are discussed a lot. There are young people among us who don't even want to think about family stability, the responsibilities of femininity and motherhood, masculinity and fatherhood, respect for elders, and honoring parents. Carrying out the education system in harmony with upbringing is one of the most important factors in organizing educational work and preparing young people for family life. Connect the educational process with the education system, prepare young people for family life, use the works of Abdullah Avloni, Farobi, Yusuf Khos Hajib, Sadridin Aini in classes, introduce them into life, instill in consciousness For young people, family and life are complex, but great. This serves as a tool for them

to understand. On education and morality: “Turkish Gulistan or Morality” by Avlaniy, “Kutadgu Bilig” by Yusuf Khos Hajib, “Education of Youth” by Sadriddin Ayniy, Farabiy. “City of Virtuous People” In their works they gave a number of information about moral, scientific, aesthetic knowledge, experience and the results of their acquisition and application in the life of the education system. The relationship of girls to their family, spouse and other family members, raising children, duties and responsibilities of boys to their husbands are explained in detail. Ample information is also given about good deeds, frugality, family management and the environment. Using the heritage of our great scientists in the implementation of educational activities in educational institutions together with the field of education serves to achieve high results in the humane and educational processes. In conclusion, I can say that every nation has the values of its historical and cultural heritage and traditions that have been formed since ancient times, and all of them remind the representatives of this people of who they are.

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The role of input and output in teaching English

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Abstract. The article discusses the importance of input and output in Teaching English to Speakers of Other Languages (TESOL). Input refers to the language that students are exposed to, while output refers to the language they use to communicate. The article highlights the role of input and output in language acquisition, emphasizing the need for a balance between the two. It also discusses the significance of communicative language teaching strategies and providing opportunities for students to practice speaking in real-world settings. Ultimately, the article concludes that effective language instruction involves both input and output, and that teachers should foster an environment that encourages students to engage in communicative activities.

Key words. TESOL (Teaching English to Speakers of Other Languages), Input, Output, Language acquisition, Language instruction, Communicative competency, Language learning, English language competency, Teacher training, Language teaching strategies.

In a TESOL program, input refers to the language that students are exposed to through reading or listening materials, instructor teaching, and social interactions. All of these activities serve as scaffolds for learning new language abilities. The students' use of the language in speaking or writing, on the other hand, helps them to put the new information and abilities they have gained into practice. The objective of TESOL instruction is to generate chances for meaningful conversation in the target language in a supportive and stimulating learning environment while maintaining a balance between input and output.

The term "input" in the TESOL (Teaching English to Speakers of Other Languages) curriculum refers to the numerous materials and resources used to support language instruction. Textbooks, audio-visual aids, internet sources, and actual materials like books or newspapers are all included in this. The input used in TESOL is carefully chosen, created to aid in language acquisition, and frequently delivered in a systematic and organized manner. With the right input, students may have rich, meaningful language experiences that boost their language learning and engagement. Any effective program for teaching a language must include it. A key

element of language acquisition is input. According to research by Gass and Varonis from 1984, students who were exposed to more input made higher advancements in their interlanguage development. According to Krashen's Input Hypothesis (1985), intelligible input that is just a little bit beyond the learner's present proficiency level is necessary for the best language learning. As a result, in order to enable effective language acquisition, TESOL teachers must provide learners with suitable and sufficient input.

A TESOL program produces competent English teachers who can successfully instruct non-native speaking students in the use of English as a second language. The curriculum often includes lessons on cultural competency, effective teaching strategies, lesson preparation, and theories of language acquisition. Graduates of TESOL programs are prepared to instruct English in a range of institutions, including community centers, online learning environments, language schools, and foreign schools. Additionally, they have the chance to broaden their job prospects by earning graduate degrees in the area. In TESOL classes, communicative competency is a critical component of language learning, according to Smith and Johnson (2018). Learners need to understand how to utilize language in various social and cultural situations in addition to grammar and vocabulary knowledge in order to achieve communicative competence. Brown (2014) supports this viewpoint by highlighting the value of contextual language instruction and the necessity of giving students the chance to practice speaking in real-world settings. Teachers of English as a Second Language (TESOL) may aid their students in acquiring communicative competence and becoming excellent language users by using communicative language teaching strategies and offering plenty of communication opportunities.

In TESOL, input and output are crucial because they support successful language acquisition and communication. While output enables learners to practice using the language in context and receive feedback on their performance, input exposes learners to the target language and its rules. Learners improve their reading, writing, speaking, listening, and other communication skills and their comprehension of the language's culture and customs through participating in input and output activities. The development of learner autonomy and the capacity to utilize language in real-life settings are similarly influenced by input and output. When we talk about input, we mean the linguistic exposure children get via reading, listening, and speaking. To help their pupils improve their language abilities, TESOL teachers must give them high-quality input. On the other hand, the term "output" refers to the spoken and written language that pupils generate for themselves. TESOL instructors may assist students in producing better work by

giving them the chance to practice, receive feedback, and have it corrected. TESOL teachers may help their students effectively acquire a second language by helping them understand the importance of input and output in language learning.

In conclusion, teaching English involves both input and output, both of which are crucial. The pupils' linguistic input serves as the input, while their linguistic output serves as the output. The input should be clear and interesting, and the output should motivate the students to practice speaking the new language. In order to effectively raise pupils' English language competency, input and output must be balanced. As a result, language instructors should foster an environment in the classroom that motivates students to engage in communicative activities that require both input and output tasks.

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Modern media space in the world international competition and information in the case of area s

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Keywords. transparency, type, format, typology, formatting, transformation, print media, Internet, human, evolution, origin, language, writing, types of writing, types of communication.

Abstract. This article analyzes the opinions about the theoretical-pedagogical, scientific foundations of the international competition of the media space and the information space in the modern world based on primary sources.

The demand for print media in modern society is determined by how successfully they act as a means of mass communication in society, they provide such information that helps individuals, groups and other social entities to actively participate in cognitive, educational, axiological, organizational activities. forms relationships. X behavior and other social processes. Such communication is impossible without a complete, vivid and objective image of the current reality presented to the mass audience by the press. It is impossible without adequately reflecting the spiritual potential of society, which is manifested in the real conditions of the life of various social groups, without creating a collection of publications whose content reflects the current reality in all its diversity and completeness. the basis of the real events taking place in it.

Without full journalistic education, it is difficult for a person to form an adequate reaction to the happenings, to determine the priority directions of the flow, to understand the positive and negative, to oppose manipulative messages, assumptions and fabrications, and to actively participate. in the processes of expression and formation of public opinion. The need to popularize politics, economics, science, spiritual, spiritual, practical and other types of practical activities determines the great responsibility of print media in the implementation of communicative functions aimed at ensuring mutual cooperation of various social groups of society. . first of all, those formed in the system of social division of labor. In fact, it is the responsibility of a person, group, organization for the behavior of various social entities that should be formed in society in accordance with the real life conditions.

Today, the global changes taking place in the environment surrounding print media have a significant impact on their character. This is primarily related to changes in the economic, political, and technological layers of society. It is

necessary to take into account the modern print media, which is related to the development of journalism, defining transparency as an integral result of the interaction of the mass media system with all spheres of public life. Revealing them requires an in-depth analysis of the processes related to press activities during the years of independence. Among them is the transformation of mass information space. Each evolutionary process in nature and society, as an important part of human history, brings mankind closer to clarifying the historical truth about itself. In this sense, he explores the important innovation of the creation of the world from the history of the creation of the earth, the interrelationship of the animal kingdom and the flora.[3.25]

Due to the deep penetration of media literacy and information culture into our lives, the amount of information has also increased, and in such a global process, journalism is the best guarantee of public democratic dialogue. This type of communication is a key factor in the realization of human rights.

The new social division of labor created new subjects of information relations, reorganized and expanded the composition of communicative functions of various social subjects, involved mass media in their implementation. This applies primarily to the communicative functions of purely economic activity. But intersubjective relations in the political sphere, in the sphere of culture and science have also changed significantly. The Internet has added new technological possibilities to this interaction. As a result, segmentation occurred in the information space reinforced by the needs of the developing market: its participants needed a target audience to sell their goods and services to increase the efficiency of production and commercial activities. All this together predetermined the shifts in the mass information system: the changes affected their typological structure. Adaptation of media types to the specific conditions of communication in a competitive environment has begun. With the help of partial modification of typological characteristics, the possibility of achieving great commercial success was created. This process can be defined as formatting the media type.

The countries that gained independence in the 90s of the 20th century had to adapt to the demands of globalization processes, which are increasingly reaching their climax, while creating a path of independent development. There are so many definitions of the phenomenon of globalization that no matter how different they are, they all have one big truth - that globalization is generalization, integration, interconnectedness and cooperation in one form or another. is emphasized, repeated. Another fact is that globalization , in a broad sense, is more and more reflected in the globalization of information . This situation has changed the concept of information and mass media in general in the world media space. The emerging

"new world information order" has put new tasks before any country. In addition, adaptation to this situation began to gain decisive importance in the formation of the international image of an independent state.[6.89]

So what is international journalism? How is the world media space understood? What are their directions, interests, and laws? What are the demands and tasks of the journalists of our country due to the influence of global news confrontations and ideological and political technologies? What new demands does Uzbekistan's integration into the world of international journalism make for our journalists? The ability to find answers to such questions from both theoretical and practical points of view remains a criterion that indicates the modernity of the society and the state, its progress at the level of the requirements of the time, and ultimately, how perfectly the image of the people and the state is being created.

In the current era of globalization of information, the activities of the press and mass media in the countries of the world as a system are becoming an unimaginable, incredible flow. This stream, which is one of the incredible inventions of human intelligence and civilization, is called "world journalism", "international journalism".

Humanity has reached a new stage of development in which new cooperative relations called "globalization" have been established, and these relations are rapidly expanding and deepening. As a result, the word "globalization" has become a concept that encompasses not only economic, but also social-political, spiritual-educational, and almost all other spheres of universal human processes.

Globalization of information has created commonalities and similarities in the conditions of the countries of the world and in our socio-political, spiritual and educational life. As a result of this: firstly, the recognition that the only reasonable way to build a high-level advanced society in the world is to build a democratic-legal state; secondly, it became impossible to deny that one of the main signs and conditions of a democratic-legal society is the freedom of mass media; thirdly, the possibilities of spreading the best practices achieved in the field of press liberalization of a developed country to far and near countries have increased; fourthly, many important international documents capable of covering international schools of journalism were created and implemented; fifthly, the habit of observing the state of press freedom in the countries of the world on an international scale, commenting on them, giving an assessment and forming the opinion of the world public about the situation in a particular country on this basis has become somewhat popular.

The listed cases, of course, are turning the world into a unified information space.

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It must be admitted that now the power and potential of states is measured by how much information they have. Most importantly, competition for information ownership is more intense than ever. This process itself accelerates the decision-making and development of international journalism, and ultimately the generalization of features of global journalism. According to Doctor of Philological Sciences H. Dostmuhamedov, this situation puts on the agenda the need to study and analyze national journalism from the point of view of world journalism, and at the same time world journalism from the point of view of national journalism.

In our opinion, the world media space, the special place and importance of international journalism, as well as the role of national journalism in the world media space, are among the relevant issues.

has its own values, meanings and directions. In general, represents a concept.

International journalism is inextricably linked with diplomacy, and it pays special attention to the necessity of wide use of social, legal and political norms of mutual cooperation between nations. Also, national-cultural peculiarities, values, mentality and moral-educational norms, traditions and beliefs are also structural elements of international journalism.

In fact, the issues of democracy and human rights, war and peace, drugs, terrorism, environmental problems, as well as the integration of European countries into the world community can be seen and observed on almost all major media pages in the world.

When talking about the general similarities characteristic of national journalism schools in the countries of the world, at the same time, it should not be overlooked that there are certain differences in the journalism of each country. It should be noted that former socialist countries form the main group of countries where the field of journalism is rapidly changing and mass media are experiencing complex processes. After all, socio-political and economic changes in the society determine the direction of activity of periodical press, radio and television. For this reason, development trends in young independent countries are causing fundamental changes in national journalism.

In fact, regardless of whether they belong to the "West" and have similar cultural origins, the journalism of European and American countries differs from each other in many aspects. In general, in the journalism of the European continent, giving an "opinion" representing the author's point of view (i.e., "Journalism of Opinions") occupies a dominant position, while in American and British journalism, it relies more on concrete evidence and facts, in other words, the press the news distributed by the representatives of the society as socially significant news began to

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be appreciated more and more. The speed and intensity of life and lifestyle in the US and UK has made it imperative to get facts and evidence as quickly as possible. As a result, a unique "inverted ihram" method of writing news material was created, and this custom formed the tradition of keeping the names of reporters anonymous in most newspapers.

Journalism of Uzbekistan, as is known, appeared and developed under the influence of Russian journalism. At the same time, the development model of the journalism of the European continent is not alien to us.

In the 20th century, international journalism mainly serves as a kind of weapon between the "two poles". The ideological, biased, intensely political character of journalism remained until the 90s of the twentieth century. The collapse of the USSR and the end of the "Cold War" relations completely changed the nature of international journalism.

But we cannot ignore another problem. "Leading politicians of underdeveloped countries," writes Mia Dornert, chairwoman of "UNESCO's Press Freedom Advisory Group," often complain about the imbalance in the international information flow, with rich Western countries leading the way. In their opinion, participation in the free flow of information without equality cannot be compromised. Based on this, they are demanding that UNESCO should deal with the issue of closing the gap between "wealthy" and "poor" countries in terms of information.

In 1978, for the first time, the concept of "New World Information Order" was legally recognized at the international level. The document was officially adopted by the UN General Assembly and the UNESCO General Conference. UNESCO's Declaration of Basic Principles on the Contribution of Mass Communication to the Promotion of Peace and Understanding among Peoples specifically states: should not. At this point, it is necessary to provide wide access to messages from Uzbekistan." In 1980, a separate resolution was adopted by UNESCO on the control (or licensing) of the flow of news and various cultural products in the international arena. In the same year, a new organization named "International Program for the Development of Communications" began to operate on the initiative of UNESCO.

A number of developed countries did not like such innovations implemented by an influential international organization. According to the representatives of these countries, it seems that the system implemented by UNESCO is a control of activities in this regard, contrary to the democratic traditions of the Western press, and in general, it destroys the free dissemination of information in the world.

It's no secret that at the same time, using the Internet only for their own interests is becoming one of the main goals of Western countries. In developed countries,

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serious attention is being paid to the issue of strengthening cyber security, as well as the use of the Internet for the purpose of military-psychological influence. Some countries prefer to subordinate the Internet directly to their goals, while others are developing a measure of protection by limiting it.

There are many examples of this. For example, in the Islamic Republic of Iran, work is underway to cut off the country from the external Internet and create a completely national internal "spider web". China is taking technical measures to completely close foreign social networks and filter text.

In 2012, the US administration announced the first international strategy for Kibe ramakon in the world. Based on this document, it is envisaged to create a favorable media environment in the country through the effective use of cyber technologies. It should be noted that experts evaluate this as an attempt by the United States to directly influence people's minds on a global scale. In "Rossiyskaya Gazeta" "The US State Department is working to start a new war with Russia." the sensational message that " he is crying " was published. "In this war, the computer was chosen as the main weapon of invasion, and the Internet was chosen for the battlefield." According to the plan, all sites, blogs and chats operating in Russian will be put under severe pressure and pressure. According to one of the officials of the service entrusted with this task (it is called "External Digital Communications Team" - BA), such an information battle on the Internet waves is also conducted in Arabic, Persian and Urdu languages.

One of the serious problems arising in the information war is the level of development of the countries that have established cooperation relations. Let's say that a powerful state has reached an agreement on cooperation with a young independent state that has not yet developed. And a powerful state does not tire of controlling a young independent partner state in any way, while a state that does not yet have such an opportunity remains passive. So, can cooperative equality be maintained in this case? "The extremely powerful ICT capability created in the USA causes such concern," writes Professor A. Krutskikh, a special employee of the Ministry of Foreign Affairs of the Russian Federation. - If one of the partner parties has the opportunity to control the goals of the other party, and the other party is deprived of this opportunity, can we call such cooperation equal?"

In short, US international strategy in cyberspace is becoming increasingly sophisticated. Under this pretext, the commitment of the US to create "reliable, safe and secure platforms" to ensure freedom of speech and association is questioned by many, especially experts of countries that oppose US hegemony.

Countries that have been opposing each other on the world stage since time immemorial - sometimes openly, sometimes covertly - are creating completely new

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battlefields from the miracle of the Internet and information. The saddest thing is that journalism and mass media, which serve for goodness, are being turned into warriors of those battlefields. Many countries have started preparations for information warfare. Countless funds are being mobilized for this purpose. It is not necessary to break the traditional borders for the information war, moreover, in this war, people are not massacred, but the worldviews of the general public are influenced by the "cooperation" of telecommunications and mass media systems.

The important thing is that no state or center will be able to limit or control such systems except powerful states. "Actually," writes Uzbek publicist J. Melikulov, "behind this lies the desire to introduce ideas adapted to Western values and patterns to the whole world and thereby expand its sphere of influence." The goal is to export consciousness." World media space - the place and importance of international journalism in the fate of humanity, including states, peoples, and nations at the current historical stage, is so great that, in a word, "It is worth noting that today, when the whole world has become a single information space day by day, the struggle between good teachings and evil ideas that call people to perfection is getting more and more intense.

In conclusion, it should be noted that in the analysis of world journalism, it is certainly not possible to fully cover all the processes and new trends taking place in it. But at the same time, it is necessary for our national journalism to examine the national identities that are still preserved without harming the national interests, and to determine the somewhat effective principles that will be used in the process of striving towards the information society.

Globalization and the rapid pace of current life, scientific and technical progress, new information technologies are rapidly changing our life and society in general. In such a situation, the demands of the human society towards journalists are also changing. In fact, in today's advanced age, radical changes have been made in the field of mass media, like all other fields. It is necessary to train professional fighters - journalists, in order to withstand informational attacks, which are more powerful than nuclear test sites, and the "date tricks" of the new civilization - the process of globalization. In the global news space, it is permissible for journalists to act as politicians, statesmen, and defenders of the nation.

As it is repeatedly emphasized in the press, interviews, researches and analyzes published by experts, "Today, through information technology, the practice of deliberately distorting the true situation in another country, purposefully influencing the mood of the political leadership and citizens there is becoming more and more widespread. This remains a big problem for the world community."

Based on the opinions and analyzes presented in this article, the following conclusions were drawn: - the processes of globalization, along with many changes, created a completely new world information order, which is almost identical in large and small countries . demanded the radical reform of all spheres , including the information and mass media; - in the conditions of the new world information order, features common to all countries of the world were formed, in this case, the establishment of international relations, mutual experience made sharing easier;

- two different trends were observed in world journalism: the first - almost all countries experienced similar reform processes, and the second - at the same time, each country followed its own and appropriate path. In particular, the young independent states tried to balance and ensure harmony between these two paths. This situation also gained special importance in increasing and strengthening the international image of the states;

- in the conditions of globalization, attempts to occupy the world's information space, tendencies to aspire to its absolute ownership are clearly visible. This paves the way for the monopolization of information in the international media space, and in some cases, it is reflected in the actions of powerful countries that do not take into account the interests of young countries that are just developing and have just chosen the path of independence; - the real conditions in the world media space and the constant changes require special attention to be paid to the issue of professionalization in a broad sense in our milky journalism.

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**ВНИМАНИЕ МОЛОДЕЖИ В РАЗВИТИИ НОВОГО
УЗБЕКИСТАНА**

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**ATTENTION TO YOUTH IN THE DEVELOPMENT OF THE NEW
UZBEKISTAN**

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Аннотация: В данной статье рассматриваются возможности, предоставляемые молодежи в процессе развития Нового Узбекистана, найти свое место в обществе и стать активным участником формирования гражданского общества.

Ключевые слова: будущие поколения, культура, искусство, спорт, информационные технологии, Защитник Отечества, инновационная деятельность, интеллектуальные игры.

Annotation: This article discusses the opportunities given to young people in the development of New Uzbekistan to find their place in society and become an active participant in the formation of civil society.

Key words: future generations, culture, art, sport, information technology, Defender of the Fatherland, innovative activity, intellectual games.

If we look at the history of the development of developed countries in the world, we can see that these countries have created great opportunities for young people to acquire high education.

In this regard, a number of normative documents adopted by the government indicate that the issue is very serious and urgent. For example, on August 14, 2018, the decision of the President of the Republic of Uzbekistan "On measures to bring

up young people to be spiritually, morally and physically perfect, and to raise the quality of their education system to a new level" is also a clear manifestation of attention to this issue at the state level. In this decision, it is emphasized that the measures aimed at instilling in the minds of the young generation a sense of loyalty to the Motherland and responsibility for its fate, and forming ideological immunity in them against the negative effects of foreign ideas and views, are not effective enough today, and it is clear as a solution to the problem. the development of the program, the need to protect young people from the influence of foreign ideas, to educate them in the spirit of national and universal values, religious tolerance and inter-ethnic harmony at the beginning of this program is justified.

The fact that global information is trying to influence the worldview, thinking, and national-cultural values of our youth in various ways has a positive nature, but it also has the possibility of causing negative consequences. It is important to compare the impact of this process with the "standard" level of positive changes in the life of young people, and on the contrary, to distinguish and take into account the state of its violation. Especially at a time when the scope of information is increasing rapidly, and thanks to independence, our young people have the opportunity to access new information fields, the thoughts and views of a particular nation or people are being disseminated to the whole world through the information system.

Indeed, "Today, when our country has entered a new era of development, our people, especially our children, have love for the Motherland, courage for the future of our country, and the value of a peaceful, free and prosperous life.

strengthening the feeling" has become an urgent issue.

The fate of the reforms implemented in new Uzbekistan and the future of the country are largely related to the social and political activity of young people. "Man, his life, freedom, honor and dignity are supreme a humane democratic state that is considered a value, in terms of building an open and fair society, and realized our high responsibility to the future generations without" the new Constitution of the Republic of Uzbekistan was adopted.

Chapter XIV of the Constitution is devoted to "Family, children and youth". It states that "the state and society should take care of children and young people's commitment to national and universal values, pride in their country and the rich cultural heritage of the people, and the formation of feelings of patriotism and love for the Motherland" (Article 78).

"The state ensures the protection of personal, political, economic, social, cultural and environmental rights of young people, encourages their active participation in the life of society and the state.

State youth intellectual, creative, physical and for moral formation and development, for their education, health care, housing, and work exercise their rights to residence, employment and rest creation of conditions for increase" (Article 79).

As a logical continuation of the work carried out on the basis of the Constitution, the President declared 2024 as the "Year of Youth and Business Support".

It is a fact that does not require proof that young people find their place in society, become an active participant in the formation of civil society, and in many ways, it is related to the creation of laws that protect their interests, ensure their rights and freedoms, and the mechanism of their implementation.

"Uzbekistan - 2030" strategy was adopted during the implementation of the new development strategy of Uzbekistan.

In order to ensure that young people are engaged in modern professions in his "Direction of the state policy on youth", the organization of activities of 1 "Creative Park" in each region, attracting at least 40 thousand young people per year to them, Scientific and to develop the talent of at least 2 million young people by involving them in innovative activities, intellectual games and learning foreign languages, to send 500 talented young people to study at prestigious foreign universities every year, to ensure the employment of 400 thousand young people and it is also intended to achieve the solution of the problems.

The state program on the implementation of the "Uzbekistan-2030" strategy in the "Year of supporting youth and business" was adopted.

In its paragraph 2, in order to fully realize the potential, talent and initiatives of young people, within the framework of the "Olympiad of Five Initiatives":

Starting from March 1, 2024, in the system of neighborhood, educational institutions, enterprises and organizations, the prize fund in the amount of 600 million soums will be awarded for foreign language competitions ("Children of Ibrat"), cyber sports competitions and intellectual games "Zakovat" organization at the level is indicated.

Within the framework of the state program for the implementation of the "Year of Youth and Business Support", in the framework of the direction of "creating suitable conditions for every person to realize his potential" in 2024:

The knowledge evaluation system of presidential and specialized schools will be introduced in additional 1,000 general secondary educational institutions, and the percentage of practical training in subjects will be increased to 60%.

In its paragraph 6, starting from March 1, 2024:

The practice of directing the funds of the "Yoshlar daftari" fund to the goals of training young people in foreign languages and professions, launching the special platform "Ustoz" for training young people in modern professions, and the initial 250,000 young people will be covered through this platform.

In our country, large-scale work is being carried out in the field of state policy related to youth. In recent years, a special system has been created to support young people in every way, to protect their rights and legal interests, and to educate young people who are able to take responsibility for the future of our country.

The Youth Affairs Agency of the Republic of Uzbekistan, the Youth Parliaments under the Chambers of the Oliy Majlis, and the Youth Academy under the Ministry of Innovative Development of the Republic of Uzbekistan were established. "Projects Factory" started working in the regions.

Ensuring the healthy growth of the young generation, receiving quality education and growing up as a well-rounded person, as well as comprehensively fostering the interest of young people in culture, art, sports, information technologies and reading books Effective work is being done to introduce "five important initiatives" aimed at support.

On the implementation of the project "One thousand books for young people". we made a separate decision. According to him, starting from next year, the most popular scientific and popular books that encourage our children will be translated into Uzbek and distributed to schools and libraries free of charge.

At the extended meeting of the Security Council, the President of the Republic of Uzbekistan emphasized that the role and importance of education in the military-patriotic spirit is increasing in the current extremely complicated conditions, where the struggle for the hearts and minds of the young generation is intensifying. "Today, it is necessary for each of us to become defenders of the Motherland, and to raise our youth in this spirit."

In short, today the scope of opportunities given to young people is expanding. Because they are the creators of our future. The future and development of the country depends on how high their intellectual potential is.

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C M R T

ПЕРЕХОДНЫЕ ФОТОЭЛЕКТРИЧЕСКИЕ ПРОЦЕССЫ В СВЕРХТОНКОЙ ГАЗОРАЗРЯДНОЙ ЯЧЕЙКЕ С ПОЛУПРОВОДНИКОВЫМИ ЭЛЕКТРОДАМИ

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Аннотация. В настоящей работе исследованы переходные фотоэлектрические процессы в сверхтонкой газоразрядной ячейке. Рассмотрены вопросы задержки пробоя газового разряда в импульсном режиме работы ячейки и электростатические явления переходных процессов. Установлено, что время задержки пробоя зависит от интенсивности освещения полупроводника, длительности и величины импульса напряжения, а также состояния поверхностного заряда, то есть напряженности поля поверхностных зарядов.

Ключевые слова: газоразрядная ячейка, фотоприемник, задержка пробоя, поверхностный заряд, ваттамперная характеристика, кинетика импульсного тока, интенсивность свечения разряда.

Введение: Сверхтонкая газоразрядная ячейка (20 – 100 мкм), состоящая из фоточувствительного полупроводникового электрода и расположенного через газоразрядный промежуток волоконно-оптической шайбы с проводящим прозрачным покрытием из SnO₂, является основным элементом полупроводниковой фотографической ионизационной камеры (ПФИК). Кинетика тока в такой ячейке и кинетика свечения разряда отчасти уже исследованы в работе. Установлено, что статистический разброс задержки пробоя при пренебрежимо малом сопротивлении электродов соответствует функции распределения экспоненциального типа, тогда как разброс при достаточно большой величине сопротивления полупроводникового электрода описывается функцией, близкой функции случайных ошибок.

Действительно, полупроводниковый электрод является самым высокоомным элементом электрической цепи сверхтонкой газоразрядной ячейки и поэтому им будет определяться величина проходящего стационарного тока ПФИК, которая равна фототоку в полупроводнике.

В случае переходных процессов, например, при подключении внешнего

напряжения или при «мгновенном» изменении проводимости полупроводника, величина поверхностного заряда может оказаться в полном несоответствии с током проводимости, что вызывает явления электростатического характера. Существенную роль в токопрохождении играет поверхностный электрический заряд, локализирующийся на границе раздела полупроводник – плазма газового разряда, самосогласованный по величине с плотностью тока и во многом определяющий стационарную вольт-амперную характеристику ПФИК.

Однако, до сих пор переходные фотоэлектрические процессы в сверхтонкой газоразрядной ячейке достаточно не изучены. Данные о влиянии послепробойного статистического разброса и времени задержки пробоя, а также величины поверхностного заряда на фотоэлектрические характеристики сверхтонкой газоразрядной ячейки в научных публикациях отсутствуют.

Целью настоящей работы является выявить закономерности переходных процессов, происходящих в сверхтонкой газоразрядной ячейке ПФИК с учетом задержки пробоя газового разряда и распределения поверхностного заряда на полупроводниковом фотоприемнике.

В настоящем сообщении приводятся результаты исследования газоразрядной ячейки с толщиной 40 мкм и 100 мкм при давлении воздуха 0,2 атм с электродами из компенсированного хромом арсенида галлия при комнатной температуре с темновым удельным сопротивлением $\sim 10^8$ Ом·см и кремния, легированного платиной при $T = 80$ К с темновым удельным сопротивлением $\sim 10^9$ Ом·см в условиях весьма малых сквозных токов или их отсутствия, когда эффекты электростатического характера проявляются наиболее отчетливо.

ЭКСПЕРИМЕНТАЛЬНАЯ УСТАНОВКА И МЕТОДЫ ИССЛЕДОВАНИЯ

Для выполнения экспериментальных работ была использована ПФИК. Принципиальная электрическая схема сверхтонкой газоразрядной ячейки показана на рис. 1. Между фотоприемником и волоконно-оптической шайбой подключался основной источник питания постоянного тока U_1 , кроме того к источнику постоянного тока последовательно или прямо к газоразрядной ячейке может быть подключен высоковольтный тиратронный импульсный генератор U_2 с длительностью импульсов $t_v = 0,5 - 30$ мкс и длительностью переднего фронта $\tau_\phi = 50$ нс.

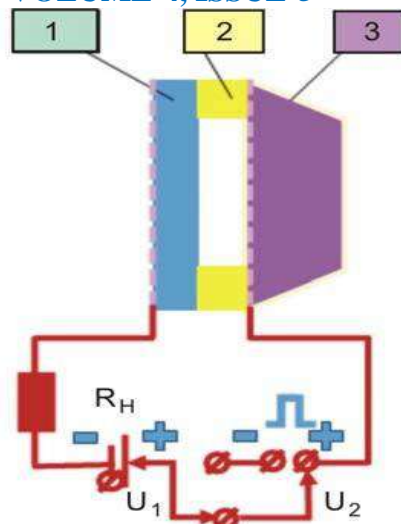


Рис. 1. Принципиальная электрическая схема сверх- тонкой газоразрядной ячейки. 1 – фоточувствительная к ИК-излучению полупроводниковая пластинка с прозрачным электродом, 2 – слюдяная пластинка с отверстием в центре, 3 – волоконно-оптическая шайба со SnO₂

Максимальная величина импульсного напряжения составляло $U_2 = 1,6$ кВ, с выходным сопротивлением 100 Ом. Для регистрации постоянного тока использован двухкоординатный самопишущий лабораторный комплекс типа ЛКД4-003, а для регистрации токового импульса – двухлучевой осциллограф типа С1-91, регистрировавший падение напряжения на нагрузочном сопротивлении R_n . Авторами разработан метод усреднения, основанный на изменении оптической плотности изображения осциллограммы тока, сфотографированной с экрана осциллографа на фотопленку. Суть метода заключается в том, что, поскольку фотографическое действие газового разряда ячейки на регистрирующую среду определяется величиной среднего количества электричества, нас интересовали не только значения тока в каждом индивидуальном импульсе, но и средние значения тока за период. Поэтому экспериментальная задача состояла в определении среднего тока, усредненного для каждого момента времени по общему количеству импульсов за время экспонирования.

Действительно, принимая, что оптическая плотность почернения пропорциональна количеству импульсов для каждого момента времени, можно считать, что среднее значение тока в данный момент времени определяется следующим соотношением: плотность на осциллограмме условно изображена линиями разной толщины, а плавная штрихпунктирная кривая на рис. 2б показывает полученную кинетику среднего тока. Осциллограмма снималась на аэрофотопленку-42 фотоаппаратом «Зенит-Е» с объективом

«Гелиос» и дополнительным переходным кольцом. Денситометрирование фотоснимков осуществлялось на микроденситометре типа ИФО-451 с шириной щели, обеспечивающей разрешение 20 лин/мм. Во всех измерениях мощность излучения измерялась термостолбиком типа ЛЭТИ с чувствительностью 0,72 В/Вт.

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Construction of control systems of Mechatron pneumatic devices

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Abstract: Mechatron devices of management pneumatic hydraulic of types used without PLC controller on the side devices automatic process organize to reach see we went out Then no results that's it showed that devices quickness in providing manage devices optimization seeing we went out

Key words: press machine components, PLC wires of the pneumatic press machine, PLC ladder of the machine logic

Press button is this the process start or to stop for used management elements . Press button they are usually open contact and usually closed contact Usually open contact basically to work drop off button is used and usually closed contact basically to stop button is used . of our project main process start for two usually open from contacts we used

PLC wiring of pneumatic press machine . Pressing of the car performance By Siemens S7-1200 PLC complete control done . It is 24V DC power source with works This 4 entries in process used 1 click button and 3 proximity the key used These 4 are addressed I0.0, I0.5, I0.7 and I1.1 inputs with connected . Exits place outputs with connected , output PLC addresses Q0 ,0 from to Q0.5 .

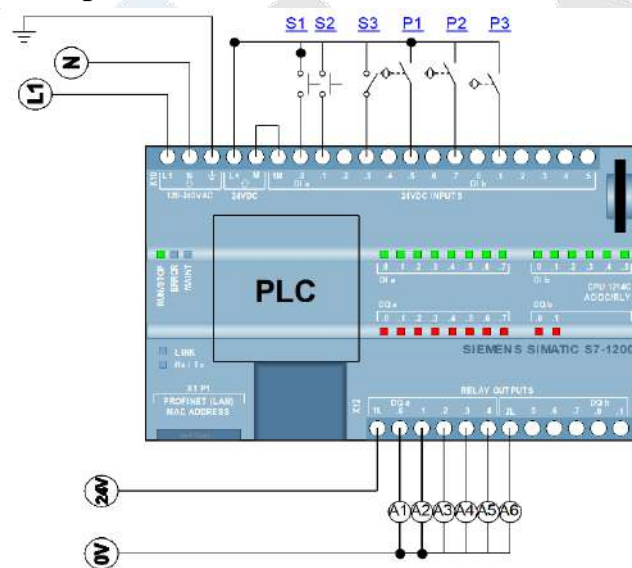


Figure 1: PLC connections

S1 button when pressed it will signal I0.0 , like so so P1, P2 and P3 are close signals to sensors I0.5, I0.7 and I1.1 . This inputs again is processed and PLC in the program to the specified PLC logic according to signal from A1 to A6 has been place

to the coils sends[1].

PLC ladder of the machine logic . PLC ladder logic car of the application function describes . In the PLC loaded logic depending on the process will be done . to the PLC connected all access and exits in logic remind transition it is necessary with only all things in the car will be done . Wrong program in progress wrong to the function take will come and this necessary to the result take not coming can.

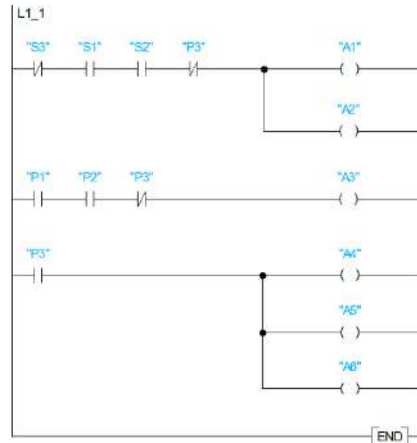


Figure 2: PLC Ladder Logic

Pneumatic scheme final the process two bilaterally cylinders , 5/2 directions manage klapni , closeness sensors , flow manage valve and energy source compressor such as components using done increases . All components movement for transition task which performs the air lines (air through hoses). is connected . This circuit pressure 5 bar with works Direction control to do valves inside of reels movement who manages the solenoid to work drop off method have

Pneumatic press machine work principle . Pneumatic 5 bar is compressed into the system the air supply is given All cylinders standard in case When buttons S1 and S2 process if clicked starts . These are PLC inputs activates and to PLC programming according to , A1 and A2 relay activated [2].

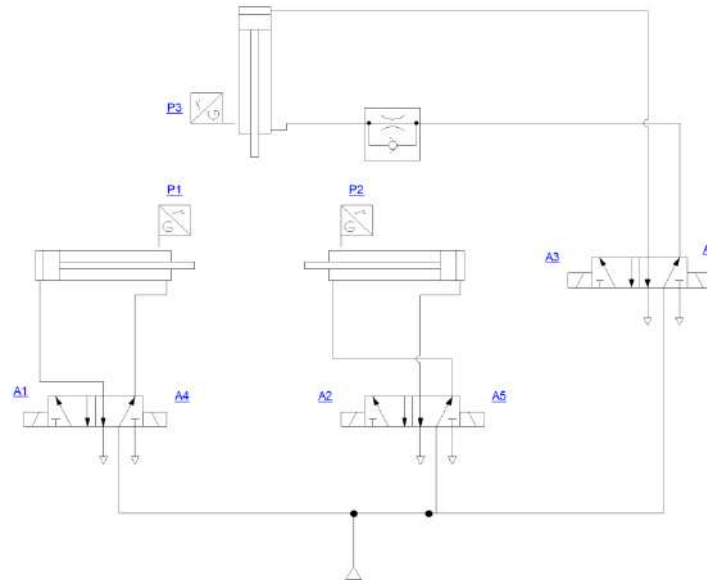


Figure 3: Pneumatic schemes connections

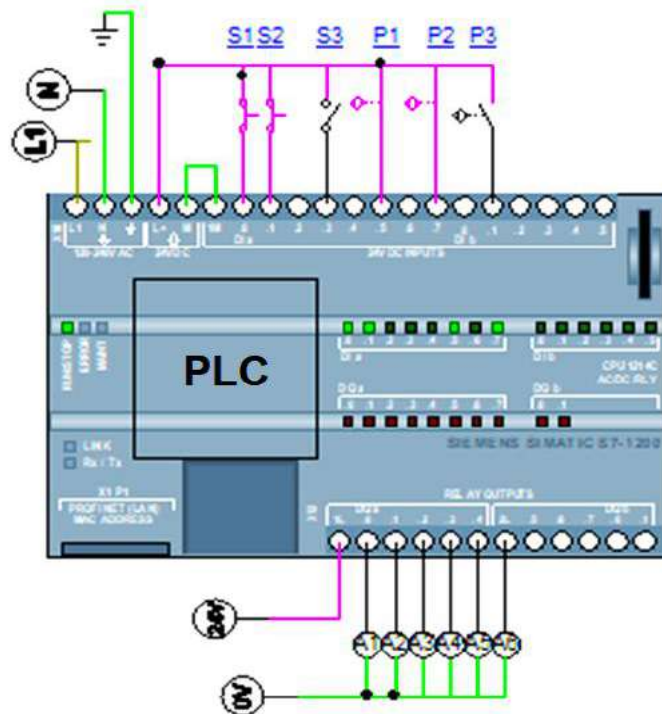


Figure 4: In a PLC click buttons

This place forward shift which activates cylinder 1 and cylinder 2 for direction manage of valves solenoid activates . 1st cylinder and 2nd cylinder pressing of the car the door was

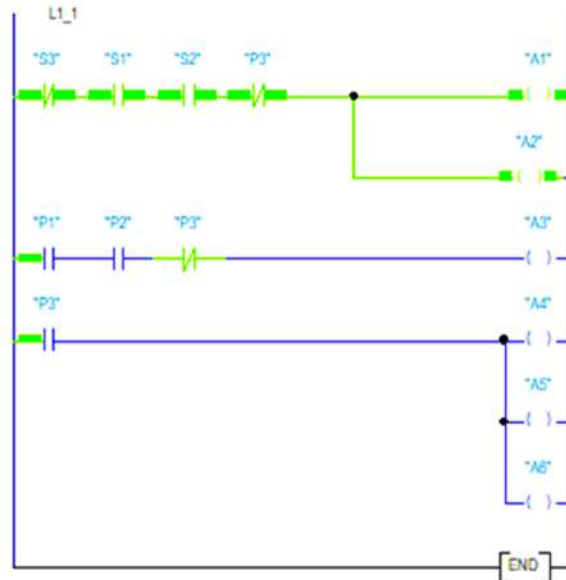


Figure 5. PLC logic to execute cylinder 1 and cylinder 2

both cylinder 1 and cylinder 2 close . of cylinders last status closeness sensors by felt

Next process both closeness only when it receives a signal from the sensor starts . Safety principle account received without , we proximity signal status from sensors determination for from PLC logic we use

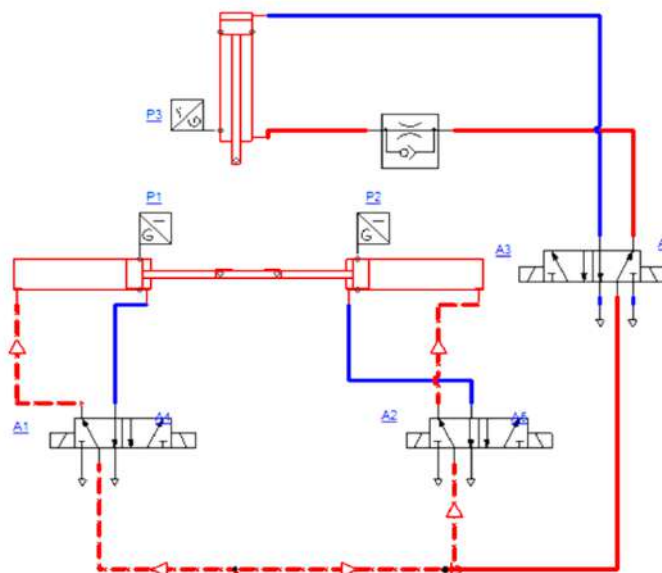


Figure 6: Pneumatic operation of cylinder 1 and cylinder 2

Proximity sensor signals acceptance from being done then click process starts . This is different pneumatic cylinder by done increased . Sensor signals relay A3 activates this while solenoid valve the cylinder to redirect possibility will give . Flow management valve using cylinder regularly to power relatively slowly movement does Stream manage valves gas butterfly valve using the voice reduce through of the

cylinder strength reduces Clickable to components depending on the valve is adjusted , like so , the power is also adjusted[4] .

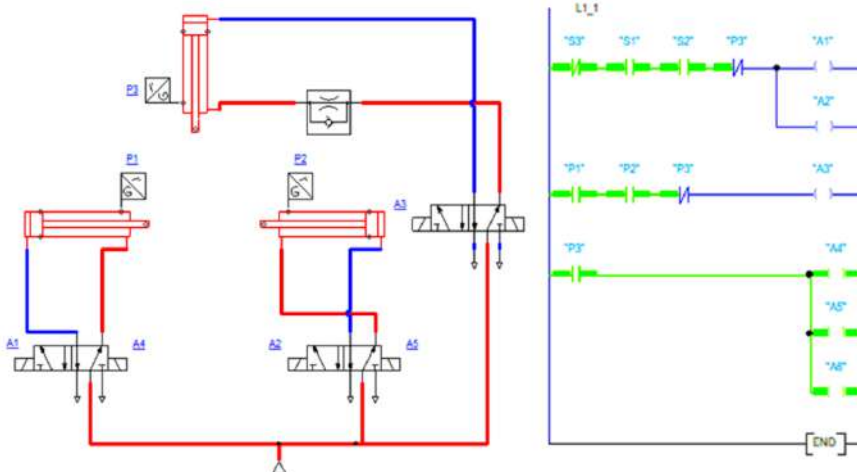


Figure 7. Operation cycle click , PLC logic

Press of the cylinder last the situation is close sensor by it is felt . This closeness sensor the cylinder transfer need has been sure the distance determines If the cylinder last position if , closeness sensor A4, A5 and A6 relay activates . That's all three cylinder home / default to the situation to return and one the cycle to finish forced does S1 and S2 start buttons again click through cycle is repeated[5] .

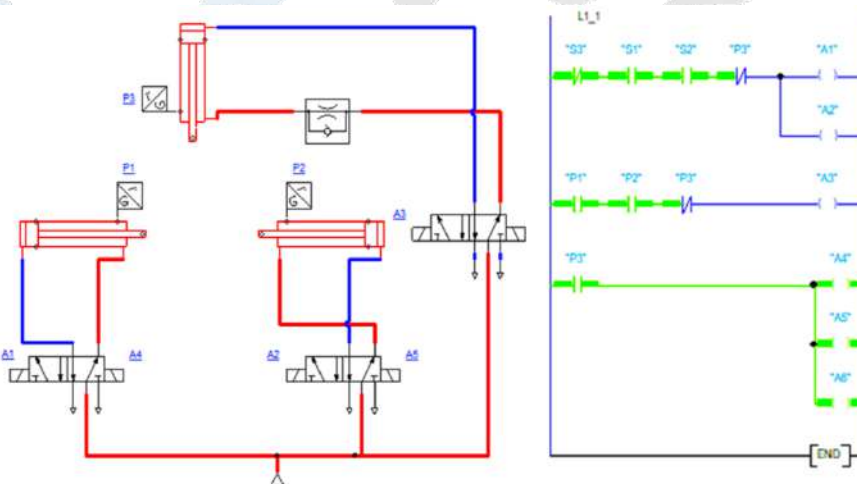


Figure 8. Back to cycle makes sense execution , PLC logic

If we process tools in the middle wants to stop If so , do it during desired at the time the process to stop S3 button for click need If S3 is from the process before activated if , the whole process won't start because it 's emergency to stop button task performs This is also this in progress applied safety measures is one[6].

Pneumatic of the car performance basically mechanic in workshops two the component combine for in industry is used . This operations safe perform for we are pneumatic systems and from a combination of PLC we used We also have cars and employees protection to do for some prophylactic from blockages we used.

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C M R T

INFLAMMATORY DISEASES OF MAXILLOFACIAL DISEASES
COMPLICATIONS.

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Annotation :Acute on the face, jaw and neck (abscess, phlegmon, osteomyelitis, purulent inflammatory diseases to surrounding tissues organ necessary for life as a result of spread, poisoning of the body and .This article describes the historical formation of the field of facial and jaw surgery and today provides information about its state of modernization. Also In the article, common diseases in this field and their treatment practice thoughts about.

Key words: mediastenitis, maxillofacial, inflammation, spongy cavity, periostitis, odontogenic osteomyelitis.

The term plastic surgery is often used in foreign countries despite the fact that a large number of monographs on surgery have been published. Among experts, there are representatives of the field that clearly illuminate this term There is no specific instruction approved by the side. Plastic surgery is one of these surgeries it is based on operations on the tissues of the body surface. If body defects in the arms and legs, as well as in the abdomen and chest, clothing or if it is possible to cover with any kind of materials, defects in the facial area closure is a much more difficult issue, That's why the initial plastic surgery work began with covering defects in the facial area. In the facial area the principle of working with tissues began to spread to other parts of the body. Plastic surgery as a separate department began to form in the 20th century after the First World War and in the 50 years after World War II, it was clearly confirmed. In recent years, the role of anaerobic infection in the development of phlegmonal disease has been determined, and non-spore-forming bacteria - bacteroids, and clostridia - are more common in them. As a result of investigations, coexistence of aerobic and anaerobic bacteria was also observed. Staphylococci, streptococci, and other symbiotic microflora, which are involved in the etiology of odontogenic abscess and phlegmonal disease, are found in secretions from wounds. 86.6-95% of abscesses and phlegmons are caused by odontogenic infection. They occur due to the spread of infection from apical foci as a result of acute and chronic periodontal exacerbation, as well as when wisdom teeth are difficult to erupt, radicular cysts suppurate, alveolitis and periodontal disease exacerbation. chronic osteomyelitis, acute periostitis and comorbidities may occur. In addition to the teeth, other sources of infectious agents are in the mucous membrane of the oral cavity, nasal cavity and upper jaw cavity, on the skin of the face and neck, less often - in the eyes. Abscess-specific complaints: under the armpit in the area, pain is felt when grasping and body temperature rises, pain in the jaw is complained of in odontogenic abscess. The general condition may change in young children. Clinical picture: in the initial period, a painful infiltrate (snack) is observed in the area under the groin, which has a significantly firm consistency, with clear borders, but the skin above it may be unchanged. In young children, the skin on the swelling is thinned, reddened, the middle is softened, and when palpated (fluttering), fluctuation is detected.

Symptoms characteristic of phlegmon: usually, there is a widespread painful swelling under the groin, as well as a slight limitation of mouth opening. A soft swelling is detected in the

tissues. The color of the skin above the tumor has not changed, it does not fold. Mouth opening is limited due to pain. The gums and oral mucosa around the tooth that causes inflammation are red and swollen. In the general condition, signs of endogenous poisoning: weakness, increase in body temperature, loss of appetite, disturbed sleep are detected. It may be in the conjunctiva. Microbes are usually dispersed with the help of local protective factors at the place of entry into the tissue, in some cases they reach the lymph nodes through lymphatic vessels and remain there and undergo phagocytosis. If the microbes are not eliminated in the lymph nodes, they can be absorbed into the lymph nodes and delivered to other tissues and organs with the blood. Microbes multiply at the landing site, some of them produce exotoxins. As a result of the breakdown of microbes, toxic substances endotoxins are released into the tissue. They have antigenic properties and cause pathological changes in the tissue. Other sources of infection other than teeth are in the mucous membrane of the oral cavity, nasal cavity and upper jaw cavity, on the face and neck, less often - inflammation from the conjunctiva of the eye. can call Abscess and phlegmon around the jaw are more common in 20-30-year-olds, which is due to dental caries damage and difficult wisdom tooth eruption. Thrombophlebitis of facial veins, upper jaw bone and surrounding soft tissues purulent inflammation (osteomyelitis of the upper jaw, abscess under the eye and phlegmon. upper lip and nasal cavity and abscess, etc.) in diseases, the walls of the vessels of the facial vein are inflamed and a thrombus is formed is to do. Edema is formed in the direction of facial and angular veins. Skin when it's gone Infiltrate associated with it is detected, the skin on it turns red, as the poisoning increases the patient's condition worsens, his body temperature rises, he has malaria, he rubs his body, trembles. Thrombophlebitis progresses to facial vein thrombosis, which in turn leads to facial vein thrombosis causes the infection to spread to the spongy sinus of the dura mater.

Thrombophlebitis of facial veins, upper jaw bone and surrounding soft tissues purulent inflammation (osteomyelitis of the upper jaw, abscess under the eye and phlegmon. upper lip and nasal cavity and abscess, etc.) in diseases, the walls of the vessels of the facial vein are inflamed and a thrombus is formed is to do. Edema is formed in the direction of facial and angular veins. Skin when it's gone infiltrate associated with it is detected, the skin on it turns red, as the poisoning increases the patient's condition worsens, his body temperature rises, he has malaria, he rubs his body, trembles. Thrombophlebitis progresses to facial vein thrombosis, which in turn leads to facial vein thrombosis causes the infection to spread to the spongy sinus of the dura mater. Factors that simultaneously negatively affect the development of the inflammatory process include: the absence or deficiency of certain ingredients in the oral fluid, bite-related injuries, bacteremia, poor oral hygiene, dental plaques, pathological gum pockets, fissures, decayed tissue in the cavity of the caries and tooth canals. The fissures examined from the inflammatory process show that the pathogenicity of the infection is low in most cases. Nevertheless, they cause deep and widespread inflammation. Purulent inflammatory diseases in the areas of the face, jaw and neck, abscesses and phlegmons occur in the subcutaneous, intermuscular, interfascial, muscle tissues. Microbes that have entered the tissue accumulate near and around the tumor, an inflammatory process develops in the tissue. The following stages are distinguished in the inflammatory process: 1- swelling, 2-redness, 3- purulent dissolution of tissues, 4-necrosis, 5 - delimitation by forming a granular shell. Serous inflammation of the cell differs from cellulitis (which corresponds to the previous term snack), limited purulent-inflammatory process - abscess, and phlegmon, which is a diffuse purulent-inflammatory process.

Pathogenic microbes in blood taken from a vein, with microbiological tests if found, the toxic period of septicemia or sepsis develops. Specific to sepsis signs are internal organs: lungs, liver, kidneys, heart and other internal organs the symptoms of the disease are manifested more than the symptoms of local inflammation (predominance) will be. After septicemia, the disease passes into the period of septicopemia. Internal to this period the organs are purulent due to the infection in the lungs, liver, and brain processes develop. Changes characteristic of the terminal phase of sepsis are observed: dysproteinemia, hypercoagulation, electrolyte balance, acid-base system violation, etc. observed. With the development of sepsis, it becomes a septic (endotoxic) shock (microbes and their it is complicated by a severe violation of body functions under the influence of poisons). Septic in the morning, the activity of life-sustaining organs is disrupted. One of them is sharp shortness of breath. ten characteristic signs - a sharp worsening of the general condition increasing weakness, trembling. the transition of blasphemy to fear mind blurring. lack of air at the same time as the headache increases Complications and panting are observed. As septic shock worsens acute respiratory failure passes into a decompensated form, ten: the patient is in critical condition. his mind is not clear. paleness of the skin, slimy in curtains - cyanosis, instability of blood pressure and prone to falling of the bridge hypoventilation hypoxia, anuria. The blood coagulation system is disturbed, leukopenia, anemia etc. is typical.

The child's body temperature has increased, his appetite has decreased, he is weak and restless. During the examination of the patient, due to the inflammatory infiltrate in the submandibular area, the face shape has changed, the skin above the tumor is red, it does not fold, sometimes the skin is tense and shiny, and a painful infiltrate with clear boundaries is detected when palpated.

CONCLUSION

The disease often occurs in the lower jaw. Odontogenic osteomyelitis of the jaws, mainly, it takes place in three stages: acute, subacute and chronic. Besides, can be limited and diffuse. There is a lot of spongy bone in the upper jaw there are many holes in its cortical plate. That's why it's in the jaw in purulent inflammatory processes around the teeth, exudate comes out of the bone. Therefore, the disease of odontogenic osteomyelitis in the upper jaw rare. Abscesses and phlegmons can be serious infections that require urgent medical attention without proper diagnosis. Dental hygiene, injury prevention and regular dental check-ups can help prevent these infections. Abscesses and phlegmons are treated surgically, with drugs and in a complex manner with physiotherapeutic procedures.

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COMPARISON OF LIVER TISSUE MORPHOLOGY AND MORPHOMETRIC INDICATORS IN NORMAL AND POLYPHARMACOUS ANTI-INFLAMMATORY DRUGS IN ALBUM RATS UNDER THE EFFECT OF 4 DIFFERENT ANTI-INFLAMMATORY DRUGS

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Abstract. According to the World Health Organization, polypharmacy is one of the problems of the 21st century. Anti-inflammatory drugs are among the most commonly used drugs. Recently, polypharmacy has become a serious public health problem as a result of iatrogenicity. Reducing the pharmacotherapeutic properties of drugs causes an increase in the cost of treating patients. As a result, it shows that the problem of polypharmacy is not only a medical, but also a social problem, and finding a solution to it is an urgent task.

Currently, polypharmacy treatment with anti-inflammatory drugs is used in medical care for patients of all ages. Along with other organs in the body, scientific research is being conducted to study the effect of polypharmacy on the liver, various pathological conditions that occur in the liver under the influence of drugs, as well as the morphological changes of the liver. Diseases that appear in the liver under the influence of drugs, their complications are studied, and methods of treatment and prevention are recommended. However, there are very few studies devoted to studying the morphological changes that can occur in the liver under the influence of several anti-inflammatory drugs at the same time.

Key words: experimental, morphological, morphometric and statistical research methods

Relevance. In our country, comprehensive measures aimed at the development of the medical field, in particular, the reduction of functional and organic liver dysfunction, diseases and their complications, as well as the improvement and prevention of disease, treatment methods, are being implemented and certain results are being achieved. In this regard, in accordance with the seven priorities of the development strategy of New Uzbekistan for 2022-2026, tasks such as "...improving the quality of qualified services to the population in primary medical and sanitary services..." are defined in raising the level of medical services to the population to a new level. Based on this task, morphological and morphometric analysis of the liver parenchyma of white non-breed rats in polypharmacy, comparative analysis of the absolute weight of the liver, length, width, thickness, volume, transverse size of hepatocytes, diameter of central veins, diameter of interlobular artery, diameter of interlobular vein and diameter of bile ducts, as a result of evaluating their changes in the experimental liver under the conditions of polypharmacy, it was possible to develop the prevention of their diseases, and to reduce the complications arising from the disease by improving the treatment measures.

Aim and tasks. The purpose of polypharmacy was to determine and evaluate the characteristics of morphological changes in the liver parenchyma of a five-month-old purebred rat under the influence of anti-inflammatory drugs. The objectives of the study are to study and evaluate the basic morphological parameters of the liver of five-month-old purebred rats, to determine the morphological changes of the liver of laboratory animals with the simultaneous use of four anti-inflammatory drugs.

Material and methods. During the examination, a total of 40 liver tissues, divided into two groups, were pathohistologically examined based on macroscopic and microscopic studies of liver tissue. For general morphology, 2 pieces of each liver, i.e. a large piece and a piece of 1.5x1.5 cm from the middle part, were cut and frozen in 10% neutral formalin. After washing in running water for 2-4 hours, they were dehydrated in increasing concentrations of alcohol and xylene, then paraffin was poured and blocks were prepared. 5-8 μm sections were prepared from paraffin blocks and stained with hematoxylin and eosin. The following anti-inflammatory agents were used to study the effects of polypharmacy in experimental groups of white rats in the experimental group.

Analysis and results. White male rats treated with 4 different anti-inflammatory drugs, acetomenophen 15 mg/kg, aspirin 5 mg/kg, ibuprofen 6 mg/kg, dexamethasone 0.1 mg/kg (n=50).

From the 141th day of development to the 150th day of development, rats in the control group of non-white rats were injected with 0.5 ml of distilled water intragastrically for 10 days.

Sections taken from the liver of purebred rats were morphometrically examined, and the size of liver parenchyma and hepatocytes was measured using an ocular micrometer, in which we used a trinocular microscope made in China.

The fourth group was the introduction of two types of anti-inflammatory drugs and the study of morphological and morphometric changes in the liver parenchyma system, called the morphology and morphometric characteristics of liver tissue in purebred rats.

Sections taken from the liver of rats were examined morphometrically, and the size of liver parenchyma and hepatocytes was measured using an ocular micrometer. The introduction of four types of anti-inflammatory drugs and the study of morphological and morphometric changes in the liver parenchyma system, the use of a complex of anti-inflammatory drugs (IAD) as described above, led to the appearance of various changes in the liver parenchyma of rats.

The weight of the rats ranged from 187.7 to 234.7 g, with an average of 220 g. The fourth group of rats had a liver mass of 7.13g to 9.2g, an average of $7.9 \pm 0.24\text{g}$, a liver length of 2.7-3.6cm, an average of $3.16 \pm 0.1\text{cm}$, the upper and lower liver the distance between the edges is 1.9-2.5cm, the average is $2.2 \pm 0.68\text{cm}$, the thickness is 2.7-3.4cm, the average is $3.1 \pm 0.09\text{cm}$. The transverse size of liver hepatocytes is from 196.0 to 280.0 μm , the average is $23.6 \pm 0.73 \mu\text{m}$, the average cross-sectional area of hepatocyte cytoplasm is from $403.0 \mu\text{m}^2$ to $675 \mu\text{m}^2$, the average is $630.5 \pm 19.5 \mu\text{m}^2$. The number of binuclear hepatocytes per 100 hepatocytes is in the range of 10-18 μm , with an average of $12.9 \pm 0.4 \mu\text{m}$. The diameter of the central veins is from 48.0 to 76.0 μm , the average is $55.0 \pm 1.7 \mu\text{m}$. The diameter of interlobular veins ranges from 20.0 to 34.0 μm , on average - $27.42 \pm 0.84 \mu\text{m}$. The diameter of interlobular arteries ranges from 9.9 to 15 μm , with an average of $13 \pm 0.40 \mu\text{m}$. The size of bile ducts ranges from 15.0 to 28.0 μm , the average is $20.5 \pm 0.63 \mu\text{m}$.

Thus, the administration of a complex of steroidal anti-inflammatory drugs (SAID) as described above led to the appearance of various pathomorphological changes in the liver parenchyma in rats. It is recommended to include hepatoprotective agents in treatment regimens.

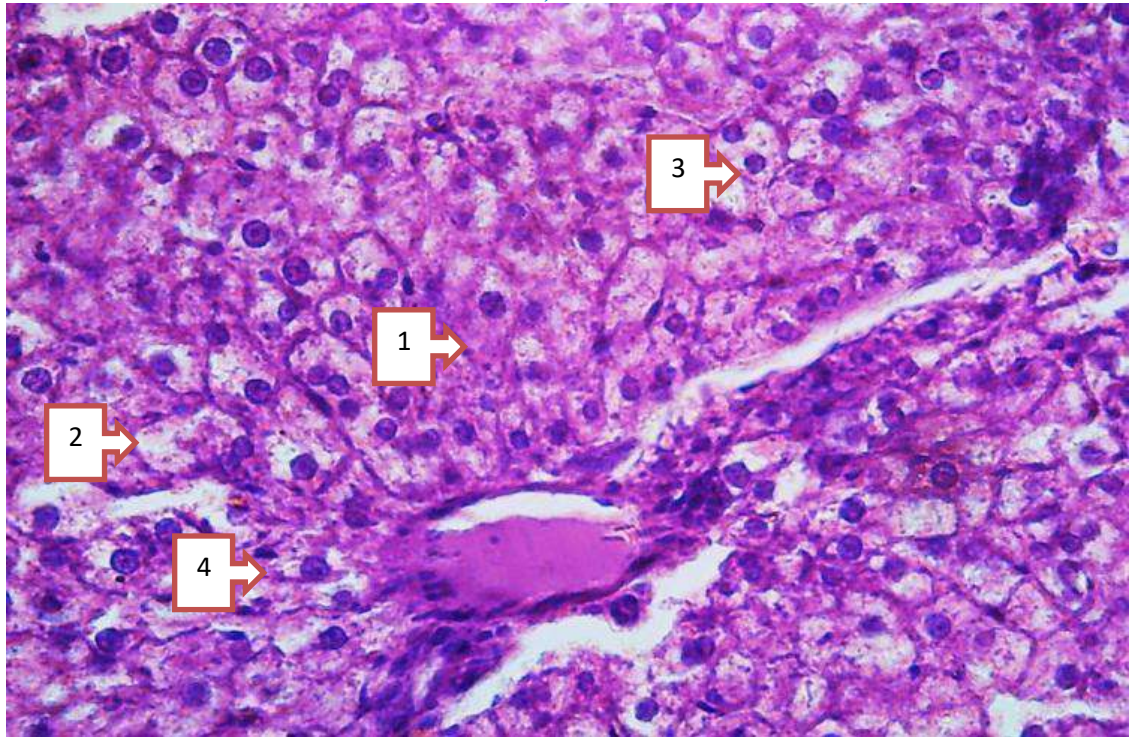


Figure 1. Liver tissue from a non-white rat. The interlobular vein is full (1), the sinusoidal spaces are dilated (2), hepatocytes with lysed nuclei (3), normal preserved hepatocytes (4), migration of Kupffer cells (5). Stain: hematoxylin-eosin.Ok.20,ob.40.

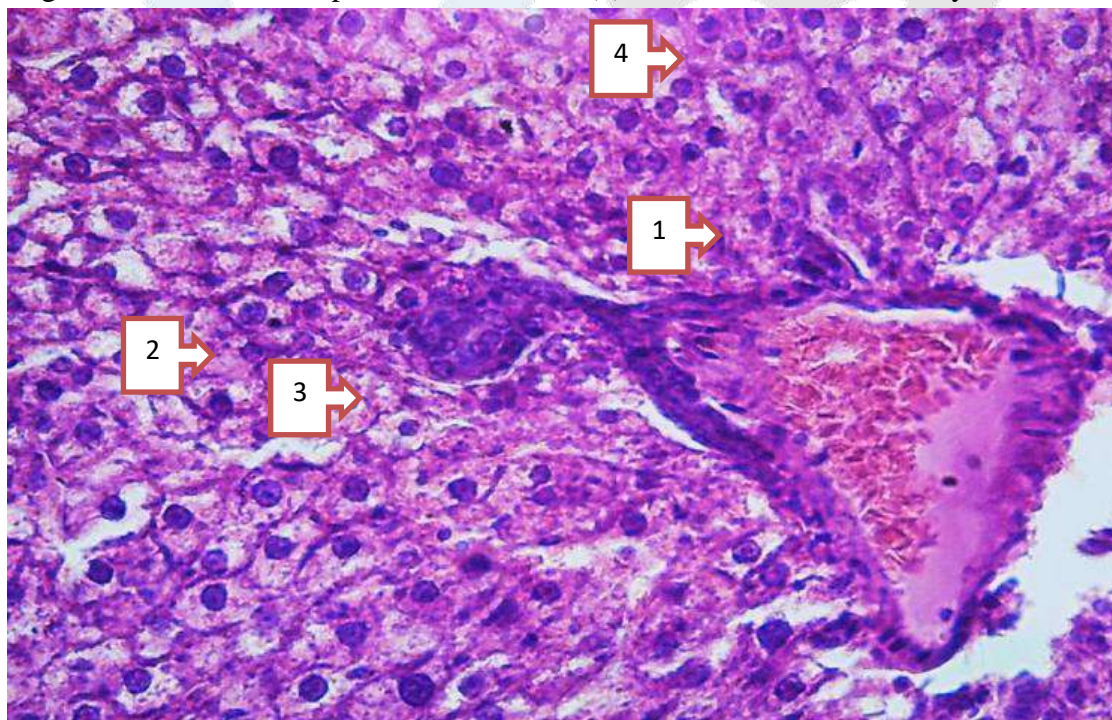


Figure 2 Liver tissue from a non-white rat. The interlobular vein is full (1), the sinusoidal spaces are dilated (2), hepatocytes with lysed nuclei (3), Kupffer cell migration (4). Stain: hematoxylin-eosin. Ok. 20, ob. 40.

Conclusion. In the next histological preparation of the liver of purebred rats presented in the fourth stage of the study, when four types of drugs were used, the migration of Kupffer cells

around the periportal vein blood vessel (60%, n=10), and the phagocytosis of necrotic hepatocytes by Kupffer cells (40%, n=8) were observed. .

Perisinusoidal spaces (spaces of Disse) were of different widths and were barely detected in the field of view (80%, n=11).

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MORPHOFUNCTIONAL CHANGES OF THE THYROID GLAND IN ACUTE
EXPERIMENTAL ENDOTOXICOSIS

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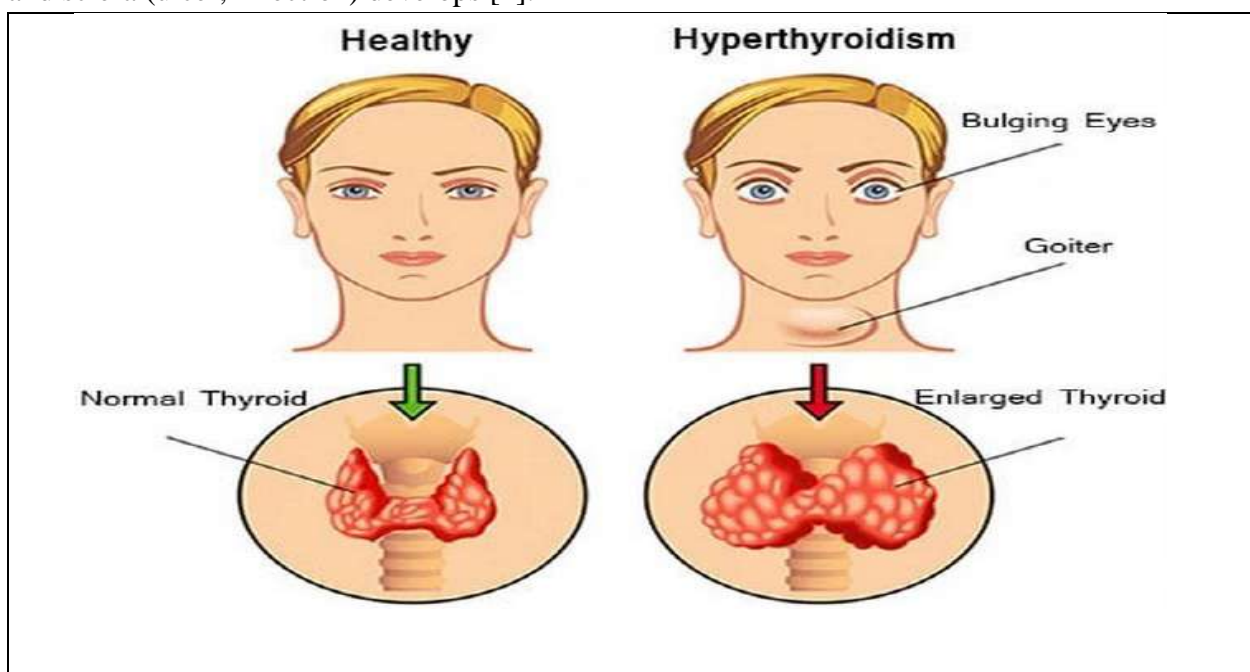
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ABSTRACT. The aim of the study was to study the morphofunctional changes in the thyroid gland and its hormonal status in rats with non-thyroid diseases caused by acute endotoxycosis. Morphological and morphometric studies of the thyroid gland carried out on the 1st and 7th days of the disease revealed that the earliest sign of non-thyroidal diseases is the separation of synthetic processes and the release of thyroglobulin into the cavity of the follicle and its resorption, that is, the synchronization of the phases of cell secretion, and the thyroid It consists in separating the direction of morphodynamic processes in the central and peripheral zones of the gland.

Keywords: Thyrotoxicosis, thyroid gland, exophthalmos, tachycardia, atrial fibrillation, lacrimation, photophobia, pressure in the eyes, diffuse toxic goiter.

Thyrotoxicosis is a clinical syndrome caused by an increase in the level of thyroid hormones in the blood. The abundance of these hormones affects the work of various organs and systems. Patients complain of dry skin, brittle hair, swollen face, eyelids, fingers, and even the whole body may tremble slightly. There is a slight change in temperature, increased nervous excitability, sweating, a feeling of heat and restlessness. There are sudden attacks of muscle weakness. Sleep disorders are observed[1].

The patient has swelling and darkening of the skin of the upper eyelids, lacrimation, photophobia, pressure and feeling of "sand" in the eyes, swelling of the eyes (exophthalmos). With moderate or severe damage to the eye, patients cannot close the eyelids, so damage to the cornea and sclera (ulcer, infection) develops [4].



In some patients, damage to the skin and subcutaneous fat tissue develops on the front surface of the leg. Men sometimes have thickening of the phalanges of the fingers due to tissue swelling. Due to the effect of thyroid hormones on the cardiovascular system, patients are concerned about heart rhythm disorders (tachycardia, extrasystole, atrial fibrillation).

Gastrointestinal disorders are common. Body weight decreases due to accelerated metabolism even with increased appetite. Abdominal pain, vomiting, stool disturbances and sometimes constipation may occur. In severe cases, the liver is affected - its enlargement, pain and, rarely, jaundice are noted[2].

A thyrotoxic crisis can occur under the influence of provoking factors (stressful situations, physical overstrain, infectious diseases, surgery). As a result of the sudden release of large amounts of thyroid hormones into the blood, patients become restless, the body temperature rises significantly, tachycardia increases sharply, breathing becomes more frequent, and blood pressure rises. There are several types of thyrotoxicosis:

I. Thyrotoxicosis caused by an increase in thyroid hormones:

- * Graves' disease (diffuse toxic goiter);
- *Multinodular toxic goiter;
- *Toxic adenoma of the thyroid gland;
- *Thyroid cancer;
- *TSH-producing pituitary adenoma.

II. Thyrotoxicosis caused by the production of thyroid hormones outside the thyroid gland:

- *Chorioepithelioma;
- *Struma ovari (ovarian tumor);
- *Functional metastases of thyroid cancer.

III. Thyrotoxicosis not associated with excessive production of thyroid hormones:

- *Thyrotoxicosis caused by drugs;

Thyrotoxic stage of destructive thyroiditis (subacute, postpartum).

Depending on the severity of the course, mild, moderate and severe forms of thyrotoxicosis are distinguished. In the mild form of thyrotoxicosis, the heart rate does not exceed 100 beats per minute, the loss of body weight does not exceed 5 kg, the eye symptoms are absent or mild. In the average form - the heart rate is 100-120 beats per minute, weight loss - 8-10 kg, pronounced tremor (shaking), an increase in systolic blood pressure and a decrease in diastolic pressure are observed. Without treatment, a severe form develops with long-term thyrotoxicosis. The pulse rate is 120-140 times per minute, weight loss reaches the level of exhaustion, damage to the cardiovascular system, liver and adrenal glands is observed[1].

An increase in thyroid hormones in the blood can be observed for several reasons:

- * as a result of increased production of thyroid hormones in the thyroid gland;
- * as a result of the destruction of thyroid tissue and the release of large amounts of thyroid hormones into the blood;
- *as a result of an overdose of thyroid hormone drugs or a side effect of drug therapy with amiodarone.

Diffuse toxic goiter (Graves' disease) is the most common cause of increased thyroid hormone production. Depending on the nature of the expansion of the thyroid gland, diffuse toxic goiter (diffuse expansion of all parts of the gland) and nodular toxic goiter (focal

enlargement of the thyroid gland) are distinguished. If there is only one node that produces a large amount of hormones, they talk about a toxic adenoma. Diffuse toxic goiter is an autoimmune disease in which antibodies to components of the thyroid gland's own cells appear. Antibodies are special immunoglobulin proteins (Ig) produced by the immune system in response to any foreign agent entering the body to fight it. In this case, the immune system recognizes the thyroid tissue as foreign. These antibodies have a stimulating effect on the thyroid gland, which causes its hyperfunction with an increase in the size, weight and, as a result, the concentration of thyroid hormones in the blood. Antibodies are able to cross the placental barrier and cause thyrotoxicosis in newborns. Therefore, the detection of antibodies in pregnant women is of great importance for the unborn child[3].

Failure in the production of thyroid hormones affects hormonal synthesis in other endocrine glands. Thus, long-term thyrotoxicosis, if not corrected, can lead to the development of infertility or diabetes mellitus.

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PSYCHOLOGICAL CHARACTERISTICS OF ADOLESCENTS IN PARENTAL CARE

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ABSTRACT

The article examines the features of psychological counseling to parents on issues of irresponsibility and lack of independence of teenagers. During consultations between the teacher-psychologist and parents of teenagers, constructive methods of interaction, options for carrying out preventive and educational work with parents of teenagers are offered. With parents and teenagers recommendations on the contents of preventive and educational trainings are given.

Key words: advice, psychological help, prevention.

THE MAIN PART

In scientific and popular literature, the issues of providing psychological support to adolescents and their parents aimed at reducing the contradictions between the desire and desire of adolescents for independence and the psychological reluctance of parents to accept and support this news are discussed. is being done. behavior patterns of their children. Psychological support for parents often consists of helping parents to see the following feature: they are not adequately using the behavior models that they used in earlier periods of their children's lives. For example, in early childhood. We also want to contribute to the discussion on this topic. That is: perhaps not new, but based on the professional experience of the authors of the article, offering the option of organizing psychological support for child-parent relationships. This type of organization is aimed at forming new behavioral models and developing the psychological abilities of the participants of the interaction (adolescents and their parents). A pedagogical psychologist in the school system is a person who must find a balance between all participants of the educational process. expert. One of the important activities of a school psychologist is the psychological support of students. Adolescence is known as one of the most difficult periods in everyone's life. Hormonal changes, changes in leading activities, the search for self and the increased desire to separate from adults make the life of a teenager difficult and full of experiences. We often hear the phrase "they don't want to be responsible and mature". On the other hand, there are parents who turn to the school psychologist and complain about the irresponsibility and initiative of their teenage children.

The topic of separating teenagers from their families, developing their independence and psychological maturity is one of the most popular psychological tips for teenagers themselves and their parents. At the same time, each of the parties applying for psychological consultation has similar requests: teenagers do not understand how they can "prove to their parents that they are already adults", and parents explain that they "do not trust" the psychologist. nothing to the teenager because he is "not completely independent" ... "What responsibilities does the teenager currently have in the family/home?" to the question. Many parents raise their eyebrows in surprise and ask silently or loudly: "Why? He does nothing anyway!" they also do not have the experience of observing the performance of their duties by other family members. The formation of responsible behavior is a long and gradual process, requiring parents to show independence

depending on the abilities of the child according to the age characteristics of the child. It requires the creation of conditions, positive reinforcement in the form of positive evaluation and support in the process of learning independent forms of behavior. It will be more effective if it starts in childhood.

Psychological educational resources allow parents and legal representatives to expand their understanding of methods and methods that help to establish constructive interactions with children and adolescents and create situations that develop and strengthen the independent behavior model of adolescents. At the same time, it is important that the school psychologist remains in the position of an expert who is on the side of the child's interests, rather than delving into the personal or family problems of the parents. If the parents themselves need more in-depth psychotherapeutic help, the educational psychologist should properly refer the clients to certified specialists in the field of family or marital psychotherapy. Working with or only with the adolescent is less effective than joint counseling of the child and parent. The child is part of the family system, which always lives according to its rules and laws. If his behavior changes, the teenager returns to the family where there are specific patterns of behavior. And these schemes encourage the teenager to give up his purchases and "be the same". Child-parent counseling involves the establishment of communication in the parent-child pair, which gives the opportunity to talk, see the other's position and, most importantly, "hear" the emotions accumulated in each party. Such conversations help to identify the most problematic aspects of communication and to determine the "goals of counseling work". The experience of constructive communication can be used by the participants of consultations with parents in the future without the participation of a specialist. If there are difficulties in the relationship between parents and children at the elementary school age and there is no trust, adolescence becomes a "litmus test" for all previous problems.

Summary

Various methods and techniques can be used during psychological prevention. In our professional practice, parenting clubs, problem seminars and discussions aimed at increasing the psychological and pedagogical competence of parents in the field of interpersonal communication are especially popular. The format of the parents' club includes consideration of various topics related to teaching, upbringing, development of children, teaching methods of interaction with the child in conflict situations. Parenting effectiveness classes can be conducted together with children so that they can see the parents' communication style and use the skills they have learned. and each psychologist can choose the most suitable for a specific audience or situation, then the language and content of working with parents should be determined according to reliable scientific data.

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AVTOMOBIL YO'LLARI VA UNDAGI INSHOOTLARNI LOYIHALASH
JARAYONLARINI AVTOMATLASHTIRISH ASOSLARI.

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dotsent*

Annotatsiya: Avtomobil yo'llari mamlakatning muhim boyligi bo'lib, iqtisodiyotning o'sishida asosiy omillardan hisoblanadi. Avtomobil yo'llari va undagi inshootlarni loyihalash jarayonlari avtomatlashtirilmoqda. Loyihalash jarayonini avtomatlashtirish deganda, loyihani bajarish jarayonida uni bajarish usullari va unga bog'lik ishlarni EHM bilan bog'lab olib borish tushiniladi. Loyihalashdagi ijodiy fikr-muloxazalarni inson loyihalashdan olib tashlash ob'ektning matematik modelida o'tkaziladigan tajribalarni EHM bajarganda, uning loyihalash muddati qisqa va tannarxi arzon bo'ladi. Buning uchun ob'ektning matematik modeli universal, aniq va samarali bo'lishi kabi talablarga javob berilishi haqida ma'lumotlar keltirilgan.

Kalit so'zlari: Loyihalash jarayonlarini avtomatlashtirish, ALT, EHM, avtomobil yo'li, CredoCAD, AutoCAD, QMQ.

Annotation: Highways are an important asset of the country and are one of the main factors in the growth of the economy. The processes of designing highways and their structures are being automated. Automating the design process means connecting the methods of execution and of the project. When EHM performs the experiments conducted on the mathematical model of the object being designed, the design time will be short and the cost will be cheap. For this, it is necessary to provide information about whether the mathematical model of the object meets the requirements such as being universal, accurate and effective.

Keywords: Automation of design processes, ALT, EHM, highway, CredoCAD, AutoCAD, QMQ.

Аннотация: Автомобильные дороги являются важным достоянием страны и являются одним из основных факторов роста экономики. Автоматизируются процессы проектирования автомобильных дорог и их сооружений. Автоматизация процесса проектирования означает соединение методов исполнения и сопутствующих работ с ЭУМ во время выполнения проекта. Когда ЕНМ выполняет эксперименты, проводимые на математической модели проектируемого объекта, время проектирования будет коротким, а стоимость будет низкой. Для этого необходимо предоставить информацию о том, соответствует ли математическая модель объекта таким требованиям, как универсальность, точность и эффективность.

Ключевые слова: Автоматизация процессов проектирования, ALT, ЕНМ, шоссе, CredoCAD, AutoCAD, QMQ.

ALT - avtomatlashgan rejimda loyihalash jarayonlarini bajarishga mo'ljallangan. ALT loyihalash, konstruktorlik, texnologik vazifalarni bajaruvchi korxonalarda quyidagi maqsadda

tashkil qilinadi: loyihalana yotgan va ishlab chiqariladigan maxsulotni sifati va texnik iqtisodiy ko'rsatkichlarini oshirishga; loyihalash ob'ektlarining samaradorligini oshirish va tannarxini kamaytirish; loyihalash muddatlarini va mehnat sarfini qisqartirish. Loyihalash jarayonini avtomatlashtirish deganda, loyihani bajarish jarayonida uni bajarish usullari va unga bog'lik ishlarni EHM bilan bog'lab olib borish tushiniladi. Loyihalashdagi ijodiy fikr-muloxazalarni inson loyihalana yotgan ob'ektning matematik modelida o'tkaziladigan tajribalarni EHM bajarganda, uning loyihalash muddati qisqa va tannarxi arzon bo'ladi. Buning uchun ob'ektning matematik modeli universal, aniq

va samarali bo'lishi kabi talablarga javob berishi kerak.

ALT ni tashkil etish uchun quyidagilar zarur:

- matematik usullar va EHMni qo'llash asosida loyihalashni takomillashtirish;
- har xil ma'lumotlarni qidirish, ishlab chiqish va takomillashtirish jarayonlarini avtomatlashtirish;
- optimallashtirish va ko'p variantli loyihalash usullaridan foydalanish;
- loyihalash xujjatlarini bajarish sifatini oshirish;
- loyihalovchining ijodiy mehnatini ijodiy bo'lmagan ishlarni navtomatlashtirish hisobiga oshirish;
- ALT uchun kadrlarni tayyorlash;
- har xil darajadagi va qo'llaniladigan avtomatlashtirilgan tizimlar bilan loyihalash bo'limlarini o'zaro birga harakat qilishi.

ALT inson - mashina tizimidir. EHM yordamida tashkil etilgan va etilayotgan hamma loyihalash tizimlari avtomatlashtirilgan hisoblanadi. ALT ochiq va rivojlanayotgan tizimdir. U birinchidan murakkablashib borayotgan ob'ektlarni ishlab chiqish uchun qulay va iqtisodiy foydalidir. Ikkinchidan xisoblash matematikasi va texnikasining doimiy rivojlanib borishi natijasida u xam birga rivojlanib boradi. ALT ning tarkibiy strukturaviy qismi loyihalashni tashkil qilish

strukturasiga bog'liq bo'ladi. Ular unga tizimcha hisoblanadi. Qo'llanilishiga qarab tizimchalar loyihalovchi va xizmat ko'rsatuvchilarga bo'linadi. Loyihalovchi tizimchada loyihalashning ma'lum bosqichini amalga oshiradi yoki unga aloqador bo'ladi. Xizmat ko'rsatish tizimchasida loyihalovchi tizimchani ta'minlab turish bilan birga, uni olgan natijalarini uzatish va xulosa chiqarish, ro'yxatdan o'tkazish ishlarini bajaradi. Loyihalash yechimini analiz qilishda masalani avtomatlashtirib yechish natijalari asosiy ma'lumot xisoblanadi. U tekshirilayotgan ob'ektga nisbatan qaror qabul qilishga va ma'lum bo'lgan «sintez-analiz-qaror qabul qilish» sxemasi asosida avtomatik loyihalash bosqichini qaytarishga yordam beradi. Texnik ob'ektni loyihalash, bu ob'ektning qabul qilingan shakli ko'rinishida yaratish, o'zgartirish va tasavvur qilish bilan bog'liq bo'ladi. Ob'ektning ko'rinishi yoki uning tarkibiy qismlari ko'rinishi inson tasavvurida, uni ijodiy jarayoni natijasida, inson va EHM ni o'zaro aloqasidan yaratilishi mumkin. Lekin har qanday xolda ham loyihalash uchun topshiriq bo'lishi kerak. Topshiriq-zarur bo'lgan texnik ob'ektning boshlang'ich ma'lumotlari (ko'rinishi, qayerda qanday xolda ishlashi va x.k) kiradi. Ob'ekt xaqida boshlang'ich ma'lumotlar yozuvi oxirida boshqa ma'lumotlar loyihalash yechimi kelib chiqadi.

Loyihalash ma'lumotlar nuqtayi nazaridan, loyihalana yotgan ob'ekt to'g'risidagi ko'rib chiqilayotgan soxasidagi bilimlar xolati haqidagi: o'xshash ob'ektlarni loyihalash tajribasidan loyiha-konstruktorlik va texnologik xujjatlar ko'rinishida olingan ma'lumotlar to'g'risidagi

boshlang'ich ma'lumotlarni o'zgartirish jarayonidir. Nazariy nuqtaiy nazardan loyihalash yechimini qabul qilish, berilgan topshiriqni qoniqtiruvchi loyiha-konstruktorlik yechimini qabul qilish jarayoni demakdir. Loyihalash yo'nalishlari. Ob'yekt xossalarini to'la tasvirlash uchun har xil yo'nalishlar bo'yicha yozuvi qo'llaniladi.

1) Vazifani bajarish yo'nalishi. U o'ziga vazifani bajarish usullarini, ob'ektda o'tayotgan fizikaviy va ma'lumotli xarakterdagi jarayonlarni oladi va o'zida printsiplial, funktsional, strukturaviy, kinematik sxemalarini, ularni to'ldiruvchi xujjatlarni ko'rsatadi.

2) Konstruktorlik yo'nalishi. Unda ob'ektning geometrik shakli va fazodagi o'zaro joylashuvi amalga oshiriladi.

3) Texnologik yo'nalish. Unda konstruktorlik loyihalash natijasini, ya'ni yozilgan usul va vositalar buyicha ob'ektning tayyorlashni amalga oshiradi (SDB ga dastur tayyorlash bilan birga).

Aniq uslubiy sxemadagi avtomatlashtirilgan loyihalash tizimi, berilgan uslubni chiziqli ketma-ketlik ko'rinishida kengaytirish qobiliyatiga ega bo'lishi kerak. Buning uchun hamma uslubiy sxemalarni ishlab chiqish talab qilinadi. ALT tuzish jarayonida aniq texnik tizim topshiriqni olib, bu jarayonning va unda bajariladigan ishlarni ko'rib chiqish kerak. ALT tuzish uchun quyidagi texnik xujjatlarni ishlab chiqiladi: ALT tuzishni tadqiq etish va asoslash; xomaki va texnik loyihasi; ishchi xujjatlar; loyihalashni avtomatlashtirishda seriyali bo'lmagan narsalarni tayyorlash; ishga tushirish.

ALT tuzishni tadqiq etish va asoslashda quyidagi ishlar bajariladi:

1. Loyihalovchi tashkilotni tekshirish. Bunda loyihalash jarayonini avtomatlashtirish imkoniyatlarini va maqsadga muvofiqligi o'rganib chiqilib, asoslanadi va ALT tuzish uchun qaror qabul qilinadi.

2. Tizimga dastlabki talablarni ishlab chiqish va ro'yxatdan o'tkazish. Oldingi bosqichda ALT tuzish uchun qaror qilingan bo'lsa, bu bosqichda kerakli hamma xujjatlar ishlab chiqiladi va tugallanadi.

Buni amalga oshirish uchun quyidagicha bosqichlar bajariladi: texnikaviy topshiriq, xomaki loyiha va texnikaviy loyiha ishlab chiqish. Texnikaviy topshiriqni ishlab chiqishda quyidagi ma'lumotlar tayyorlanadi: nomi va qo'llanilish soxasi; ALT tuzish uchun asos; loyihalash ob'ektining tavsifi; ALT maqsadi va talablar; texnikiqtisodiy ko'rsatkichlari; ALT tuzishni davri va bosqichlari; ALT ni tekshirish ishga tushirish tartibi; ishlab chiqish manbaasi. ALT ni tuzish va uni rivojlantirishni loyihalovchi tashkilot mutaxassislar va ilmiytadqiqot institutlari bilan xamkorlikda amalga oshiradi. ALT ni tuzishda, u o'zida 5 ko'proq tarmoq ifodasini aks ettiradi. SHuning uchun bosh tashkilot uni tuzish va rivojlantirish uchun uslubiy, dasturli, informatsion va tashkiliy ta'minotlarni tashkil qiladi. ALT universal yoki maxsuslashtirilgan bo'lishi mumkin. Universal ALT dan keng yo'nalishda foydalaniladi, shuning uchun uni tuzish qimmat va qiyin, maxsuslashtirilgan ALT esa faqat ma'lum bir yo'nalish uchun ishlab chiqiladi. Har xil masalalarni yechishga qo'yilayotgan talablarni ortib borishi, maxsuslashtirilgan tizimchalarini ortiradi, lekin ular tizimni murakkablashtirib yuborib, samarasiz qilib qo'yishi mumkin. SHuning uchun hozirda universal tizimlarni takomillashtirilib, uni tarkibidagi maxsuslashtirilgan tizimchalar miqdorini kamaytirib boriladi. Uni sifatini aniqlovchi kriteriya sifatida: loyiha yechimining sifatini ortishi; loyihalash vaqtini kamayishi; loyihalash ishini osonlashgani bo'lishi mumkin.

ALT.NING TEXNIK BAZASI Texnik vositalar ta'minoti tizimi ALT ning bazasi hisoblanadi. Foydalanuvchi muxandis u bilan aloqada bo'lib, loyihani turli

masalalarini yechishda texnik ob'ektlarni loyihalashning avtomatlashgan tizimini qo'llaydi.

ALT ni texnik vositalari quyidagicha masalalarni yechishga mo'ljallangan:

- loyiha ob'ekti bayoni to'g'risidagi boshlang'ich ma'lumotlarni kiritish;
- kiritilgan malumotlarni redaksiyalash va tekshirish uchun ularni ekranga chiqarish;
- axborotlarni o'zgartirish (ma'lumotlar shaklini o'zgartirish, qayta kodlash, trantsilyatsiya, arifmetik, mantiqiy operatsiyalarni bajarish, ma'lumotlar strukturasi o'zgartirish);
- turli axborotlarni saqlash;
- oxirgi va oraliq yechimlar natijasini yoritish;
- loyihalovchini tizim bilan masalani yechish vaqtida operativ muloqotini ta'minlash.

Bu masalalarni xal qilishda ALT ni texnik vositalari: protsessorlar, operativ xotira, tashqi eslab qoluvchi qurilma, axborotlarni kiritish va uzatish qurilmasi, mashina grafikasining texnik vositalari, insonni EHM bilan operativ muloqot vositasi, MV ALT ni qo'llanganda unga sarflangan harajatlarni qoplaydimi? MT «ALT» tushunchasiga klasster tuzing? 6 uzoqlashgan terminallar bilan EHM ni aloqasini ta'minlovchi qurilmalarni o'z ichiga oladi. ALT ni texnik ta'minotiga qo'yilgan talablarni to'rtta kategoriyaga bo'lish mumkin: tizimli, funktsional, texnik va ekpluatatsion-tashkiliy. Tizimli talablar-samaradaorlik, universallik, puxtalik, aniqlik, himoyalanganlik, bir vaqtni o'zida bir nechta foydalanuvchilarni birgalikda ishlash imkoniyati va arzonligi. Funktsional talablar-matematik modellar (loyihalash ob'ekti, chizmalar, ob'ektni ishlashi) ni ishlash; loyihalash ishlari va yechimlariga ishlashni qabul qilish; loyiha yechimi va tipik elementlar arxivi va bibliotekasi; axborotlarning puxtaligini ta'minlash uchun ma'lumotlarni qidirish tizimi; grafika tasvirlar va modellar bilan ishlash; alohida uzellarning bir nechtasini bir vaqtni o'zida loyihalash; loyihalash bosqichlarini o'zaro bog'liqligi; loyihachini paketli va dialogli rejimda bir-biriga o'tish imkoniyati bilan loyihalashni har qanday bosqichida o'tib ishlash imkoniyati; loyihalash natijalarini talab qilingan shaklda va hajmda xujjatlashtirish; texnologik jihozlarga natijalarni uzatish imkoniyati. Texnik talablar-ALT vositalarini loyihalash jarayonida ishlanadi: samaradorlik, tezkorlik; axborotlarni kodlashtiruvchi tizimi, ma'lumot va buyruqlarni ichki shakllash imkoniyati; ma'lumotlarni tashqi ifodalash shakllari; ma'lumotlarni ro'yxatdan o'tkazish va yoritish imkoniyatlari; xotira qurilmasi (operativ, doimiy, tashqi) ni hajmini kattaligi; ma'lumotlarni tashuvchilar turi va h.k.lar. Ekspluatatsion-tashkiliy talablar-ALT ga normal sharoitda ishlatish uchun yordamchi jihozlar, ishchi joylari, binolar va shaxsiy tarkibga qo'yiladigan talablardir. Texnik ta'minot strukturasi. ALT texnik ta'minoti belgisi bo'yicha ikkita sinfga bo'linadi: funktsional va strukturali. Funktsional belgisi bo'yicha texnik ta'minot quyidagi guruhlarga bo'linadi: ma'lumotlarni tayyorlash va uzatish; ma'lumotlarni dasturli ishlash; ma'lumotlarni xujjatlashtirish va yoritish; loyiha yechimlarini arxivlashtirish. Ma'lumotlarni tayyorlash va kiritish guruhi, boshlang'ich va normativ ma'lumotlarni birlamchi ishlash va redaksiyalash ishlarini avtomatlashgan loyihalash uchun bajarishga mo'ljallangan. Ma'lumotlarni uzatish guruhi, ALT vositalarini aloqa kanallari orqali masofali aloqani ta'minlash uchun xizmat qiladi. Ma'lumotlarni dasturli ishlash guruhi, raqamli ma'lumotlarni qabul qilish, ularni dasturli ishlash, jamlash; ularni mashina tashuvchilariga, yorituvchilariga va aloqa kanallariga uzatish uchun xizmat qiladi.

Ma'lumotlarni yoritish va xujjatlashtirish guruhi, loyiha yechimlari va so'ralgan ma'lumotlarni tezkor usulda taqdim qilish, hamda loyiha xujjatlari va ob'ektni tayyorlash uchun kerakli ma'lumotlarni uzatish uchun xizmat qiladi. Loyiha yechimlarini arxivlash guruhi, ularni saqlash, nazorat qilish, qayta tiklash va ALT ni loyiha yechimlari, ma'lumotlari, normativ texnik xujjatlarni ko'paytirish uchun xizmat qiladi. Struktura belgisi bo'yicha, ALT ni kompleks vositalari ma'lum sinfdagi ob'ektni loyihalash uchun, ularni ko'paytirish va yo'naltirish uchun ALT ni ma'lum tizimchalarini qo'llashga mo'ljallangan. Dasturiy-uslubiy komplekslar o'z ichiga uslubiy, dasturli ta'minlash kompleksini olib, ular loyiha, boshqaruv va yordamchi ishlarni bajarishga mo'ljallangan.

Bugungi kungacha to'plangan tajribalar shuni ko'rsatadiki, loyihalashda matematik uslublarni va loyihalashning avtomatik tizimlarini qo'llash loyihalalanayotgan ob'ektlarning sifatini oshiradi va qurilish bahosini sezilarli pasaytiradi, shu bilan birga loyihani ishlab chiqish muddatini bir qancha kamaytiradi. Avtomatlashgan loyihalash samarali bo'lishi uchun loyihalashning avtomatik tizimlarida ba'zi bir hisoblarni bajarish va avtomatlashgan loyihalash tizimiga o'tish talab etiladi. Bunda ma'lumot yig'ishdan boshlab ma'lumotlarni qayta ishlash va loyiha-smeta hujjatlarini rasmiylashtirishni tugatishgacha bo'lgan ishlarni o'z ichiga oladi.

Avtomatlashgan loyihalash tizimi (ALT) - tashkiliy-texnik tizim bo'lib, loyiha-qidirish ishlarini texnologiyasini tuzishni ta'minlab beradi, shu bilan birga loyihalashning avtomatik tizimlari va boshqa avtomatlashtirish vositalarini keng qo'llab, belgilangan muddatda eng kam mehnat sarflab eng ma'qul loyiha yechimiga ega bo'lishni ta'minlaydi. Shuni hisobga olish lozimki, avtomobil yo'llarini avtomatlashgan tizimini (AY ALT ni) qo'llash, umuman loyiha ishlarini bajarishda loyihalashning avtomatik tizimlaridan foydalanish, hamma loyihalash jarayonini avtomatlashtirishga olib kelmaydi, chunki avtomatik jarayon deganda inson ishtirokisiz bo'ladigan jarayonlar nazarda to'tiladi. Loyihalashning avtomatik tizimlaridan foydalanish loyihalashdagi ba'zi bir qiyin va murakkab jarayonlarnigina avtomatlashtirish imkonini beradi, masalan qidirish materiallarini

qayta ishlash, ma'lumotlarni qidirish, hisoblashlar, chizma-grafik ishlar. Avtomatik va avtomatlashgan loyihalashni bir biridan alohida tushunish kerak.

Avtomatik loyihalash jarayonida ma'lumotlarni qabul qilish va uzatish boshqaruvchi komandalar muxandis-loyihachi ishtirokisiz avtomatik ravishda amalga oshiriladi. Bunda loyihachi loyiha jarayonining bosh bosqichida ishtirok etadi, ya'ni: loyihalashga topshiriqni tayyorlash va olingan loyiha yechimini baholash va unga keyinchalik o'zgartirishlar kiritish bosqichida. Avtomatlashgan loyihalashda muxandis loyihalovchi bevosita loyiha yechimini ishlab chiqish jarayonida ishtirok etadi va loyihalash jarayonini kerakli o'zanga yo'naltirishi mumkin.

ALT ni qo'llashda katta samaradorlik loyihada eng muxim yechimlar qabul

qilinayotgan bir bosqichda inson har-xil ijodiy faoliyatini avtomatlashtirish natijasida yuzaga keladi (masalan, avtomobil yo'lining o'qini yunalishini tanlashda, bo'ylama kesimda loyiha chizig'ini yotish holatini belgilashda va b.). AY ALT inson va EHM imkoniyatlarini optimal uyg'unlashtirishga imkon beradi. EHM va boshqa texnik vositalar yordamida ALT ma'lumotlarni qidirish, hisoblashlar, chizma-grafik va bosma ishlarini tezlikda bajarishni ta'minlaydi. Loyihalovchi og'ir va murakkab ishlardan ozod bo'lgach o'zining muxandislik faoliyatida ijodiy masalalarga yondashish va e'tibor qaratish imkoniga ega bo'ladi. AY ALT ni tuzishda bizning mamlakatimizda, xuddi shunday xorijda xam uning vazifasiga, tuzilishiga va

foydalanish usuliga nisbatan bir xil shart sharoit belgilanadi. Bunda katta doiradagi masalalar echiladi, shulardan asosiylari quyidagilar hisoblanadi:

- Ob'ekt turi va murakkabligidan, loyihalash bosqichlaridan kelib chiqib EHM va muxandis loyihalovchi o'rtasidagi vazifalarni optimal taqsimlashni aniqlashtirish;

- Hisoblash, chizma-grafik va boshqa ish turlarni avtomatlashtirish uchun dastur ta'minotini yaratish;

- Boshlang'ich ma'lumotlarni olish va ularni qayta ishlashni avtomatlashtirish, birinchi navbatda topografik ishlarni;

- Chizma-grafik ishlarni avtomatlashtirish;

Avtomobil yo'llarini avtomatlashgan loyihalashning ko'pchilik mavjud tizimlari bir xil umumiy prinsiplarga asoslanadi: axborot birligi, tizim birligi, komplekslilik, o'rindoshlilik, rivojlanishlik. Muxandis-loyihalovchi tomonidan ALT texnik vositasi yordamida qurilish ob'ekting matematik modelini tuzish ijodiy jarayonida, bu modelning yutuq va kamchiliklarini tezlikda taxlil qilish loyihalashda yangi sifatli jixatnini aniqlab beradi, ya'ni muxandis loyihalovchi EHM bilan muloqat vaqtida har tomonlama ko'p sonli variantlarni taxlil qiladi, loyiha echimlarini optimallashtirishni amalga oshiradi va natijada keyingi loyihalash ishlari uchun eng maqul variantni tanlab olishga erishadi.

ALT-bu yangi tashkiliy tizim bo'lib, uning asosini uslubiy, dasturiy, axborot, texnik va tashkiliy ta'minot komponentlari tashkil qiladi. ALT darajasida loyihalash hamma loyiha-qidiruv ishlarini qayta qurishni, ya'ni muxandis-texnik xodimlar bilimi va tarkibini radikal o'zgarishini, mavjud loyiha-qidiruv institutlari tuzilishini va loyihalash-qidirish texnologiyalarini o'zgarishini kurib chiqadi. ALT asosiy funksiyasi an'anaviy loyihalash vositalari bilan erishib bo'lmaydigan sifat darajasida loyiha-smeta hujjatlarini ishlab chiqish hisoblanadi.

ALT ni tuzish maqsadi qo'yidagilar hisoblandi:

- loyihalash ob'ektlari sifatini oshirish. Masalan, avtomobil yo'llarni loyihalashni ishlab chiqish, optik silliq trassaga ega bo'lgan, atrof muxit landshafti bilan uyg'unlashgan va loyihani to'ldiradigan eng yaxshi transport-foydalanish sifatlarini ta'minlaydigan echimga ega bo'lish (xarakat qulayligi va xavfsizligi darajasi, xarakat tezligi, etib borish vaqti, o'tkazuvchanlik qobiliyati va boshqalar);

- qurilish ob'ektlari bahosini va materiallarga bo'lgan talabini kamaytirish;

- loyihalash muddatini, mehnat sarfini kamaytirish va loyiha-smeta hujjati sifatini oshirish.

FOYDALANILGAN ADABIYOTLAR

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ACADEMIC MOBILITY EXPERIENCES IN THE ASIA-PACIFIC REGION:
OPPORTUNITIES AND OBSTACLES

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ANNOTATION. This article analyzes academic mobility, one of the systems that has a positive effect on the professional and scientific development of students in the higher education system. The main focus is on studying the achievements of countries with high experience in this system and analyzing the necessary data.

Keywords: academic mobility, advantages and disadvantages of academic mobility, Asia-Pacific region experience, UMAP.

ikkkkkANNOTATION. In the framework of the project, academic mobility was analyzed as one of the systems that have a positive impact on the professional and scientific development of students in the higher education system. The main focus is on studying the achievements of countries with high experience in this system, the analysis of the necessary data.

Keywords: academic mobility, advantages and disadvantages of academic mobility, Asia-Pacific experience, UMAP..

Attracting foreign students to higher education organizations and ensuring the high level of competitiveness of trained personnel is one of the urgent issues today. Academic mobility is the practice of teaching, studying, conducting research abroad, and then returning the teacher or researcher to his/her main educational institution, which has a positive effect in internationally renowned universities and institutes. So it can be said without hesitation that academic mobility plays a positive role in ensuring the intellectual and professional maturity of the student. It is worth noting that within the framework of exchange programs held during the summer and winter holidays, participants can not only solve problems in their educational field (language learning, formation and development of professional skills), but also acquire international communication skills.

The purpose of the study. The scientific recommendations developed as a result of the research of the world experience in ensuring the academic mobility of students are widely used in higher education institutions.

Materials and discussion. Academic mobility is the movement of students and teachers of higher education institutions to another educational or scientific institution within or outside their country for a certain period of time for the purpose of study or teaching. Another definition of academic mobility is the ability to move students or faculty to another higher education institution, domestically or abroad, for a specific academic period for training or research. Students participating in academic mobility programs are usually divided into two groups: so-called free movers - students who go to other educational institutions based on their own initiative and self-

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financing, and student exchange programs, for example, some department, faculty, educational institution or national level organizations (for example, Students participating in Erasmus, Nordplus or Fulbright).

As the Asia-Pacific region, one can understand the academic mobility in the countries of Asia and North and South America, which are part of the Pacific basin. Currently UMAP (**University Mobility in Asia and the Pacific**) seeks to provide greater understanding between members of each other's cultural, economic and social systems through cooperation and increased mobility of university students and staff.

University Mobility in Asia and the Pacific (UMAP) is an association of government and non-governmental organizations representing the higher education sector in Asia and the Pacific. The organization was established in 1991 to promote the exchange of university students and staff in the Asia-Pacific region. Pacific Ocean. In August 1998, the 6th meeting of the UMAP Reference Group was held in Bangkok, and the UMAP Constitution was adopted at the meeting (the Constitution was partially amended in 2001, 2005, 2013 and 2020).

The constitution aims to achieve a better understanding of the cultural, economic and social systems of other countries and regions in the region by expanding cooperation between higher education institutions in each country and region of the Asia Pacific region, and aims to increase the mobility of university students and staff.

UMAP aims to identify and remove barriers to university mobility; promotion of bilateral, multilateral and consortium agreements between universities of member countries and regions; set as a goal the development and support of the credit recognition and transfer system.

In 1999, the Australian Vice-Chancellor's Committee (AVCC) in collaboration with the Australian government organized a conference (Hong Kong in April 1999 and Canberra in September 1999) to invite university members to discuss educational cooperation in the Asia-Pacific region. Interested in Japan, Republic of Korea, Taiwan and Hong Kong. 18 countries participated in the conference in Canberra. A resolution was adopted to name the conference attended by these countries as "Reference Group Meeting" and the meeting became the 1st Reference Group Meeting of UMAP.

The International Secretariat of UMAP was established in April 1998 in Japan (within Komaba Campus, University of Tokyo) and moved to the 1st floor of Plaza Heisei, Tokyo International Exchange Center belonging to International Education Association. Japan (AIEJ) (now Japan Student Services Organization (JASSO)) in May 2001.

UMAP moved to Thailand in March 2006, Taiwan in January 2011, Japan again in January 2016 (within Toyo University), and Canada in January 2021.

The members of UMAP consist of representatives of national higher education institutions from each eligible country/territory and administrative region, forming a consortium of governments, universities and related organizations. In Japan, the UMAP Japan National Committee was established in cooperation with national, state and private university associations as the main participant in the national activities of UMAP.

Individuals are not eligible for UMAP membership, but individual universities from member countries/territories may join UMAP exchange programs.

As of 2021, the UMAP eligible countries/territories are: Countries/territories that pay an annual fee to the UMAP International Secretariat are full members of UMAP and form the UMAP Council.

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Australia, Bangladesh, Brunei, Cambodia, Canada, Chile, People's Republic of China, Ecuador, Fiji, Guam, Hong Kong, India, Indonesia, Japan, Republic of Korea, Kazakhstan, Kyrgyzstan, Laos, Macau, Malaysia, Mexico, Mongolia, Myanmar, New Zealand, Papua New Guinea, Peru, the Philippines, Reunion Island, Russia, Samoa, Singapore, Taiwan, Thailand, Timor-Leste, USA, and Vietnam will participate as member states.

Under the UMAP Student Mobility Program, student exchange is enhanced and facilitated between individually accredited higher education institutions or consortia of institutions based on mutual acceptance of national accreditation determinations.

According to its purpose, UMAP implements semester programs and summer programs for student exchange and Research Net for academic cooperation. Participating universities are expected to waive tuition fees for UMAP semester exchange students and provide credit toward the students' home university degree for study during the exchange. In terms of research networking, researchers, academics and staff from participating universities of UMAP member countries/territories are encouraged to collaborate with each other in cross-border higher education, as well as explore opportunities to facilitate connections. and mutual understanding between cultures.

The UMAP Credit Transfer Scheme (UCTS) was developed to encourage student mobility and simplify the process of transferring credits received in exchange programs abroad.

The UCTS credit scoring scale makes it easy to convert credits between different scoring systems. It is based on the total teaching hours for the academic term (ie the length of a semester or short program) and the number of hours students are expected to participate in extracurricular activities, including the following activities. homework, reading assignments, group projects, final writing, and other program requirements. One UCTS credit hour is equal to 38-48 hours of student training, of which 13-16 hours are classroom instruction.

We studied the content, forms, methods and means of organizing academic mobility of students in US universities. Approaches to the Organization of Academic Mobility of Students in US Universities First of all, it should be noted that, as a rule, the principles of internationalization and openness are clearly expressed in the educational missions of US universities. For example, the mission of the University of Southern California states that men and women of all races, religions, and backgrounds have access to education. The mission of Harvard University is to spread good literature and art. and science can contribute to the education of the young generation of this country. The university strives to impart knowledge, encourage students to acquire competencies, encourage students to respect ideas and express them freely. Studying at the university allows students to develop their abilities, interests, and intellectual potential, and the support provided by the university is the basis for forming self-confidence and the habit of learning throughout life. The mission of Harvard University, the principle of lifelong learning is important in its activities. This principle, which applies to US universities, means that people can acquire or update knowledge that they once lacked during their lifetime. knowledge conditioned by personal, social, cultural or economic conditions, in accordance with the principles of completeness and transparency of information on the Columbia and Harvard University websites, information on study abroad programs, internships and summer schools is widely and easily presented. This information mainly covers four areas: non-academic administrative information (e.g. visa and residence permit issues), academic information (study period, class schedule, etc.), student expenditure information (i.e. the student's financial needs, his daily budget, housing). The main

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countries where students come to study at Columbia University are China (the share of students from this country in the total number of foreign students is 18.3%), South Korea (9.7%), Canada (8.2%), India (7.4%) and France (3.8%). Among the fields of study at Columbia University, international students prefer engineering, public relations, business and social sciences. 79% of foreign students study at the master's and professional level, about 13% at the bachelor's level, and 4% at the American language programs. Lectures, seminars, and laboratory exercises are used to organize the training of students in academic mobility programs. At Columbia University. Tools for organizing the educational process include research resources and information technologies. Columbia University has the largest collection of educational materials in the United States. The university's 22 libraries have a wide range of resources and unique information for students and professors. Columbia University offers a number of opportunities to both its own students and students from other universities to study one of its programs outside the United States. Students are given the opportunity to study foreign languages at both the undergraduate and graduate levels, including some languages not available at other US universities.

Enrichment of the behavioral repertoire of the participants is carried out during the mastering of the training camp program, which allows them to communicate effectively with the residents. It refers to the means of stress relief, self-regulation and improvement of one's functional status; develop communication skills to overcome the language gap and master verbal and non-verbal behavior methods; awareness of differences in cultural dimensions to improve understanding between cultures. The unique perspective of the participant's lifestyle is an important dimension of integration into society and preparation for professional activity in a foreign environment.

At the same time, it is important that not only foreign guests adapt to the educational environment and characteristics of the host country, but also that local students and tutors adapt to the presence of foreigners.

All of the above problems are a solution to bring the positions closer to each other, an agreement, requires clarification and corrections. The Bologna process initiated extensive changes in the higher education system in Europe, which led to the convergence of European countries, their participation in the process of European integration and the enlargement of the European Union.

Summary It should be noted that the idea of creating a single European education system is effective and corresponds to today's realities, but the implementation of this system still requires serious improvement. The main barriers to academic mobility are cultural, social, economic and academic barriers. The Bologna process aims to try to reduce these barriers within the European Higher Education Area (EHEA). Studying in academic mobility programs allows students and graduates to improve their knowledge of a foreign language, deepen theoretical knowledge and practical skills, get to know the country better and meet foreign peers. Psychological barriers and challenges are related to aspects of student life such as homesickness or fear of new environment and social environment. Social difficulties usually mean problems communicating with family and friends. The degree to which students feel about certain challenges varies from case to case.

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Samarqand tuman, ipakchi mahalla, 13-sonli umumiy o'rta ta'lim maktabining ingliz tili fani o'qituvchisi

Abstract. this article deals with identification concepts and linguistic picture of the world with vivid examples from prominent linguists who contributed in this sphere. In addition, author provides the main features of emotive words and emotive semantics.

Keywords: *concept, ideal, reality, emotional experiences, emotive words, emotive semantics.*

Language is closely connected with thinking, a person's thought is fixed in language, therefore, when learning a language, especially a foreign one, it is impossible to ignore the culture that grows out of language; only by studying language and culture as a whole, we can understand its features and meaning for native speakers.

The word "concept" seems to be an important element of research primarily in cognitive science, including linguistics. There are different definitions of the concept of "concept". One of the first definitions of the concept belongs to A. Vezhbitskaya: "This is an object from the world of the "Ideal", having a name and reflecting certain culturally conditioned ideas of a person about the world of "Reality" [1]. Yu.S. Stepanov proposed the following definition: "a concept is like a clot of culture in a person's mind; that is, in the form of which culture enters the mental world of a person. And, on the other hand, a concept is something by which a person – an ordinary, ordinary person, not a "creator of cultural values" – enters culture himself, and in some cases influences it. The concept is the basic cell of culture in the mental world of a person. "And if we talk about language, the concept of one word is understood as a set of ideas, concepts, knowledge, associations, experiences that accompany this word" [2]. In this case, the concept is a combination of the dictionary meaning of a word and a person's experience. Unlike the term, "concepts are not only thought, they are experienced. They are the subject of emotions, likes and dislikes, and sometimes clashes. The concept is the main cell of culture in the mental world of man" [2].

Language is the most important way of formation and existence of human knowledge about the world, fixation of the results of cognition in the word [3]. Linguoculturology is a branch of linguistics that arose at the junction of linguistics and cultural studies and explores the manifestations of the culture of the people, which are reflected and entrenched in the language. Its purpose is "to study the ways in which language embodies, preserves and translates culture in its units" [3]. Following V.A. Maslova, we consider national cultural information to be the object of linguoculturology.

The linguistic picture of the world is different from the conceptual or cognitive model of the world. The conceptual picture of the world is a mental reflection of reality and the result of sensory cognition. The linguistic picture of the world is all the information about the external and internal world given in the language. The basis of the conceptual picture of the world is information in concepts, the basis of the linguistic picture of the world is knowledge fixed in words and phrases of specific languages [4]. The conceptual picture of the world differs from the linguistic picture of

the world also in that the conceptual pictures of the world may be different for different people, for example, representatives of different epochs, different social, age groups, different fields of scientific knowledge, etc. People who speak different languages may, under certain conditions, have similar conceptual pictures of the world, and people who speak the same language are different. Consequently, the universal, national and personal interact in the conceptual picture of the world [4]. Since not all concepts have a linguistic expression, the conceptual picture of the world is wider than the linguistic picture. Both verbal and nonverbal types of thinking participate in the conceptual picture of the world.

The key term of linguoculturology is the linguocultural concept. For linguocultural studies, the most acceptable is a broad understanding of the concept, where the cultural concept is an abstract concept [3], “the basic unit of mentality, comprising a figurative representation and a bundle of associations and connotations, represented verbally by linguistic units of different levels (word, phrase, the whole word–formation paradigm, etc.)” [4].

According to G.G. Slyshkin, the concept exists on three levels:

- 1) as a systemic potential, that is, a set of means of appealing to a concept offered to a native speaker by culture, as a linguistic asset accumulated by culture, fixed in lexicography;
- 2) as a subjective potential, that is, a linguistic asset stored in the consciousness of an individual;
- 3) as text implementations, that is, appeals to the concept for specific communicative purposes; this level is the natural existence of the concept, reflecting its property of dialogic orientation [5].

The concept has a complex structure: “on the one hand, everything that belongs to the structure of the concept belongs to it (this is the brief initial part of this article); on the other hand, the structure of the concept includes everything that makes it a fact of culture – the original form (etymology); history compressed to the main features of the content; modern associations; assessments, etc.” [2]. In linguocognitive studies, the structure of the concept receives a field description. The cognitive field has a nuclear peripheral organization and an open structure, a set of explicitly and implicitly expressed components of cognitive structures.

The vocabulary of emotions is a lexis that means emotional experiences, for example, astonishment, fear, joy, sadness, jealousy, anger, satisfaction. Emotional vocabulary is a vocabulary expressing emotional experiences. Emotional vocabulary includes emotionally colored words containing a sensual background. Emotions are an integral part of human life, therefore lexical units denoting emotions are studied in the text.

The lexical meaning of the word is used to: 1) indicate the designated object, phenomenon, process or feature; 2) indicate the attitude to the designated by the speaker; 3) indicate the general type of communicative situations in which this name can be used. In accordance with these assignments, there are three main aspects of the lexical meaning of words:

- the signficative, that is, the main meaning of the word, the relation of the word to the concept;
- denotative, that is, the subject meaning, the relation of a word to a specific subject, situation;
- connotative, that is, the speaker's attitude to the object indicated by the sign, including subjective-evaluative components and a communicative situation [4].

Words can be ambiguous. Polysemy is “the presence of several related meanings in the same word, usually arising as a result of the development of the original meaning of this word” [6]. According to N.Y. Shvedova, the meanings in a polysemous word are capable of forming new semantic units and all these meanings are internally interconnected. A polysemous word is an open system and “the openness of a word consists in its various interactions with other lexical units through word production, synonymy, homonymic repulsions” [7].

An emotive value is a value whose structure contains the seme of emotivity. The emotive meaning depends on the primary conceptual content, on the personal relationship between the speaker and the perceiver. Emotive meaning, like emotions themselves, has many shades. However, the emotive meaning of the word is not individual, but is a generalized reflection of “social emotion”. V.I. Shakhovsky in the “Linguistic Theory of Emotions” noted that the function of the word is important for the expression of emotions, not its meaning; this function is set by the context and conditions of communication. Shakhovsky identified 4 types of emotive semantics of the word:

1) Conceptual correlation. It is fixed in the generalizing function of an emotive word (the process of reflection, generalization and signification is a synchronous process: a person's logical and emotionally–evaluating attitude to the world is reflected in the semantics of the word simultaneously). Emotive words, like all words, tend to the concept.

2) Denotative correlation. The emotive semantics of the word in any case is an indication, albeit a specific one, of the world. Human emotions, as part of the world, are conditioned by certain objective or subjective signs of a denotation – one's own or someone else's for a given word. The denotative correlation of emotives can be direct or biased, but it is the same for all speakers.

3) Emotional correlation. It refers to the correlation of a specific emotive word with a specific social emotion of the reflecting subject.

4) The functional-stylistic correlation of the emotive semantics of the word is manifested in typed and socially conscious situations of using the emotive [8].

The lexis of emotions allows you to reveal the mentality of a feeling person. There are universal and innate emotions that are common to all people. Emotions are connected with the needs of a person; they underlie the motives of his activity. The choice of a vocabulary group with the meaning of “astonishment” is due to the fact that the emotion “astonishment” is part of the basic emotions of a person.

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**VERBALIZATION OF WATER/FIRE CONCEPTS IN THE ENGLISH WORLD
LINGUISTIC LANDSCAPE**

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Annotatsiya: Ushbu maqola ingliz lingvistik landshaftidagi suv va olov tushunchalarini, ularning idiomalar, metaforalar va ramziy tilga chuqur ta'sirini o'rganadi. Tabiatning asosiy elementlari sifatida suv va olov ingliz tilidagi iboralarga chuqur kirib, inson hayoti va madaniyatidagi muhim rollarini aks ettiradi.

Kalit so'zlar: Verbalizatsiya, Suv tushunchalari, Olov tushunchalari, Ingliz tili, Idiomalar, Metaforalar, Lingvistik landshaft.

Annotatsion: This article explores the concepts of water and fire in the English linguistic landscape and their profound influence on idioms, metaphors and symbolic language. As the main elements of nature, water and fire are deeply embedded in English expressions, reflecting their important roles in human life and culture.

Keywords: Verbalization, Concepts of Water, Concepts of Fire, English, Idioms, Metaphors, Linguistic Landscape.

Аннотация: В данной статье исследуются понятия воды и огня в английском лингвистическом ландшафте и их глубокое влияние на идиомы, метафоры и символический язык. Вода и огонь, как основные элементы природы, глубоко укоренились в английских выражениях, отражая их важную роль в человеческой жизни и культуре.

Ключевые слова: вербализация, концепты воды, концепты огня, английский язык, идиомы, метафоры, языковой ландшафт.

INTRODUCTION

In the rich tapestry of the English language, the elements of water and fire occupy prominent roles, weaving their way through idioms, metaphors, and symbolic expressions. These fundamental forces of nature, essential to human survival and deeply embedded in our collective consciousness, offer a versatile lexicon for articulating a wide range of human experiences. From idiomatic expressions that capture the essence of everyday situations to profound metaphors that delve into the depths of our emotions and cultural narratives, the verbalization of water and fire concepts reveals much about our values, fears, and aspirations. This article explores how these elemental forces are verbalized within the English linguistic landscape, highlighting their significance and the myriad ways they enrich our language and communication.

Verbalization of Water and Fire Concepts in the English Linguistic Landscape

The elements of water and fire hold a significant place in the English linguistic landscape, serving as rich sources for idioms, metaphors, and symbolic language. These elements, essential to human existence and deeply embedded in cultural consciousness, are verbalized in diverse and nuanced ways. This article explores how concepts of water and fire are articulated in the English language, revealing their profound impact on communication and expression.

Water: Fluidity and Depth

Water, as a symbol, encompasses notions of purity, change, and sustenance. Its verbal expressions in English reflect these characteristics, often conveying a sense of fluidity and depth.

1. Idioms and Phrases:

- "Bridge over troubled water": This phrase signifies providing support or comfort during difficult times, much like a bridge helps one cross a turbulent river.
- "Water under the bridge": Referring to past events that are no longer significant, this idiom suggests that, like water flowing past a bridge, bygones should be left behind.
- "Pouring water on a duck's back": Describing actions or words that have no effect, this expression alludes to the way water rolls off a duck's waterproof feathers.
- "Like a fish out of water": This idiom depicts a person who feels uncomfortable or out of place in a particular situation.
- "Still waters run deep": Suggesting that a calm exterior may hide a passionate or complex nature, this saying underscores the idea of hidden depths.

2. Metaphorical Use:

- Purity and Cleansing: Water is frequently used to symbolize purification and renewal. Characters in literature may wash themselves in water to signify a fresh start or the cleansing of sins.
- Life and Sustenance: As a vital resource, water symbolizes life and nourishment. Sacred texts and myths often regard water sources as life-giving and sacred.
- Change and Adaptability: The fluid nature of water makes it a powerful symbol for change and adaptability. Expressions like "going with the flow" highlight the importance of flexibility and acceptance of change.

Fire: Passion and Transformation

Fire, with its dual capacity for creation and destruction, is a potent symbol in the English language. Its verbalizations often convey intense emotions, transformation, and energy.

1. Idioms and Phrases:

- "Fight fire with fire": This idiom advises using the same methods as one's adversary, suggesting that aggressive tactics may be necessary to counter aggression.
- "Playing with fire": Warning of the dangers of taking unnecessary risks, this phrase evokes the inherent peril of fire.
- "Out of the frying pan into the fire": Describing a situation where one escapes a bad circumstance only to end up in a worse one, this idiom highlights the escalation of danger.
- "Fire in the belly": This phrase is used to describe someone with strong determination and ambition, suggesting an inner drive that propels them forward.
- "Baptism by fire": Referring to a person's initiation into a new situation under intense pressure, this expression underscores the trial and testing nature of fire.

2. Metaphorical Use:

- Destruction and Rebirth: Fire often symbolizes the cyclical nature of destruction and creation. Myths such as the Phoenix rising from its ashes encapsulate this dual aspect.
- Passion and Energy: Fire is a common metaphor for intense emotions and creative energy. Literary works frequently use fire to symbolize passion, desire, and inspiration.
- Transformation: Fire's transformative power is reflected in its ability to purify and refine. The process of burning can signify the shedding of impurities or a profound personal change.

Cultural and Literary Symbolism

Both water and fire hold significant places in cultural and literary symbolism. Their verbalization in English extends beyond idioms and metaphors, permeating proverbial wisdom and everyday expressions.

- "Blow off steam": An idiom that means to release pent-up emotions, akin to relieving pressure from a heated situation.

- "Keep the home fires burning": Encouraging the maintenance of normalcy and hope during challenging times.

- "Pour cold water on something": To discourage enthusiasm or dampen excitement, similar to dousing a fire with water.

Conclusion

The verbalization of water and fire concepts in English is a testament to their enduring significance in human culture and communication. These elements, through idioms, metaphors, and symbolic language, enrich the linguistic landscape and offer profound insights into human experience. As essential components of life and nature, water and fire continue to shape the way we express our thoughts, emotions, and stories in the English-speaking world.

Methodology

The methodology for exploring the verbalization of water and fire concepts in the English linguistic landscape involves several key steps:

1. Literature Review

A comprehensive review of existing literature on idioms, metaphors, and symbolic language related to water and fire was conducted. This includes examining academic papers, linguistic studies, and cultural analyses to understand the historical and cultural context of these expressions.

2. Data Collection

Sources of Data:

- Dictionaries and Phrasebooks: Sources like the Oxford English Dictionary and various idiom dictionaries were utilized to compile a list of common and significant idioms and expressions related to water and fire.

- Literature and Media: Analysis of literary works, films, and other media where water and fire metaphors are prominently used provided contextual examples.

- Cultural Texts: Sacred texts, myths, and folklore from different cultures within the English-speaking world were reviewed to understand the deeper symbolic meanings of water and fire.

Data Gathering Process:

- Identification of Expressions: Idioms, metaphors, and phrases were identified and cataloged, focusing on those that are widely used and culturally significant.

- Contextual Analysis: Each expression was analyzed in terms of its usage, meaning, and cultural context. Examples from literature and media were used to illustrate these expressions in practice.

3. Thematic Analysis

The collected data was categorized into thematic groups based on the nature of the expressions and their symbolic meanings. Themes included purity and cleansing, life and

sustenance, change and adaptability for water; and destruction and rebirth, passion and energy, transformation for fire.

4. Comparative Analysis

A comparative analysis was conducted to highlight the similarities and differences in the verbalization of water and fire concepts. This involved examining how these elements are used to convey different aspects of human experience and how their symbolic meanings overlap or diverge.

5. Synthesis and Interpretation

The findings from the thematic and comparative analyses were synthesized to draw broader conclusions about the role of water and fire in the English linguistic landscape. Interpretations were made regarding the cultural and psychological significance of these elements in shaping English expressions and communication.

By following this methodology, the study provides a structured and in-depth exploration of how water and fire concepts are verbalized in the English-speaking world, offering insights into their enduring impact on language and culture.

Conclusion

The verbalization of water and fire concepts in the English linguistic landscape reveals the profound and multifaceted roles these elements play in human communication and cultural expression. Through idioms, metaphors, and symbolic language, water and fire articulate a vast array of human experiences, from everyday situations to deep emotional and psychological states.

Water, with its associations of purity, change, and sustenance, provides a linguistic framework for expressing ideas of renewal, adaptability, and essential life processes. Phrases like "water under the bridge" and "still waters run deep" highlight the nuanced ways in which water-related expressions capture the fluidity and depth of human experience.

Fire, symbolizing passion, transformation, and both creation and destruction, offers powerful imagery for conveying intense emotions and transformative experiences. Expressions such as "playing with fire" and "baptism by fire" reflect the inherent risks and rewards associated with this elemental force.

The analysis of these verbalizations underscores the deep cultural and psychological significance of water and fire in the English-speaking world. These elements not only enrich the language but also provide insight into the values, fears, and aspirations that shape human life. By examining the idioms, metaphors, and symbolic meanings associated with water and fire, we gain a deeper understanding of how these fundamental elements influence and reflect the ways we communicate and understand our world.

Ultimately, the enduring presence of water and fire in English expressions highlights their essential role in shaping linguistic and cultural landscapes, offering a testament to their universal and timeless significance.

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SEMANTIC AND STYLISTIC FEATURES OF GRADUAL ANTONYMS IN ENGLISH
AND UZBEK LANGUAGES

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Annotation: Gradual antonyms, also known as gradient or gradual scale antonyms, are pairs of words that represent opposite ends of a scale, with various degrees or levels between them. These antonyms denote a continuum rather than a clear-cut binary opposition. Exploring the semantic and stylistic features of gradual antonyms in both English and Uzbek languages offers insights into their usage, nuances, and cultural implications.

Keywords: Gradual antonyms, Semantic features, Stylistic features, Continuum, Scale of degrees, Semantic positioning, Polysemy.

Аннотация: Постепенные антонимы, также известные как антонимы градиентной или постепенной шкалы, представляют собой пары слов, которые представляют противоположные концы шкалы с различными степенями или уровнями между ними. Эти антонимы обозначают континуум, а не четкую бинарную оппозицию. Изучение семантических и стилистических особенностей постепенных антонимов как в английском, так и в узбекском языках дает представление об их использовании, нюансах и культурных значениях.

Ключевые слова: Постепенные антонимы, Семантические признаки, Стилистические особенности, Континуум, Шкала степеней, Семантическое позиционирование, Полисемия.

INTRODUCTION

Language is a dynamic system, rich in nuances and subtleties that reflect cultural, social, and cognitive intricacies. Among the linguistic phenomena that contribute to this complexity are gradual antonyms. Unlike traditional antonyms, which represent binary opposites, gradual antonyms delineate a continuum, with various degrees or levels between the extremes. This concept is fundamental to understanding the semantic and stylistic intricacies of language in both English and Uzbek.

In this article, we delve into the semantic and stylistic features of gradual antonyms in English and Uzbek languages. By exploring these features, we aim to unravel the intricacies of how language users navigate the continuum of meaning and employ stylistic nuances to convey subtle distinctions in communication. This exploration not only sheds light on the linguistic structure of these languages but also offers insights into the cultural and cognitive underpinnings that shape their usage.

The study of gradual antonyms is particularly intriguing due to its interdisciplinary nature, drawing from fields such as linguistics, psychology, and cultural studies. By examining these antonyms through a semantic and stylistic lens, we can uncover patterns of usage, cultural connotations, and stylistic preferences that contribute to the richness of language in diverse contexts.

In the following sections, we will delve into the semantic features of gradual antonyms, exploring their scale of degrees, semantic positioning, and polysemy. We will then shift our focus to their stylistic features, considering their contextual usage, cultural connotations, and impact on register and tone. Through this comprehensive analysis, we aim to provide a deeper understanding of how gradual antonyms shape linguistic expression and contribute to effective communication in English and Uzbek languages.

As we embark on this exploration, we invite readers to journey with us through the intricate landscape of language, where meanings intertwine, and stylistic choices convey subtle shades of expression. Let us unravel the semantic and stylistic tapestry of gradual antonyms, illuminating the pathways of communication in the rich tapestry of English and Uzbek linguistic traditions.

Main Part

Semantic Features:

1. Scale of Degrees:

Gradual antonyms in both English and Uzbek languages exhibit a scale of degrees, with intermediate terms representing varying levels between the extremes. This scale allows for nuanced distinctions in meaning, reflecting the complexity of concepts expressed by these antonyms.

2. Semantic Positioning:

Gradual antonyms are characterized by their semantic positioning along a continuum. In English, for example, terms like "hot" and "cold" have intermediate terms like "warm" and "cool," while in Uzbek, "иссиқ" and "совуқ" have intermediates like "илиқ" and "салқин." This positioning allows speakers to convey subtle differences in meaning and perception.

3. Polysemy:

Some gradual antonyms display polysemy, with multiple meanings or interpretations. For instance, in English, the word "light" may refer to brightness or weight, while in Uzbek, "ёруғ" may denote both illumination and hopefulness. This polysemy adds layers of complexity to the semantic range of these antonyms.

Stylistic Features:

1. Contextual Usage:

Gradual antonyms are employed in various contexts, including literary, formal, and everyday language. Their usage can evoke different stylistic effects based on the context. For example, expressions like "hot topic" or "cool reception" in English may be used figuratively to convey specific meanings.

2. Cultural Connotations:

The choice of gradual antonyms in language reflects cultural connotations and associations. Certain antonyms may carry cultural significance or evoke particular imagery. Exploring how these antonyms are used in different cultural contexts provides insights into cultural values and perceptions.

3. Register and Tone:

The selection of gradual antonyms can affect the register and tone of communication. Depending on the context, using specific antonyms may convey formality, informality, or emotional undertones. Understanding the stylistic nuances allows speakers to tailor their language accordingly.

The methodology employed in examining the semantic and stylistic features of gradual antonyms in English and Uzbek languages involves a multifaceted approach, drawing from various research methods and techniques. Below are the key components of the methodology:

1. Literature Review:

Conducting a comprehensive review of existing literature on gradual antonyms, semantic analysis, and stylistic features in linguistics provides a foundational understanding of the topic. This involves exploring academic journals, books, and scholarly articles that discuss related concepts and theories.

2. Corpus Analysis:

Analyzing linguistic corpora containing texts in both English and Uzbek languages allows for the identification of gradual antonyms and their usage patterns. This involves compiling a corpus of written and spoken texts, annotating instances of gradual antonyms, and examining their semantic and stylistic contexts.

3. Semantic Analysis:

Employing semantic analysis techniques, such as componential analysis and semantic field theory, helps uncover the underlying meanings and relationships between gradual antonyms. This involves identifying semantic features, examining semantic shifts, and exploring the connotations associated with these antonyms.

4. Stylistic Analysis:

Conducting stylistic analysis involves examining the stylistic choices made by language users when employing gradual antonyms in different contexts. This includes analyzing register, tone, figurative language, and rhetorical devices used alongside gradual antonyms to convey specific meanings and evoke particular effects.

5. Comparative Analysis:

Comparing the usage of gradual antonyms in English and Uzbek languages allows for cross-linguistic insights into semantic and stylistic differences and similarities. This involves identifying commonalities and divergences in usage patterns, cultural connotations, and pragmatic functions across languages.

6. Qualitative Research:

Incorporating qualitative research methods, such as interviews or surveys, with native speakers of English and Uzbek languages provides additional insights into the perception and usage of gradual antonyms in everyday communication. This qualitative data supplements the corpus-based analysis with real-world perspectives.

7. Interdisciplinary Approach:

Adopting an interdisciplinary approach by integrating insights from linguistics, psychology, cultural studies, and communication studies enriches the analysis of gradual antonyms. This interdisciplinary perspective allows for a more holistic understanding of the semantic, stylistic, and cultural dimensions of language use.

By employing a combination of these research methods and techniques, the study aims to provide a comprehensive analysis of the semantic and stylistic features of gradual antonyms in English and Uzbek languages. This multifaceted approach facilitates a deeper understanding of how language users navigate the continuum of meaning and employ stylistic nuances to convey subtle distinctions in communication.

In conclusion, the examination of the semantic and stylistic features of gradual antonyms in English and Uzbek languages reveals the intricate nature of language and its role in communication. Through a thorough analysis, several key findings emerge:

1. **Semantic Complexity:** Gradual antonyms demonstrate a scale of degrees, allowing for nuanced distinctions in meaning. Their semantic positioning along a continuum reflects the complexity of concepts expressed by these antonyms, while polysemy adds layers of meaning and interpretation.

2. **Stylistic Variation:** Contextual usage, cultural connotations, and register influence the stylistic choices made when employing gradual antonyms. The selection of specific antonyms can convey formality, informality, or emotional undertones, contributing to the richness of language expression.

3. **Cultural Significance:** The choice of gradual antonyms reflects cultural values and associations, highlighting the cultural significance embedded within language. Exploring how these antonyms are used in different cultural contexts provides insights into cultural norms, perceptions, and identity.

4. **Cross-Linguistic Insights:** Comparative analysis between English and Uzbek languages reveals both similarities and differences in the usage of gradual antonyms. This cross-linguistic perspective enhances our understanding of semantic and stylistic variation across languages and cultures.

Overall, the study of gradual antonyms offers valuable insights into the intricate interplay between semantics, stylistics, and culture in language use. By unraveling the semantic nuances and stylistic preferences associated with gradual antonyms, we gain a deeper understanding of how language shapes communication and reflects cultural values and perceptions. Further research in this area can contribute to cross-cultural communication, language education, and the exploration of linguistic diversity.

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Annotatsiya: Maqolada hikoyalarning til o'rganishdagi ahamiyati o'rganiladi va ular jarayonni qanday qilib yanada qiziqarli, samarali va inklyuziv qilishiga urg'u beradi. Til o'rganishga hikoyalarni integratsiyalashgan holda, talabalar yangi tilda chuqurroq va intuitiv bilimga ega bo'lishlari mumkin, bu esa til va madaniy bilimlarni rivojlantirishga yordam beradi.

Kalit so'zlar: kontekstli o'rganish, madaniy immersion, jalb qilish, motivatsiya, tinglash qobiliyatlari, nutq qobiliyatlari, xotirani saqlash.

Annotation: The article explores the importance of stories in language learning and highlights how they can make the process more enjoyable, effective and inclusive. By integrating stories into language learning, students can achieve deeper and more intuitive proficiency in a new language, promoting both linguistic and cultural proficiency.

Key words: Contextual Learning, Cultural Immersion, Engagement, Motivation, Listening Skills, Speaking Skills, Memory Retention.

Аннотация: В статье исследуется важность историй в изучении языка и подчеркивается, как они могут сделать этот процесс более приятным, эффективным и инклюзивным. Интегрируя истории в изучение языка, учащиеся могут достичь более глубокого и интуитивного владения новым языком, способствуя как лингвистическому, так и культурному владению.

Ключевые слова: контекстное обучение, культурное погружение, вовлеченность, мотивация, навыки слушания, навыки разговорной речи, сохранение памяти.

Learning a foreign language can be a challenging yet rewarding endeavor. Among the various methods and techniques employed to facilitate language acquisition, the use of stories stands out as a particularly effective and engaging approach. Stories are not just a form of entertainment; they are a powerful educational tool that can significantly enhance the learning process. Through the rich, contextual, and immersive experiences they provide, stories offer a unique way to grasp vocabulary, understand grammar, and appreciate cultural nuances. This introduction explores the significance of stories in learning foreign languages, highlighting how they can make the process more enjoyable, effective, and comprehensive. By integrating stories into language learning, learners can achieve a deeper, more intuitive command of the new language, fostering both linguistic and cultural proficiency.

Stories play a crucial role in learning foreign languages due to several key benefits:

Contextual Learning: Stories provide a rich context that helps learners understand how words and phrases are used in real-life situations. This contextual learning enhances vocabulary acquisition and helps with retention. When learners encounter new words within a narrative, they can infer meaning from context and remember the words more easily.

Cultural Immersion: Stories often reflect the culture, values, and traditions of the language being learned. This cultural immersion helps learners understand not just the language, but also

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the nuances and subtleties that come with it. Understanding cultural references and idiomatic expressions within stories makes communication more effective and authentic.

Engagement and Motivation: Stories are inherently engaging. They captivate attention and evoke emotions, making the learning process enjoyable and motivating. When learners are emotionally invested in a story, they are more likely to stay engaged and motivated to learn.

Development of Listening and Speaking Skills: Listening to stories in a foreign language helps improve pronunciation, intonation, and rhythm. Repeated exposure to spoken language in stories aids in developing better listening skills. Additionally, retelling stories or discussing them enhances speaking skills, allowing learners to practice fluency and coherence.

Enhanced Memory and Recall: The narrative structure of stories aids memory retention. The beginning, middle, and end structure helps learners recall information more effectively. Associating language with a storyline or characters makes it easier to remember vocabulary and grammar rules.

Grammar in Use: Stories demonstrate grammar in a natural and functional manner. Instead of learning isolated grammar rules, learners see how grammar operates within the flow of a narrative. This practical application helps in understanding and using grammatical structures correctly.

Critical Thinking and Interpretation: Stories often involve elements of problem-solving, prediction, and interpretation. Engaging with these elements enhances critical thinking skills. Learners analyze plot developments, predict outcomes, and interpret characters' motivations, which deepens their understanding of the language.

Adaptability for Different Proficiency Levels: Stories can be adapted to suit different proficiency levels. Simple stories with basic vocabulary can be used for beginners, while more complex narratives with advanced language structures are suitable for advanced learners. This adaptability ensures that learners at all levels can benefit from using stories.

Integrated Skill Development: Reading, listening, writing, and speaking can all be practiced through stories. Reading and listening to stories develop comprehension skills, while discussing or writing about them helps improve expressive skills. This integrated approach promotes overall language proficiency.

Creativity and Imagination: Engaging with stories stimulates creativity and imagination. Learners can create their own stories, which encourages the use of new vocabulary and structures in a meaningful way. This creative process reinforces language learning and fosters a deeper connection with the language.

Incorporating stories into language learning not only enhances linguistic abilities but also makes the process enjoyable and meaningful, leading to more effective and sustained learning.

To explore the significance of stories in learning foreign languages, a comprehensive methodology can be designed to encompass both qualitative and quantitative research methods. Here's a structured approach:

1. Literature Review

Conduct a thorough review of existing literature on the role of stories in language learning. This includes academic journals, books, articles, and previous studies that discuss the impact of narrative techniques on language acquisition. The literature review helps to identify gaps in current research and provides a theoretical framework for the study.

2. Research Design

Develop a research design that includes both experimental and observational methods to gather data.

A. Experimental Study

1. **Participants:** Select a diverse group of language learners at different proficiency levels (beginner, intermediate, advanced).

2. **Materials:** Prepare a set of stories tailored to each proficiency level, ensuring they are culturally relevant and engaging.

3. **Procedure:** Divide participants into two groups – an experimental group (using stories for learning) and a control group (using traditional methods without stories).

4. **Duration:** Conduct the study over a set period (e.g., 3-6 months), with regular assessments.

B. Observational Study

1. **Classroom Observations:** Observe language classes that incorporate storytelling as a primary teaching method. Take detailed notes on engagement levels, interaction, and participation.

2. **Interviews:** Conduct interviews with language teachers who use stories in their curriculum to gather qualitative data on their experiences and observations.

3. **Surveys and Questionnaires:** Distribute surveys to both students and teachers to gather feedback on the effectiveness of stories in language learning.

3. Data Collection

Collect data through multiple sources to ensure a comprehensive analysis.

A. Pre- and Post-Tests

Administer language proficiency tests to both experimental and control groups before and after the study period to measure improvement.

B. Observational Data

Record observations on student engagement, participation, and interaction during storytelling sessions.

C. Qualitative Data

Gather qualitative data from interviews and open-ended survey questions to understand the subjective experiences of participants.

4. Data Analysis

Analyze the collected data using both quantitative and qualitative methods.

A. Quantitative Analysis

1. **Statistical Analysis:** Use statistical tools to analyze test scores and survey responses. Compare the performance of the experimental and control groups to assess the impact of stories on language proficiency.

2. **Engagement Metrics:** Quantify engagement levels based on observational data (e.g., number of questions asked, participation rate).

B. Qualitative Analysis

1. **Thematic Analysis:** Identify common themes and patterns from interviews and open-ended survey responses to understand the perceived benefits and challenges of using stories.

2. **Narrative Analysis:** Analyze the content of stories used in the study to determine their effectiveness in contextual learning and cultural immersion.

5. Interpretation and Discussion

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Interpret the results to draw conclusions about the significance of stories in language learning.

1. Effectiveness: Evaluate whether stories significantly improve language proficiency compared to traditional methods.

2. Engagement and Motivation: Discuss how stories influence student engagement and motivation.

3. Cultural and Contextual Learning: Analyze the role of stories in enhancing cultural understanding and contextual language use.

6. Conclusion and Recommendations

Summarize the findings and provide recommendations for incorporating stories into language learning curricula.

1. Best Practices: Suggest effective ways to integrate storytelling into language teaching.

2. Further Research: Identify areas for further research based on the study's limitations and findings.

By following this methodology, the study aims to provide a comprehensive understanding of the role and significance of stories in learning foreign languages, backed by empirical evidence and qualitative insights.

In conclusion, stories play a pivotal role in the acquisition of foreign languages by providing rich, contextual learning experiences that enhance comprehension and retention. They immerse learners in the cultural and social nuances of the language, offering a deeper understanding beyond mere vocabulary and grammar. The engaging and motivating nature of stories fosters sustained interest and enjoyment in learning, which is crucial for long-term success.

Stories also contribute to the development of various language skills simultaneously. Listening to and reading stories improves comprehension and pronunciation, while retelling and discussing stories boost speaking and writing abilities. The narrative structure of stories aids memory retention by creating meaningful connections between words and concepts, making it easier to recall and use language in practical contexts.

Moreover, stories offer flexibility to accommodate different proficiency levels, ensuring that learners at any stage can benefit from their use. By integrating stories into language learning curricula, educators can provide a holistic and immersive learning experience that not only enhances linguistic proficiency but also promotes cultural awareness and critical thinking.

In essence, the significance of stories in learning foreign languages lies in their ability to make the learning process more effective, enjoyable, and culturally enriching. By leveraging the power of storytelling, learners can achieve a more profound and intuitive grasp of the new language, fostering both linguistic competence and cultural literacy.

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**ВОЗМОЖНОСТИ И ОГРАНИЧЕНИЯ РАЗВИТИЯ ВНЕШНЕГО И ВНУТРЕННЕГО
ТУРИЗМА В УЗБЕКИСТАНЕ В НАСТОЯЩЕЕ ВРЕМЯ**

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АННОТАЦИЯ

В данной статье рассмотрены факторы развития внутреннего туризма в Республике Узбекистан за последние несколько лет. Проведен анализ динамики развития внутреннего туризма, и его влияния на экономическое и социально-культурное развитие страны. В статье также рассмотрены стратегии и меры, принимаемые правительством Узбекистана для стимулирования внутреннего туризма и привлечения большего числа местных туристов. Анализируются факторы, способствующие росту популярности внутренних туристических направлений, развития инфраструктуры, продвижение туристических маршрутов и культурных событий. Наконец, статья предлагает рекомендации для дальнейшего развития внутреннего туризма в Узбекистане на основе проведенного анализа и выявленных тенденций.

Ключевые слова: внутренний туризм, туризм, социальное развитие, возможности, рост, перспективы, анализ

ABSTRACT

In this article the factors of development of domestic tourism in the Republic of Uzbekistan for the last few years are considered. It analyzes the dynamics of domestic tourism development and its impact on the economic and socio-cultural development of the country. The article also considers the strategies and measures taken by the government of Uzbekistan to stimulate domestic tourism and attract more local tourists. The factors contributing to the growing popularity of domestic tourist destinations, infrastructure development, promotion of tourist routes and cultural events are analyzed. Finally, the article offers recommendations for further development of domestic tourism in Uzbekistan based on the analysis and identified trends.

Keywords: domestic tourism, tourism, social development, opportunities, growth, prospects, analysis

ВВЕДЕНИЕ:

Туризм — выезды (путешествия) физического лица из постоянного места жительства без занятия деятельностью, связанной с получением дохода от источников в стране (месте) временного пребывания. Узбекистан с его богатой историей и культурой, является привлекательным направлением как для внутреннего, так и для внешнего туризма. В последние годы Узбекистан предпринимает активные шаги по развитию туризма. Страна обладает уникальным культурным наследием, включающим древние города, архитектурные памятники, музеи и ремесленные традиции.

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Узбекистан предлагает широкий спектр туристических направлений, от исторических городов, таких как Самарканд и Бухара, до горнолыжных курортов Амирсой. В последние годы Узбекистан предпринимает активные шаги по развитию туризма, осознавая его значимость для диверсификации экономики и создания новых рабочих мест.

Поток туристов в страну стремительно увеличивается. Согласно сообщению Института макроэкономических и территориальных исследований, в 2023 году число иностранных туристов, прибывающих в Узбекистан, достигло 6,6 млн человек. Это свидетельствует о том, что за последние годы количество туристов, посещающих страну, увеличилось в несколько раз²⁵.

Не смотря на развитие туризма в стране, есть и направления, которые стоит развивать для полного удовлетворения потребностей, как и иностранных туристов так и местных. Одной из причин, с которой сталкиваются туристы является неразвитая инфраструктура в стране. Развитие транспортной системы Узбекистана является одним из ключевых факторов, от которого зависит успех туристической отрасли в стране. Решая проблемы с транспортом, Узбекистан может сделать путешествия по стране более комфортными, доступными и безопасными, что привлечет больше туристов, как иностранных, так и внутренних. Согласно постановлению Президента Республики Узбекистан Шавката Мирзиёева “О мерах по развитию инфраструктуры безбарьерного туризма и его стимулированию в Республике Узбекистан”²⁶ в стране поэтапно осуществляются широкомасштабные реформы по решению проблем, связанных с туристской инфраструктурой, повышению качества предоставляемых в сфере услуг. Данное постановление является огромным стимулом для развития удобного передвижения туристов. Это означает создание условий, которые обеспечат свободное передвижение людей с инвалидностью (ЛОВЗ) на объектах туристической инфраструктуры и культурного наследия.

Во всем мире сервис, предлагаемый в отелях, в ресторанах и местах обслуживания гостей и туристов играет немало важную роль. Но Узбекистан еще в стадии развития сервиса в целом в стране. Ниже приведены факторы, влияющие на сервис в стране.

Для решения данной проблемы правительство принимает решения для повышения квалификации сотрудников сфере туризма. Одним из таких решений является

Факторы	Описание
Недостаточная подготовка персонала	Во многих случаях сотрудники сферы обслуживания не имеют достаточной подготовки и навыков для обеспечения высокого уровня обслуживания. Это может выражаться в незнании иностранных языков, неумении решать конфликтные ситуации, несоблюдении стандартов сервиса.

Постановление Президента от 26.04.2023 г. «О дополнительных мерах по ускоренному

²⁵ <https://daryo.uz/ru/2024/03/31/v-2023-godu-v-uzbekistan-posetili-66-mln-turistov>

²⁶ <https://lex.uz/ru/docs/6759708>

Низкая культура обслуживания	В целом, культура обслуживания в Узбекистане находится на более низком уровне, чем в западных странах. Это означает, что сотрудники не всегда приветливы, вежливы и внимательны к клиентам.
Недостаточная конкуренция	В некоторых сферах бизнеса конкуренция недостаточно развита, что приводит к тому, что компании не стремятся к улучшению качества обслуживания.

развитию туристского потенциала Республики, а также дальнейшему увеличению количества местных и иностранных туристов»²⁷

Туризм, как и внутренний так и внешний благоприятно сказывается на социальном положении нашей страны. Благодаря развитию внутреннего туризма, стремительно растет межкультурное взаимоотношение жителей внутри страны, стимулируя обмен опытом, традициями и идеями, что, в свою очередь, способствует укреплению национальной идентичности и повышению уровня социальной сплоченности.

Внешний туризм также играет важную роль в развитии социальной сферы. Он способствует:

- **Повышению имиджа страны на международной арене:** Посетители, делаясь своими впечатлениями о стране с друзьями и близкими, могут привлечь новых туристов и инвесторов.
- **Развитию международного сотрудничества:** Туризм стимулирует обмен культурными ценностями, знаниями и опытом между странами, что способствует укреплению мира и взаимопонимания.
- **Сохранению культурного наследия:** Доходы от туризма могут быть направлены на реставрацию исторических памятников и поддержку традиционных ремесел.

Заключение

Исходя из вышеперечисленного следует отметить факт того, что в Узбекистане внутренний и внешний туризм набирают все большие обороты путем совершенствования современных технологий обслуживания, подготовки профессиональных кадров в этой индустрии, культуры обслуживания внутреннего маркетинга. В статье предлагается принять активные меры по реализации новых направлений в туристической сфере, и обеспечение автоматизации при создании условий для людей с ограниченными возможностями в передвижении. Новые направления в туристической сфере Узбекистана

В дополнение к вышесказанному, в Узбекистане можно выделить ряд новых направлений в туристической сфере, которые могут стать драйверами дальнейшего роста:

²⁷ <https://lex.uz/docs/6456788>

Узбекистан обладает уникальными природными ландшафтами, которые могут стать объектами экологического туризма. Это могут быть пустынные зоны, горные регионы, заповедники и национальные парки.

В Узбекистане находятся множество исторических и религиозных памятников, которые могут привлечь туристов со всего мира. Именно религиозный туризм является одним популярных направлений в туризме

Узбекская кухня является одной из самых богатых и разнообразных в мире. Развитие гастрономического туризма позволит познакомить туристов с уникальными кулинарными традициями Узбекистана.

Медицинский туризм: В Узбекистане развивается система здравоохранения, что делает его привлекательным направлением для медицинского туризма.

- **Образовательный туризм:** В Узбекистане есть много престижных университетов, которые могут привлечь иностранных студентов.

Особое внимание следует уделить развитию доступного туризма, который позволит людям с ограниченными возможностями в передвижении путешествовать по стране.

Для этого необходимо:

- **Сделать туристическую инфраструктуру доступной:** Это означает, что необходимо оборудовать транспорт, гостиницы, рестораны и другие объекты инфраструктуры пандусами, лифтами и другими приспособлениями для людей с ограниченными возможностями.

- **Подготовить персонал:** Персонал туристических объектов должен быть обучен работе с людьми с ограниченными возможностями.

- **Разработать информационные материалы:** Необходимо разработать информационные материалы о доступных туристических маршрутах и объектах.

Развитие доступного туризма позволит сделать Узбекистан более инклюзивным и привлекательным для людей с ограниченными возможностями.

В целом, туризм в Узбекистане обладает огромным потенциалом для дальнейшего развития.

Реализация новых направлений в туристической сфере и обеспечение доступности туризма для людей с ограниченными возможностями позволит сделать Узбекистан одним из ведущих туристических направлений в мире.

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FORMATION OF PRAGMATIC COMPETENCES OF STUDENTS - AS A
PEDAGOGICAL PROBLEM

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Annotation. Article own into in students pragmatic formation of competence and him improvement technologies about theoretical and practical actions about information takes and them analysis does Also students pragmatic meanings understanding and development with engage in in detail explained.

Key words: pragmatic competence, structure, pragmatic competence develop, modernization, important value, education process, education quality assessment, language of teaching main purpose.

In the world demand pragmatic competence development methodology improvement efficient technologies education to the process app is reaching Innovative education conditions Future of teachers pragmatic competence development methodology of improvement mechanisms work output, innovative programs based on multimedia electron resources Create and education quality evaluation according to wide wide affairs take is going Such affairs with together, education quality evaluation process and tools improvement, achieved the results determination enable giver mechanisms to practice current achieve ", students knowledge level international standards based on evaluation and English language science o ' school quality to increase about trends to practice app reach works take is going

It is known that the world across study environment, usually to the teachers directed become students pragmatic meanings understanding and development with when engaged in study program language practice lightening for lessons duration minimum time with perform for Created. And real in the world the conversation guess who does situations being studied from the language use possibilities limited. That's it because of I speak a foreign language in teaching pragmatic of competence integration research to do start importance I understood. The language of learning final purpose communication that it was because of this to the goal contribution adding studies pragmatism through transfer is important the world higher education in institutions innovative education future of teachers pragmatic competence development Methodical preparation quality provision, education process modeling, designing, teachers information technologies based on Methodical preparation improvement of students scientific competence increase according to scientific studies take is going That's it in terms of, future of teachers pragmatic competence development methodology improvement Methodical to the degree raising, development level diagnosis done increase, modular education to the road put, information communicativeness activation, future of the teacher professionalism determination according to scientific studies separately importance occupation is doing.

Modern education institutions social active. creative to thinking have person, graduates information to the flow directed qualifications to form, new technologies mastery, independent education is available knowledge deepening and to expand own to the front put

Pragmatic competence - of a person statement (said, written construct an idea) rules interpretation to do and application, statements (opinions) are different communicative functions

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for of communicants (communication) characteristics of the participants and of communication social and cultural to the context according to respectively apply ability is considered

It should be noted that during the last few decades, a number of different models have appeared that describe pragmatic phenomena to one degree or another. Although they differ from each other with their individual perspectives, they have a number of common (common) properties, sides. First of all, the duality of these models is related to the structure. This means that in all such models there is some linguistic (linguistic) or otherwise grammatical component that constitutes the direct code of the statement.

Depending on the purpose of communication, the focus on the contextual use of language (reliance, intendedness) serves as the second component. Bidirectionality of such context and meaning dependence of pragmatic competence is present in all models. observed. This foreign to the language being taught tah c year of recipients pragmatic competence of formation importance shows.

Foreign in the language communicative of competence structural part as pragmatic of competence component composition the following elements into takes:

A. Social component (communication social contexts and communication of participants social roles interpretation do it get ability ; of communication social acceptable style choose get ability);

B. Socio-linguistic (sociolinguistic) component (interlocutor social figure portrait Create for speech statement (social meanings of the register variations and modality) interpretation to do ability)); communication to the goal selected social to roles according to reach for necessary language and speech of means use ability));

C. socio-cultural component (the ability to interpret the information received about the mother tongue and the cultural aspect of the countries of the intended (learned) language in the conditions of intercultural interpersonal interaction;

D. speech component (the ability to interpret the choice of speech genres made by the interlocutor, the cohesion and coherence of the speech statement; the ability to choose and implement speech communication in accordance with the rules of construction of speech communication for the performance of communicative tasks; d) compensatory component (repetition, accuracy /clarification, the ability to fill the gaps and gaps in language and socio-cultural issues by using information - reference in order to make and organize the evaluation relationship to the expressed thought/statement, it is carried out on the basis of teaching the sum of lexical, grammatical and syntactic units of the language. In the research work, four groups of markers are proposed: basic/basic (lexical, mixed, syntactic), descriptive, parallel (vocative), protest expression markers) and discussion and discursive (contrastive, elaborative, inferential, topic change markers). First, we define pragmatics as a central element of pragmatic competence. Pragmatics is the study of how language is used in communication, paying more attention to how it is said rather than what(s) is said. American philosopher Ch. Posted by Morris. The philosopher studied it as a component of semiotics along with semantics and syntax.

The notion that promoting pragmatic competence should begin with increasing the pragmatic awareness of both students and teachers has been at the center of many discussions. Bardovi-Harlig argues that pragmatic awareness should be one of the goals of classroom instruction. If both language learners and teachers realize the importance of pragmatic competence and are active in developing their pragmatic competence, they can make certain improvements in

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the process of teaching and learning English, and it is necessary to improve their pragmatic and communicative competence. First, we need to distinguish between language form and language function in learning and teaching English. Teachers should not be content with just teaching students large amounts of vocabulary and grammar; rather, it is important that they develop some speech situations to provide students with opportunities to use their language skills. And students are required to use all opportunities to apply what they have learned, linguistic or pragmatic knowledge.

Second, when teaching English, teachers should focus on context. In the discussion above, we have seen that the same sentence can have different meanings and functions in different contexts. It is important for teachers to help students understand the unique role of context in language use.

Third, teachers should develop students' sensitivity to cultural differences in teaching English. People from different cultures can understand even the same word differently. Thus, it is acceptable to recognize that culture plays a leading role in the formation of pragmatic competence by increasing pragmatic awareness.

Commenting on communicative skills, Leung (2005) recognizes two distinct elements. These are linguistic skills that include areas such as syntax and phonology, as well as pragmatic skills that reveal the purposeful nature of the interlocutors or parties in the communication process.

"Sociolinguistic competence" used by Bachman (1990) is also one of the main parts of communicative skills and mainly consists of social and cultural rules of discourse.

It should be recognized that since the eighties of the twentieth century, the teaching of foreign languages in Uzbekistan began to move from the theoretical stage to the practical stage. The issue of form (form) in language teaching was formed especially on the basis of grammatical principles, and the dynamic feature of language, communication, communicative competence was found in textbooks in the form of monologue or dialogue in many cases.

As mentioned above, in order to better understand pragmatics both as a science and as a result/consequence of pragmatic competence, it is good to study some rules and ideas of pragmatics. The theory of speech acts is one of the fundamental (most basic) theories of pragmatics.

Pedagogical higher education institutions are distinguished by a wealth of educational materials in various fields of science, which requires a strict approach to all forms of the educational process: practical lesson, lecture, test, exam, pedagogical practice, etc.. A methodically sound, thoughtful teacher requires a creative approach to the educational process.

The existing features in the organization of the work of pedagogical higher education institutions allow this to be done at all stages of education.

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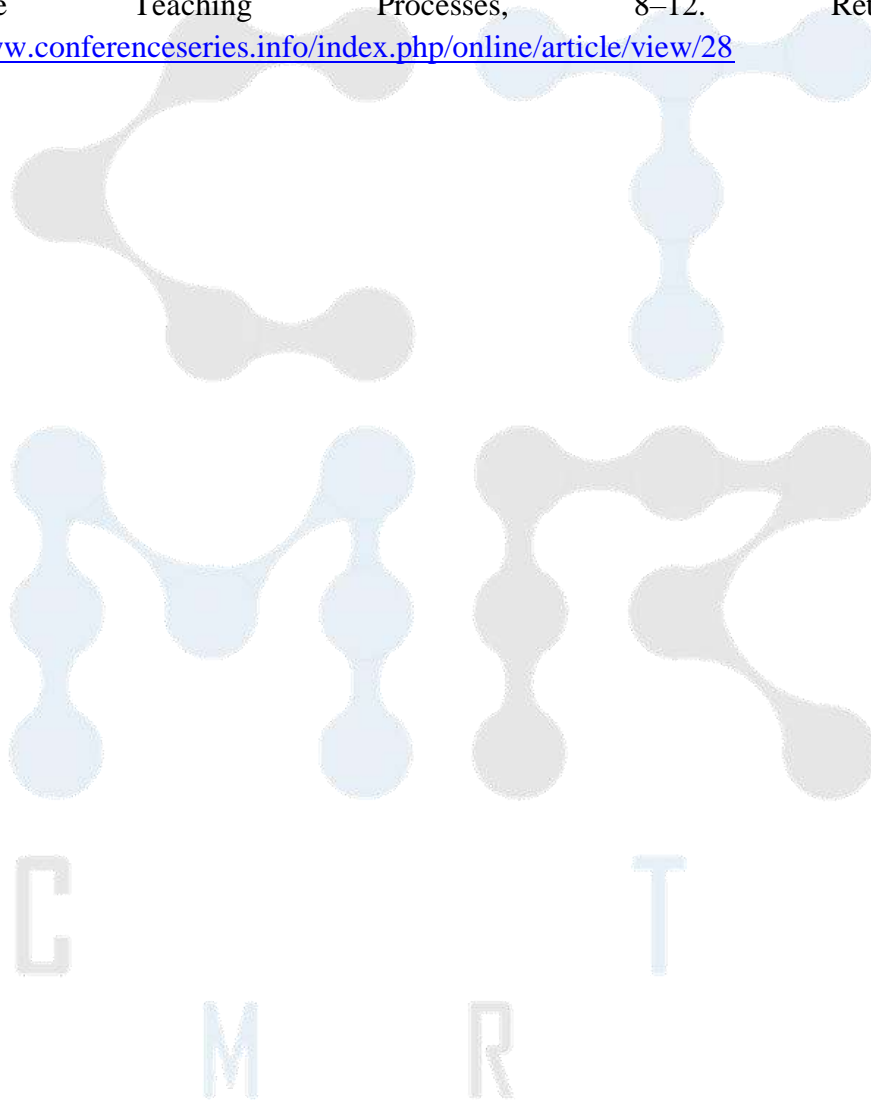
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ATTITUDES TOWARDS WOMEN'S RIGHTS, THEIR CHARACTERISTICS

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Abstract: This article investigates the complex and changing attitudes toward women's rights, looking at their characteristics and influencing factors. This study analyzes historical context, cultural norms, social and economic conditions, and political frameworks to provide a comprehensive understanding of progress and ongoing challenges in achieving gender equality. Drawing on a variety of sources, the article seeks to highlight the multifaceted nature of societal attitudes toward women's rights while also providing insights into future directions for advocacy and policy development.

Keywords: Women's Rights, Gender Equality, Social Attitudes, Cultural Influence, Political Factors, Economic Impact, Historical Perspectives

Introduction

Attitudes toward women's rights have shifted dramatically over time, reflecting larger social, cultural, and political changes. Understanding these attitudes and characteristics is critical for promoting gender equality. This article investigates how historical context, cultural influences, social and economic factors, and political and legal frameworks shape societal attitudes toward women's rights.

Historical Perspectives.

The historical trajectory of women's rights shows a long struggle for equality. Historically, women in many societies were limited to domestic roles and denied basic rights. The suffrage movements of the late nineteenth and early twentieth centuries marked a watershed moment, as women began to demand political and social equality. Key milestones, such as the right to vote and access to education and employment, paved the way for contemporary feminist movement.

Cultural norms and values have a profound impact on attitudes toward women's rights. In patriarchal societies, traditional gender roles frequently limit

women's opportunities. However, cultural shifts resulting from globalization, education, and media have gradually promoted gender equality. Increased representation of women in media and popular culture, for example, has contributed to the challenge of stereotypes and the transformation of public perception. Economic independence is critical for shaping attitudes toward women's rights. Women's increased participation in the labor force has fueled calls for equality in a variety of fields, including politics and education. Economic empowerment has also influenced societal attitudes, with financially independent women challenging traditional power dynamics. Social movements and advocacy groups have been instrumental in raising awareness and promoting legislative and social change.

Political and Legal Frameworks

The political and legal environment has a significant impact on attitudes toward women's rights. Laws promoting gender equality, such as anti-discrimination legislation and equal pay policies, influence public opinion. Women's political representation is also important; higher female participation in politics is frequently associated with more gender-sensitive policies and increased societal acceptance of women's rights.

Contemporary attitudes toward women's rights are more progressive than in the past, but significant challenges still exist. Gender pay disparities, reproductive rights, and gender-based violence remain contentious issues. Public opinion varies greatly depending on geographic location, education, and cultural background. Surveys and studies show that, while many people support gender equality in theory, disparities in practice persist.

Challenges and Future Directions.

True gender equality necessitates addressing persistent issues such as cultural stereotypes, economic disparities, and political resistance. Comprehensive gender education, strong legal protections, and proactive promotion of gender equality are critical. Advocacy and policy development must be intersectional, taking into account the diverse experiences and challenges that women from various backgrounds.

The Republic of Uzbekistan joined 70 international documents in the field of human rights, including the UN Convention on the Elimination of All Forms of Discrimination against Women. The Constitution of the Republic of Uzbekistan stipulates the equal rights of women and men.

Within the framework of the fourth direction of the Action Strategy for 2017-2021, special attention is paid to the issue of women, to the issue of "Raising their social potential". -increasing the political activity of women, strengthening their position in state and community management" is one of the important tasks. Based

on the global sustainable development goals, national goals and objectives have been approved until 2030, one of which is to ensure gender equality.

At the same time, the analysis of national legislation, consideration of the recommendations of UN human rights bodies, Uzbekistan's place in the global gender indices show the need to do great work in this direction. This, in turn, requires conducting scientific research on the further development of international legal cooperation in this direction.

Second, there are no studies devoted to the development of regional cooperation in this regard. In the research conducted in this regard, issues of Uzbekistan's cooperation with organizations such as the UN, the International Food Organization, the World Health Organization, UNESCO, and UNICEF were studied. For example, Uzbekistan's cooperation with the UN, International Labor Organization, World Health Organization, UNESCO and UNICEF in the field of ensuring and protecting women's rights was studied. Scientific works of these scientists are shown in the list of used literature of the dissertation.

The development of international cooperation with international financial institutions (for example, the World Bank and the Asian Development Bank), which have made a significant contribution in this direction, has hardly been studied;

Thirdly, there are very few studies devoted to the national institutional framework, that is, the activities of the Women's Committee of Uzbekistan;

The protection of women's rights is a cornerstone of international human rights law, but the ongoing challenges and violations women face around the world highlight the urgency of the issue. Despite significant progress in gender equality and women's empowerment, systemic discrimination, violence and inequality continue to undermine the rights and freedoms of women and girls globally. In this regard, international legal frameworks play a decisive role in providing norms, standards and mechanisms for the protection and promotion of women's rights.

The prevalence of gender-based discrimination and violence against women underscores the need for strong legal frameworks at the international level. From domestic violence and sexual violence to unequal access to education, health and economic opportunities, women continue to face many obstacles to realizing their rights. The COVID-19 pandemic has exacerbated these issues, with gender-based violence, economic insecurity and the disruption of basic services disproportionately affecting women and girls, underscoring this point.

Furthermore, the intersectional nature of discrimination exacerbates the vulnerabilities of discriminated women, including ethnic and religious minorities, indigenous communities and people with disabilities. Discriminatory laws and

practices perpetuate systemic inequalities, deny women equal rights before the law, and limit their opportunities to participate fully in society.

Conclusion : Historical, cultural, social, economic, and political factors all influence attitudes toward women's rights. While significant progress has been made, additional efforts are required to address the remaining challenges. A nuanced understanding of these attitudes is required for developing effective strategies to promote and protect women's rights, resulting in a more equitable society.

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Ilmiy rahbar: dos., **T.Mamadjanova**

ANNOTATSIYA:

Tadbirkorlik iqtisodiy o'sishni rag'batlantirish vositasi sifatida muhim ahamiyatga ega. Ushbu tadqiqotda tadbirkorlikning iqtisodiy o'sishga ta'siri tahlil qilinadi va uning turli mexanizmlari o'rganiladi. Tadbirkorlik innovatsiyalarni keltirib chiqarishi, ish o'rinlarini yaratishi va resurslarni samarali taqsimlashi orqali iqtisodiy rivojlanishga hissa qo'shadi. Tadbirkorlik muhitining yaxshilanishi, davlat siyosati va infratuzilmaning rivojlanishi orqali bu jarayon yanada tezlashadi. Tadqiqotda shuningdek, tadbirkorlikni rivojlantirish uchun zarur bo'lgan omillar, xususan, ta'lim, moliyaviy qo'llab-quvvatlash va tadbirkorlik madaniyati haqida ham so'z yuritiladi.

Kalit so'zlar: Tadbirkorlik, Iqtisodiy o'sish, Innovatsiyalar, Ish o'rinlari yaratish, Resurslarni taqsimlash, Davlat siyosati, Infratuzilma, Ta'lim, Moliyaviy qo'llab-quvvatlash, Tadbirkorlik madaniyati.

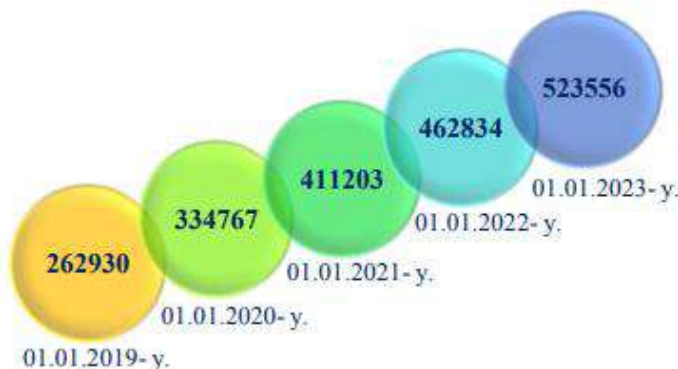
O'zbekistonda o'tgan davr mobaynida kichik biznes va xususiy tadbirkorlikni rivojlantirishning iqtisodiy va huquqiy asoslari yaratilganligini qayd etish joiz. Buning natijasida esa kichik biznes va xususiy tadbirkorlik subyektlarining ijtimoiy – iqtisodiy holati sezilarli darajada yaxshilanib bormoqda. 2022-yil ma'lumotlariga ko'ra respublikada 2782ta davlat ishtirokidagi korxonalar (251ta aksiyadorlik jamiyatlari, 990ta mas'uliyati cheklangan jamiyatlari, 1541ta davlat unitar korxonalari) mavjud bo'lib, ularning YaIMdagi ulushi 55 foiz, eksportda – 36,3 foiz, bandlikda - 18 foiz, soliq tushumida – 41 foizni tashkil etadi.²⁸

Kichik biznes va tadbirkorlikni rivojlantirish davlat tomonidan qo'llab quvvatlanib kelayotganligi tasirida ohirgi 5 yil davomida xususan kichik korxonalar va mikrofirmalar sonida sezilarli darajada o'sish kuzatildi. Unga ko'ra, 2019-yil 1-yanvar holatiga ko'ra respublikamizda faoliyat yuritayotgan kichik turdagi korxonalar va mikrofirmalar soni 262930 tani tashkil etgan bo'lsa, 2023-yilga kelib ushbu ko'rsatkich 260626 taga o'sganini ko'rishimiz mumkin. (1-rasm)

1-rasm. Faoliyat yuritayotgan kichik korxonalar va mikrofirmalar soni

²⁸ O'zbekiston Respublikasi prezidenti huzuridagi statistika agentligi

Tadbirkorlar mamlakatning iqtisodiy o'sishi va jamiyat taraqqiyotida katta rol o'ynaydi.



Mazkur sub'ektlar ishchi kuchi va moliyaviy resurslar salohiyatidan samarali foydalanish orqali iqtisodiy rivojlanish jarayoni uzluksizligini ta'minlasga hamda aholining ishlash va yashash tarzimizni yaxshi tomonga o'zgartirishga juda katta hissa qo'shadilar. Eng muhimi, ular xalq uchun yangi ish o'rinlari va boylik yaratadilar.

Bundan tashqari, tadbirkorlik faoliyatidagi izlanishlar va g'oyalar natijasida **innovatsiyalar** yuzaga keladi. Bu jarayon mahsulotlar assortimentini takomillashtirishga olib keladi, privardida esa, bozorlarda raqobatni rivojlantirishga va sifatli mahsulot ishlab chiqarishga yordam beradi. Bozorni rivojlantirish uchun qo'llaniladigan raqobat ko'nikmalari iqtisodiyotni yaxshilashda muhim rol o'ynaydi. Tadbirkorlik faoliyati mamlakat iqtisodiyotida, qolaversa, aholi turmush darajasini oshirishda muhim ahamiyatga ega bo'lib, quyida keltirilgan afzalliklarga ham egadir:

1. Ish o'rinlarini yaratadi - tadbirkorlar tabiatan ish izlovchilardan farqli ravishda ish beruvchilardir. Biror kishi tadbirkor bo'lsa, iqtisodiyotda ish izlovchi bir kishi kam bo'ladi. Bunga qo'shimcha ravishda, u ish bilan ta'minlaydi yoki boshqa bir nechta ish izlovchilarni beradi. Yangi va mavjud korxonalar tomonidan ish o'rinlarini yaratish iqtisodiy rivojlanishning asosiy maqsadlaridan biridir.

2. Yaxshiroq turmush darajasini rag'batlantiradi - Tadbirkorlik turmush darajasini oshirishning kalitidir. Tadbirkorlar nafaqat ish bilan ta'minlash, balki odamlarning talab va istaklarini ham ta'minlaydi. Ular hayot sifatini yaxshilashga olib keladigan innovatsiyalarni yaratadilar va o'zlashtiradilar. Hayotimizni osonlashtirgan yuqori texnologiyali elektronika, shaxsiy xarid qilish tajribasi, hashamatli avtomobillar va boshqa mahsulotlarning gullab-yashnashi bularning barchasi innovatorlar va tadbirkorlar tufayli turmush darajamizning ko'tarilishi natijasidir.

3. Qo'llab-quvvatlash va boylik almashish - Tadbirkorlik sub'ektini tashkil etish chog'ida tadbirkorlar o'z resurslarini sarmoya qilib, investorlar, kreditorlar va aholidan kapital jalb qiladilar. Bu davlat boyligini safarbar qiladi va odamlarga tadbirkorlar va rivojlanayotgan bizneslarning muvaffaqiyatlaridan foyda olish imkonini beradi. Bunday birlashtirilgan kapital boylikni yaratish va taqsimlashga olib keladi.

4. Muvozanatli hududiy rivojlanishni ta'minlash - Tadbirkor, odatda, eng kam rivojlangan mintaqaga bo'lgan biznesni tashkil qilish uchun arzon bo'lgan joylarni qidiradi. Bu yangi korxonalar va sanoat bo'linmalari hududlar rivojiga xizmat qilmoqda. **Bu oxir-oqibat** infratuzilmani yaxshilashga olib keladi, jumladan yaxshi yo'llar va temir yo'l aloqalari, aeroportlar, barqaror

elektr va suv ta'minoti, maktablar, kasalxonalar, savdo markazlari va boshqa hollarda mavjud bo'lmagan boshqa davlat va xususiy xizmatlar.

5. Eksportni kengaytirish - Korxonalar o'sishi bilan ular oxir-oqibat o'z bizneslarini tashqi bozorlarga kengaytirish uchun eksport qilishni boshlashni xohlashadi. Bu iqtisodiy rivojlanishning muhim asosiy omili hisoblanadi, chunki u katta bozorlarga chiqish imkonini beradi, bu esa pirovardida valyuta oqimiga olib keladi va rivojlangan tashqi bozorlarda qo'llaniladigan ilg'or texnologiyalar va jarayonlarga kirish imkonini beradi.

Tadbirkorlar nafaqat o'z kapitalini investitsiya qiladi, balki bozordan kapitalni ham jalb qiladi. Birlashtirilgan moliyaviy resurs yoki kapital iqtisodiyotda boylik yaratishning asosi bo'lib, mamlakatning ijtimoiy-iqtisodiy rivojlanishiga katta hissa qo'shadi.

Bugungi kunda Respublikamizda tadbirkorlikni davlat tomonidan qo'llab quvvatlash va rag'batlantirish, yengilliklar berish chora tadbirlari sezilarli darajada oshib borayotganligini bir qator qonun va farmonlarning joriy etilayotganligida ham ko'rishimiz mumkin. Xususan, O'zbekiston Respublikasi Prezidentining 2023 yil 10 fevraldagi 21-sonli farmonining 2-bandida 2023-yil 1-apreldan boshlab²⁹:

a) Tadbirkorlik faoliyatini qo'llab-quvvatlash davlat jamg'armasi hisobidan bir yilda bir marotaba o'rta tadbirkorlik subyektlariga mol-mulkni sug'urta qilish xarajatlarining 50 foizigacha, biroq bazaviy hisoblash miqdorining 20 baravaridan oshmagan qismi qoplab beriladi;

b) jami daromadi 10 milliard so'mdan kam bo'lmagan tadbirkorlik subyektlari uchun davlat xaridlarida 20 foizlik kvota joriy etiladi va ushbu xaridlar doirasida budjet buyurtmachilari bilan tuziladigan shartnomalarda 50 foiz miqdorida oldindan to'lovni amalga oshirish nazarda tutiladi.

Bunda, soliq organlari tomonidan jami daromadi 10 milliard so'mdan oshgan tadbirkorlik subyektlari to'g'risidagi ma'lumotlar shakllantiriladi va maxsus axborot portali bilan ma'lumot almashinuvi ta'minlanadi;

v) davlat xaridlarida eng yaxshi takliflarni tanlash va tender savdolarida ishtirokchilar takliflarini baholashda qo'shilgan qiymat solig'i summasi inobatga olinmaydi;

g) yuqori qo'shilgan qiymatli mis mahsulotlarini eksport qiluvchi korxonalarining mahsulotlar ishlab chiqarish va ularni tashqi bozorga sotish bilan bog'liq xarajatlarini eksport qiymatining 6 foizigacha qoplash tartibi bekor qilinishi kabi chora tadbirlar belgilab berilgan.

Xulosa qilib aytganda, tadbirkorlar yangi korxonalar tashkil etish, ish o'rinlari yaratish hamda yalpi ichki mahsulot, eksport, turmush darajasi, malaka oshirish va jamiyatni rivojlantirish kabi muhim sohalarda rivojlanishga hissa qo'shish orqali mamlakat taraqqiyotida juda muhim rol o'ynaydi.

Zero, tadbirkorlar shunchaki biznes qurib, shaxsiy boyliklarini oshirish bilan cheklanib qolmaydi, ular, yangi ish o'rinlari va imkoniyatlar yaratish, innovatsiyalarni rivojlantirish va yangi bozorlar, mahsulotlar va xizmatlarni rivojlantirish orqali iqtisodiyotga ijodiy ta'sir qiladi.

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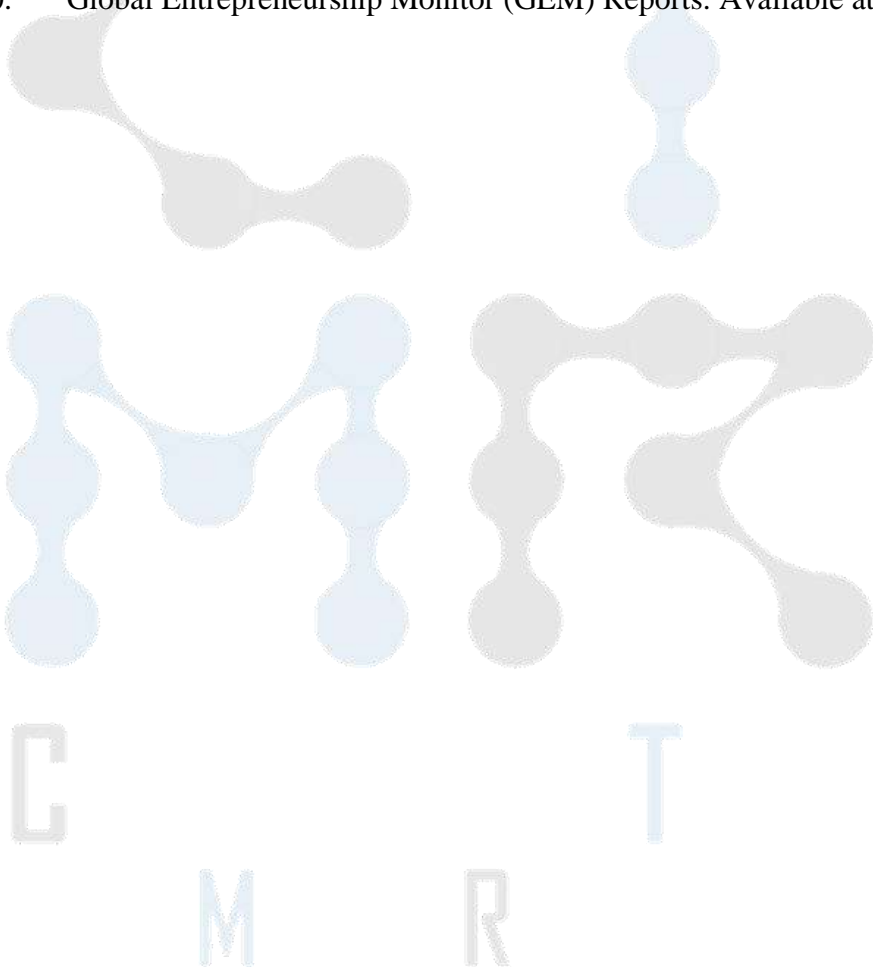
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**TURIZM INDUSTRIYASIDA INNAVATSION MARKETING STRATEGIYALARINI
RIVOJLANTIRISHNING ILG'OR XORIJ TAJRIBALARI**

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Iqtisodiyot (tarmoqlar va sohalar bo'yicha) magistratura mutaxassisligi

Ilmiy rahbar: dos., **Sh Otamurodov**

ANNOTATSIYA:

Turizm industriyasida innovatsion marketing strategiyalarini rivojlantirish global raqobatbardoshlikni oshirish va mijozlarni jalb qilishning muhim vositasidir. Ushbu tadqiqotda turli davlatlarning ilg'or tajribalari tahlil qilinib, ularning muvaffaqiyatli strategiyalari o'rganiladi. Misol sifatida, Singapur, Dubay, Ispaniya va Yangi Zelandiya kabi mamlakatlarning turizm sohasida qo'llanilgan marketing innovatsiyalari ko'rib chiqiladi. Bular orasida raqamli marketing, brend yaratish, mijozlarga yo'naltirilgan xizmatlar, interaktiv texnologiyalar va barqaror turizm amaliyotlari kabi yondashuvlar alohida ajralib turadi. Ushbu strategiyalarni o'zlashtirish va amaliyotga tatbiq etish orqali turizm industriyasini rivojlantirish yo'llari taklif etiladi.

Kalit so'zlar: Turizm industriyasi, Innovatsion marketing, Raqamli marketing, Brend yaratish, Mijozlarga yo'naltirilgan xizmatlar, Interaktiv texnologiyalar, Barqaror turizm, Singapur, Dubay, Ispaniya, Yangi Zelandiya,

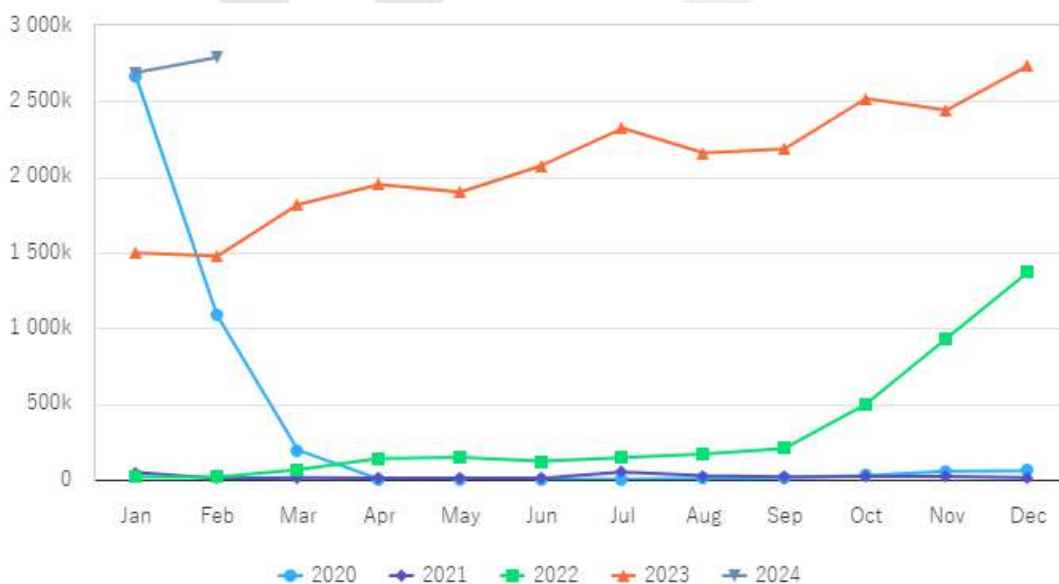
Bugungi turizm industriyasi tez o'zgarishlar va tashrif buyuruvchilarni jalb qilish va ushlab turish uchun innovatsion yondashuvlarni talab qiladigan muammolarga duch kelmoqda. Bunday sharoitda innovatsion turizm raqobatbardosh ustunliklarni yaratish va iqtisodiy o'sishni rag'batlantirishda asosiy o'rin tutadi. Biroq, innovatsion turizmni muvaffaqiyatli rivojlantirish uchun ilhom manbai bo'lishi mumkin bo'lgan tendentsiya va yo'nalishlarni tushunish uchun xorijiy tajribani o'rganish va o'z sohasini takomillashtirish bo'yicha maslahatlar kerak. Innovatsion turizm - bu tashkil etish va ta'minlashga zamonaviy yondashuv, an'anaviy yondashuvlardan farq qiladigan turizm xizmatlari. Odatda yangi texnologiyalarni qo'llash, barqaror va ekologik jihatdan mas'uliyatli turizmni rivojlantirish, o'ziga xos va jozibali turistik marshrutlar va dasturlarni yaratishga asoslanadi. Innovatsion turizm investitsiyalarni jalb qilish, yangi ish o'rinlarini yaratish va mahalliy aholi rivojiga hissa qo'shish orqali sezilarli iqtisodiy samara berishi mumkin. Innovatsion turizm salohiyatini baholash uchun muvaffaqiyatli xorijiy tajribaga murojaat qilish zarur. Ko'pgina mamlakatlar allaqachon innovatsion yondashuvlarni joriy qilgan va sezilarli natijalarga erishgan. Yaponiya, Singapur, Ispaniya, Niderlandiya va boshqa ko'plab davlatlar innovatsion turizmni rivojlantirish uchun foydali saboqlar va g'oyalarni taqdim etuvchi asosiy misollardir. Ular yangi texnologiyalardan foydalanish, virtual va kengaytirilgan reallikdan foydalangan holda turistik diqqatga sazovor joylarni yaratish, ekologik barqaror turizm yo'nalishlarini ishlab chiqish va noyob madaniy va gastronomik tajribalarni taqdim etish kabi ta'sirchan innovatsiyalarni namoyish etadi.

Xorijiy tajribani o'rganish nafaqat innovatsion turizmning asosiy tamoyillari va muvaffaqiyatli amaliyotlarini tushunishga, balki ularni mahalliy sharoit va ehtiyojlarga moslashtirish yo'llarini topishga ham yordam beradi. Xorijiy tajribani moslashtirish mamlakatlar va mintaqalarga har bir hududning xususiyatlari va afzalliklarini hisobga olgan holda innovatsion

turizmni rivojlantirish bo'yicha o'z strategiyalarini shakllantirish imkonini beradi. Bunday yondashuv sayyohlar uchun jozibador va mahalliy aholi uchun foydali turizm sanoatining mutanosib va barqaror rivojlanishini ta'minlaydi. Xorijiy tajribani puxta o'rganish va puxta moslashtirishga katta ahamiyat berilmoqda, chunki ularning hal qiluvchi o'rni kelajakda turizm industriyasining samarali o'zgarishi va barqaror rivojlanishini ta'minlashdan iborat.

Ko'pgina mamlakatlar turizm sohasida innovatsion yondashuvlar va kontseptsiyalardan foydalangan holda sezilarli natijalarga erishdilar. Keling, soha rivojiga ta'sir ko'rsatuvchi innovatsion turizmning muvaffaqiyatli misollari va yo'nalishlarini ko'rib chiqaylik. Innovatsion turizm sohasidagi yetakchi davlatlar virtual va to'ldirilgan reallik, sun'iy intellekt, narsalar interneti va blokcheyn kabi yangi texnologiyalarni faol joriy etmoqda. Misol uchun, Yaponiya tashrif buyuruvchilarga virtual ob'ektlar va personajlar bilan muloqot qilish imkonini beruvchi interaktiv turistik obyektlarni yaratish uchun kengaytirilgan reallik texnologiyasini qo'lladi. Bu nafaqat sayyohlik tajribasini yaxshilaydi, balki turizm sohasida innovatsion kompaniyalar va startaplarning rivojlanishini rag'batlantiradi. Ma'lumot o'rnida shuni aytish mumkinki, Yaponiya Milliy Turizm Tashkiloti (JNTO) ma'lumotlariga ko'ra, 2024 yil fevral oyida Yaponiyaga xalqaro sayohatchilarning soni 2 788 000 kishini tashkil etdi (2019 yilga nisbatan + 7,1%)³⁰.

3.1 rasm. Xorijdagi rezidentlarning Yaponiyaga oylik tashriflari

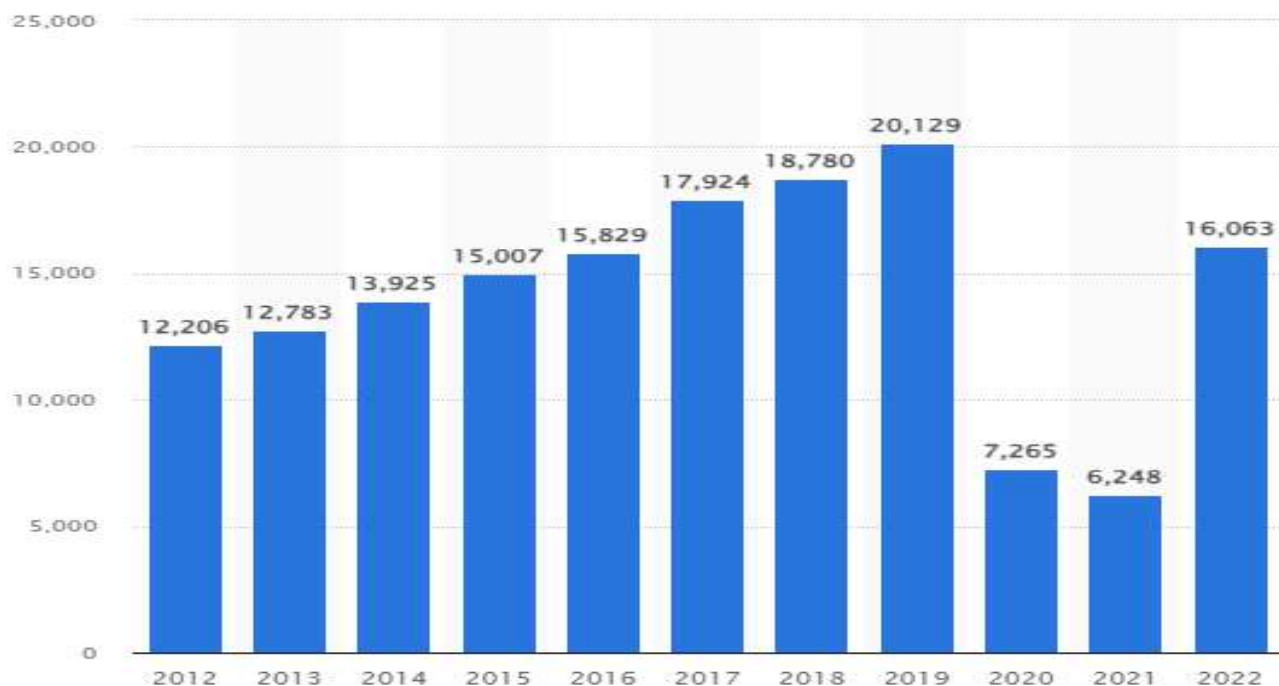


Ko'pgina mamlakatlar atrof-muhit va mahalliy hamjamiyat ehtiyojlarini hisobga olgan holda barqaror turizmni rivojlantirishga intilmoqda. Niderlandiya ushbu yondashuvning muvaffaqiyatli amalga oshirilishiga misol bo'la oladi. Ular "yashil marshrutlar" konsepsiyasini ishlab chiqdilar va sayyohlarni tashishda velosiped va elektr transport vositalaridan foydalanishni targ'ib qilishdi. Bu nafaqat atrof-muhitga salbiy ta'sirni kamaytiradi, balki ekologik toza turizm bilan bog'liq infratuzilma va xizmat ko'rsatish korxonalarini rivojlantirish uchun yangi imkoniyatlar yaratadi. Mamlakatlar madaniy meros va gastronomiyaga asoslangan turizm dasturlarini faol rivojlantirmoqda.

3.2 rasm. 2012 yildan 2022 yilgacha Niderlandiyaga kelgan xalqaro sayyohlar soni (1000 larda)³¹

³⁰ Manba: Yaponiya milliy turizm tashkiloti (JNTO)

³¹ <https://www.statista.com/statistics/report-content/statistic/658819>



Rivojlangan mamlakatlar turizm sektorini tahlil qilish davomida Ispaniyaning ham turistik salohiyatini ko'rib chiqadigan bo'lsak, 2023-yilning yanvaridan avgustigacha Ispaniyaga xorijiy sayyohlar soni sezilarli darajada oshdi, mamlakatga 57,7 million kishi tashrif buyurdi, bu 2022-yilga nisbatan deyarli 20 foizga o'sdi. Ispaniya sayyohlarni jalb qilish uchun madaniy resurslardan muvaffaqiyatli foydalanishning namunasidir. Ular an'anaviy oshxona, musiqa va raqsga bag'ishlangan festival va tadbirlarni tashkil qiladi, tarixiy va madaniy diqqatga sazovor joylar bilan bog'liq noyob sayyohlik marshrutlarini taklif qiladi. Bu noyob sayyohlik mahsulotini yaratish va madaniyat va gastronomiyaga qiziquvchi tashrif buyuruvchilarni jalb qilish imkonini beradi.

Singapur innovatsiyalar hayotning barcha jabhalariga, jumladan, turizmga ham kirib kelgan mamlakatning yetakchi namunasidir. Ular sayyohlarning qulayligi va xavfsizligini ta'minlash uchun zamonaviy texnologiyalar qo'llaniladigan "aqli shahar" kontsepsiyasini ishlab chiqdilar. Bunga avtomatlashtirilgan boshqaruv tizimlari, intellektual transport tarmoqlari, sayohat tajribasini yaxshilash uchun ma'lumotlardan foydalanish va boshqalar kiradi. Aqli shaharlarning rivojlanishi sayyohlar uchun jozibador sharoitlar yaratadi va innovatsion biznes loyihalarni rivojlantirishga yordam beradi.

Xorijiy tajribadan olingan xulosalar mahalliy darajada innovatsion turizmni rivojlantirish uchun qimmatli ma'lumot va ilhom manbai hisoblanadi. Muvaffaqiyatli amaliyot va g'oyalarni o'z sayyohlik yo'nalishining xususiyatlari va ehtiyojlarini hisobga olgan holda moslashtirish iqtisodiy rivojlanishga hissa qo'shadigan va turistik tajribani yaxshilashga yordam beradigan noyob va jozibali turistik mahsulotlarni yaratishga yordam beradi. Xorijiy tajribani moslashtirish turizm sohasida innovatsiyalarni mahalliy darajada qo'llashning asosiy bosqichi hisoblanadi. Bunday holda, ma'lum bir mintaqa yoki mamlakatning xususiyatlarini va ehtiyojlarini hisobga olish kerak. Mahalliy darajada innovatsion turizmni rivojlantirish kontekstida xorijiy tajribani muvaffaqiyatli moslashtirish bo'yicha ba'zi tavsiyalar va yo'nalishlarni ko'rib chiqsak, chet el tajribasini moslashtirishni boshlashdan oldin, bozorni chuqur o'rganish va raqobatchilar tajribasini o'rganish muhimdir. Bu turizmga qanday yangiliklardan foydalanilayotgani va qaysi biri mahalliy

sayyohlar uchun jozibador bo'lishi mumkinligini tushunish imkonini beradi. Raqobatchilarni tahlil qilish o'zlarining raqobatbardosh innovatsion mahsulot va xizmatlarini ishlab chiqish uchun ularning kuchli tomonlari va noyob takliflarini aniqlashga yordam beradi. Xorijiy tajribani moslashtirishda mahalliy xususiyatlar, madaniy qadriyatlar va turizm resurslarini hisobga olish kerak. Ba'zi yangiliklar ma'lum bir madaniyat yoki dinga mos kelmasligi yoki qabul qilinishi mumkin emas. Mahalliy tajribalarning o'ziga xosligi va haqiqiylikini saqlab qolish va turizm taklifini yaxshilashga yordam beradigan innovatsiyalarni joriy etish o'rtasidagi muvozanatni topish muhimdir.

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**KOMPYUTER IMITATSION MODELLAR ASOSIDAGI VIRTUAL
LABORATORIYALARDAN FOYDALANISHNING NAZARIY VA AMALIY
JIHATLARI**

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Annotatsiya. Maqolada kompyuter imitatsion modellar asosida oliy ta'lim muassasalarida "Individual rivojlanish biologiyasi" fanidan yaratilgan virtual resurslardan foydalanishning nazariy va amaliy jihatlari yoritilgan.

Kalit so'zlar. Elektron qo'llanma, virtual laboratoriya, imitatsion model, web-dastur, HTTP, Web-ilova, multimedia, Adobe Flash, Macromedia Flash, animatsiya.

Ta'lim tizimini rivojlantirish, o'quv jarayonlarini takomillashtirish, o'quvchilarni mustaqil bilim olish jarayonini rivojlantirishga doir fanlarning lektron darsliklarini va virtual laboratoriyalarni ishlab chiqish va ta'lim jarayoniga joriy etish dolzarb masalalardan biridir. Bundan ko'zlangan maqsad esa bugungi kunning dolzarb masalalaridan biri hisoblangan ta'lim tizimini yanada zamonaviy shaklda tashkil etish, bunda rivojlangan davlatlar tajribalaridan foydalanish, dunyoning ta'lim sohasi taraqqiy etgan davlatlar bilan raqobat qila oladigan ta'lim tizimini shakllantirishdan iboratdir. Rivojlangan mamlakatlarda ta'lim tizimini axborotlashtirish, ta'lim-tarbiya jarayoniga axborot-kommunikatsiyalarini joriy etish asosiy strategik yo'nalishga aylanib borishi kuzatilmoqda.

Zamonaviy web-dastur ko'plab texnologiyalar, protokollar, metodikalar va vositalarning aralashmasi sifatida yaratilgan, ammo uning ishlashi uchun bir nechta asosiy komponentlar mavjud:

- web ilova va intranet tarmog'larining mavjudligi;
- HTTP (Hypertext Transfer Protocol) protokoli, bu web-ilovaning mijoz va server qismlari o'rtasida ma'lumot almashishning asosiy qoidalarni shakllantiradi.
- web-dastur qismlari o'rtasida uzatiladigan ma'lumotlarning semantikasini, shuningdek foydalanuvchiga kerakli ko'rinishini tavsiflashga imkon beruvchi ma'lumotlarni taqdim etish imkoniyati mavjud.
- ma'lumotlarni dinamik ravishda qayta ishlash va foydalanuvchi tomonidan web-dastur modullaridan so'rovlar va javoblarning dasturiy vositalarini ta'minlaydigan ma'lumotlarni qayta ishlash vositalari mavjud.
- mijozlar va web-ilova o'rtasida bog'lanish nuqtasini, shuningdek HTTP so'rovlarini talqin qilish, ularni qayta ishlash uchun web-dasturni ishga tushirish va mijozga javoblarni yuborish muhitini ta'minlaydigan web-server.
- foydalanuvchi bilan interfaol aloqani amalga oshiradigan, web-dasturning mijoz qismi muhitini amalga oshirishning ommabop versiyasi sifatidagi web-brauzerlarni ishtirokini ta'kidlash joiz [1].

Web-ilovalar odatda ikki turdan iborat bo'lib asosan axborot tizimiga yo'naltirilgandir. Ushbu turdagi dasturlar server tomonidan HTML, XML va CSS kabi tillardagi ma'lumotlarning tayyor taqdimotini shakllantiradi, foydalanuvchining vazifasi (odatda brauzer) ko'rinishni ekranga taqdim etishdan iborat.

Web-ilovalar uchun ishchi muhit internet tarmog'i hisoblanadi. Bunda gipermatnli havolalar bilan bog'langan va ushbu hujjatlarni so'rov bo'yicha HTTP protokoli asosida uzatadigan statik va dinamik sahifalarni saqlaydigan ko'plab web-serverlardan iborat tuzilmadir. WWW tarmog'i internet xizmatlaridan biri hisoblanadi, ammo bugungi kunda ushbu xizmat tugunlar soni va undagi trafik hajmi bo'yicha jadal suratlar bilan o'sib bormoqda.

Umuman internet va xususan www ning ishlashini asosiy xususiyatlari, bu web-ilovalarni foydalanuvchilarga axborot xizmatlarini ko'rsatishning qulay vositasi bo'lib ular:

- tarmoq foydalanuvchining imkoniyatlarini kengaytiruvchi vositadir. Tarmoqni texnologik rivojlanishini amalga oshiradigan bir qator provayderlar mavjud;
- tarmoqning ba'zi tugunlari va segmentlari ishlamas, barcha tugunlar faoliyat olib bora olmaydi;
- tarmoq chegara bilmaydi va kompyuterni tarmoqning turli nuqtalarida bog'lashi mumkin;
- tarmoqni ishlash tamoyillarini keng miqyosda rivojlantirish mumkin.

Masalan, butun internet tarmog'ida ishlatiladigan prinsiplar bo'yicha yopiq korporativ tarmoqlarni keltirish mumkin:

Ta'limni axborotlashtirish o'quv jarayonining samaradorligini oshirish nuqtai nazaridan tubdan o'zgartiradi, o'qituvchining ijodiy salohiyatini ochib berishga, talaba olgan bilimlarning sifati va barqarorligini oshirish imkoniyatini yaratadi. Yangi texnologiyalarni o'zlashtirish nafaqat o'quvchilarda konstruktiv fikrlash qobiliyatini, balki mantiqiy fikrlash qobiliyatlarini ham rivojlantiradi - fikrlash, isbotlash, savollar berish, aniq javob berish, konstruktiv yechimlarni taklif qilish qobiliyati, yangi axborot texnologiyalarini (YaAT) rivojlantirishda asosiy vosita axborot madaniyati talabalarida maqsadli qabul qilish, uzatish, saqlash va kompyuterdan foydalanish sohasidagi inson hayotining sifatli xususiyatlari sifatida rivojlanishdir. Shu bilan birga, talabaning shaxsiy madaniyati va biologik dunyoqarashini shakllantirishda malakali bilimlarni egallashi lozimdir [2].

Shunday qilib, axborotlashtirish sharoitida biologiya ta'limining yo'nalishidagi fanlardan virtual laboratoriyalar yaratish quyidagi zaruriyatni keltirib chiqaradi:

- jamiyatning oliy ta'limi, xususan, biologiya ta'limini AKT asosida yaratilayotgan virtual laboratoriyalar yordamida amaliyotdagi muammolarni yetarli darajada ishlab chiqmaganligi;
- axborot texnologiyalarining tobora jadal suratlar bilan rivojlanib borish imkoniyatlari kompyuterdan foydalanish va umumiy madaniy rivojlanish darajasining pastligi bilan izohlanadi.

Ta'limda axborot texnologiyalarini, shu jumladan, elektron majmuani ishlab chiqishda tizimli yondashuvdan foydalanish zarurati va mavjud bo'lgan bir tomonlama yondashuvni ta'limni axborotlashtirish vositalarining didaktik imkoniyatlarini hisobga olishni talab qiladi.

Keltirilgan qarama-qarshiliklarni e'tiborga olgan holda ushbu tadqiqot muammolari shakllantirildi:

- biologiya yo'nalishidagi fanlarni web-ilovalar asosida o'quv jarayoniga joriy etishda mavjud muammolar va shart –sharoitlar.
- elektron o'quv-uslubiy majmualarni loyihalashtirish jarayonining muhim vazifalaridan biri axborot ta'minoti ko'p funksiyali tizimini dasturiy amalga oshirishdir, uning yordamida o'quv jarayonini kompyuter bilan ta'minlashning turli funksiyalari amalga oshiriladi.

Bunday vositalar elektron darslikning (ED) barcha bo'limlari, unga kiritilgan dasturlarning ishlashi, turli formatdagi elektron hujjatlarning kelishilgan o'zaro ta'sirini amalga oshirishni taqozo etadi.

ED dizayni, interfeys moduli va foydalanuvchilar uchun qulay ko‘rinishdagi vositalari moslashtirilgan bo‘lishi lozim;

- axborotlar bilan bog‘liq (tushunchalar va baholash ma‘lumotlarining elementlari, shaxsiy va semantik mazmuni ta‘minlaydigan muammoli vazifalar) o‘quv materiallarini mazmuniga kiritish;

- talabalarning uslubiy madaniyatini (qonun, model, eksperiment va boshqalar tushunchalarini joriy etish orqali), aks ettirish qobiliyatini (harakatlarni amalga oshirishda taxmin qilish, loyihalashtirish, hisobot berish);

- kursni o‘rganishning individual “yo‘nalishlari” ni yaratish;

kompyuter imitatsion modeli asosidagi virtual resurslardan web-ilova dasturidan foydalanib o‘quv jarayonini tashkil qilishda o‘qituvchi va talabalarning jonli o‘zaro ta‘sirini yuqotmaslik yoki bartaraf etish maqsadida pedagogik jarayonning samarali va psixologik jihatdan qulay vositasini ta‘minlash muhimdir.

Dizaynning birinchi bosqichida kompyuter imitatsion modeli asosidagi virtual resurslardan Web-ilova dasturidan foydalanib o‘quv jarayonini tashkil qilishda o‘quv-uslubiy majmuaning konsepsiyasi, uning tarkibiy qismlarini aniqlash kerak;

- ikkinchidan, biz shaxsiy-gumanitar paradigma bo‘yicha kompyuter imitatsion modeli asosidagi virtual resurslardan web-ilova dasturi yaratish sxemasini ishlab chiqish va kompleks yordamida o‘quv jarayonini tashkil etish texnologiyasini tasvirlashdan iborat.

- uchinchidan, o‘quv-uslubiy majmuaning kompyuter imitatsion modeli asosidagi virtual resurslardan web-ilova dasturidan foydalanishning umumiy tuzilmasi yaratilgan. Murakkab tizimlar o‘rtasida barqaror aloqaga ega bo‘lgan elementlari mavjud bo‘lib ular yagona tizimga birlashtirilgan.

Odatda bu borada kursning metodik ta‘minoti ma‘lum bir shaklda yoki boshqa bir shaklda bo‘lishi kerak bo‘lgan ba‘zi bir majmualarni keltirish mumkin:

- kurs mazmunini aks ettirish, assimilyatsiya darajasiga erishish;

- didaktik materialni, tashkiliy ta‘lim shaklini o‘z ichiga olishi va o‘qituvchiga kerakli assimilyatsiya darajasiga erishishga imkon berishi lozim;

- talabaga har qanday vaqtda uning o‘qishga sarflagan mehnatini samaradorligini tekshirish, o‘zini mustaqil ravishda nazorat qilish va o‘quv faoliyatini to‘g‘rilash imkoniyatini berish;

- o‘quvchining o‘quv faoliyati uchun o‘qituvchi tomonidan obektiv nazorat usulini maksimal darajada oshirish kabilarni qamrab oladi.

mavjud laboratoriyalar quyidagi mavzularni qamrab olgan;

- kompyuter imitatsion modeli yaratilishi lozim bo‘lgan mavzular ketma -ketligi tanlab olinadi.

Har bir mavzuning mazmunidan kelib chiqqan holda uning ichki va tashqi xossalarini namoyish eta oladigan kompyuter imitatsion modellarini fan o‘qituvchisi va dasturlovchilar bilan hamkorlikda kelishib olinadi. Tanlangan mavzu bo‘yicha yaratilishi lozim bo‘lgan kompyuter imitatsion modellarini dizayni va uning hajmiga ham e‘tibor qaratiladi. Masalan, “Individual rivojlanish biologiyasi” fani bo‘yicha yaratilishi lozim bo‘lgan kompyuter imitatsion modellarini ko‘rinishi va mavzuni qamrab olish darajasi va hajmi kabi elementlari pedagogik nuqtai nazaridan talabalarga mos kelishi kerak. Ya‘ni beriladigan kompyuter imitatsion modellari talabalarni zeriktirmasligi, ranglari charchatmasligi va uning mazmuni qiziqarli tarzda namoyish qilinishi

lozim. Asosiy e'tibor shunga qaratilishi lozimki, har bir kompyuter imitatsion modelidan olinadigan tushuncha talabalarni o'zaro muloqot qilishga va pedagoglarga bo'lgan munosabatni o'zgartirishga olib kelishi, ularda bilim olishga bo'lgan qiziqish oshishi kuzatilishi lozim [3].

Aksariyat hollarda talabalarda paydo bo'ladigan savollarni on-layn tarzda berish imkoniyatini yaratish ham yaxshi samara beradi. Bu borada olib borilayotgan ilmiy-tadqiqotlarini ham jadallashtirish maqsadga muvofiq.

"Individual rivojlanish biologiyasi" o'quv fani misolida yaratilayotgan kompyuter imitatsion modellarga e'tibor qaratadigan bo'lsak, bu fan bo'yicha bir qator mavzulardan va laboratoriya mashg'ulotlaridan kompyuter imitatsion modellar yaratilgan. Har bir yaratilgan kompyuter imitatsion modellarda quyidagi elementlar e'tiborga olingan:

Tanlangan mavzuning mazmunidan kelib chiqqan holda uning real holatdagi imitatsiyasini amalga oshiradigan modelni ishlab chiqishga e'tibor qaratilgan. Buning uchun mavzu mazmunini chuqur tahlil qilish va tushunib olish talab etiladi. Fan o'qituvchisi tomonidan amalga oshiriladigan talablardan yana biri mavzuni to'liq bo'lmasada, uning asosiy elementlariga tegishli imitatsiya jarayonlarini tushirib qolmasligiga e'tibor qaratish lozim. Shuning bilan bir qatorda kompyuter imitatsion modellari ko'p vaqtini olmasligi ham muhim hisoblanadi.

Axborot texnologiyalarining dasturiy vositalari asosida yaratiladigan imitatsion modellardan foydalanishning nazariy va metodik jihatlarini o'rganish ko'p jihatdan oliy ta'lim jarayonida mavjud muammolarning yechimlarini topishga zamin hozirlaydi [4].

Ta'lim tizimida zamonaviy axborot texnologiyalaridan foydalanish tahlili shuni ko'rsatadiki, ma'lumotlarning vizual-majoziy taqdimotiga o'tish turli xil ishlanmalarda kuzatiladi.

Bundan tashqari bir qator xorijiy va respublika olimlarining ilmiy-tadqiqotlari tahlil qilinganda KIM asosida virtual resurslar yaratish va ulardan Web-ilova sifatida foydalanish metodikasini yo'lga qo'yish masalalari deyarli tadqiq etilmagan. Dissertatsiyalar va monografiyalarni tadqiq etish natijasida aniqlanishicha, ta'lim jarayonida AKT dan foydalanish xususiy hollarda tadqiq etilgan. Mualliflar muammoning nazariy, ilmiy-uslubiy va pedagogik jihatlarini umumlashtirilgan shaklda ko'rib chiqmaganlar.

Axborotni obrazli taqdim etish bilan zamonaviy axborot texnologiyalaridan foydalanish obrazli fikrlash maqomini sezilarli darajada ko'tarishi, uning rivojlanish darajasini oshirishi, konseptual va majoziy fikrlash o'rtasidagi mavjud munosabatlarni o'zgartirishni taqozo etadi.

Hozirgi kunda zamonaviy kompyuterlar raqamli amallarni bajarish nuqtai nazaridan insonlardan tez va qulay tarzda faol bo'lishni talab qilmoqda. Biroq, inson ma'lumotlarni idrok etish kabi murakkab vazifalarni juda sodda va tezkor ravishda hal qilishi mumkin, masalan, olomon ichida tanib olish, turli xil odamlarning nutqini tushunish, tajribali shifokor kasallikni tashqi ko'rinishi bilan tezda aniqlay olishi va hokazolar. Bu vazifalarning barchasi zamonaviy superkompyuter uchun ham juda qiyin. Bunday muhim farqlarning sababi nimada? Ko'p o'zgaruvchili funksiyalarni ifodalovchi obektlarni modellashtirishda qiyinchiliklar paydo bo'ladi. Ammo inson bunday funksiyalar mavjud bo'lgan domenni qanday modellashtirishni o'zlashtira oladi.

Shaxs turli xil hodisalar, jarayonlar va hodisalarni bashorat qilish uchun domenni imitatsiya qilish qobiliyatidan foydalanadi. Insonning modellashtirish imkoniyati kompyuternikidan butunlay farq qiladigan, modellarning funksiyalar turlariga ta'sir qiladigan biologik neyron tarmoq darajasidagidir. Ushbu tizimlar turli xil tuzilmalarga ega, har xil turdagi vazifalarni hal qilish uchun mo'ljallangan va ularning ish natijalari har xil mezon bilan baholangan

tizimni ifodalaydi. Hozirgi vaqtda ilmiy va amaliy tadqiqotlarda kompyuterni modellashtirish texnologiyasi atrofda reallikni bilishning asosiy usullaridan biri hisoblanadi. Ta'lim maqsadlarida bunday texnologiyalardan foydalanish shaxsga yunaltirilgan va tadqiqotning ta'lim shakllarini ishlab chiqarishni amaliyotga tatbiq etadigan analitik jarayon sifatida qaraladi hamda ta'limning rivojlanishiga sezilarli ta'sir ko'rsatishi mumkin. Ta'lim tizimidagi kompyuterda modellashtirish texnologiyasi ta'lim sifatini sezilarli darajada samaradorligini oshirishi mumkin. AKTdan foydalangan holda o'quv jarayonini takomillashtirish uchun turli xil vositalar, shu jumladan kompyuter imitatsion modellar (KIM) asosidagi virtual laboratoriyalarni ishlab chiqish muhim rol o'ynaydi [5].

Kompyuter imitatsion modellar asosidagi virtual laboratoriyadan foydalanish yetarli darajada xarakteristikaga ega bo'lmagan hisoblash uskunalari yordamida foydalanuvchilar uchun tajribalar o'tkazishga imkoniyat yaratadi. Ushbu yondashuv o'quv jarayoni uchun ham, ilmiy maqsadlar uchun ham katta qiziqish uyg'otadi.

Hozirgi kunda jamiyat hayotida innovatsion sohaning jadal rivojlanishi, iqtisodiyotda intellektual mahsulot, axborot va ilmiy-texnik va innovatsion faoliyat ulushining o'sishi shunga olib keldiki, innovatsiyalar xuddi foydali qazilmalar, ishlab chiqarish quvvatlari va intellektual salohiyat kabi, mamlakatning boyligi hisoblana boshladi. Mamlakatimiz va uning har bir fuqarosi manfaatlarini yo'lida innovatsion va ilmiy-texnik salohiyatdan samarali foydalanishning mamlakatda kompleksli innovatsion siyosatni shakllantirish va uni amalga oshirish uchun qonunchilik asoslari yaratmasdan turib hech ham imkoni yo'q edi. Bozor islohotlarining amalga oshirilishi, mamlakatning jahon hamjamiyatiga integratsiyalashuvi, jahon iqtisodiy tizimining bilimlar va axborot rolining o'sishi tomon o'zgarishi, yangi texnologiyalar va kapital bozori o'rtasidagi aloqalar kuchayishi bilan mamlakatimiz iqtisodiyotining innovatsion rivojlanish yo'liga o'tishi dolzarb ahamiyat kasb etadi. Dunyoning yetakchi rivojlangan va rivojlanayotgan mamlakatlarida rivojlanish umumiy qonuniyatlari va tendensiyalarini bilish, shuningdek, boy tabiiy resurslar, ishlab chiqarish va ilmiy-texnik salohiyatga ega bo'lgan O'zbekistonning o'ziga xos sharoitlarini hisobga olgan holdagina O'zbekistonning innovatsion rivojlanish yo'liga o'tish yo'llari va usullarini ishlab chiqish mumkin. Zamonaviy dunyoda intellektual mahsulotning tijoratlashuvi, fan va texnika rolining tubdan o'zgarishi sababli har bir davlat, shuningdek, alohida korxonalar darajasigacha bo'lgan quyi boshqaruv darajasidagi strukturalar bozor sharoitlarida ilmiy texnik va innovatsion faoliyatga resurslar ajratish, bu faoliyat natijalarini amalga oshirishga o'z munosabati haqida tasavvurga ega bo'lishi, ya'ni mamlakat, mintaqa, tashkilot va alohida shaxsning belgilangan ijtimoiy-iqtisodiy maqsadlariga samarali erishish imkonini beradigan o'z innovatsion siyosatini ishlab chiqishi lozim [6].

Multimedia degan tushuncha haqida so'z yuritilganda ko'z oldimizga harakatlangan hamda tovush orqali bizga ma'lumot yetkaziladigan axborotni tushunamiz, lekin eng avvalo ushbu jarayonni amalga oshirilishini va paydo bo'lishini bilish maqsadning boshi hisoblanadi. Ushbu atama XX asr boshlarida paydo bo'lgan bo'lib hozirda ta'limda o'z o'rnini topgan. Multimediali dastur asosan matn shaklida, video, ovoz hamda taqdimot shakllarda bo'lishi mumkin. Uning qulayliklaridan biri shundaki ma'lumotni qabul qilish oson tez hamda sifatli bo'lishi yanada multimediani imkoniyatlarini namoyon qiladi. Multimedia deganda undagi o'z ichiga oladigan elementlarisiz tasavvur qilib bo'lmaydi. Chunki ushbu vosita elementlarisiz vujudga kelmaydi, ularning eng birinchi asosi bu axborot hisoblanadi, sababi axborot orqali boshqa innovatsion vositalar rivojlanishini ko'rishimiz mumkin. Multimedia deganda undagi modellarni ham esdan

chiqarmaslik kerak zero imitatsion modellar bu multimedia vositalari va maxsus dasturlar orqali hosil bo'lgan natija hisoblanadi. Ana shunday jamiyatda insonga AKT vositalari bilan birga o'rganish jarayonini tezlashtirish uchun kompyuter imitatsion model (KIM) tushunchasi kirib kela boshladi. Ushbu atama nafaqat ta'lim sohasida balki boshqa sohalarda ham qo'llanila boshladi. Shu o'rinda model tushunchasini izoh qilib o'tish kerak [7].

Faqatgina tajribalarning individual parametrlarini o'zgartirishga imkon beradigan appletlar yoki kompyuter modellaridan farqli o'laroq, multimediali elektron qo'llanmalar va virtual laboratoriyalarda yaratilgan kompyuter imitatsion modellar tahsil oluvchiga yanada moslashuvchan, qulay imkoniyatlarni yaratadi.

Oliy o'quv yurtlarida o'qitish usullarini tizimlashtirish katta ahamiyatga ega. Samarali va oddiy tuzilgan tuzilmalar asosida samarali va qulay bo'lgan bilim va malaka darajalarini egallashga imkoniyat yaratadi. Bunday tuzilmalar asosida yaratilgan virtual resurslar va ularning KIM Web-ilova tarzida foydalanilishi tahsil oluvchilarning bilim va ko'nikmalarini rivojlanishiga samarali ta'sir ko'rsatadi va tarbiyaviy xarakterga molik bo'lgan masalalar yechimini topishga yordam beradi. Shu sababli, oliy ta'lim o'quv jarayonida ko'zda tutilgan o'quv kurslari uchun KIM asosida virtual resurslar yaratish va ulardan Web-ilova sifatida foydalanish metodikasini ishlab chiqish muhim masalalardan hisoblanadi [8].

Yuqorida aytib o'tilganlarga asoslanib, ushbu muammolarni hal qilish maqsadida kompyuter imitatsion modellari asosidagi virtual resurslardan Web-ilova dasturidan foydalanishning metodikasini ishlab chiqish maqsadga muvofiq.

Kompyuter imitatsiyasi modellari yordamida oliy ta'lim muassasalari mazmunini yangilash, multimediali elektron qo'llanmalar va virtual laboratoriyalarning yangi mazmundagi shakllari va usullarini pedagogik amaliyotga tatbiq etish muhim ahamiyat kasb etmoqda.

Tadqiqot mobaynida web-ilova tomonidan qo'llaniladigan kompyuter imitatsion modellari asosida virtual resurslarning tarkibiy tuzilishi belgilandi va ularning tuzilmalari ishlab chiqildi.

Ushbu model yaratishda dasturiy ta'minot deganda unda kerakli bo'ladigan eng birinchi ma'lumotlar hisoblanadi. Chunki ma'lumotni aniq bir maqsadga yunaltirilmagan shaklda bo'lsa virtual laboratoriyalar orqali tayyorlanayotgan imitatsion model mahsuli mavhumligicha qoladi. Ma'lumot yig'ilgandan so'ng uning taxminiy xaritasi tuziladi. Ushbu xarita orqali imitatsion model tuziladi hamda unga sayqal beriladi. Mahsulot tayyor holda kelishdan oldin uning kamchiliklari yana o'rganiladi. Buni tajriba sifatida eng birinchi "Individual rivojlanish biologiyasi" fanidan maxsus o'quv-uslubiy majmua asosida imitatsion modelning xaritasi tuzildi. Shundan so'ng uning ta'limda o'qitilish metodikasiga mos keladigan dasturlardan kelib chiqib ma'lumotlar yig'ildi. Ushbu ma'lumotlar saralashdan o'tib oxirida virtual laboratoriyalar orqali dasturni yaratish amalga oshirildi. Ushbu misollar tajribadan olingan bo'lib bu nafaqat tabiiy fanlar, balki boshqa ta'lim sohaslarida ham metodik uslub sifatida qo'llaniladi.

O'quv-uslubiy metodikasini yaratish hamda uning dars jarayonida qo'llanilish sifatini tekshirish, bu narsa hosil qilingan mahsulotni amaliyotda qo'llash hamda talabalar orqali uning jarayonda qanday ta'sir qilishini tekshirishdir. Zero imitatsion model metodik yo'nalishga ega bo'lgan "Individual rivojlanish biologiyasi" fani talablariga javob bera oladigan bo'lishi shart. "Individual rivojlanish biologiyasi" fanini o'qitishda talabaga tushunarli bo'lishi uchun turli metodlar orqali dars o'tiladi. Bu narsa talabaga qiziqtirish uyg'otadi. Buning natijasida fanga bo'lgan qiziqish yanada kuchayadi, shundan so'ng natija bilinadi. "Individual rivojlanish biologiyasi" fanini o'rgatishda eng birinchi uning qanday metodda o'qitilishi muhim hisoblanadi.

Metod tushunchasi ham uslub tushunchasiga ega bo'lib har xil uslublarni qo'llab talabaga yoki o'rganuvchiga fanni sifatli tarzda yetkazishga aytiladi. Metod tushunchasi nafaqat "Individual rivojlanish biologiyasi" fanini o'rganishda balki turli sohalarida ham qo'llanilmoqda. Ana shunday metodlar orqali ham imitatsion modellar yaratilishi mumkin, chunki metod virtual laboratoriyalarni qanday qilib ro'yobga chiqarib uni havola qilishini ta'minlaydi. Demak imitatsion modellar orqali virtual laboratoriyalar yaratishda nafaqat uning o'quv metodik qarashlariga balki uning me'yoriy tarkibiga ham e'tibor qaratish kerak. Chunki tarkib orqali uning yo'nalishi aniqlanadi. Strukturasi tuzilib jarayonni yaratish tuziladi. Imitatsion model qurish jarayonida tabiiy fanlarni ayniqsa "Individual rivojlanish biologiyasi" fanidan mavzularni tanlab olish va ularga tasvir grafalarini harakatga keltirish, bu uning to'liq amalga oshirilganini bildiradi. Chunki so'nggi jarayon faqat tekshirish jarayoni bo'lib unda tayyor modelni faqatgina amalda qo'llash qoladi xolos.

Chunki imitatsion model yaratishda qaysi yo'nalish yoki soha bo'lmasin o'shanga yo'naltirilgan hamda ma'lumot bazasiga ega bo'lgan bo'lishi shart. "Individual rivojlanish biologiyasi" fanidan virtual laboratoriya yaratish ham xuddi shunday talablarni bajaradi.

Talabalarning bilimni oshirishda o'quv vositalarining o'rni juda katta. Shuning uchun ham o'qitishning asosiy vositalari, ya'ni dastur va darsliklarni yaratishda muallif talabalarning qiziqishlari va yosh xususiyatlarini hisobga olishi zarur, aks holda talabalarning fanga qiziqishlari so'nib, ularning bilish faolligi pasayib boradi. Dars jarayonida AKT vositalaridan unumli foydalanish orqali talabalar faolligiga erishish mumkin. Ma'lumki bunday dars jarayonlari uchun dasturiy ta'minotning ahamiyati katta xususan "Individual rivojlanish biologiyasi" fanini yoritishda eng birinchi dasturiy vosita sifatida tadqiqot ishida tanlangan Adobe Flash yoki Macromedia Flash dasturlari haqida fikr yuritsak. Ushbu animatsion dasturiy ta'minotlar "Individual rivojlanish biologiyasi" fani darslarida virtual baza yaratishda kerak bo'ladi [9].

Animatsiyalar harakat va ovoz bilan boyitilishi evaziga o'quv materiallarining mazmuni kengroq va tushunarli tarzda yoritib beriladi. Shuni alohida ta'kidlash lozimki, multimediali elektron qo'llanmaning har bir mavzusiga tegishli animatsiyalarni yaratish murakkab jarayonni tashkil qilib, unda fan o'qituvchilari va dasturlovchilarning hamkorlikda faoliyat ko'rsatishi talab etiladi. Animatsiyalarni yaratish jarayonida fan o'qituvchilari dasturlovchilarga har bir jarayonni tushuntirib, kerakli maslahatlar berib boradilar. Dasturlovchilar esa mavzuga tegishli animatsiyani yaratish, uni kerakli joyga o'rnatish, harakat, ovoz, qaytish va to'xtatish kabi tugmalarini ishlab chiqish kabi operatsiyalarni amalga oshiradilar. Shu o'rinda multimediali elektron qo'llanma va virtual stendlarni ishga tushiradigan tugmalar dasturi to'g'risida to'xtalib o'tish lozim. Bu tugmalar yordamida animatsiyalar boshqarilib turiladi. Animatsiyalarni ko'rish, ularni takrorlash va to'xtatish kabi amallar ushbu tugmalar orqali bajariladi [10].

Xulosa qilib aytganda, "Individual rivojlanish biologiyasi" fanining mavzulari bo'yicha ishlab chiqilgan virtual laboratoriyalar asosida laboratoriya mashg'ulotlarini tashkil qilish uning samaradorligini oshirishga va talabalarga kognitiv hamda kreativ fikrlashga imkoniyat yaratadi.

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ANNOTATSIYA

Maqolada urbanizatsiya jarayonlarining milliy va umumbashariy jihatlari, ularning madaniyatga ta'siri masalalari tadqiq etiladi. Urbanizatsiya global rivojlanishiga eltuvchi ijtimoiy-madaniy fenomen ekanini ochib beriladi. "Urbanizatsiya" tushunchasi uning asosiy yo'nalishlari, tizimi, xususiyatlari va hududiy, regional jihatlari haqida turli qarashlar hamda urbanizatsiyani keng ijtimoiy-madaniy, jo'g'rofiy, etnosotsial, arxitektura, boshqarish, infratuzilmalar, shahar xo'jaligi, xizmat ko'rsatish, demografiya va migratsiya, aglomeratsiya, qishloq turmush tarzi, transport aloqalar, kabi ko'plab sohalar va omillar bilan bog'liqligi haqida fikrlar bayon etiladi. "Sivilizatsiya" atamasining insoniyat tarixida ijtimoiy aloqa vositalari, til, boshqarish tizimi, shaharlar yuzaga kelgani bilan izohlanishi hamda sivilizatsiya va sivilizatsion rivojlanish haqidagi ilmiy bahslar shu bilan birga "urbanizatsiya" va "sivilizatsiya" tushunchalari, falsafiy germeneytik nuqtai nazardan, bir biriga yaqin va bir-birining o'rnini to'ldirib keluvchi voqeliklar ekanligi to'g'risida fikr yuritiladi.

Kalit so'zlar. *urbanizatsiya, shahar madaniyati, migratsiya*

ANNOTATION

The article examines the national and universal aspects of the processes of urbanization and their impact on culture. It is revealed that urbanization is a socio-cultural phenomenon leading to global development. The concept of "urbanization" includes different views on its main directions, system, characteristics, territorial and regional aspects, as well as broad socio-cultural, geographical, ethno-social, architectural, managerial, infrastructural, urban economy, services, demography and opinions about the connection with many directions and factors, such as migration, agglomeration, rural lifestyle, transport links, etc. The interpretation of the term "civilization" in the history of mankind with the advent of social communication tools, language, management system, cities and scientific discussions about civilization and civilizational development, as well as the concepts of "urbanization" and "civilization", from a philosophical and hermeneutic point of view, are close to each other. friend and at the same time. It seems that they are realities that fill the place.

Keywords. *urbanization, urban culture, migration*

АННОТАЦИЯ

В статье исследуются национальные и общечеловеческие аспекты процессов урбанизации и их влияние на культуру. Выявлено, что урбанизация представляет собой социокультурный феномен, ведущий к глобальному развитию. Понятие «урбанизация» включает в себя различные взгляды на ее основные направления, систему, характеристики, территориально-региональные аспекты, а также широкие социокультурные, географические, этносоциальные, архитектурные, управленческие, инфраструктурные, городское хозяйство, сервисное обслуживание, демография и мнения о связи со многими направлениями и факторами, такими как миграция, агломерация, сельский образ жизни,

транспортное сообщение и др. Трактовка термина «цивилизация» в истории человечества с появлением средств социальной коммуникации, языка, системы управления, городов и научных дискуссий о цивилизации и цивилизационном развитии, а также понятий «урбанизация» и «цивилизации», с философско-герменевтической точки зрения, близки друг к другу и в то же время. Думается, что они реальности, заполняющие место.

Ключевые слова. урбанизация, городская культура, миграция

KIRISH

“Urbanizatsiya” lotincha urbanus, soʻzlaridan olingan boʻlib, “shahar”, “shaharga taaluqli”, “shahar qiyofasiga mansub” degan maʼnolarni anglatadi. Mutaxassislarining taʼkidlashicha, urbanizatsiya tarixiy rivojlanish asosida shakllangan jamiyat bosqichlarini va hududiy mehnat taqsimoti natijasida sodir boʻlgan koʻp qirrali geografik, ijtimoiy-iqtisodiy va demografik jarayondir. Urbanizatsiyaning torroq doiradagi demografik-statistik tushunchasi dunyoda, alohida hududlarda, mamlakatlarda shaharlarning (ayniqsa, katta shaharlarning) va shahar aholisi salmogʻining koʻpayib borishini anglatadi [1,114 b].

Urbanizatsiya global, umumplanetar koʻrinishga ega jarayondir. Unda shaharlar va shahar madaniyatining oshib borishi, qishloq aholisining shaharga migratsiyasi, natijada katta va yirik shaharlarning yuzaga kelishi muhim koʻrsatkichi hisoblanadi [2;3;4.].

Agar 1950 yilda dunyo aholisining 28,9 foizi shaharlarda yashagan boʻlsa, bu koʻrsatkich 1960 yilda 33,9 foizga, 1970 yilda 37,4 foizga, 1980 yilda 41,1 foizga, 1990 yilda 45,8 va 2000 yilda 51,2 foizga koʻtarilgan. Baʼzi manbalarga koʻra, bugun dunyo aholisining 60 foizdan ziyodi shaharlarda yashaydi, 1900 yilda dunyodagi millioner shaharlar soni 10 ta edi. 2001 yil ularning soni 200 dan oshiq boʻlgan, hatto Mexikoda 25, Tokioda 20, Seulda 13, Pekinda 11 million, Parij, Qohira, Buenos-Ayres va Londonda 10 milliondan ziyod aholi yashaydi [1,114 b]. Jahonda millioner shaharlarning koʻpayish tendensiyasi shahar madaniyatining jozibali hodisa boʻlib borayotganini koʻrsatadi. Shahar madaniyati, oʻz mohiyatiga koʻra internatsional, polifunksional va ochiq tizimdir. U turli etnomadaniyatlar bilan uygʻunlashib, murosaga kirishib yaxshi xususiyatiga ega boʻlgani uchun erkin yashashga moyil kishilarni oʻziga jalb etadi. Yirik ijodkorlar, ilm-fan dargʻalari, tadqiqot va texnologik markazlar, oʻquv yurtlari, xizmat turlari asosan katta shaharlardan ekani shundandir. 1900 yilda atiga ikki shahar Sankt-Peterburg va Moskva millioner shahar boʻlishga davogar shahar edi. Bugun ularning soni 10 tadan oshgan [5]. Oʻzbekistonda faqat Toshkent - millioner shahardir. Dunyo boʻyicha bugun millioner shaharlar soni 548 ta, ularning 33 tasida 10 milliondan ziyod aholi yashaydi. Prognozlariga koʻra, 2030 yilga borib ularning soni 703 ga etadi va ularning 43 tasi 10 milliondan ziyod aholiga ega boʻladi [6]. Bunday shaharlarni boshqarish va umumiy strategik maqsadga muvofiq rivojlantirish koʻplab muammolarni hal etishga undaydi. Bunday millioner shaharlar davlat ichidagi davlat tarzida kompleks muammolarni keltirib chiqaradi [7]. Katta va yirik shaharlarning maftunkor tomoni kishilarga keng madaniy xizmat turlarining taqdim etishidir. Ammo ular fransuz faylasufi J.Bodriyer kuzatishiga va fikriga koʻra, aholida “isteʼmolchilik”ni ham avj oldiradi [8]. Mazkur muammo alohida tadqiq etilishi kerak, ammo, bizning fikrimizcha, katta va yirik shaharlar, megapolislar, yangi sitalarning yuzaga kelishi umumbashariy yaqinlashishni, etnomadaniyatlarning unifikatsiyalashuvini keltirib chiqaradi. Hozirning oʻzidayoq internet aloqalar, xalqaro gumanitar huquq talablari etnoanʼanalarni unifikatsiyalash tomon yetaklamoqda.

Katta va yirik shaharlar madaniyati situativ (vaziyatga muofiqlashish, yuzaga kelgan muammoga moslashish) xususiyatga ega. Barcha narsani ratsionallashtirish, tig'izlashtirish va "zamondan ortda qolmaslik", serxarakatchanlik uning asosiy belgilaridir. O'ylashga, irratsional mulohazalarga joy yoq, xamma narsaga ulgurish kerak. Bunday hayot tempi qishloq madaniyatiga xos emas. Natijada madaniyatlarning ushbu ikki ko'rinishi o'rtasida "bir-birini tushunmaslik" kelib chiqishi mumkin. Bu ham alohida o'rganiladigan mavzudur.

Urbanizatsiyaga sivilizatsion taraqqiyot ko'rinishi sifatida qarash bugungi tadqiqotchilarda ustuvorlik qiladi. Muammoga retrospektiv yondashgan tadqiqotchilar urbanizatsiyaning ilk ko'rinishlari eramizdan avvalgi III-I ming yilliklardayoq mavjud bo'lganini qayd etishadi. Shaharsozlik, kishilarning o'troq hayotga o'tishi, umumiy normalar va turmush tarzining shakllanishi insoniyat tarixida shunday jarayonlar ediki, ular hayotni madaniylashtirish, osonlashtirish va qulaylashtirishni ustivor istakga aylantirdi [9;10;11]. Keyingi global taraqqiyotlar shu paradigma mahsulidir.

Urbanizatsiyaning navbatdagi belgilaridan biri aholi sonining oshishi, ya'ni ijtimoiy-demografik omil bilan bog'liq. Unga ko'ra XX asr o'rtalarigacha qishloq ijtimoiy-demografik o'sish manbai bo'lib kelgan. Keyin esa shahar aholisi soni o'sa boshlagan. Mutaxassislarining keltirishicha urbanizatsiyaning ijtimoiy-demografik jarayonlar bilan bog'liq bosqichi shimoliy Amerika va Yevropaga 1750- 1950 yillarga to'g'ri keladi. Bu yillarda, o'sha tartibda, shahar aholisi 10 foizdan 52 foizga ko'paygan. Ya'ni 15 milliondan 423 millionga oshgan. Undan keyingi ikkinchi bosqichda shahar aholisi 309 milliondan 3,9 milliard kishiga yetgan. Bu shahar aholisining 18 foizdan 56 foizga oshganidan darak beradi. Keyinchalik bu jarayonga Afrika, Osiyo va butun dunyo qo'shiladi.

"Urbanizatsiya" va "sivilizatsiya", etimologik nuqtai nazardan shaharga taalluqli tushunchalardir. "Sivilizatsiya" so'zini ilmiy atama sifatida ilk bor (1766 yilda) ishlatgan frantsuz faylasufi N.A.Bulanje hisoblanadi. Biroq uning kitobi keyinroq chop etilgani uchun atamani ilmiy iste'molga kiritgan Golbaxdir. Biroq ba'zi tadqiqotchilar uni 1767 yilda ilmiy iste'molga shotland faylasufi A. Fergyson kiritgan, deb hisoblaydi. A.Fergyson "sivilizatsiya" tushunchasini "ijtimoiy strat" va shaharlarning yuzaga kelishi bilan bog'lagan. "Sivilis" so'zini fuqaroviy, shaharga taalluqlilik, davlatga doirlik, ma'nolarida ishlatgan. "Sivilizatsiya" atamasining insoniyat tarixida ijtimoiy aloqa vositalari, til, boshqarish tizimi, shaharlar yuzaga kelgani bilan izohlash boshqa tadqiqotchilarning asarlarida ham uchraydi. Biroq bu boradagi, ayniqsa, sivilizatsiya va sivilizatsion rivojlanish haqidagi ilmiy bahslar hali davom etmoqda. Ulardan qaysi yondashuv ob'ektiv, realikka yaqin ekanini keyingi tadqiqotlar ko'rsatadi. Biz uchun "sivilizatsiya" tushunchasining urbanizatsiyaga yaqinligini ta'kidlash, ular o'rtasidagi singarmoniyani ko'rsatish, biz bugun ishlatayotgan "urbanizatsiya" va "sivilizatsiya" tushunchalari, falsafiy germenevtik nuqtai nazardan, bir biriga yaqin va bir birini to'ldirib keluvchi voqeliklar ekanini tasdiqlash, umuminsoniy taraqqiyotda ularning ikkalasi ham muhim rol o'ynaganini ochib berish muhimdir.

O'zbekistonning yangi taraqqiyot bosqichi urbanizatsiyalash tomon qaratilgan. Respublikamiz Prezidenti Sh.M.Mirziyoyev tomonidan 2019 yil 10 iyulda urbanizatsion taraqqiyotni ta'minlashga oid maxsus "Urbanizatsiya jarayonlarini tubdan takomillashtirish chora tadbirlari to'g'risidagi" farmoni qabul qilindi. Unda Respublikamiz ijtimoiy taraqqiyotida urbanizatsiya jarayonlari yetarli darajada hisobga olinmagani ta'kidlanadi. Natijada so'nggi yillarda urbanizatsiya darajasining pasayish tendensiyasi kuzatilmoqda. Shahar aholi punktlari soni atigi 1065 dan 1071 gacha ko'paygan. Yirik qishloq aholi punktlarini shahar posyo'lkalariga

aylantirish bo'yicha ko'rilgan chora-tadbirlarga qaramasdan bugungi urbanizatsiya darajasi shaharlarni kompleks rivojlantirish bo'yicha zamonaviy talablarga javob bermaydi va jahon tendensiyalaridan sezilarli darajada qolib ketmoqda. Bunda urbanizatsiya darajasi hanuzgacha barqaror xususiyatga ega emas [12].

Zamonaviy urbanizatsiya faqat shaharsozlik, binolar qurish emas, u keng ma'nodagi shahar madaniyatini, shahar aholisining barcha ehtiyojlarini qondirishga loyiq infratuzilma yaratishni taqazo etadi. Uning markazida nafaqat ijtimoiy-iqtisodiy, shuningdek, demografik, madaniy, xizmatlar ko'rsatish ham turadi. Yangi O'zbekistonda bu sohalarida ma'lum bir ishlar amalga oshirilmoqda. Shaharlarimiz ko'rki o'zgarmoqda, siti - yangi shaharchalar paydo bo'lmoqda, transport xizmatlarida izlanishlar uchraydi. Prezidentimizning "Iqtisodiy rivojlanish sohasida davlat siyosatini amalga oshirish tizimini tubdan takomillashtirish chora-tadbirlari to'g'risidagi" (2019 yil 10 yanvar) Farmonida ham urbanizatsiya davlat siyosati darajasidagi soha ekani ta'kidlanadi [12;13]. Ularga ko'ra, urbanizatsiya jarayonlarini tubdan takomillashtirishning asosiy vazifalariga quyidagilar kiritilgan:

1. Mutlaqo yangi uy-joy siyosatini amalga oshirishda urbanizatsiya bilan bog'liq muhandislik, transport va ijtimoiy infratuzilmalar bilan ta'minlangan, ayniqsa, kam va o'rta daromadli oilalar uchun arzonlashtirilgan turar joylar qurush;
2. Turar-joy va noturar-joy bino va inshootlar ostidagi yer uchastkalariga egalik huquqini amalga oshirishni kafolatlash;
3. Qishloq aholisining shaharlarga harakatlanishini ta'minlashga oid shart-sharoitlar yaratish;
4. Yirik shaharlar aholisining faravonligini va ish bilan bandligini ta'minlash, hududlardagi Oliy o'quv yurtlari va ilmiy tadqiqot institutlari asosida texnoparklar tashkil etish;
5. O'rta shaharlarni boshqarish va servis sohalarini rivojlantirishda xorijiy tajribalardan foydalanish;
6. Yangi shaharlar va yo'ldosh shaharlar tarmog'ini kengaytirish, ijtimoiy-ishbilarmonlik zonalar hududlarini kengaytirish;
7. Iqtisodiyot va sanoat vazirligi huzurida Urbanizatsiya agentligi va Urbanizatsiyani rivojlantirish jamg'armasini tashkil etish;
8. O'zbekiston Respublikasida 2030-yilgacha urbanizatsiyani rivojlantirish konsepsiyasini ishlab chiqish.

Mutloq yangi uy-joy siyosatini amalga oshirishda xududlarning jo'g'rofiy, aholining ijtimoiy ehtiyojlarini, ayniqsa kam va o'rta ta'minlangan oilalar uchun arzon turar-joylar qurish Yangi O'zbekistonda muhim ahamiyatga ega. Aholining imkoniyatlarini hisobga olmay quriladigan turar-joylar, ayniqsa, poytaxtda avj olganini, avtokratizm davrida ro'y bergan "elita joylar va massivlar" yaratish aholida ularga nisbatan salbiy munosabatlar uyg'otganini unitolmaymiz. Masalan, Toshkent temir yo'l vokzaliga etmay yaratilgan "elita massiv"ning yarmiga yaqini bombo'sh yotibdi. Bunday bo'm-bo'sh turar joylarni ko'plab ko'rish mumkin. Buni payqash uchun arxitektor yoki xonama-xona yurib o'rganib chiqish shart emas, kechroq ko'chadan o'tsangiz, biz nazarda tutayotgan turar joylarda chiroq yoqilganini ko'rmaymiz. Ming' afsuski, bizda turar joylar fondlaridan foydalanish darajasi qancha ekani ilmiy o'rganilmagan. Bu borada mutasaddi idoralar ham aniq bir nima aytolmaydi. Yangi O'zbekistonning uy-joy siyosati ana shunday nomaqbul, ochiqdan-ochiq sudxo'rlik, hatto korrupsiyaga qurilgan tizimni bartaraf

etishi kerak. Buning usuli arzon turar joylar va massivlar barpo etish, aholiga uy-joy qurishi uchun kam foizli kreditlar ajratishdir.

Katta va yirik shaharlarda turar joyga yaroqli har bir metrdan unumli foydalaniladi. Inshootlar ostidan madaniy-maishiy ehtiyojlar uchun foydalanish tajribasi o'zimizda ham uchraydi. Lekin ushbu tartibni rasmiy asosda amalga oshirishning huquqiy asoslari yaratilmagan. Masalan, 2017-2019 yillarda Respublikamizdagi ko'p qavatli uylar atrofni qurilmalardan holi qilish xarakati o'tkazildi. Aholi tashlandiq yerlarni obod qilib yaratilgan "ogorod" lar tep-tekis qilindi, yon-atrofni bezab turgan mevali daraxtlar, gulzorlar, yo'laklar buzib tashlandi. Lekin o'rniga hukumat hech nima ekmadi. Natijada o'sha joylar ahlatxonaga aylantirildi. Shuning uchun ham Prezidentimizning yuqoridagi Farmonlarida turar-joylar fondi va inshootlar ostidagi yer uchastkalaridan foydalanishni huquqiy kafolatlash masalasi qo'yilgan.

Qishloq aholisining shahar imkoniyatlari va madaniyatidan foydalanishni faollashtirish urbanizatsiyani tezlashtiruvchi omildir. Urbanizatsiyada ichki migratsiya, yani, qishloq kishilarini shaharlarga harakatlanishi muhim o'rin tutadi va urbanizatsiya ko'rsatkichlariga kiradi [14]. Masalan, Toshkent shahriga har kuni turli maqsadlarda 1,5 millionga yaqin kishi kelib ketadi. Butun jahon banki QROUNDSWELL ning keltirishicha, 2050-yilgacha Markaziy Osiyoda ob-havo, ekologiya, suv tanqisligi kabilar bilan bog'liq "klimatik migrant"lar soni 5 million dan oshadi. Ular asosan Farg'ona vohasi, Toshkent shahri atroflari va Shimoliy Qozog'iston hududlariga ko'chib boradi [16]. Ushbu harakatlanish transport xizmatlarini kengaytirishni talab etadi va migrantlar ehtiyojlarini qondiruvchi shaharlar infratuzilmalaridan foydalanish muammolarini keltirib chiqaradi. Urbanizatsiya jarayonlariga Oliy ta'lim muassasalari, ilmiy-texnik markazlar, ularga qishloq yoshlaridan iborat oqimning kelib qo'shilishi muammoning dolzarblik jihatdan biri hisoblanadi. Hayotiy kuzatishlardan ham ma'lumki, katta shaharlardagi OTM larda ta'lim olgan yoshlarning deyarli yarmidan ko'pi shaharlarda qolishga intiladi. Bu esa shahar infratuzilmasiga va hududlariga ta'sir etadi. Shahar hayotini har gal yangilashga, innovatsion idrok etishga undaydi [15, s.48-56.]. Dunyo urbanistikasi va umumbashariy hayot, taraqqiyot ilm-fan, texnika, intellektual izlanishlar asosiga qurilgan ekan. OTM va tadqiqot-institutlarini yanada faollashtirishni taqazo etadi. Ularga yangi-yangi ijodiy kuchlar, yoshlar kirib kelishi obyektiv zaruriyatdir. Xorijiy tajribalar shuni ko'rsatadiki, yirik shaharlardagi OTM va tadqiqot institutlarini asosan ichki migrantlar, shahardan tashqari hududalrdan keladigan yoshlar tashkil etadi [16]. Ammo buning bir manfiy tomoni bor, bu yoshlar avvalo shahar muhitiga, ilmiy jamoa talablariga moslashishi kerak. Bu jarayon sekin, ba'zan esa juda og'ir kichadi. Chunki chekkadan kelgan yosh ilm-fan, ta'limdagi innovatsiyalarni tez va kerakli darajada o'zlashtiravermaydi.

XULOSA

Xulosa shundagi urbanizatsiya muammosi faqat milliy ehtiyoj va taraqqiyot talabi emas, unda umumbashariy ahamyatga ega, global rivojlanishga yordam beradigan jihatlar mujassamdir. Ularni tadqiq etish avvalo ijtimoiy falsafaning vazifasi hisoblanadi.

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REPRESENTATION OF SYNTACTIC UNITS IN THE PLACE OF MONOVALENT
NON-NUCLEAR DEPENDENT COMPONENT IN ENGLISH AND UZBEK
LANGUAGES

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ABSTRACT

This article focuses on the analysis of sentences with monovalent syntactic units in the position of the non-nuclear dependent (ÑD) component in the structure of English and Uzbek sentences; by means of componential and junctional models the researcher identifies the morphological features and syntactic relationships, the connection possibilities with other syntactic units of ÑD components. The article can take interest of researchers working on functional linguistics as well as those who learn the English language.

Key words: *syntactic connection, valency, subordinate connection, nuclear predicating, nuclear predicated, non-nuclear dependent, componential model, junctional model.*

INTRODUCTION

Structural analysis of a sentence device consists in characterizing the syntactic relationships of unidirectional units involved in a gap using junctional models and visualizing differential syntactic characters, component composition, and morphological characteristics based on component models according to their position in a gap device.

In world linguistics, valence theory and comparative studies of languages have been a constant focus of linguistic scholars. In this regard, scientific-theoretical studies have been carried out by a number of scientists in general linguistics: European linguists L.Tener, J.Erben, G.Zandau, K.E.Zommerfeldt, A.Malchukov, B.Comrie³²; Russian linguists S.D.Katsnelson, N.N.Stepanova, V.Yu.Rozensveyg, S.M.Kibardina, E.V.Razova³³ it is worth highlighting the importance of the research carried out by.

Uzbek linguists also rely on verbocentrism to determine valence at the syntactic level. Including, N.Q.Turniyozov, I.K.Qo'chqortoev, R.Rasulov, M.M.Mirtojiev, S.H.Muxamedova, A.A.Abduazizov, D.T.Hojieva, M.K.Abuzalova³⁴ valence has been researched within phonetic,

³² Теньер Л. Основы структурного синтаксиса. Перевод с фран. – Москва: Наука, 2007. – 670 с.; Erben J. Abriss der Deutschen Grammatik. 9. Unverändert. Auf 1. –Berlin, 1966. – 316 s.; Зандау Г., Зоммерфельдт К.Е Семантические условия факультативности реализации валентности // Иностр. яз. в шк., 1972.– № 2– С. 21-27.; Malchukov A., Comrie B. (eds) Valency Patterns in the Language of the World. – Berlin: Mouton de Gruyter, 2011. – 265 p.

³³ Кацнельсон С.Д. К понятию типов валентности // Вопросы языкознания, 1987. – №3. – С. 20-32.; Степанова Н.Н. Особенности глагольной валентности южногессенского (Самарского) островного говора на Алтае в сравнении с современным литературным немецким языком. Автореф. дисс. канд. филол. наук.– Барнаул, 2002.-24с.; Розенцвейг В.Ю. Семантическая валентность слова, словообразование, синтаксис // Слово в грамматике и словаре. – Москва: Наука, 1984. – С.101-106.; Кибардина С.М. Валентность немецкого глагола. Автореф. дисс. канд. филол. наук.– Ленинград, 1988. – 34 с.; Разова Е.В. Семантика и валентность разрушения в современном немецком языке. Автореф. дисс. канд. филол. наук. – Вологда, 2003. – 25 с.

³⁴ Турниёзов Н.Қ. Ўзбек тили структурал синтаксисига кириш. – Самарқанд: СамДУ, 1989. – 76 б.; Қўчқортоев И. Сўз маъноси ва унинг валентлиги (ўзбек тилидаги нутқ феъллари асосида). – Тошкент: Фан, 1977. – 168 б.,

lexical, and syntactic line. Most of these works rely on only the lexical meaning of the verb at the lexical-syntactic level, focusing on the possibility of conjugation with other syntactic units within the sentence structure of the verb, and have been researched on this basis.

A syntactic line-scale analysis of the process of parsing a sentence into components and syntaxems. M. Mukhin, L.I. Jurevich, O'.U.Usmanov, Z.J.Mukhtorov, R.E.Kiyamov, Sh.S.Ashurov, D.T.Kubeysinova, V.B.Aristova, M.R. Jolibekova, M.S.Kayumova, M.M. Based on the scientific research of obloculovas, R.Asadov identifies syntactic valence in his study as follows: in this simple sentence the syntactic unit involved on the basis of one syntactic connection, no matter what form of the verb (in this case, the word category does not matter) - the one-valence component, the syntactic unit involved on the basis of two syntactic connections – the two-valence component, the syntactic unit³⁵.

When determining the valence of components at the syntactic level, the number of syntactic connections of the syntactic units involved in the structure of the sentence is taken into account. Based on this idea, syntactic units are considered monovalent or monovalent components if they participate in the structure of a sentence based on one syntactic relationship. Based on the analysis of examples collected from the literature, it can be observed that univalent components appear in the syntactic positions of core components (NP1.NP2), non-core subordinate (ÑD) and non-core predicative 2 components in the sentence device.

Methods and materials

In this article, we will try to analyze sentences with monovalent syntactic units in the place of a non-nuclear dependent component based on junctional and component models. We also use various transformation methods.

In traditional grammar, the syntactic analysis of the sentence is divided into primary and secondary clauses. In this method, while analyzing the sentence into parts, syntactic relations are not mentioned and syntactically separated units are not distinguished. The phenomenon of elementary syntactic units is not taken into account in the concept of sentence fragments. In the analysis of the structure of the sentence by dividing it into components, it is important to determine the mutual syntactic relations of the syntactic units in the sentence, and it is also of great importance to distinguish the identified syntactic relations from each other. The syntactic relations determined between the components or syntactic units create ample conditions for determining the differential syntactic features of the components involved in the sentence. Such differential syntactic signs are determined using the method of contrasting or contrasting components in the syntagmatic direction.

In this research work, the description of the mutual syntactic relations of the components in the sentence is carried out with the help of junctional models. The term junction model is derived

Расулов Р. Ўзбек тилидаги ҳолат феъллари ва уларнинг облигатор валентликлари. – Тошкент, 1989. – 82 б.; Миртожиев М. Ўзбек тилидаги феъл валентликлари. – Тошкент, 2007. – Б.48.; Мухамедова С. Ўзбек тилида ҳаракат феълларининг семантик ва валентлик хусусиятлари. Филол. фан. док-ри. дис.автореф. – Тошкент, 2007. – 40 б.; Абдуазизов А.А. О фонологической валентности // Филологиянинг долзарб муаммолари. – Тошкент, 2008. – С.14-21.; Ходжиева Д.Т. Изменение структурно-функциональной характеристики и валентности глагольных словосочетаний в истории английского языка. Автореф. дисс. канд. филол. наук.– Самарканд, 2011. – 27 с.; Абузалова М. Грамматическая валентность некатегориальных форм // Filologiya masalalari. Azerbaijan milliy Ilmlar Akademiyasi, 2011. – В. 414-418.

³⁵ Асадов Р.М. Инглиз тили содда гап қурилмаларида моновалентли ва поливалентли компонентларнинг синтаксем таҳлили. Фил.фан.бўйича фалсафа доктори (PhD) дисс. автореф. – Тошкент. 2018. – Б. 12.

from the Latin word "junction" and in Uzbek means connection, connection³⁶. This model is built in a horizontal direction and represents the real distribution of the components of the sentence and their interdependence. In the article, we visually express syntactic relations of the syntactic units involved in the structure of the sentence with the help of junctional models, that is, in them, core predicative, subordinating, coordinating, zero predicative, introductory, non-nuclear predicative, appositive relations are defined. In the study of non-nuclear dependent components, we focus on subordinate communication.

The parts that are the basis of the sentence, i.e. the core, are called core components³⁷, in traditional grammars, this is referred to as the head of the sentence. Since there are two core components, core predicative 1 (subject - subject) and core predicative 2 (section - Predicate) based on the order of their placement in the sentence³⁸ terms are used.

Non-nuclear subordinate components are secondary parts of the sentence - parts with the function of determiner, complement, and case. The reason why we call them non-nuclear subordinates is that they cannot form the basis of a sentence, and any governor is subordinate to a clause and is connected to it on the basis of a subordinate relationship. Non-nuclear dependent components can be connected not only to core components, but also to a second dependent component, in which case a certain element can be both a base and a subordinate part in one sentence.

The special feature of subordinate components is that they turn simple compound sentences into extended sentences, clarify and complete the content of the sentence. W.N.Francis subordinating or modifying compounds³⁹, states that. Sh. Ashurov says that the subordinating relation serves to differentiate between the dominant and subordinate components in the structure of word combinations⁴⁰ admits.

According to some linguists, the presence of a subordinate clause in a sentence is expressed by a transitive verb⁴¹. However, an intransitive verb can also have a subordinate component⁴², for example *to go* is an intransitive verb, "*I go to the bank on Mondays*" in the sentence *to the bank* and *on Mondays* syntactic units *go* is subject to the verb. Also, participles and other clauses expressed by word groups other than verbs can have a subordinate component. The subordinate component is observed in the cases of preposition (previous) and postposition (following) in relation to the main component.

Results and discussions

In this article, we will demonstrate the role and representation of subordinate components based on examples.

1. The man in the painting looked inquiringly at the Prime Minister (*JRHP*, 2).

³⁶ Мухин А.М. Модели внутренних синтаксических связей предложений // Вопросы языкознания. – Москва: 1970. – №4. – С.68-69.

³⁷ Мухин А.М. Структура предложений и их модели. – Ленинград: Наука, 1968. – С. 98.

³⁸ Мухин А. М. Функциональный синтаксис. – СПб.: Наука, 1999. – С. 106.; Усмонов Ў.У. Гап таҳлилига янгича ёндашув // Ҳалқаро илмий-назарий анжуман. – Самарқанд: СамДЧТИ, 2004. – Б. 105-108.

³⁹ Frensis W.N. The Structure of American English. – Textbook Publishers, 2003. – 614 p. https://books.google.co.uz/books/about/The_Structure_of_American_English.html?id

⁴⁰ Ашуров Ш.С. Инглиз ва ўзбек тилларида кесим типологияси// Филол. фан. номзод. диссертация.– Самарқанд, 2007. – С. 39.

⁴¹ Почепцов Г.Г. Конструктивный анализ в структуре предложения. – Киев: Вища школа, 1971. – С. 59-60.

⁴² Slobodkina N.A., Abduraimova B.Yu., Rustamova Z.N., Tukliyeva G.N. Practical English Grammar. – Tashkent: O'zbekiston Milliy Ensiklopediyasi, 2007. – P. 196.

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2. *Olive shouted encouragement (RRHC, 20).*
3. **Harry Potter was snoring loudly (JRHP, 25).**
4. **He had been sitting in a chair beside (JRHP, 25).**
5. *I remembered old footage of the ill-fated Hindenburg ... (RRHC, 67).*

Omitting subordinate components usually does not significantly affect the meaning of the sentence. Below, we define by dropping subordinate clauses using the transformation method:

- 1) **The man in the painting looked inquiringly at the Prime Minister** → **The man ... looked ...;**
- 2) *Olive shouted encouragement* → *Olive shouted ...;*
- 3) **Harry Potter was snoring loudly** → **Harry Potter was snoring ...;**
- 4) **He had been sitting in a chair beside** → **He had been sitting ...;**
- 5) *I remembered old footage of the ill-fated Hindenburg ...* → *I remembered ... footage of ... Hindenburg* → *I remembered*

In the given sentences, the non-nuclear dependent (ÑD) components are connected to the core predicative 2 (NP2) component on the basis of a subordinate relationship. In this case, intransitive verbs – *looked* (1), *was snoring* (3), *had been sitting* (4) expressed in syntactic units *inquiringly* (1), *loudly* (3), represented by a prepositional noun **at the Prime Minister** (1), **in a chair** (4) elements have been subjected. Expressed by a transitive verb NP2 – *shouted* (2), *remembered* (5) components are represented by nouns ÑD components – *encouragement* (2), *footage* (5) entered into a syntactic relationship in the base of subordinate communication. In all these sentences, ÑD elements subordinate to NP2 components are in postpositional position. Also represented by the noun NP1 – **The man** (1) and ÑD – **in a chair** (4), *footage* (5) the syntactic units subordinated to its components are in the construction of preposition + noun – *in the painting* (1), *of Hindenburg* (5) or adverb *beside* (4) is located after the base component. When the syntactic unit ÑD occurs with an adjective, it is placed before the governing clause: *old* adjective *footage* element, *ill-fated* compound adjective *Hindenburg* it can be shown in the junction and component model of sentences that it is connected to the lexeme on the basis of a subordinate relationship.

(1) The man in the painting looked inquiringly at the Prime Minister.			
	.M.	J	$\frac{NP_1}{S} \cdot \frac{\tilde{N}D}{prS} \cdot \frac{NP_2}{Vf} \cdot \frac{\tilde{N}D}{Adv} \cdot \frac{\tilde{N}D}{prS}$ C.M.
(2) <i>Olive shouted encouragement</i>			
	.M.	J	$\frac{NP_1}{S} \cdot \frac{NP_2}{Vf} \cdot \frac{\tilde{N}D}{S}$ C.M.
(3) Harry Potter was snoring loudly.			
	.M.	J	$\frac{NP_1}{S} \cdot \frac{NP_2}{auxV_{con}} \cdot \frac{\tilde{N}D}{Adv}$ C.M.
(4) He had been sitting in a chair beside			

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	J .M.	$\underline{NP_1} \cdot \underline{NP_2} \cdot \underline{\check{N}D} \cdot \underline{\check{N}D}$ Pn _p auxVp ₁ prS Adv	C.M.
(5) <i>I remembered old footage of the ill-fated Hindenburg</i>			
	J .M.	$\underline{NP_1} \cdot \underline{NP_2} \cdot \underline{\check{N}D} \cdot \underline{\check{N}D} \cdot \underline{\check{N}D} \cdot \underline{\check{N}D}$ Pn _p Vf A S A prS	C.M.

In the following sentences, the subordinate components are connected to the non-nuclear predicative 2 ($\check{N}D$) component in the sentence and its subordinate components using a subordinate relation:

6. *We rowed taking turns at the oars to stave off exhaustion (RRHC, 18).*

7. *... he had climbed out brushing ash from the sleeves of his long pin-striped cloak (JRHP, 2).*

The cited sixth sentence has three subordinate components, and the seventh sentence has five subordinate components, which we separate by the omission transformation:

6) *We rowed taking turns at the oars to stave off exhaustion* → *We rowed taking turns at the oars ...* → *We rowed taking turns ... to stave off exhaustion;*

7) *... he had climbed out brushing ash from the sleeves of his long pin-striped cloak* → *he had climbed out brushing ash* → *he had climbed out brushing ash from the sleeves ...* → *he had climbed out brushing ash from the sleeves of ... cloak* → *he had climbed out brushing ash from the sleeves of his ... cloak.*

In the sixth sentence $\check{N}D$ – *at the oars* and *to stave off* if the non-nuclear predicate is subject to 2 components, *exhaustion* element is another $\check{N}D$ – *to stave off* enters into a subordinate relationship with the element. In this sentence *to stave off* It is subordinate to the component before it, and it is the main component to the next component.

In the seventh sentence $\check{N}P_2$ because it is expressed by a transitive verb, it is the first subordinate to it $\check{N}D$ – *ash noun without a preposition*, in the second $\check{N}D$ – *from the sleeves formed with a prepositional noun*. Also in this sentence $\check{N}D$ – *sleeves component of cloak the governing body in relation to the component*, $\check{N}D$ – *of cloak however, his, long and pin-striped and is their main component*. So, in this sentence, two syntactic units perform the function of both the ruler and the subordinate clause at the same time. This situation is reflected in junction and component models as follows:

(6) <i>We rowed taking turns at the oars to stave off exhaustion</i>			
	J.M.		
		$\underline{NP_1} \cdot \underline{NP_2} \cdot \underline{\check{N}P_2} \cdot \underline{\check{N}D} \cdot \underline{\check{N}D} \cdot \underline{\check{N}D}$ Pn _p Vf Vp ₁ S prS V _{inf} S	C.M.
(7) <i>... he had climbed out brushing ash from the sleeves of his long pin-striped cloak</i>			
	J.M.		

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$\underline{NP}_1 \cdot \underline{NP}_2 \cdot \underline{\tilde{NP}}_2 \cdot \underline{\tilde{ND}} \cdot \underline{\tilde{ND}} \cdot \underline{\tilde{ND}} \cdot \underline{\tilde{ND}} \cdot \underline{\tilde{ND}}$	C.M.
Pn _p auxVp ₂ Vp ₁ S prS Pn _{ps} A A prS	

In the structure of an English sentence, non-nuclear dependent components are identified by the syntactic units represented by the noun phrase. They are mainly represented by adjectives and are placed before the main component, as well as with pronouns and numbers that can be placed both before and after the main component.

- 8. ... bright green flames burst into life (JRHP, 2).
- 9. I ... said a silent goodbye (RRHC, 21).
- 10. ... we had more than fifty eyewitnesses (JRHP, 7)
- 11. The minute hand on the alarm clock reached the number twelve ... (JRHP, 29).
- 12. twenty minutes later I asked for it back again (RRHC, 20).
- 13. He had never tasted anything like it before (JRHP, 31).

As a subordinate clause, the adjective is simple – *silent* (9) or compound – **bright green** (8) no matter what, the governor is from the block – *flames* (8), *goodbye* (9) placed first. Numbers means to count, to count – *fifty* (10), *twenty* (12) from the governor (**eyewitnesses**, *minutes*) before, order means number – *twelve* (11) hokim from the piece (*number*) comes later. In the twelfth sentence, number is involved – *twenty minutes later* the combination is a whole syntactic unit, because these three lexical units together *when* there will be an answer to the question. In the next sentence *anything* subordinate component *had tasted* connected with a transitive verb on the basis of a subordinate relationship and at the same time *like it* is the main component compared to the component.

The junctional and component models of the following sentences show the relations and morphological properties of syntactic units:

(8) ... bright green flames burst into life		
	J .M.	$\underline{\tilde{ND}} \cdot \underline{NP}_1 \cdot \underline{NP}_2$ C.M. A S VfprS
<i>(9) I ... said a silent goodbye</i>		
	J .M.	$\underline{NP}_1 \cdot \underline{NP}_2 \cdot \underline{\tilde{ND}} \cdot \underline{\tilde{ND}}$ C.M. Pn _p Vf A S
(10) ... we had more than fifty eyewitnesses.		
	J .M.	$\underline{NP}_1 \cdot \underline{NP}_2 \cdot \underline{\tilde{ND}} \cdot \underline{\tilde{ND}} \cdot \underline{\tilde{ND}}$ C.M. Pn _p Vf Adv cjNm S
(11) The minute hand on the alarm clock reached the number twelve		
	J .M.	$\underline{NP}_1 \cdot \underline{\tilde{ND}} \cdot \underline{NP}_2 \cdot \underline{\tilde{ND}} \cdot \underline{\tilde{ND}}$ C.M. S prS Vf S Nm
<i>(12) twenty minutes later I asked for it back again</i>		

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	J .M.	$\frac{\tilde{N}D}{NmSAdv} \cdot \frac{NP_1}{Pnp} \cdot \frac{NP_2}{Vf} \cdot \frac{\tilde{N}D}{prPnp} \cdot \frac{\tilde{N}D}{Adv}$ C.M.
(13) He had never tasted anything like it ...		
	J .M.	$\frac{NP_1}{Pnp} \cdot \frac{\tilde{N}D}{Adv_{ng}} \cdot \frac{NP_2}{auxVp_2} \cdot \frac{\tilde{N}D}{Pn_{ind}} \cdot \frac{\tilde{N}D}{cjPnp}$ C.M.

In our next examples, we will consider the case of inversion when the non-nuclear dependent component is expressed by an infinitive conjunction:

14. The Prime Minister did not know what to say (*JRHP*, 7).

15. Downstairs in the living room his Uncle Vernon shouted (*JRHP*, 29).

In the given sentence, $\tilde{N}D$ is an infinitive conjunction – *what to say* (14) is represented by and is in one syntactic place, because it is an answer to one question and NP_2 – **did not know is connected to the component using a subordinate relation. In the next sentence $\tilde{N}D$ – downstairs logical accented, inverted and located at the beginning of the sentence, NP_2 – shouted subject to the component. In English, only a dependent clause subject to NP_2 can appear at the beginning of a sentence, NP_1 or $\tilde{N}D$ is not a subordinate clause. This is it sentence in the living room we cannot call a syntactic unit a monovalent subordinate component because it downstairs is explaining the element. Commentators explicitly and implicitly enter into three syntactic relations and are trivalent components⁴³. In this sentence **Uncle Vernon there is also an appositive connection between.** Since we are studying monovalent syntactic units in our article, we will not dwell on this issue in detail.**

We express the junction and component models of sentences as follows:

(14) The Prime Minister did not know what to say		
	J .M.	$\frac{NP_1}{S} \cdot \frac{NP_2}{ngVf} \cdot \frac{\tilde{N}D}{Pn_{rl}V_{inf}}$ C.M.
(15) Downstairs in the living room his Uncle Vernon shouted.		
	J .M.	$\frac{\tilde{N}AD}{Adv} \cdot \frac{\tilde{N}D}{prS} \cdot \frac{\tilde{N}D}{Pnp} \cdot \frac{\tilde{N}AP_1}{S} \cdot \frac{NP_1}{S} \cdot \frac{NP_2}{Vf}$ C.M.

From the analysis of the examples collected from the works of art, it is known that in English, non-nuclear subordinate components can appear in all places of the sentence, they can depend on both the core component and the subordinate component, and they are in preposition or postposition in relation to the main component. Also, a univalent subordinate clause can be represented by a noun, adjective, number, infinitive conjunction and pronoun.

The expression of non-nuclear dependent components in the Uzbek language is partially different from the English language. In the Uzbek language, the subordinate components are

⁴³ Асадов Р.М. Синтаксическая валентность на примере синтаксического анализа трёхвалентных элементов в позиции неядерного аппозитивного предизирующего компонента (NAP_1) // Вестник ЧелГУ. 2016, №9 (391). – С. 25-35.

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mainly placed before the dominant components, that is, they come in the preposition position, the postposition position is almost never observed.

In the following examples, we will analyze the subordinate components connected to the transitive verb:

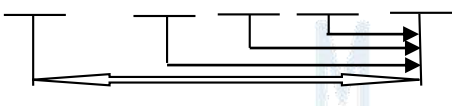
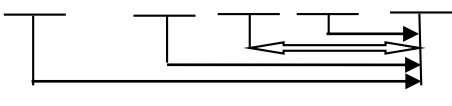
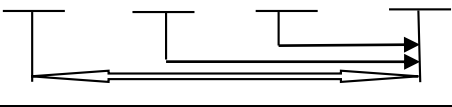
1. ... Bayna momo jelagi bilan yuzini ayollardan to'sib oldi (ENShTB, 6).
2. Gullarni uch kun oldin qizi bolalar bog'chasidan ... uzib kelgandi (ENYH, 14).
3. Bolalar nega hech narsa yeyishmaydi (QA, 7).
4. ... maysalarning jozibasini o'ziga singdirolmadi (ENYH, 10).
5. Buning yorqin misolini Hasan ikki marta boshidan o'tkazdi (QA, 90).

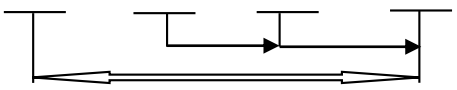
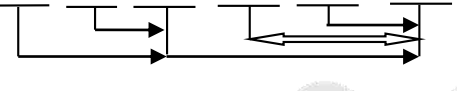
NP2 is used in the given sentences – to'sib oldi (1), uzib kelgandi (2), yeyishmaydi (3), o'ziga singdirolmadi (4), boshidan o'tkazdi (5) first of all, since syntactic units are formed from transitive verbs, Kimni or Nimani The answer to the question requires an indirect complement. As mentioned in the first chapter, most linguists divide such verbs into two-, three-, and four-valence groups, based on the number of actants, based on the lexical meaning of the verb. However, we define syntactic valence based on the number of syntactic links. Accordingly, each syntactic unit in these sentences is univalent, because they enter into a syntactic relationship one at a time.

Three ÑD components in the first sentence (jelagi bilan, yuzini, ayollardan) are available, all subject to NP2, and their agreement suffixes (-ni, -dan) and auxiliary (bilan) connected using In the second sentence, three subordinate components are involved, one of which is an actant (Gullarni) accusative (-ni), two are circaconstant uch kun oldin – adverb phrase and bolalar bog'chasidan – formed by using the noun in the exit clause and uzib kelgandi entered into a subordinate relationship with the fragment.

In the third and fourth examples, the subordinate component is the verb in the form without division (yeyishmaydi) subordinated. Infinitive pronoun (hech narsa) represented by the actant. Circonstant is an interrogative pronoun (nega) represented. In the next sentence, the noun in the accusative case (jozibasini) The subordinate clause activated by (maysalarning) has also performed the role of the governor in relation to the subordinate component. The fifth sentence contains four ÑD, two of them (misolini, ikki marta) NP2 two of them (Buning, yorqin) ÑD component (misolini) has been subordinated.

The junction and component models of sentences are as follows:

(1) ... Bayna momo jelagi bilan yuzini ayollardan to'sib oldi		
	J .M.	NP ₁ . ÑD . ÑD . ÑD . NP ₂ C.M. S Spr S _{ni} S _{dan} Vf
(2) Gullarni uch kun oldin qizi bolalar bog'chasidan ... uzib kelgandi		
	J .M.	ÑD . ÑD . NP ₁ . ÑD . NP ₂ C.M. S _{ni} NmSAdv S _i S _{dan} Vf
(3) Bolalar nega hech narsa yeyishmaydi		
	J .M.	NP ₁ . ÑD . ÑD . NP ₂ C.M. S Pn _{int} Pn _{ng} ng Vf

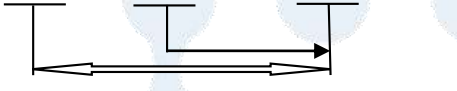
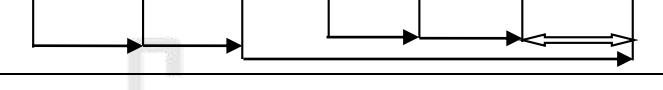
(4) <i>U ... maysalarning jozibasini o'ziga singdirolmadi</i>		
	J .M.	$\frac{NP_1 \cdot \tilde{N}D \cdot \tilde{N}D \cdot NP_2}{Pn_p \quad S_{ps} \quad S_{ni} \quad ngVf}$ C.M.
(5) <i>Buning yorqin misolini Hasan ikki marta boshidan o'tkazdi</i>		
	J .M.	$\frac{\tilde{N}D \cdot \tilde{N}D \cdot \tilde{N}D \cdot NP_1 \cdot \tilde{N}D \cdot NP_2}{Pn_{dem} \quad A \quad S_{ni} \quad S \quad NmS \quad Vf}$

Non-nuclear dependent components can be represented by the transitive form of the verb, the NP2 component represented by the verb, and the noun can be defined by the name of the action.

6. *Ular ... baqirib-baqirib gapirishardi* (QA, 70).

7. *Har bir inson qalbida olam bilan uyg'unlashishga tashnalik bor* (ENYH, 21).

$\tilde{N}D$ in the sixth sentence *baqirib-baqirib* element NP_1 (*Ular*) NP_2 (*gapirishardi*) refers to the process of the expressed action. The seventh sentence contains five subordinate components, one of which is an action noun with a suffix (*uyg'unlashishga*) to NP_1 , one is a noun with a locative suffix (*qalbida*) to NP_2 , the other three are subject to other $\tilde{N}D$. In this case, it is a noun in the accusative form without a marker (*inson* → *insonning*) an antecedent collective pronoun subordinate to the subordinate clause of NP_2 (*Har bir*) in relation to $\tilde{N}D$ represented. The last subordinate clause in this sentence (*olam bilan*) expressed by a noun and subordinated to the name of the action with the help of an auxiliary.

6) <i>Ular ... baqirib-baqirib gapirishardi</i>		
	J .M.	$\frac{NP_1 \cdot \tilde{N}D \cdot NP_2}{Pn_p \quad V_{rav}V_{rav} \quad Vf}$ C.M.
7) <i>Har bir inson qalbida olam bilan uyg'unlashishga tashnalik bor</i>		
	J.M.	
$\tilde{N}D \cdot \tilde{N}D \cdot \tilde{N}D \cdot \tilde{N}D \cdot \tilde{N}D \cdot NP_1 \cdot NP_2$		C.M.
$P_{ind} \quad S_{ps} \quad S_{da} \quad Spr \quad V_{inf} \quad S \quad mw$		

A non-nuclear dependent component can also be expressed by an abstract noun, a possessive adjective, a number, an adjective, and a phrase denoting the action process. Also, it was observed that the non-nuclear dependent component can be subordinate not only to the core predicative or non-nuclear dependent components, but also to the non-nuclear predicative 2 component.

8. *Bo'yoqchilik bilan ish bitmaydi* (QA, 84).

9. *Bu kecha ko'kda tantana bo'layotgandi* (QA, 98).

10. *Hasan bo'lim xonasida ofitserni rangsiz bir yuz ila kutayotganini ko'rdi* (QA, 135).

11. *Uning o'ttiz ming qo'shini tarqab ketibdi* (PQ, 165).

12. *Bu safar chol uzoq, to'xtovsiz yo'taldi* (O'H, 6).

13. *... yosh o'rikning qizg'ish novdalari hamon qattiq-qattiq silkinar edi* (O'H, 9).

14. *Hammasi bir kiprik qoqqulik fursatda o'tib ketdi* (O'H, 25).

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In the eighth sentence under analysis, the action noun is activated with the help of an auxiliary (*Bo'yoqchilik bilan ish bitmaydi*) *nima bilan emas qanday* is an answer to the question and is subject to NP2. In the following sentences, subordinate components signifying space, add the suffix of place-time agreement (-da) received adjective (*ko'kda*), noun (*bo'lim xonasida*) intransitive (*bo'layotgandi*) and transitive (*ko'rdi*) attached to verbs. Also, *rangsiz bir yuz ila* (10) – subordinate clause is subject to $\tilde{N}P_2$ and means the status of $\tilde{N}P_1$. Number (*o'ttiz ming*) with $\tilde{N}D$ noun (*qo'shini*) *blan* indicates the amount of NP1 expressed. Instead of $\tilde{N}D$ *Bu safar* (12) syntactic unit demonstrative pronoun + noun and served to mean the repetition of the action. Next subordinate components in the sentence (*uzoq, to'xtovsiz*) not monovalent, they are considered bivalent because they are cohesive fragments.

In the next sentence (13), $\tilde{N}D$ is replaced by three kinds of adjectives: the original adjective of the simple level (*yosh*) to the noun in the accusative case (*o'rikning*) subjunctive, diminutive (*qizg'ish*) NP1 to the noun in place (*novdalari*), repeated adjective (*qattiq-qattiq*) intransitive verb (*silkinar edi*) is subject to the NP2 component represented by and participates in the sentence in the form of subordinate communication. In the next sentence, $\tilde{N}D$ is a phraseological unit (*bir kiprik qoqqulik fursatda*) expressed by and subject to NP2. The component and conjunction models of sentences are as follows:

8) <i>Bo'yoqchilik bilan ish bitmaydi</i>	
	J C.M. $\tilde{N}D \cdot NP_1 \cdot NP_2$ Spr S _{ng} Vf
9) <i>Bu kecha ko'kda tantana bo'layotgandi</i>	
	J C.M. $\tilde{N}D \cdot \tilde{N}D \cdot NP_1 \cdot NP_2$ PndemS S _{da} S Vf
10) <i>Hasan bo'lim xonasida ofitserni rangsiz bir yuz ila kutayotganini ko'rdi</i>	
	J.M. C.M. $NP_1 \cdot \tilde{N}D \cdot \tilde{N}P_1 \cdot \tilde{N}D \cdot \tilde{N}D \cdot \tilde{N}D \cdot \tilde{N}P_2 \cdot NP_2$ S SS _{da} S _{ni} A Pn _{ind} Spr Vp ₁ Vf
11) <i>Uning o'ttiz ming qo'shini tarqab ketibdi</i>	
	J. M. C.M. $\tilde{N}D \cdot \tilde{N}D \cdot NP_1 \cdot NP_2$ Pn _{ps} Nm S Vf
12) <i>Bu safar chol uzoq, to'xtovsiz yo'taldi</i>	
	J. M. C.M. $\tilde{N}D \cdot NP_1 \cdot IH\tilde{N}D \cdot IIH\tilde{N}D \cdot NP_2$ PndemS S A A Vf
13) <i>... yosh o'rikning qizg'ish novdalari hamon qattiq-qattiq silkinar edi</i>	

	J.M.
$\check{N}D \cdot \check{N}D \cdot \check{N}D \cdot NP_1 \cdot \check{N}D \cdot \check{N}D \cdot NP_2$ A S _{ps} A S Adv A Vf	C.M.
14) <i>Hammasi bir kiprik qoqqulik fursatda o'tib ketdi</i>	
	J. NP ₁ · $\check{N}D$ · $\check{N}D$ · NP ₂ C.M. Pn _{ind} Phr S Vf M.

Xulosa

In English, non-nuclear subordinate components can appear in all places of the sentence, they can depend on both the core component and the subordinate component, and they are in preposition or postposition in relation to the main component. Also, a univalent subordinate clause can be represented by a noun, adjective, number, infinitive conjunction and pronoun.

The expression of non-nuclear dependent components in the Uzbek language is partially different from the English language. In the Uzbek language, the subordinate components are mainly placed before the dominant components, that is, they come in the preposition position, the postposition position is almost never observed. From the analysis of examples collected in the Uzbek language, it was found that non-core subordinate components are placed before the main component, one sentence can contain up to eight to ten subordinate clauses, which are both core clauses and subordinate clauses. can be connected on the basis of a subordinate relationship, one syntactic clause can be both a subordinate and a governing clause at the same time. Non-nuclear dependent components can be represented by nouns, adjectives, numbers, pronouns, functional forms of verbs. Nouns in the indicative and accusative cases are often used without an indicator in place of $\check{N}D$, in which case they do not have an additional determiner.

Unlike the English language, in Uzbek, $\check{N}D$ components do not occur with nouns in the form of the head agreement (except for noun + noun determiner + definite pattern), this situation is explained by the fact that the Uzbek language belongs to the system of inflectional languages.

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INDEPENDENT READING AS AN IMPORTANT MEANS OF DEVELOPING ORAL
LANGUAGE SKILLS

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Abstract. The article is devoted to one of the effective methods of self-education - independent reading of the text and working with it. The use of innovative pedagogical technologies in checking the extracurricular reading of fiction recommended by the teacher is one of the forms that can arouse students' interest, as well as attract them to the analysis of the content of the work, while consolidating some types of grammatical constructions often found in colloquial speech.

Keywords: independent work, literature, home reading, text, self-education.

САМОСТОЯТЕЛЬНОЕ ЧТЕНИЕ КАК ВАЖНОЕ СРЕДСТВО РАЗВИТИЕ
НАВЫКОВ УСТНОЙ РЕЧИ

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Аннотация. Статья посвящается одному из эффективных методов самообразования – самостоятельному чтению текста и работе с ним. Использование инновационных педагогических технологий при проверке внеаудиторного чтения рекомендуемой преподавателем художественной литературы – одна из форм, позволяющих вызвать интерес у студентов, а также привлечь их к анализу содержания произведения, закрепляя при этом некоторые типы грамматических конструкций, часто встречающиеся в разговорной речи.

Ключевые слова: самостоятельная работа, литература, домашнее чтение, текст, самообразование.

Введение. На современном этапе процесс обучения иностранным языкам развивается в качестве социального заказа общества, ибо оно заинтересовано в формировании молодого поколения, владеющего в совершенстве не только родным, но и другими языками. основополагающим требованием общества является формирование личности, которая умела бы самостоятельно творчески решать научные, производственные, общественные задачи, критически мыслить, вырабатывать и защищать свою точку зрения, свои убеждения, систематически и непрерывно пополнять и обновлять свои знания путем самообразования, совершенствовать умения, творчески применять их в действительности. Одним из эффективных приемов самостоятельной работы при обучении иностранному языку студентов иноязычных групп – это чтение текста и работа с текстом, которое является средством вовлечения учащихся в самостоятельную познавательную деятельность.

Основная часть. Методология исследования.

Самостоятельным чтением мы понимаем обязательное для всех дополнительное по отношению к учебнику постоянное и обильное чтение с целью извлечения содержательной информации. Для того чтобы это чтение было постоянным и обязательным, оно должна

быть посильным. Поэтому тексты должны быть легкими (адаптированными) из художественной, общественной, политической и научно-популярной литературы, содержащие преимущественно знакомый учащимся лексико-грамматический материал.

По характеру понимания читаемого - это синтетическое чтение, так как языковая форма текстов в данном случае не требует от читающего значительных мыслительно-волевых усилий для раскрытия и основное внимание читающего направлено на извлечение информации, зашифрованной в тексте.

По способу чтения - это чтения про себя или в идеальном виде - визуальное чтение, «как наиболее совершенное и зрелое чтение». [6, 47]

По месту и времени чтения - это внеклассное, домашнее чтение.

Итак, главное назначение самостоятельного чтения - получение информации из текстов на иностранном языке. Вместе с этим систематическое и планомерное домашнее чтение является важным источником и средством увеличения лексического запаса и развития навыков устной речи.

Определив, таким образом, сущность самостоятельного чтения, попытаемся предложить некоторые рекомендации по его организации. Так, принимая во внимание интересы и уровень владения ими иностранным языком, наличие материала для чтения, а также некоторые советы, имеющиеся в методической литературе.

1. Индивидуализированное самостоятельное чтение. т.е. когда каждый учащийся работает над своим, выбранным им самим или подсказанным учителем в соответствии с его интересами, текстом.

2. Групповое самостоятельное чтение, т.е. когда весь класс читает общий для всех текст, но с различными по объему заданиями и установками на чтение в зависимости от языковых возможностей учащихся. В обоих этих вариантах самостоятельного домашнего чтения нет необходимости, чтобы тематика их соответствовала лексико-разговорным темам, изучаемым на данном этапе.

3. Возможен, по видимому, и третий, комбинированный путь организации домашнего чтения. В этом случае, наряду с индивидуализированным чтением, периодически (раз в месяц).[3]

Чтение общего для всех в этом случае может иметь двойную целевую направленность: а) собственно чтение и б) чтение как средство последующего развития речи. В этом случае работа над текстом может служить заключительным этапом в работе над изучаемой лексико-разговорной темой.

Анализ и результаты.

Следует подчеркнуть, что при подходе к организации самостоятельного чтения, последнее должно быть не только постоянным и обильным.

Со стороны цели в организации самостоятельного чтения в настоящее время существует две тенденции:

- 1) чтение с целью понять текст, т. е. собственно чтение;
- 2) чтение как подготовка к беседе по прочитанному.

Некоторые методисты (3, 5, 8,) указывают, что самостоятельного чтения не следует осложнять другими видами языковой деятельности, например обсуждением на иностранном языке. Исходя из цели обучения иностранным языкам в современной школе,

в организации самостоятельного чтения с учетом изложенного выше, необходимо, как нам кажется, различать два этапа.

Первый этап - чтение как процесс получения информации из текста. Этот этап обязателен в работе над любым текстом.

Второй этап - беседа на материале самостоятельного чтения. Этот этап работы должен быть выборочным и распространяться только на часть наиболее подходящих для речевой практики текстов или их фрагментов:

- 1) яркой фабулой текста или отрывка;
- 2) эмоциональностью и образностью изложения;
- 3) актуальностью материала;
- 4) тематической близостью предмета изложения к жизненному опыту и интересам;
- 5) возможностью столкновения точек зрения и суждений, дающих повод для дискуссий;
- 6) возможностью различных ситуативных трансформаций содержательной стороны текста или отрывка.
- 7) в зависимости от цели и характера речевой практики в отдельных случаях для определения пригодности текста.

Наличие двух названных целевых установок и двух этапов в организации самостоятельного чтения обуславливает и два подхода к контролю чтения:

- 1) Контроль как средство проверки понимания информации, заложенной в тексте;
- 2) Контроль-обсуждение как средство развития устной речи на основе содержания текста. [4]

В первом случае контроль направлен на усвоение содержания текста, операции контроля помогают осмыслению событий и той обстановки, в которой протекают события, описанные в тексте, раскрытию характеров действующих лиц.

Систему приемов контроля понимания текста на этом этапе можно представить в виде следующих заданий:

- 1) Озаглавить главные смысловые части текста;
- 2) Найти (выписать) предложения, выражающие главную мысль отдельных частей текста;
- 3) Прочитать те фрагменты из текста, которые характеризуют того или иного героя;
- 4) Найти предложения, подтверждающие или отрицающие определенное мнение;
- 5) Перечитать последовательно всех действующих лиц;
- 6) Назвать по порядку все места действий, названные в тексте;
- 7) Обозначить содержание отдельных мест текста схематическими рисунками;

Следует заметить, что вопросы в данном случае, как и все предыдущие задания, должны быть направлены на выяснение общего содержания текста или его отдельных мест.

Все перечисленные задания максимально облегчены, в них все внимание сконцентрировано только на содержании. Они могут по указанию учителя выполняться как в устной, так и в письменной форме.

Эта система контроля должны быть как можно больше ориентирована на самоконтроль читающего. При этом контрольные задания могут быть сообщены читающему или до чтения, или после него.

В первом случае контрольная обратная связь осуществляется в процессе чтения и способствует более полному осмыслению информации текста.

При втором подходе к организации контроля домашнего чтения понимание текста – лишь часть задания, подготовка к следующему этапу – к беседе по прочитанному.

Упражнения для организации беседы по прочитанному должны представлять собой последовательную серию задания, направленных на постепенный переход от подготовленной речи к речи неподготовленной. Эта система упражнений должна быть всячески ориентирована на выяснение взаимоотношений действующих лиц, на вскрытие и оценку мотивов их поступков.

Здесь возможны такие задания:

- 1) Передать содержание отдельных эпизодов из текста;
- 2) Рассказать, как действовал герой повествования в сложившейся ситуации;
- 3) Инсценировать вдвоем поведение тех или иных героев;
- 4) Охарактеризовать того или иного героя повествования;
- 5) Охарактеризовать время, место и обстоятельства действия;

Заключение.

Всё изложенное даёт основание нам для следующих выводов:

1. Самостоятельное чтение является важной и неотъемлемой частью учебного процесса по иностранным языкам. Оно осуществляется главным образом на механизмах беспроводного чтения, сформированных у учащихся в процессе чтения текстов в аудитории.

2. Цель самостоятельного чтения – получение информации из текстов на иностранном языке. Именно в этом легком и непринужденном чтении учащийся реально видит практическую ценность изучения иностранного языка. Вместе с этим систематическое и планомерное самостоятельное чтение является важным дополнительным источником и средством увеличения лексического запаса и развития устной речи учащихся.

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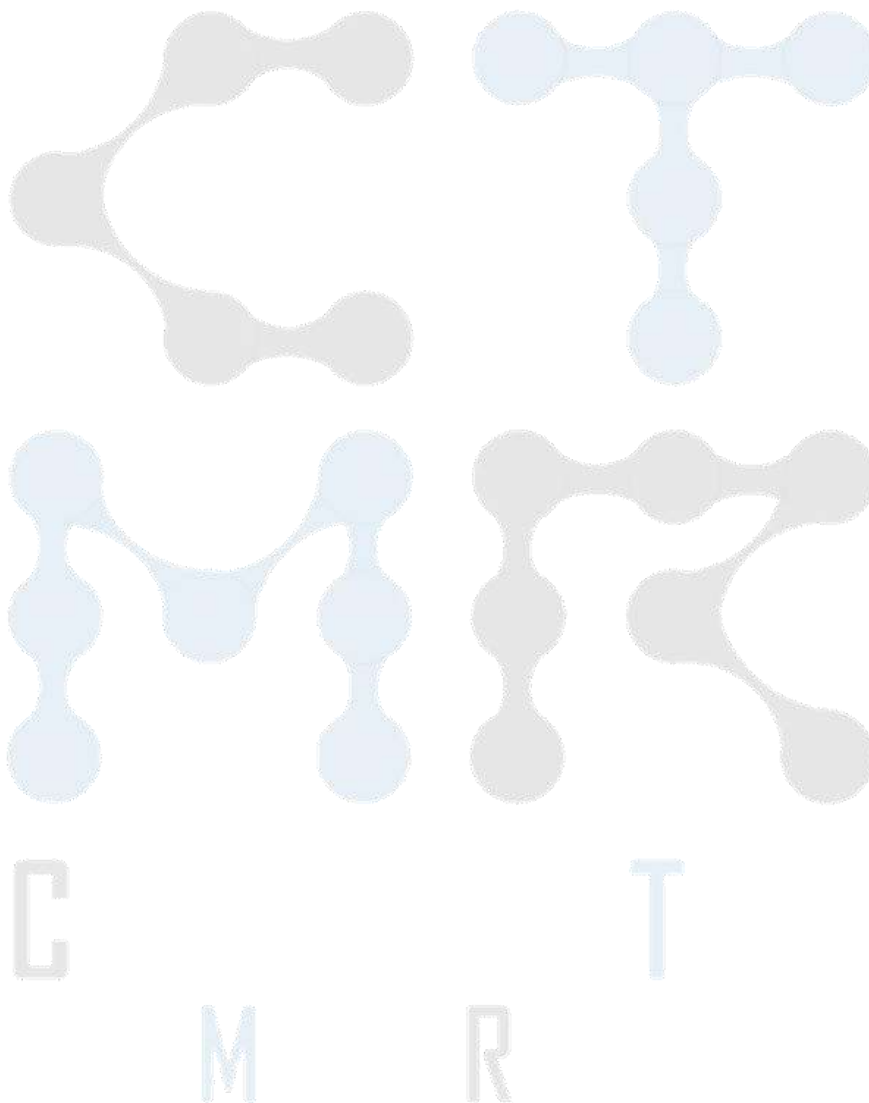
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ИНТЕРАКТИВНОГО МЕТОДЫ, ПРИМЕНЯЕМЫЕ ПРИ ИЗУЧЕНИИ РУССКОГО
ЯЗЫКА В ВУЗАХ

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Аннотация. Внедрение интерактивных форм обучения - одно из важнейших направлений совершенствования подготовки студентов в современном вузе, где преподаватель показывает не только свою компетентность и эрудицию, но и умеет увлечь студентов новыми формами учебно-познавательной деятельности. Для этого организуются индивидуальная, парная и групповая работа, используется проектная деятельность, проводятся ролевые игры, осуществляется работа с документами и различными источниками информации. Преподаватель создает такую среду образовательного общения, которая будет способствовать деловому взаимодействию участников при взаимной оценке и контроля.

Ключевые слова: взаимодействие, интерактивный метод, коммуникативный подход, активный, совместная деятельность.

INTERACTIVE METHODS USED IN THE STUDY OF THE RUSSIAN LANGUAGE IN
UNIVERSITIES

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Annotation. The introduction of interactive forms of education is one of the most important areas for improving student training in a modern university, where the teacher shows not only his competence and erudition, but also knows how to captivate students with new forms of educational and cognitive activity. For this purpose, individual, paired and group work is organized, project activities are used, role-playing games are conducted, work with documents and various sources of information is carried out. The teacher creates an educational communication environment that will facilitate business interaction between participants with mutual assessment and control.

Keywords: interaction, interactive method, communicative approach, active, joint activity.

Введение. В традиционной организации учебного процесса в качестве способа передачи информации используется односторонняя форма коммуникации. Суть её заключается в трансляции преподавателем информации и в её последующем воспроизведении обучающимся. Обучающийся находится в ситуации, когда он только читает, слышит, говорит об определенных областях знания, занимая лишь позицию воспринимающего. Иногда односторонность может нарушаться (например, когда обучающийся что-либо уточняет или задает вопрос), и тогда возникает двусторонняя коммуникация.

Односторонняя форма коммуникации присутствует не только на лекционных занятиях, но и на практических. Отличие только в том, что не преподаватель, а обучающийся транслирует некоторую информацию. Это могут быть ответы на поставленные преподавателем до начала практикума вопросы, рефераты, воспроизведение

лекционного материала. Такая форма коммуникации не отвечает принципам компетентностного подхода.

Принципиально другой является форма многосторонней коммуникации в образовательном процессе. Сущность данной модели коммуникации предполагает не просто допуск высказываний обучающихся, что само по себе является важным, а привнесение в образовательный процесс их знаний.

Преподавание, открытое в коммуникативном плане, характеризуют следующие утверждения:

1. Обучающиеся лучше овладевают определенными умениями, если им позволяют приблизиться к предмету через их собственный опыт.
2. Обучающиеся лучше учатся, если преподаватель активно поддерживает их способ усвоения знаний.
3. Обучающиеся лучше воспринимают материал, если преподаватель, с одной стороны, структурирует предмет для более легкого усвоения, с другой стороны, принимает и включает в обсуждение мнения обучающихся, которые не совпадают с его собственной точкой зрения.

Переход на компетентностный подход при организации процесса обучения предусматривает широкое использование в учебном процессе активных и интерактивных форм проведения занятий (компьютерных симуляций, деловых и ролевых игр, разбора конкретных ситуаций, психологических и иных тренингов) в сочетании с внеаудиторной работой.

Трудности применения интерактивных методов в образовательном процессе преподавателями включает в себе следующие этапы, во-первых, незнание содержания метода; во-вторых, неумение применять его на практике; в третьих, непонимание места метода в структуре занятия; в четвёртых, неверие в эффективность применения методов в процессе обучения.

Анализ научной литературы.

Компетентностный подход при организации образовательного процесса требует от преподавателя изменения процесса обучения: его структуры, форм организации деятельности, принципов взаимодействия субъектов. А это означает, что приоритет в работе педагога отдается диалогическим методам общения, совместным поискам истины, разнообразной творческой деятельности. Все это реализуется при применении интерактивных методов обучения.

Концепция интерактивного обучения предусматривает несколько **форм/моделей** обучения:[1]

- 1) **пассивная** - студент выступает в роли "объекта" обучения (слушает и смотрит);
- 2) **активная** - студент выступает "субъектом" обучения (самостоятельная работа, творческие задания, курсовые работы/проекты и т.д.);
- 3) **интерактивная** – взаимодействие, равноправное партнерство. Использование интерактивной модели обучения предусматривает моделирование жизненных ситуаций, использование ролевых (деловых) игр, совместное решение проблем. Исключается доминирование какого-либо участника учебного процесса или какой-либо идеи. Из объекта воздействия студент становится субъектом взаимодействия, он

сам активно участвует в процессе обучения, следуя своим индивидуальным маршрутом.

Кроме того, интерактивное обучение основано на прямом взаимодействии учащихся со своим опытом и опытом своих друзей, так как большинство интерактивных упражнений обращается к опыту самого учащегося, причем не только учебному. Новое знание, умение формируется на основе такого опыта.

Целью данного исследования является определение наиболее эффективных методов обучения, способствующих активизации учебно-познавательных действий студентов вуза. Для начала следует рассмотреть понятия «активные» и «интерактивные» методы обучения.

Учебный процесс с применением активных и интерактивных методов, в отличие от традиционных занятий, где студент является пассивным слушателем, строится на основе включенности в него всех студентов группы без исключения, причем каждый из них вносит свой индивидуальный вклад в решение поставленной задачи с помощью активного обмена знаниями, идеями, способами деятельности. К сожалению, на сегодняшний день не существует четкого разграничения между активными и интерактивными методами обучения, одни и те же виды методов относят как к активным, так и к интерактивным, поэтому нет и четкой классификации интерактивных методов обучения.

По мнению исследователя В.Н. Кругликова, активное обучение представляет собой такую организацию и ведение образовательного процесса, которые направлены на всемерную активизацию учебно-познавательной деятельности обучающихся посредством широкого использования, как дидактических, так и организационно-управленческих средств, и методов активизации. [2]

Исследователь А.П. Панфилова предлагает свою классификацию интерактивных методов обучения: [3]

1.Радикальные - стремление перестроить учебный процесс на основе использования компьютерных технологий (дистанционное обучение, виртуальные семинары, конференции, игры и пр.).

2.Комбинаторные - соединение ранее известных элементов (лекция-диалог, лекция в вдвоем и т.д).

3.Модифицирующие (совершенствующие) - улучшение, дополнение имеющейся методики обучения без существенного ее изменения (например, деловая игра).

Исследователи Т.С. Панина, Л.Н. Вавилова классифицируют интерактивные методы обучения по трем группам: [4]

1.Дискуссионные: диалог; групповая дискуссия; разбор ситуаций из практики.

2.Игровые: дидактические и творческие игры, в том числе деловые и ролевые, организационно-деятельностные игры.

3.Тренинговые: коммуникативные тренинги; (направленные на формирование образной и логической сфер сознания).

Интерактивный («Inter» - взаимный, «act» - действовать) означает взаимодействовать, находиться в режиме беседы, диалога с кем-либо. Другими словами, в отличие от активных методов, интерактивные ориентированы на более широкое взаимодействие студентов не только с преподавателем, но и друг с другом. Преподаватель, как и прежде, разрабатывает план и содержание занятия, используя интерактивные методы с целью представления нового материала в наиболее интересной и эффективной форме.

Интерактивные методы основаны на принципах взаимодействия, активности обучающихся, опоре на групповой опыт и обязательной обратной связи. Преподаватель на таком занятии выполняет роль помощника в исследовательской работе студентов. Активность преподавателя уступает место активности студентов, его задачей становится создание условий для их инициативы. Участники активно вступают в коммуникацию друг с другом, совместно решают поставленные задачи, преодолевают конфликты, находят общие точки соприкосновения, идут на компромиссы. Организация занятия ведется преподавателем заблаговременно, тщательно отбираются задания и вопросы для обсуждения в группах.[5]

Методология исследования. Интерактивное обучение - это специальная форма организации познавательной деятельности. Она подразумевает вполне конкретные и прогнозируемые цели. Главная цель состоит в создании педагогических условий обучения в вузе, при которых студент сможет стать уверенным в своей интеллектуальной состоятельности, что делает продуктивным сам процесс обучения. Другими словами, интерактивное обучение - это, прежде всего, диалоговое обучение, в ходе которого осуществляется взаимодействие между студентом и преподавателем, а также между самими обучающимися:

Задачами интерактивных форм обучения являются:

- пробуждение у студентов интереса к обучению;
- эффективное усвоение учебного материала;
- самостоятельный поиск учащимися путей и вариантов решения поставленной учебной задачи (выбор одного из предложенных вариантов или нахождение собственного варианта и обоснование решения);
- обучение работе в команде: проявление толерантности к различным точкам зрения, уважение прав каждого на свободу слова;
- формирование у обучающихся собственного мнения, опирающегося на определенные факты;
- выход на уровень осознанной компетентности студента. [6]

Самыми распространенными среди преподавателей являются следующие интерактивные формы:

- круглый стол (дискуссия, дебаты);
- мозговой штурм (брейнсторм, мозговая атака);
- case-study (анализ конкретных ситуаций, ситуационный анализ);
- мастер-классы;
- работа в малых группах;
- обучающие игры (ролевые, деловые, образовательные и др.);
- использование общественных ресурсов (приглашение специалиста, экскурсии);
- социальные проекты и другие внеаудиторные формы обучения (соревнования, фильмы, спектакли, выставки и др.);
- интерактивная лекция с применением видео- и аудиоматериалов;
- обсуждение сложных и дискуссионных вопросов и проблем (займи позицию, шкала мнений);
- «дерево решений», «переговоры и медиация»,
- тренинги и др.[5]

Следует обратить внимание на то, что в ходе подготовки занятия на основе интерактивных форм обучения перед преподавателем стоит вопрос не только в выборе наиболее эффективной формы обучения для изучения конкретной темы, но и в возможности сочетания методов обучения, что, несомненно, способствует наиболее глубокому осмыслению темы. При этом нужно опираться на следующие методологические принципы:

- интерактивное занятие - это не лекция, а совместная работа обучающихся по определенной проблеме;
- все участники учебного процесса равны независимо от возраста, социального статуса, опыта, места работы;
- каждый участник имеет право на собственное мнение по изучаемому вопросу.
- критика личности недопустима (подвергнуться критике может только идея или неверная информация).

Алгоритм проведения интерактивного занятия:

1. Подготовка занятия

Ведущий производит подбор темы, ситуации, определение дефиниций. При разработке интерактивного занятия рекомендуем обратить особое внимание на следующие компоненты:

- возраст участников, их интересы, будущая профессия;
- временные рамки проведения занятия;
- заинтересованность группы в данном занятии.

2. Перечень необходимых условий:

- четкое определение цели занятия;
- уточнение проблем, которые предстоит решить;
- подготовка программы занятия;
- подготовка раздаточного материала;
- обеспеченность технического оборудования;
- подбор основных вопросов, определение их последовательности;
- подбор практических примеров из жизни;
- использование графиков, иллюстраций, схем, символов;
- доверительные, позитивные отношения между обучающимися;
- многообразие форм и методов предоставления информации, форм деятельности обучающихся и др.

Вступление занятия состоит из сообщения темы и цели занятия. Участники знакомятся с предлагаемой ситуацией, с проблемой, над решением которой им предстоит работать, ставят перед собой цель, определяют задачи. Педагог информирует участников об условиях, дает четкие инструкции о правилах работы в группах. Если есть необходимость, то нужно представить участников (в случае, если занятие межгрупповое, междисциплинарное).

В ходе занятия следует добиваться однозначного семантического понимания терминов, понятий. Для этого с помощью вопросов и ответов следует уточнить понятийный аппарат, рабочее определение изучаемой темы. Своевременное уточнение понятийного аппарата формирует у студентов привычку оперировать только хорошо понятными

терминами, избегать малознакомых слов или попутно выяснять их значение, систематически пользоваться справочной литературой.

Примерные правила работы в группе:

- быть активным и доброжелательным;
- не перебивать собеседников, уважать мнение других участников;
- быть открытым для взаимодействия;
- стремиться дойти до истины;
- придерживаться регламента;
- проявлять креативность.

Особенности основной части определяются выбранной формой интерактивного занятия. Определение позиций участников следует делать очень корректно. Интерактивное позиционирование участников заключается в осмыслении общего для их позиций содержания, а также в формировании нового набора позиций на основании приведенных фактов и доводов.

Заключение. В условиях интерактивного обучения у студентов наблюдается повышение точности восприятия, мыслительной работоспособности, происходит интенсивное развитие интеллектуальных и эмоциональных свойств личности: устойчивости внимания, наблюдательности, способности анализировать и подводить итоги. Интерактивное обучение способствует развитию коммуникативных умений и навыков обучающихся, помогает установлению эмоциональных контактов между ними, активизирует работу в команде, расширяет спектр образовательных возможностей.

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DEVELOPMENT OF A 3D MODEL OF ARCHIMEDES SCREW WATER TURBINE

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Annotation. Water turbines are considered important for producing electricity from water energy. The article develops a 3D model of an Archimedean screw turbine. Based on this model, it was possible to develop the design of a screw turbine.

Key words: flow, water flow, screw diameter, external parameter, internal parameter, spiral blade, deflection angle, internal radius, external radius, screw.

Аннотация. Водяные турбины считаются важными для производства электроэнергии из энергии воды. В статье разработана 3D-модель архимедовой винтовой турбины. На основе этой модели удалось разработать конструкцию винтовой турбины.

Ключевые слова: расход, расход воды, диаметр шнека, внешний параметр, внутренний параметр, спиральная лопасть, угол отклонения, внутренний радиус, внешний радиус, шнек.

The Archimedes screw is an ancient hydraulic machine first used as a turbine in the 20th century. Archimedean screw turbines are used in small (1–10 MW) or mini (<1 MW) hydroelectric power plants. Typically its height is 1–10 m, and the flow speed is 1–10 m³/s. The screws rotate obliquely around an axis at an angle from 22° to 35° relative to the horizon.

The maximum flow rate in an Archimedes screw is determined by the diameter of the screw. The smallest augers have a diameter of 1 meter and can flow 250 liters per second; with a diameter of 5 meters and a pitch of 25 cm, the maximum water flow is about 14.5 m³/s. The length of the Archimedean screw turbine is 1-10 m, water flow rate is 0.1-15 m³/s, installed at an inclination angle of 22°-40° relative to the horizontal plane, designed for low pressures.

The Archimedes screw water turbine is simple in design, easy to install and maintain, and does not require special equipment to rotate it. Compared to other water turbines, it has the following advantages:

- the turbine is designed not only for rivers with high flow rates, but also for ditches with low flow rates (height 1 meter).

- no control system is required, like other turbines.
- due to the high efficiency of the low-pressure turbine, it lasts a long time.

Material and methods

The parameters of the Archimedean screw turbine have external and internal parameters. External parameters include the outer radius of the screw turbine cylinder R_0 , the length of the screw turbine L , the deflection angle or inclination of the turbine includes b . When developing the turbine design, all external parameters were taken into account. The internal parameters are of three types: the internal radius of the screw turbine R_i , the period or pitch of one blade and the number of blades (Fig. 1) [10-11].

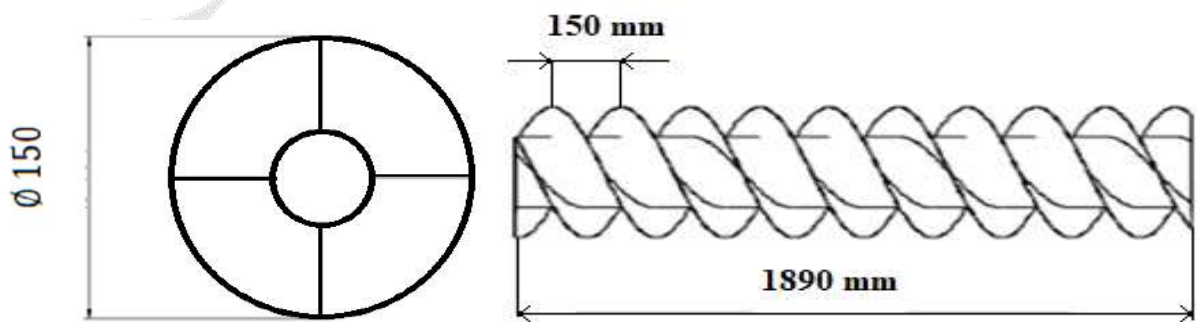


Figure 1. Turbine side view

The parameters and dimensions of the Archimedean screw water turbine model are given in Table 1.

Options	Value	Unit
Turbine length, L	1,89	m
Outer shaft radius, R_0	0,34	m
Inner shaft radius, R_i	0,08	m
Period or step of one hair, S	0,15	m
Number of wings, n	13	piece
Frame length	2	m
Frame width	0,5	m

Table 1. Parameters and dimensions of the Archimedes screw turbine model

Experimental results and discussion

First, an object was selected and a turbine cylindrical propeller was manufactured according to the dimensions given in Table 1. During the manufacturing process of the blade model, the shaft radius and the inner radius of

the blades were prepared to be the same size.

Turns corresponding to the length of the screw were wound around it in the form of a spiral. The manufacturing process of a model of an Archimedean screw turbine is shown in Fig. 2.

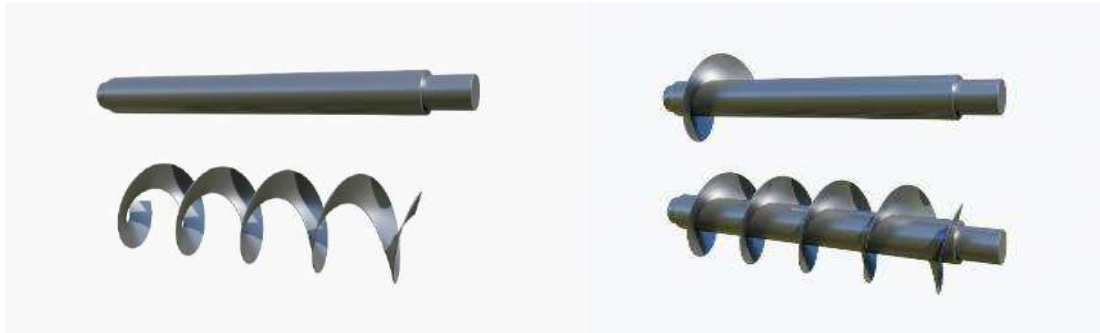


Figure 2. Processes for preparing a 3D model of an Archimedes screw turbine

To prevent water from flowing between the blades, a container was placed, and the four sides of the screw turbine were reinforced with frames. A large pulley was installed on the top of the shaft, and a small pulley was installed on the generator shaft. Scythians were carved around, and a belt was attached to them. An image of an Archimedean screw turbine mounted horizontally at a deflection angle is shown in Fig. 3.



Figure 3. Archimedes screw turbine model

When conducting research, the main attention depends on its internal parameters, that is, on the change in the number of revolutions of the blades and vanes of the screw turbine, as well as on the efficiency of electricity generation. An asynchronous generator is installed on the support frame of the upper part of the screw turbine shaft; the hydrostatic forces of water falling on the screw blades at an angle turn the turbine. The turbine transmits rotational motion to the generator through a belt stretched over a large and small pulley, resulting in the generator producing electricity.

Conclusions

A model of an Archimedean screw turbine for low-pressure water sources has been developed. 3D software was used to develop the model. The parameters and dimensions of the Archimedean screw turbine are given. Based on these dimensions, we will be able to manufacture the design of an Archimedean screw turbine.

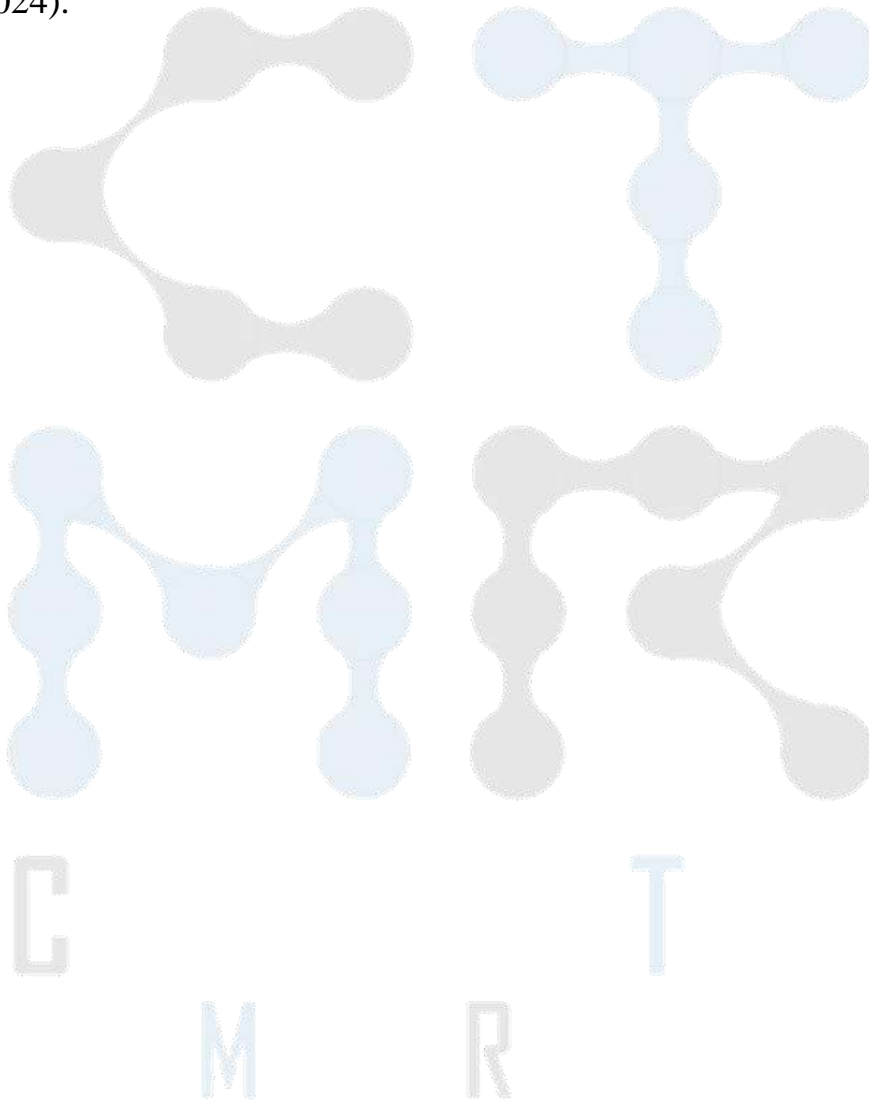
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THE LINGUISTIC PORTRAIT OF A CHARACTER AS AN OBJECT OF
LINGUOPERSONOLOGY

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Abstract. this article gives information about linguistic portrait of a character in linguoperpersonology as well as provide several feasible notions namely three primary avenues for language acquisition and description of the character.

Keywords: *portrait, natural, integral, potential, fictitious, speech portrait.*

The words “speaking portrait”, “speech characteristics”, “language portrait”, “communicative personality”, etc., are used in modern linguistics to refer to individuals who are “speaking” as subjects of scientific inquiry. A basic setting known as antropocentrism, a tendency shared by all current scientific knowledge, unites the observed diversity of terminology.

The antropocentrism principle in linguistics “is related with an endeavor to analyze linguistic phenomena in the dyad “language and man”, according to E.S. Kubryakova [1]. In keeping with this model, the researcher proposes three primary avenues for language acquisition:

- 1) the influence of natural language and the dominant worldview on human consciousness;
- 2) the influence of consciousness on natural language, or the “human factor”;
- 3) the issue of the fundamental nature of linguistic personality, as seen in the writings of Y.N. Karaulov and B.A. Serebrennikov [2]. Research on lexicography and literary text analysis, however, should be added to the three previously mentioned topics. L.N. Churilina mentions Y.D. Apresyan's writings and the Moscow Semantic School, which focus on the lexical level of language analysis. The “natural” lexical system that the researchers provide explains the “naive picture of the world” and the “naive human model” [3]. Their work is related to the reconstruction of the “integral” worldview of an average linguistic personality as well as the identification of ideas, idioglosses, and stereotypes that constitute the usus of a “naive picture of the world. But the goal of both study paths is to convey the findings lexicographically [3]. The concept of antropocentrism in the linguistic analysis of a literary work is related to the problem of reconstructing the linguistic personality, claims L.N. Churilina. The reconstruction of linguistic identity in the space of a literary work may be done in three ways since it is a complicated kind of communication: “real” (author), “potential” (reader), and “fictitious” (character) [3]. Y.N. Karaulov attempted to reconstitute the author's linguistic personality.

Such a person's discourse is far wider (here, discourse is defined as the entirety of all writings generated by this individual). Since oral communication differs greatly from written speech, it should have a diverse range of oral sources as well. The first individual to begin reconstructing a “fictitious” or character linguistic personality was Y.N. Karaulov. Since a character or literary hero in this instance only appears in the text, the researcher does not hesitate to look for extensive material for the reconstruction because the linguistic material is deleted on its own. The link between the notions of “linguistic personality” and “artistic image” is the challenge raised by Y.N. Karaulov. His main area of interest is the relationship between the new linguistic approach and the conventional literary examination of the creative image. The linguistic-literary relationship is rather obvious, as the study of creative discourse has demonstrated: a character image of the world may be constructed by linguistic analysis of the speech character (external, internal, conditionally internalized, and not entirely internalized) [4]. To put it another way, a literary hero's hierarchy of values may be constructed using the hierarchy of “key words-themes” or “ideologues” that are disclosed in his discourse (Y.N. Karaulov). Consequently, we will be able to describe the system of creative pictures of the production as a whole by comparing the value orientations of the characters. L.N. Churilina also noted the integration of literary and linguistic approaches to the examination of creative text. She concurs, citing the views of other scholars studying the language of fiction, that a highly literary analysis of the text runs the risk of leading the researcher into an overly subjective interpretation of the production, whereas linguistic analysis, which pays attention to linguistic units, enables the search for “objective” reasons:

Three things are described about the character:

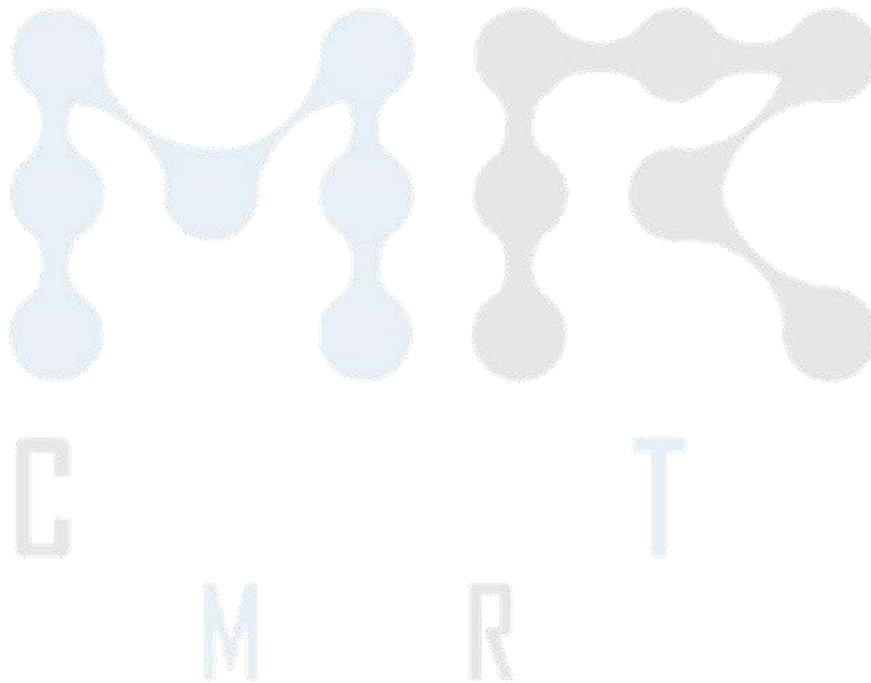
- 1) his “appearance” (face, eyes, figure, clothes, and demeanor);
- 2) his “actions and states” or “dynamic portrait” (facial expression, eyes, gestures, and posture);
- 3) the hero's “appearance” and “actions and states” (a “psychological portrait”), which discloses something about his inner life [5].

Generally speaking, the aspects of portraiture are related to the narrator's voice or the personal subjective realm (L.N. Churilina) of a literary work. However, the “Dictionary” of S.V. Turayeva and L.I. Timofeev cites instances where characters' speech is used to paint a picture of an intrapersonal topic sphere [6]. Language dictionaries provide an explanation for the phrase “speech portrait”. This feature enables the literary hero's speech style to be typified [7]. Instead of offering an interpretation of the speech picture, the current linguistics lexicon defines the term “linguistic personality” [8]. Naturally, the core of the issue of linguistic identity is covered in the encyclopedia produced by Y.N. Karaulov. As an associated idea, the phrase “speech portrait” is

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discussed in the dictionary page dedicated to this issue. The phrase “speech portrait” in linguistic studies is relatively loosely defined. While focusing on the shifts in linguistic theory towards the end of the 20th century, E.A. Goncharova analyzes it in line with the class definitions of the second half of the century. She references N.Y. Chernukhina's work, which is responsible for coining the phrase “speech structure of the image”. “The concept of “speech structure of the image” is broader than the concept of “speech characteristic”, as the latter reflects, in essence, the functional specificity of stylistically labeled elements of the character's speech structure, whereas the former includes both stylistically neutral and functionally conditioned, “colorful” linguistic material”, claims E.A. Goncharova, highlighting the key distinction between the two terms [9]. Hence, the phrase “speech structure of the image” is close to how the concept of “linguistic personality” is understood, since Y.N. Karaulov states that the process of reconstructing a linguistic personality starts with a discourse analysis that does not separate speech into “neutral” and “colorful” parts. The phrase “speech portrait” in linguistics has nothing to do with examining a literary work. Works pertaining to the reconstruction of voice portraits of actual people are acknowledged in research practice.



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EXAMPLES OF NATIONAL MUSIC OF THE UZBEK PEOPLE

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Professional folk music created by musicians and singers over the centuries shows that the musical culture of the Uzbek people has a centuries-old history. The national music works of the ancestors of the Uzbek people are strongly connected with the creativity of the brotherly peoples who lived in the territory of Central Asia, first of all, the Tajik people⁴⁴.

The historical development in the cultural life of the peoples of Central Asia begins approximately in the first millennium before our era. The Central Asian peoples and their activities and lives are described in detail in the book "Avesta", a monument of the eastern countries⁴⁵. In the book of Avesta, the commonality of folk poetic and musical art and the musical and poetic works created on this basis, the life of the peoples of Central Asia, their politics, their customs, weddings, etc., are shown in archaeological samples. It is reflected. Peasants settling down, forming a family, a community and transitioning to a class society, the results of the gradual unification of states, the appearance of epic songs, and mural patterns are evidence of this. The valiant struggle of the peoples of Central Asia for freedom, the bravery of Cholpon Shiroq, who sacrificed his life on this path, has been reflected in history. Also, Ferdowsi's "Shahnama", an invaluable work of the peoples of the East, including the characters of the settled farmers (Sugdians, Bactrians, Khorezmiyars) and nomads (Saks, Massagets) in Central Asia from the first millennium AD. historical sources provide information. Legends were created about the bravery of Rustam, Sukhrob, Siyovush, the love of the beauty queen, the symbol of beauty, and other heroes.

In the book "Avesta", which is considered as a historical source, it is shown that people sing and perform songs as a group in various ceremonies, people worship fire, sing and dance around it. Thus, according to the thinkers of the 12th-15th centuries, various traditions, singing,

⁴⁴ History of Uzbek music. Tashkent, 1981 5-p.

⁴⁵ Historical sources provide information about settled farmers (Sugdians, Bactrians, Khorezmiyars) and settlers (Sakas, Massagets) in Central Asia from the first millennium AD.

dancing, and the attitude of the people to music are clearly shown on the main holiday of the people, Navroz⁴⁶. The attitude of ordinary people to music, later development of music, scientific and theoretical research found its place in the following works over the centuries: "Treatise about Music" - Muhammad Nishapuri, "Risolatush-Sharafiya" - Safiuddin Urtnavi, "Durat-ut taj-li ghurra yati-Diboj" - Qutbiddin Sherozi, "Nafois-ul-funun", "Li-aroiis-ulyunon" - Mahmud Omuli, "Maholid-ul-ulum" - Mirsaid Alin Jurjani, "Maqasid-ul-alkhan" - Abdulkadir Maroghi, "Treatise about music" A. Jami, "Kitab-ul musiqa ul-kabir" al- Farobi, "Donishnama" Ibn Sina, "Treatise on Music" Kamaluddin Binai, "Scientific and practical law of music", Mahmud

Hosseini, "Treats on Music" by Najmuddin Kavkabi, Darvesh Ali Changi and others are among them. The presence of many features in ancient Central Asia is shown. This information is reflected in wall patterns and various sculptures. Political changes took place among the peoples of the East from the 4th century AD. Slavery was gradually replaced by the feudal system.

Eastern countries were divided into two groups and the process of living together with the Turkish and Eastern Iranian peoples began. The types of banquets and ceremonies, hunting scene on a silver tray, statue of a dancer shown in bright patterns found in the ancient city of Panjakent indicate that the culture of music was highly valued among the peoples of ancient Central Asia⁴⁷. The musical heritage of local Turks is described in the "Book of Korqut"⁴⁸. This book inspired the development of heroic epics created by different peoples. In connection with the adoption of Islam among the peoples of Central Asia in the 8th-9th centuries, local peoples began to live with this religious belief. Especially during this period, under the leadership of Muqanna, who represented the interests of the working classes among the people, the "White-clothed" movement took the main place in history. From this period, the era of Arab rule began in Central Asia.

The usika art of the local population and the Arab people merged, more local musicians learned Arabic music, and thus new works were created. When we turn to A. Mahony's "Book of Songs", we get the following information: that is, the first Arab singer, Musadjik, was in Central Asia, and he chose different tunes and based them on the system of performing songs created.

⁴⁶ A Yritom Frieze - a fragment of the wall found in the city of Termiz during the archaeological expedition of M. Massoi to the Ayrptom fortress proves this.

⁴⁷ «O'zbek musiqa tarixi». Toshkent. 1981. 8-b.

⁴⁸ Kitobi Dada Qo'rqut — turkiy xalqlarning XII-XV asrlarda yaratilgan qahramonlik qo'shiqlari. Ushbu ma'lumot «O'zbek musiqasi tarixi» kitobida ko'rsatilgan. 8-b.

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**BORROWED COMPLEX WORDS FROM ENGLISH TO UZBEK IN FOREIGN
PROFESSION (BASED ON SEMANTIC ASPECTS)**

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Annotation : This article aims to analyze the borrowing of complex English words into Uzbek, focusing on foreign professions from a semantic perspective. Utilizing a qualitative method, the research examines a corpus of texts from professional fields such as technology, medicine, and business to identify and categorize borrowed terms. The findings reveal significant patterns in the adaptation and integration of these words, highlighting both direct translations and semantic shifts. The study concludes that the semantic adaptation of English terms into Uzbek reflects broader trends in linguistic globalization and professional language evolution.

Key words: professions , linguistic globalization , specialized vocabulary , professional terms

Introduction. The globalization of the English language has profoundly influenced many languages worldwide, including Uzbek. This influence is especially noticeable in professional fields, where technical and specialized vocabulary is often borrowed directly from English. This phenomenon results in the integration of complex English words into the Uzbek lexicon, particularly within foreign professions such as technology, medicine, and business. Understanding this linguistic exchange is crucial for linguists, educators, and professionals, as it sheds light on language evolution, adaptation, and the impacts of globalization. Several studies have examined the impact of English on other languages, focusing on the borrowing of terminology and its semantic adaptation. Haugen⁴⁹ (1950) discussed the process of borrowing and integration of foreign words, emphasizing the stages of adaptation and assimilation in the recipient language. More recently, Myers-Scotton (2006) explored the sociolinguistic implications of lexical

⁴⁹ Haugen, E. (1950). The Analysis of Linguistic Borrowing. *Language*, 26(2), 210-231. doi:10.2307/410058

borrowing, highlighting how borrowed words often retain their original meanings while sometimes acquiring new, context-specific nuances. In the context of Uzbek, previous research has primarily focused on the linguistic impact of Russian due to historical and political ties. However, with the rise of English as the global lingua franca, there is a growing body of work investigating the influx of English terms. Khalilova⁵⁰ (2019) analyzed the phonological and morphological adaptation of English borrowings in Uzbek, noting significant shifts in pronunciation and structure. However, there is a gap in the literature regarding the semantic aspects of these borrowed complex words, particularly within professional fields. This article employs a mixed-methods approach to examine the semantic adaptation of borrowed complex English words in Uzbek, specifically within foreign professions. The article involves both qualitative and quantitative analyses. This article aims to contribute to the understanding of how complex English words are semantically integrated into Uzbek within professional contexts. By analyzing the adaptation processes and the resulting semantic changes, this research will provide valuable insights into language contact phenomena, the dynamics of lexical borrowing, and the ongoing evolution of the Uzbek lexicon in the face of global linguistic influences. The findings will have implications for language policy, education, and professional communication in Uzbekistan.

MethodS. This article utilizes three primary methods to investigate the semantic adaptation of borrowed complex English words in Uzbek within foreign professions: corpus analysis, semantic analysis, and surveys. We compiled a corpus of professional texts from fields such as medicine, technology, and business. Sources included medical journals, business reports, technology manuals, and online articles. Using linguistic software, we scanned the corpus to identify English loanwords. This software helped highlight terms that did not originate from Uzbek or Russian. This method allows for a comprehensive overview of the presence and frequency of English loanwords in professional Uzbek contexts. These methods provide insights into how borrowed words are semantically integrated into the recipient language, revealing changes in meaning and usage. By combining corpus analysis, semantic analysis, and surveys, this study offers a robust approach to understanding the semantic adaptation of English loanwords in Uzbek. These methods together provide a comprehensive picture of the integration process, revealing both linguistic patterns and user perceptions in professional contexts.

Results. The results of this article reveal significant insights into the semantic adaptation of borrowed complex English words in Uzbek within foreign professions. Below, we present the

⁵⁰ Khalilova, S. (2019). Phonological and Morphological Adaptation of English Borrowings in Uzbek. *Journal of Central Asian Linguistics*, 2(1), 45-62.

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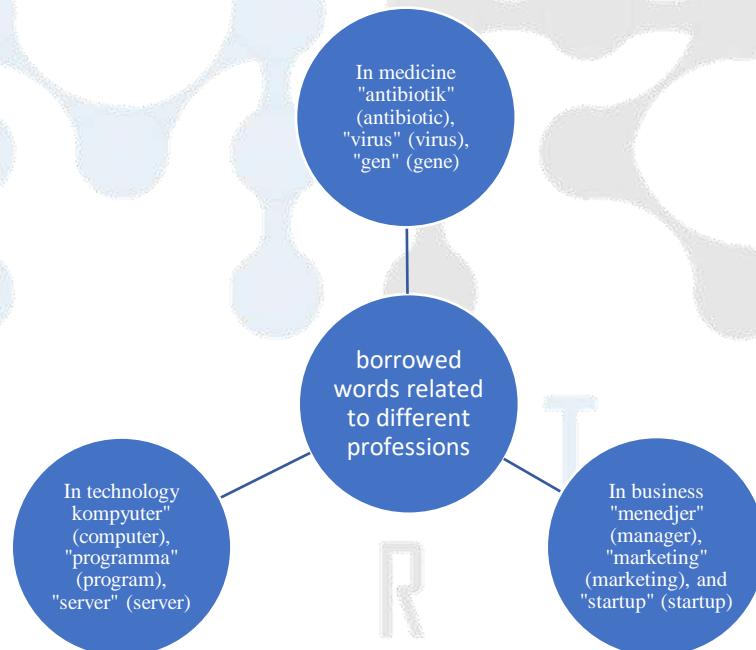
key findings from the corpus analysis, semantic analysis, and surveys, accompanied by relevant examples. The corpus analysis identified a substantial number of English loanwords across the fields of medicine, technology, and business. These loanwords are frequently used and often appear in critical contexts within professional texts.

Examples:

- In medicine, terms such as "antibiotik" (antibiotic), "virus" (virus), and "gen" (gene) are prevalent.
- In technology, words like "kompyuter" (computer), "programma" (program), and "server" (server) are commonly used.
- In business, terms including "menedjer" (manager), "marketing" (marketing), and "startup" (startup) are frequently encountered. (№1)

These loanwords often retain their original spelling with slight phonetic modifications to fit Uzbek phonological rules.

(№1)



The semantic analysis revealed various degrees of adaptation in the meanings of English loanwords. While some words retain their original meanings, others undergo significant semantic shifts.

Examples:

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- Broadening: The term "kompyuter" has broadened in Uzbek to refer not only to personal computers but also to any digital device, including smartphones and tablets.
- Shift in Connotation: The word "menedjer" has developed additional connotations in Uzbek, sometimes implying a higher status or greater authority than the English "manager," reflecting cultural perceptions of managerial roles.

Surveys with professionals from medicine, technology, and business fields provided valuable insights into the practical use and understanding of English loanwords. Respondents generally recognized the necessity and usefulness of these loanwords but also highlighted some challenges. Most respondents acknowledged that terms like "virus" and "server" are indispensable due to the lack of precise Uzbek equivalents and the international nature of their professions. Some professionals expressed difficulty with pronunciation and occasional ambiguity in meanings when multiple Uzbek words could potentially be used interchangeably with an English loanword. For example, "programma" can be confused with "dastur," the Uzbek word for program. The use of words like "startup" and "menedjer" is often associated with modernity and professionalism, indicating a positive perception of English loanwords. The results indicate that English loanwords have been widely adopted in Uzbek within professional contexts, with varying degrees of semantic adaptation. These loanwords fulfill essential communicative needs, especially in fields heavily influenced by global terminology. However, they also introduce challenges related to pronunciation, semantic clarity, and cultural perceptions. This article contributes to a deeper understanding of the linguistic dynamics at play in the integration of English terminology into the Uzbek lexicon.

Consultant	kən'səltnt https://www.merriam-webster.com/dictionary/consultant	one who gives professional advice or services
Chef	Shef https://www.merriam-webster.com/dictionary/chef	a skilled professional cook
Diplomacy	də'plōmāsē https://www.merriam-webster.com/dictionary/diplomacy	the art and practice of conducting negotiations between nations

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Instructor	in'stræktər https://www.merriam-webster.com/dictionary/instructor	a college teacher below professorial rank
Manager	'manijər https://www.merriam-webster.com/dictionary/manager	a person who conducts business or household affairs
Photographer	fə'tægrəfər https://www.merriam-webster.com/dictionary/photographer	one who makes a business of taking photographs
Agent	'āj(ə)nt https://www.merriam-webster.com/dictionary/agent	one that acts or exerts power
Assistant	ə'sistnt https://www.merriam-webster.com/dictionary/assistant	a person who assists someone : HELPER
Director	də'rektər https://www.merriam-webster.com/dictionary/director	the head of an organized group or administrative unit (such as a bureau or school)
Mentor	'men,tôr https://www.merriam-webster.com/dictionary/mentor	a trusted counselor or guide
Tutor	'toodər https://www.merriam-webster.com/dictionary/tutor	a person charged with the instruction and guidance of another: such as a private teacher

Conclusion. This article provides a comprehensive examination of the semantic adaptation of borrowed complex English words in Uzbek within professional fields such as medicine, technology, and business. Through corpus analysis, semantic analysis, and surveys, we have identified and cataloged a significant number of English loanwords, revealing patterns in their integration and adaptation. The findings demonstrate that English loanwords are not only prevalent but also essential in professional Uzbek contexts, filling gaps where native equivalents are insufficient or nonexistent. Semantic analysis shows that while some loanwords retain their original meanings, others undergo notable shifts, including narrowing, broadening, and changes in connotation. These adaptations reflect both linguistic and cultural influences, highlighting the dynamic nature of language evolution in response to globalization. Overall, this article contributes valuable insights into the processes and impacts of lexical borrowing, illustrating the ongoing interaction between English and Uzbek in professional spheres. The results have important implications for language policy, education, and professional communication in Uzbekistan, suggesting the need for continued support in managing and facilitating the integration of foreign terminology. As globalization progresses, further research could explore the long-term effects of these linguistic changes and their implications for the Uzbek language and culture.

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7. IMPORTANCE OF BORROWED WORDS IN THE FIELD OF CULTURE AND ART
Davronova Asila, Ibragimova Gulshana, Davlyatova Elvira Muradovna
Multidisciplinary Journal of Science and Technology 3 (5), 30-31, 2023

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Annotation: The effectiveness of distance learning hinges significantly on the quality of feedback provided to students. Feedback in this context serves not only as a tool for assessment but also as a means to guide, motivate, and engage learners. This article explores the key elements of feedback in distance learning, highlighting various types, delivery methods, and best practices to ensure it is both effective and meaningful.

Keywords: Distance Learning, Formative Feedback, Summative Feedback, Peer Feedback, Automated Feedback, Feedback Effectiveness, Feedback Methods, Audio Feedback, Video Feedback.,

Introduction. Feedback is a critical component of the learning process, especially in distance learning environments where face-to-face interactions are limited. Effective feedback can significantly enhance student learning, motivation, and engagement. This article explores the essential elements of feedback in distance learning, highlighting various types, delivery methods, and best practices to ensure it is effective and meaningful.

Types of Feedback

1. **Formative Feedback** Formative feedback is provided during the learning process and is intended to help students improve their performance before final evaluations. It includes:
 - **Immediate Feedback:** Given in real-time or shortly after a task, helping students quickly correct mistakes and understand concepts.
 - **Ongoing Feedback:** Regular feedback throughout the course to track progress and guide learning.
2. **Summative Feedback** Summative feedback is provided at the end of an instructional unit or course, evaluating students' overall performance. It includes:
 - **Graded Assignments:** Feedback on final projects, exams, and assignments, highlighting strengths and areas for improvement.
 - **Course Evaluations:** Comprehensive reviews of student performance, often used to determine final grades.
3. **Peer Feedback** Peer feedback involves students providing feedback to each other. This type of feedback can:

- Encourage collaborative learning.
 - Develop critical thinking and self-assessment skills.
 - Provide diverse perspectives on work.
4. **Automated Feedback** Automated feedback is generated by digital tools and platforms. It includes:
- **Quizzes and Tests:** Immediate feedback on objective questions like multiple-choice or true/false.
 - **Interactive Simulations:** Real-time feedback within virtual labs or simulations[2].

Delivery Methods

1. **Written Feedback** Written feedback can be provided through comments on assignments, emails, or discussion forums. It allows for detailed and thoughtful responses, but it can be time-consuming.
2. **Audio/Video Feedback** Audio or video feedback adds a personal touch and can convey tone and emotion better than written feedback. It can be delivered via recorded messages or live video conferencing.
3. **Live Feedback** Live feedback during synchronous sessions (e.g., webinars, live chats) allows for immediate interaction and clarification. It can simulate the immediacy of in-person feedback.
4. **Embedded Feedback** Embedded feedback is integrated within the learning materials or activities. For example, hints and tips can be included in interactive assignments or quizzes.

Best Practices for Effective Feedback

1. **Timeliness** Providing feedback promptly is crucial in distance learning. Timely feedback helps students quickly correct mistakes and stay engaged with the course material.
2. **Specificity** Feedback should be specific and focused on particular aspects of the student's work. General comments like "good job" or "needs improvement" are less helpful than specific suggestions.
3. **Constructiveness** Constructive feedback should highlight both strengths and areas for improvement, offering clear and actionable suggestions for how students can enhance their performance.
4. **Clarity** Feedback should be clear and easy to understand. Avoid jargon and complex language, and ensure that the feedback is concise and to the point.

5. **Positivity** While it is important to address mistakes, feedback should also emphasize positive aspects of the student's work to maintain motivation and confidence.
6. **Engagement** Encourage students to engage with the feedback by asking questions, seeking clarification, and reflecting on their learning process. This can be facilitated through follow-up discussions or assignments[4].

Challenges and Solutions

1. **Volume of Feedback Challenge**: In large classes, providing individualized feedback can be overwhelming. **Solution**: Utilize automated feedback tools for initial assessments and focus on personalized feedback for more complex tasks.
2. **Quality of Peer Feedback Challenge**: Peer feedback can vary in quality and reliability. **Solution**: Provide clear guidelines and training for students on how to give effective feedback.
3. **Technology Barriers Challenge**: Not all students may have access to the necessary technology for receiving certain types of feedback. **Solution**: Offer multiple feedback options (written, audio, video) to accommodate different needs and preferences.

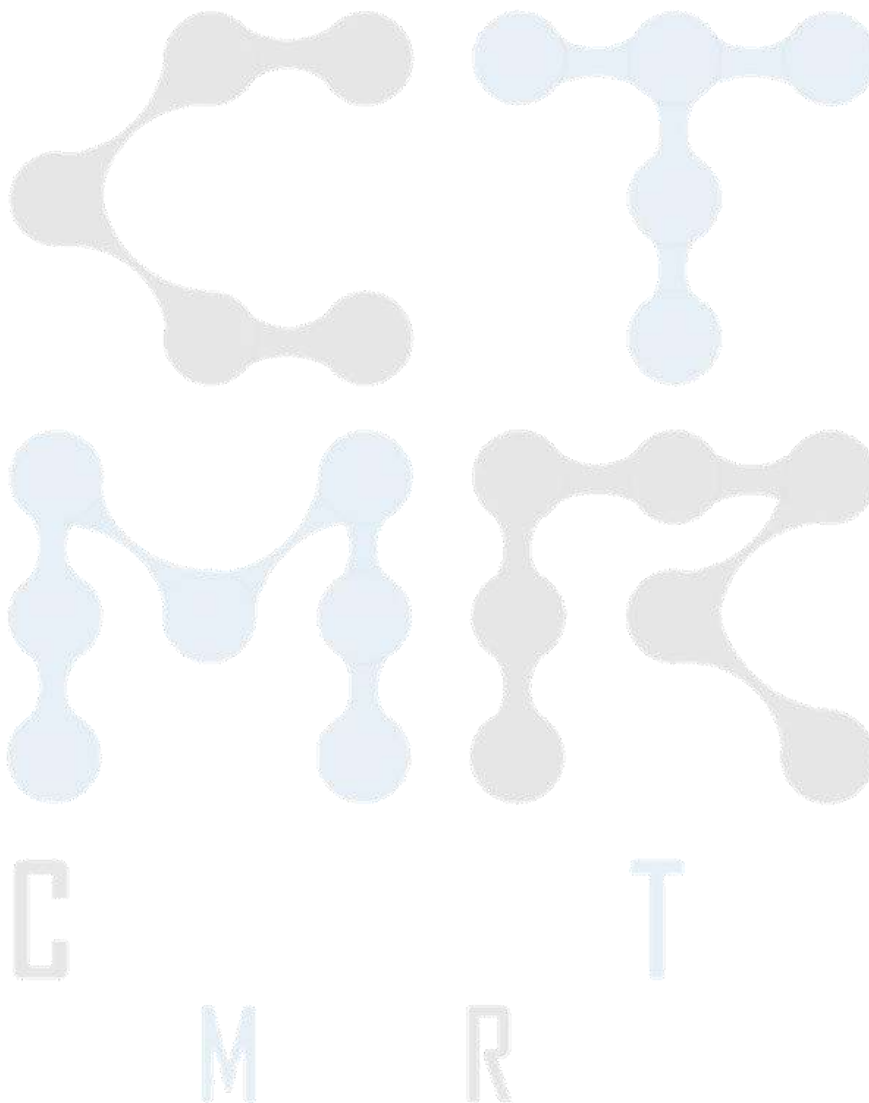
Conclusion. Feedback is a vital element of distance learning, essential for guiding students' progress and improving their learning outcomes. By incorporating various types of feedback, using multiple delivery methods, and adhering to best practices, educators can provide effective and meaningful feedback that enhances the distance learning experience. Addressing challenges through thoughtful solutions ensures that feedback remains a powerful tool for student success.

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UNVEILING COGNITIVE PSYCHOLOGY'S ROLE IN SIMULTANEOUS
INTERPRETING

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Annotation. This article delves into the intricate connections between cognitive psychology and simultaneous interpreting, exploring the cognitive processes, mechanisms, and challenges encountered by interpreters. It examines how cognitive psychology principles influence and shape the performance of simultaneous interpreters, shedding light on the complexities and cognitive demands inherent in this form of language mediation.

Keywords: cognitive psychology, simultaneous interpreting, cognitive processes, working memory, attentional control, bilingualism, comprehension strategies, interpreting challenges, language processing.

Introduction. Cognitive psychology, an intricate realm delving into the intricacies of mental processes and mechanisms, intertwines profoundly with the dynamic landscape of simultaneous interpreting. This article embarks on an illuminating journey, navigating the intricate connections between cognitive psychology and the multifaceted domain of simultaneous interpreting, uncovering the cognitive mechanisms, challenges, and implications that shape the interpreter's cognitive landscape.

Simultaneous interpreting epitomizes a cognitive marvel where language professionals seamlessly bridge linguistic divides in real time. At its core lies a symphony of cognitive processes: interpreters meticulously process incoming auditory information, retain it temporarily in their working memory, and swiftly transform it into coherent expressions in the target language.⁵¹ This cognitive dance involves intricate mental acrobatics, demanding cognitive flexibility, linguistic proficiency, and adept multitasking abilities. The orchestration of simultaneous interpreting hinges upon the interplay of various cognitive faculties. Working memory emerges as a cornerstone in this process, functioning as a mental workspace where interpreters temporarily store, manipulate, and retrieve information while processing and producing language concurrently. Attentional control, another vital component, enables interpreters to efficiently allocate cognitive resources, managing divided attention between listening, processing, and speaking.

⁵¹ Christoffels, I. K., de Groot, A. M., & Kroll, J. F. (2006). Memory and language skills in simultaneous interpreters: The role of expertise and language proficiency. *Journal of Memory and Language*, 54(3), 324-345.

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Bilingualism, inherent to many interpreters, engenders a cognitive advantage rooted in heightened executive functions.⁵² The bilingual brain, adept at language control and switching, navigates the intricate linguistic terrains, exhibiting superior cognitive control in managing interference between languages. This cognitive edge offers interpreters enhanced flexibility and adaptability in maneuvering the linguistic nuances and complexities inherent in simultaneous interpreting. However, the cognitive prowess of interpreters faces an array of challenges. Multitasking, an integral component of simultaneous interpreting, exerts substantial cognitive demands. The requirement to process, store, and generate language in real-time imposes a significant cognitive load, testing the limits of working memory capacity and attentional resources. Moreover, linguistic interference and code-switching pose challenges, necessitating rapid language control mechanisms to maintain linguistic accuracy.

The fusion of cognitive psychology principles with interpreter training holds significant implications.⁵³ Tailored cognitive training programs focusing on bolstering working memory, attentional control, and language processing skills can enhance interpreters' cognitive abilities. Furthermore, leveraging technology and cognitive aids offers innovative solutions to support interpreters in managing the complex cognitive demands inherent in simultaneous interpreting. Beyond performance, the mental well-being of interpreters remains a critical facet of understanding the cognitive landscape. Prolonged interpreting sessions, coupled with stress and fatigue, can detrimentally impact interpreters' cognitive performance. Exploring the concept of cognitive reserve unveils insights into interpreters' cognitive health, emphasizing the importance of cognitive resilience in sustaining optimal performance and mitigating long-term effects. The amalgamation of cognitive psychology principles with technological advancements offers a promising trajectory for simultaneous interpreters. Innovations in cognitive aids, such as speech recognition software, real-time glossaries, and digital memory-enhancing tools, serve as valuable resources. These technological interventions complement interpreters' cognitive processes, aiding in managing the complexities of language transfer.

Furthermore, the prospect of leveraging neuroimaging techniques, such as functional magnetic resonance imaging (fMRI) and electroencephalography (EEG), provides a glimpse into the neural underpinnings of simultaneous interpreting. These neuroscientific insights shed light on the intricate neural networks engaged during language processing and cognitive control, unraveling the enigmatic workings of the interpreter's brain. Beyond the technical aspects, the

⁵² Gile, D. (1995). *Basic concepts and models for interpreter and translator training*. John Benjamins Publishing.

⁵³ Köpke, B., & Signorelli, T. M. (2018). *First language attrition and simultaneous interpreting: Corpus, experiments, and hypotheses*. John Benjamins Publishing Company, p 58-63.

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mental resilience of interpreters warrants attention. The demanding nature of simultaneous interpreting, with its intense cognitive load and prolonged periods of concentration, can induce stress and mental fatigue. Exploring strategies to bolster cognitive resilience, including mindfulness techniques, stress management, and regular breaks, becomes pivotal in preserving interpreters' cognitive health and sustaining optimal performance. The convergence of cognitive psychology and simultaneous interpreting remains an ever-evolving quest for deeper comprehension.⁵⁴

Continual research into the cognitive mechanisms, strategies, and challenges faced by interpreters fuels innovation and adaptation. Unraveling the cognitive intricacies within language mediation practices holds the promise of refining training methodologies, fostering technological advancements, and elevating the quality of cross-cultural communication. Simultaneous interpreting stands as a testament to the intricate relationship between cognition and effective communication across diverse linguistic contexts. The interpreter's cognitive prowess becomes a cornerstone in facilitating meaningful exchanges, transcending linguistic barriers, and fostering cross-cultural understanding. The intricate interplay of cognitive processes unveils the sheer complexity inherent in language mediation, emphasizing the pivotal role of cognitive psychology in this multifaceted domain. Interpreters' ability to swiftly navigate linguistic complexities embodies the essence of cognitive flexibility. The capacity to seamlessly switch between languages, adapt to varied speech patterns, and discern nuanced meanings underscores the adaptive nature of cognitive processes. This cognitive dexterity, honed through linguistic expertise and cognitive control, is pivotal in ensuring accurate and coherent interpretations.⁵⁵

Beyond linguistic proficiency, interpreters rely on cognitive empathy and cross-cultural sensitivity. Understanding the cultural context embedded within language nuances requires a cognitive adeptness to perceive and convey cultural subtleties. The interpreter's cognitive ability to comprehend and navigate cultural nuances enhances the fidelity of the interpretation, fostering effective communication in diverse sociocultural settings. The integration of cognitive psychology principles into interpreter training holds transformative potential. Cognitive training programs tailored to strengthen specific cognitive domains, such as attentional control, working memory capacity, and language processing speed, present avenues for enhancing interpreter proficiency. Leveraging insights from cognitive psychology allows for the development of targeted strategies

⁵⁴ Moser-Mercer, B. (2005). Cognitive aspects of simultaneous interpretation: A review of recent research. In *Handbook of Interpreting* (pp. 55-74). John Benjamins Publishing Company.

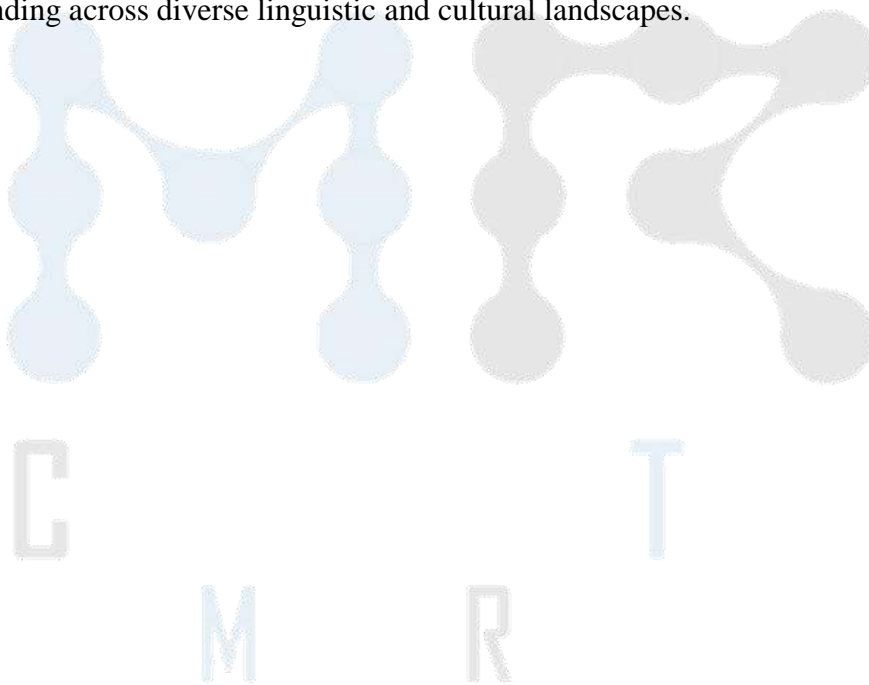
⁵⁵ Padilla, P., & Bajo, M. T. (1995). Comprehension processes in simultaneous interpreting. *Interpreting*, 1(2), 193-214.

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to optimize cognitive resources and mitigate the cognitive demands imposed during simultaneous interpreting. Ethical considerations in simultaneous interpreting extend to cognitive implications. Interpreters navigate ethical dilemmas amid cognitive challenges, ensuring impartiality, accuracy, and confidentiality while managing the cognitive load. This ethical compass, guided by cognitive awareness, remains integral in upholding professional standards amidst cognitive complexities.

Conclusion. In conclusion, cognitive psychology intertwines seamlessly with simultaneous interpreting, unveiling the cognitive intricacies, adaptive strategies, and ethical dimensions that underpin language mediation. As interpreters harness cognitive flexibility, linguistic expertise, and cross-cultural sensitivity, the fusion of cognitive psychology with interpreter training and practice offers pathways toward enhanced communication efficacy. The perpetual quest to decipher the cognitive underpinnings within simultaneous interpreting illuminates the indelible role of cognitive psychology in shaping effective cross-cultural communication. The symbiotic relationship between cognition and interpretation serves as a testament to the indomitable human capacity to transcend linguistic boundaries and foster understanding across diverse linguistic and cultural landscapes.



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**ВЫРАЖЕНИЕ ПАРЕМИОЛОГИЧЕСКИХ ЕДИНИЦ,
СОДЕРЖАЩИХ НАЗВАНИЯ ЖИВОТНЫХ И РАСТЕНИЙ В
ПЕРЕВОДЕ**

**TARKIBIDA HAYVONOT VA O'SIMLIK NOMLARI MAVJUD
BO'LGAN PAREMIOLOGIK BIRLIKLARNING TARJIMADA
IFODALANISHI**

**TRANSLATION EXPRESSION OF PAREMIOLOGICAL UNITS
CONTAINING ANIMAL AND PLANT NAMES**

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Аннотация. Данная статья посвящена изучению особенностей перевода паремиологических единиц, содержащих названия животных и растений, с немецкого языка на русский. В статье рассматриваются различные методы и подходы к переводу данных единиц, анализируются сложности, возникающие при переводе, и предлагаются возможные решения. В результате исследования выявлены основные способы перевода паремиологических единиц с названиями животных и растений, а также факторы, влияющие на выбор переводческой стратегии.

Ключевые слова: паремиология, перевод, фразеология, названия животных, названия растений, немецкий язык, русский язык

Annotatsiya. Ushbu maqola hayvonlar va o'simliklarning nomlarini o'z ichiga olgan paremiologik birliklarning nemis tilidan rus tiliga tarjima qilish xususiyatlarini o'rganishga bag'ishlangan. Maqolada ushbu birliklarni tarjima qilishning turli usullari va yondashuvlari ko'rib chiqiladi, tarjimada yuzaga keladigan qiyinchiliklar tahlil qilinadi va mumkin bo'lgan yechimlar taklif etiladi. Tadqiqot natijasida paremiologik birliklarni hayvonlar va o'simliklar nomlari bilan tarjima qilishning asosiy usullari, shuningdek tarjima strategiyasini tanlashga ta'sir qiluvchi omillar aniqlandi.

Kalit so'zlar: paremiologiya, tarjima, frazeologiya, hayvon nomlari, o'simlik nomlari, nemis tili, rus tili

Abstract. This article is devoted to the study of the peculiarities of the translation of paremiological units containing the names of animals and plants from German into Russian. The article discusses various methods and approaches to the translation of these units, analyzes the difficulties encountered in translation, and suggests possible solutions. As a result of the study, the main ways of translating paremiological units with names of animals and plants, as well as factors influencing the choice of translation strategy, have been identified.

Keywords: paremiology, translation, phraseology, animal names, plant names, German, Russian

ВВЕДЕНИЕ

Паремиологические единицы, включающие в себя названия животных и растений, представляют особый интерес для переводоведения, поскольку они отражают культурные особенности и мировоззрение народа, говорящего на том или ином языке [1]. Перевод таких единиц требует не только глубокого знания обоих языков, но и понимания культурного контекста и образной системы исходного и переводящего языков [2].

Актуальность данного исследования обусловлена необходимостью разработки эффективных стратегий перевода паремиологических единиц с названиями животных и растений для обеспечения адекватной межкультурной коммуникации. Цель работы - выявить основные способы перевода данных единиц с немецкого языка на русский и определить факторы, влияющие на выбор переводческой стратегии.

ОБЗОР ЛИТЕРАТУРЫ И МЕТОДОВ

Теоретической базой исследования послужили работы отечественных и зарубежных лингвистов в области фразеологии, паремиологии и переводоведения, таких как В.Н. Комиссаров [3], С.Г. Тер-Минасова [4], В. Мидер [5] и др.

В работе применялись следующие методы: метод сплошной выборки для извлечения паремиологических единиц из словарей и художественной литературы, сравнительно-сопоставительный метод для анализа оригинальных единиц и их переводов, описательный метод для характеристики способов перевода и факторов, влияющих на выбор переводческой стратегии.

Материалом исследования послужили несколько паремиологических единиц с названиями животных и растений, извлеченных из немецко-русских

фразеологических словарей и произведений немецкой художественной литературы XIX-XXI вв.

РЕЗУЛЬТАТЫ

В результате анализа материала были выявлены следующие способы перевода паремиологических единиц с названиями животных и растений:

Перевод с помощью полного эквивалента. Например: "Der Apfel fällt nicht weit vom Stamm" - "Яблоко от яблони недалеко падает" [6].

Перевод с помощью частичного эквивалента. Например: "Wie ein Elefant im Porzellanladen" - "Как слон в посудной лавке" [7].

Перевод с помощью аналога. Например: "Die Katze lässt das Mäusen nicht" - "Горбатого могила исправит" [8].

Описательный перевод. Например: "Auf den Hund gekommen sein" - "Дойти до полного разорения, опуститься" [9].

Калькирование. Например: "Ein Bock stößt nicht allein" - "Один козел не бодается" [10].

Опущение. Например: "Viele Hunde sind des Hasen Tod" - "Против лома нет приема".

АНАЛИЗ И ОБСУЖДЕНИЕ

Выбор способа перевода паремиологических единиц с названиями животных и растений зависит от ряда факторов, таких как наличие эквивалента или аналога в переводящем языке, степень образности и идиоматичности единицы, культурные особенности исходного и переводящего языков.

При наличии полного эквивалента в русском языке переводчик, как правило, использует именно его. Однако в случае частичных эквивалентов и аналогов необходимо учитывать возможные различия в образной системе и коннотациях единиц в исходном и переводящем языках.

Описательный перевод применяется в тех случаях, когда в русском языке отсутствует эквивалент или аналог и необходимо передать смысл единицы, пожертвовав ее образностью и идиоматичностью. Калькирование используется для сохранения образа исходной единицы, но может привести к появлению неестественных для русского языка выражений.

Опущение паремиологической единицы при переводе является нежелательным, но иногда неизбежным способом, когда отсутствуют другие возможности передачи ее смысла и образности.

ВЫВОДЫ

Проведенное исследование показало, что перевод паремиологических единиц с названиями животных и растений требует учета ряда

лингвистических и экстралингвистических факторов. Наиболее частотными способами перевода являются использование полных и частичных эквивалентов, а также аналогов. Описательный перевод, калькирование и опущение применяются реже и только при отсутствии других возможностей.

Для обеспечения адекватного перевода паремиологических единиц с названиями животных и растений переводчику необходимо обладать глубокими знаниями фразеологии и паремиологии обоих языков, учитывать культурные особенности и образные системы исходного и переводящего языков, а также владеть различными переводческими стратегиями и приемами.

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**УЗБЕКСКИЙ ЯЗЫК В ГРУППАХ, ОБРАЗОВАНИЕ В КОТОРЫХ
ПРОВОДИТСЯ НА РУССКОМ ЯЗЫКЕ МЕТОДИКА
ПРЕПОДАВАНИЯ НАУКИ**

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Абстрактный: Для преподавания предмета Узбекский язык как государственный язык в школах, где обучение ведется на других языках, формирования у учащихся определенных компетенций по данному предмету в Государственном образовательном стандарте и учебной программе были определены цели и задачи данного предмета. В данной статье представлена информация о методике преподавания узбекского языка в группах, где обучение сегодня ведется на русском языке.

Ключевые слова: Узбекский язык, Речевая компетентность, Лингвистическая компетентность, Метод «Картинка-ребус», Метод «Быстрый вопрос-ответ», Технология «Интересный кроссворд», Метод «Проект», «Божественная комедия».

Сфере образования в нашей стране с первых лет независимости уделяется особое внимание. В частности, важным фактором выполнения требований Закона «О государственном языке» послужило установление преподавания узбекского языка как государственного в неузбекских группах. Ведь в Узбекистане проживают более 130 разных национальностей и народов. Наше государство обязуется уважать их национальные традиции, культуру и родной язык. Также не будет ошибкой сказать, что введение в генеральный указ нашей страны статьи «Государственным языком Республики Узбекистан является узбекский язык» послужило повышению авторитета и авторитета узбекского языка как государственного. язык еще выше.

Исходя из этих конституционных обязанностей и задач, образование в Узбекистане будет осуществляться на 7 языках. Обучение узбекскому языку как государственному в неузбекских группах наряду с обучением их родному

языку является важной программой выполнения требований нашего Основного закона и Закона «О государственном языке» в нашей стране. В целях преподавания предмета узбекский язык как государственный в школах, где обучение ведется на других языках, формирования определенных компетенций учащихся по этому предмету в Государственном образовательном стандарте и учебной программе определены цели и задачи этого предмета. Согласно требованиям ДТС, основная цель обучения узбекскому языку воплощается в двух компетенциях.

1. Речевая компетентность – понимание на слух, чтение, говорение и письмо, т.е. приобретение коммуникативных навыков.

2. Лингвистическая компетентность - подразумевает приобретение знаний и видов речевой деятельности (слушание, чтение, говорение, письмо) с целью овладения языковым материалом (фонетикой, лексикой, грамматикой) и средствами для возможности использования их в речи.

Стандарт определяет языковой материал, языковые средства и грамматические знания, необходимые навыки для каждого вида речевой деятельности.

При этом для правильного произношения и написания изучаемых слов и словоформ, грамматически правильного словообразования, правильного выбора слов, синтаксически и стилистически правильного необходимо уметь оценить, составить предложение и задать тон речи и использовать возможности литературного языка.

Для реализации этих целей и задач в учебниках узбекского языка представлены сведения по грамматике, а также литературно-художественные тексты для развития разговорной компетенции, а также сведения о жизни и творчестве узбекских поэтов и писателей. Ознакомившись с этой информацией, студент развивает свои навыки узбекской речи, видя богатые образцы узбекского литературного языка и литературы. То есть наряду с языковой компетенцией формируется и речевая компетентность, формирующая необходимые знания в науке.

Целью преподавания узбекского языка для образовательных учреждений, где обучение ведется на иных, чем узбекский, языках, является:

> формирование речевых компетенций, развивающих у студентов способность применять полученные знания на узбекском языке в процессе общения для осуществления деятельности в бытовой и профессиональной сферах;

> формирование языковых компетенций, направленных на развитие устной и письменной грамотности учащихся на узбекском языке;

> на основе полученных знаний у обучающихся она заключается в формировании базовых компетенций, направленных на саморазвитие, умения применять полученные знания, умения и навыки в различных ситуациях.

Исходя из вышеизложенных целей и задач, в настоящее время мы преподаем жизнь и деятельность Героя Узбекистана, Народного поэта Узбекистана Абдуллы Орипова в школах, где обучение ведется на русском языке, и хотим поделиться своими рекомендациями по методике.

Известно, что Абдуллы Орипова известен всем как настоящий деятель узбекской литературы. Его уникальная поэзия, неповторимые строки слов пленили многих читателей. Мы хорошо знаем поэта как автора Государственного гимна Республики Узбекистан. Учащиеся, обучающиеся в неузбекских группах, особенно в русских классах, знакомятся с творчеством поэта в узбекских учебниках. Однако больше всего информации они получают в учебнике узбекского языка для 10-го класса.

Теперь мы хотели бы поделиться своими мыслями о нескольких инновационных технологиях, которые могут быть полезны при преподавании этого предмета.

1. Метод «Картинный ребус». Этот прием уместно часто использовать в части урока «Консолидация». Мы знаем, что десятиклассники переживают последние стадии психологического «переходного периода». Их сложно вовлечь в занятие определенными играми или командами. С помощью этого метода учащиеся должны будут определить произведения, связанные с творчеством поэта, глядя на картинки. Например, если в ребусе изображены изображения рыбки, пруда и золотой монеты, то здесь изображено стихотворение поэта «Золотая рыбка».

2. Метод «быстрых вопросов и ответов». Мы сочли необходимым использовать этот метод в части урока «Повторить тему и задать домашнее задание». Студентам будут заданы вопросы о жизни и творчестве поэта. Студенты должны будут быстро ответить на вопросы. В этом случае уместно, чтобы учащиеся давали ответы письменно, поскольку это учитывает их владение ответами партнеров.

3. Технология «Интересный кроссворд». С помощью этой технологии помогите учащимся закрепить знания, полученные в части урока «Изложение новой темы».

Также существуют методы, используемые для устранения проблемных ситуаций, возникающих в образовательном процессе. Эти методы важны для эффективного обучения и общения между учениками и преподавателями.

Представленный метод – это метод, призывающий всех учащихся к активности на уроке.

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MEMBERS OF SOCIETY IN THE UPBRINGING OF YOUNG PEOPLE ROLE AND IMPORTANCE

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Annotation. In this article, we have learned the theoretical knowledge of the relationships between family and neighborhoods, as well as some recommendations for further development of our relationships. In the upbringing of young people in the mahallas we need to use the method of our ancestors, to be based on our historical tradition and our national education. The most important element in the field of education is the universal human and national cultural values. This is the training of young people on the basis of the historical, national cultural heritage, the traditions of national education that have been formed over thousands of years.

Key words: high intelligence, social activity, spiritual and moral education, diligence, national pride, patriotism, national traditions, internationalism.

Strengthening the independence of our state, the fate of its reforms in socio-economic, legal education and other spheres, the establishment of a great future of our country directly depends on the level of spiritual and moral upbringing of citizens, especially the younger generation, their high consciousness, social activity. Therefore, our country has been paying special attention to issues of spiritual and moral education since the first days of independence as one of the priorities of state policy.

As we all know, educational work in the life of society has always been and remains relevant. The fact that Abdullah Avlani, a 20th-century educator, argued that education is a matter of life or life, or salvation, or destruction, or calamity, for us. The transformation of educational work in our country into a priority at the state level is also proof of how important work it is in our society to educate young people as personnel with spiritual perfection, strength, knowledge and high thinking. It is becoming clear that the role of family and neighborhood in the spiritual education of the younger generation is incomparable, the need to further strengthen and improve mutual cooperation between them.

At this point, our President Sh. The following thoughts of Mirziyoyev emphasize that youth education is one of the urgent tasks of today: "another

important issue that always makes us think about is the etiquette, behavior, in a word, the worldview of our youth. Today The Times are changing rapidly. Who makes these changes feel more than everyone else - young people. May young people be in harmony with the demands of their time. But at the same time, do not forget about oneself. Let the call to who we are, what kind of generation we are, always resonate in their hearts and encourage them to remain true to their self. What do we achieve at the expense of this? We will achieve at the expense of upbringing, upbringing and only upbringing.

Family and neighborhood are equally responsible for raising our young people to become spiritually mature. To do this, first of all, the parents, the neighborhood should be an example, an example to young people on all fronts. In the spiritual education of young people, family and neighborhood work together, these educational institutions can achieve great efficiency in the work of upbringing.

The tasks of the family in raising the younger generation are mainly to create a healthy atmosphere in the family, to take into account the national spirit and lifestyle, to make parents instructive for children, to form a feeling of love for parents, motherland, to ensure mutual care, to improve legal education in the family, to ensure that family members realize their rights and duties, it consists in creating an economic and social environment for children to be spiritually harmonious and physically healthy, teaching children to think independently, raising them in the spirit of independence ideas and devotion to national thinking.

Including the meaningful Organization of children's free time from a pedagogical point of view, providing them with additional education, creating the necessary conditions for the development of talent buds present in their children, being responsible in the family so that their child can fully fulfill their duties to the educational institution, neighborhood, State and society, parents constantly increase their pedagogical and psychological level of knowledge,

At the same time, a number of tasks are set before the neighborhood in the upbringing and upbringing of a harmonious personality. Including:

- participation by neighborhood activists in the discussion of issues that should be carried out in the educational process in conjunction with educational institutions and activism in finding rational solutions;
- discuss spiritually unhealthy families at neighborhood gatherings, take community action against them, and support the provision of economic and social assistance to educational institutions in the neighborhood area;
- and through parents to encourage students in every possible way to instill their qualities such as Initiative, hard work, national pride, patriotism, national decency, internationalism;

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-to influence young people through religious sects and sects, through parents to correctly understand the essence of fanaticism, and mobilize the public to instill in them the educational oaths of our great ancestors;

-active involvement of various foundations, women's committees, various societies associations and creative associations in the work of educating young people on the basis of ideas of national independence, finding solutions to problems;

- Organization of various competitions, sports competitions, conferences, celebrations and competitions together with educational institutions in the territory of the neighborhood;

-social and material support of talented young people in different directions, popularization of the experience of the life of exemplary families with positive results in education and upbringing;

- Organization of classes "family lessons" in the territory of the Neighborhood, Organization of activities of various circles and clubs using the capabilities of folk Masters, artists, intellectuals and all creative people living in the neighborhood;

-love for Uzbekistan, its nature in youth, interest in its history, preservation of national traditions, contribution to the development of our Country, neighborhood improvement, formation of a sense of responsibility for the population;

- implementation of various activities in cooperation with an educational institution to provide legal, spiritual, educational, social concepts;

-it is envisaged to ensure that all educational, spiritual, educational, cultural-mass and sports activities carried out in residential areas, neighborhoods will be carried out, such as achieving the center of the neighborhood.

As shown above, the neighborhood serves as a huge spiritual upbringing, relying on long-standing deeds, Customs and traditions. Through the pand-exhortation of the elderly, the personal lesson of adults, the solidarity of the community, ideas of goodness are instilled in the minds of people.

Indeed, the role of the mahalas in the proper education of young people in the family is very large. Because the neighborhood has served as a community that unites people, has social-political, cultural-educational and educational value.

It is necessary to carry out the following work with the families of the neighborhood in order to maintain the spiritual and educational environment in the neighborhoods and increase their efficiency, based on the tasks set before the families and neighborhoods mentioned above:

- to establish a working group and determine its composition in order to achieve the effectiveness of educational work carried out in the neighborhood;

- improve the spiritual service of students, youth in the neighborhood, create favorable conditions for them, organize clubs, clubs, build sports facilities and attract a wide range;

- celebrating the birth date of Imam al-Bukhari, Bakhoviddin Naqshbandi, Zamaghshariy, Termiziy, Farghani, al Khwarazmi and others) with the people of the neighborhood;

- wide celebration of Independence Day, Constitution Day, teachers and coaches Day, Women's day, defender of the Fatherland Day, Navruz holiday, Ramadan and Kurban Hayit;

- instilling patriotic feelings in students, young people in the neighborhood;

- to reveal the essence of the reforms in all areas of our country today;

- strengthening feelings of national pride, self-sacrifice in the youth of the neighborhood;

- promotion of ideas of independence, ideology of national independence among the inhabitants of the neighborhood;

- it was shown to young people in the neighborhood who want to create the necessary opportunities, etc.

Knowledge of beautiful and symbolic traditions inherited from our ancestors, participation in them directly and knowledge of the procedure for conducting these traditions, the rules of Law, plays an important educational role in the spiritual formation of young people.

This is how the task of composing such skills and abilities from young people is assigned, first of all, to the family, to the neighborhood community.

The establishment of youth education begins first of all with the family. Especially in the context of the Uzbek family, such human qualities as kindness, respect for parents, faithfulness to the duties before them, love for the mother-motherland are formed in the family.

However, our honorable first president I.A.Karimov had stated that it would be the same mudao to build the spiritual climate of any household on the basis of mutual-respect, morality, human relations in order to avoid mistakes in the matter of Family Education." It should be remembered that in the family, a parent should be a school of remembrance for his children, with devotion to their profession, kindness to the living land, behavior, mutual respect for each other, how much they fulfill their duties to society and the state.

The position of the family in society is so high that it does not fit into the definition of Hecht. In the family, the fruit of parental labor grows. Children are the continuation of the life of the parent, from whom he inherits good and good, which,

in turn, he conveys to the offspring. That is why there is no more hard work in this world than raising children.

A person who is not happy in his family cannot be happy anywhere. That is why, above all, we need to pay a lot of attention to spiritual education in our families. Only then will the family be strong.

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DEVELOPMENT OF LEGAL LITERACY IN ELEMENTARY SCHOOL STUDENTS.

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Annotation: With the help of education, human feelings of contentment, honesty, religion, respect for elders, respect for children are instilled in a person. These qualities increase the human, spiritual and moral potential and social activity of people and accelerate socio-economic development. Reforms in the field of education being carried out in the country, first of all, those who actively participate in the implementation of these reforms, who perfectly master universal values, are healthy, have faith, are mentally deep, morally pure, have their rights, duties and responsibilities. aimed at educating young people who deeply understand their responsibilities.

Key words: Legal literacy, legal culture, legal knowledge, educational process, duty and obligation, Constitution.

Increasing the legal literacy of young people and forming a legal culture is a unique social sign that indicates the priority of state and youth policy in Uzbekistan. Because it depends on this socialization and increase of legal culture that young people can confidently step into life. Legal culture is one of the components of the spiritual world of man and society. Because it expresses the totality of all values created by man. For us, independence means, first of all, the right to own our own destiny, to build our future with our own hands, to use the resources of our country only for the benefit of our people and our Motherland. This call encourages students to strengthen their independence by increasing their political and cultural activity, forming their scientific worldview, moral and aesthetic ideals, deepening the foundations of a democratic legal state and, for this, to educate the next generation of civic culture.

Improving legal literacy among elementary school students is important because at this age students learn to follow basic laws and regulations. A few recommendations to improve this literacy can be: 1. Simple and easy-to-understand explanations: Legal topics should be explained in child-friendly, simple and easy-to-understand language. For example, rights, responsibilities, and morals can be taught through stories and fairy tales. 2. Practical training: conducting small role-playing games with the participation of children, thereby dramatizing various legal situations. For example, showing themes like friendship and honesty through games. 3. Games and interactive methods: Legal knowledge can be inculcated through fun games for children. Quizzes, crosswords, and other interactive activities make this goal easier to achieve. 4. Legal stories and books: Read and discuss legal books and stories for children. Through this, children can expand their legal knowledge. 5. Cooperation with parents and teachers: Parents and teachers should work together to improve children's legal literacy. Knowledge given at home and at school should complement each other. 6. Community Outreach: Organize legal literacy programs, organize meetings with police, lawyers or social workers for children. These methods help to improve legal literacy among elementary school students, while at the same time creating a foundation for them to become correct and honest citizens in society.

It is known that no matter what a person creates with his mind, heart, and skillful hand, his cultural activity, formed through knowledge, ability, talent, experience, creativity, thought, and

labor, lies at the heart of it. This activity improves in connection with the socio-creative narrative, laws and principles of development in the society. Legal education is inculcated in children from the first period in the family, and in the school from the primary grade. One of the legal and economic education that parents give to their children at home is "Don't eat bread, your eyes will go blind." Through these words, the child's duty to not be rude to himself is formed. In order to form the legal culture of students, we should teach them about their duties and responsibilities and form them from the elementary school classes. It is one of the important factors that we implement the child's legal concepts in the course of the lesson.

More detailed information can be provided to improve legal literacy in elementary school students. The following additional methods and suggestions can make this process more efficient:

1. Create meaningful curricula: It is important to create curricula specifically designed for primary school students. These programs may include the following topics: - Children's rights and responsibilities: based on the United Nations Convention on the Rights of the Child. - Classroom rules and discipline: Follow and respect school rules. - Rights and obligations in the family: understanding of the rights and obligations of family members.

2. Multimedia materials: - Animated films and videos: Development of animated films and short videos to make legal concepts interesting and understandable for children. - Interactive applications and games: Mobile applications and computer games to strengthen legal knowledge.

3. Various activities: - Role-playing games and dramas: Involve children in solving legal problems through dramatization of legal situations. - Fun legal activities: Organization of legal quizzes and crossword puzzles for small groups.

4. Monitoring and evaluation: - Evaluation systems: tests and questions to regularly evaluate students' legal knowledge. - Reflection and discussion: To enable students to evaluate and discuss their legal knowledge.

5. Cooperation with the family and the community: - Seminars and meetings with parents: To inform parents about how they can help improve children's legal literacy. - Cooperation with public organizations and NGOs: Organization of various events in cooperation with local public organizations and non-governmental non-profit organizations.

6. Additional educational materials: - Books of legal stories: stories and fairy tales on legal topics for children. - Legal Literacy Guides: Guides and textbooks to improve students' legal knowledge.

7. Meetings with legal experts: - Excursions and meetings: organization of excursions to police stations, courts and other legal institutions. - Lectures by experts: giving lectures to students by lawyers, police officers and other experts.

With the help of these approaches and activities, it will be possible to improve the legal literacy of elementary school students. This, in turn, helps them to become full and legal citizens of society. In short, the legal consciousness of young people is formed in the process of legal education. One of the main goals of legal education is to teach young people to respect society's requirements, state laws, our national traditions and values, and to have a positive attitude towards the environment.

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TIJORAT BANKLARI DEPOZIT OPERATSIYALARIGA TA'SIR QILUVCHI
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Annotatsiya: Maqolada tijorat banklarining depozit siyosatiga ta'sir qiluvchi omillar tahlil qilingan. Shuningdek, depozitlar bo'yicha foiz stavkalarining dinamikasida o'sish holatlari depozitlarni kredit operatsiyalariga yo'naltirishda yuzaga keladigan transformatsiya va likvidlilik risklarini boshqarish amaliyotini takomillashtirish bo'yicha xulosa, tavsiya va takliflar berilgan.

Аннотация (рус) В статье анализируются факторы, влияющие на депозитную политику коммерческих банков. Кроме того, даны выводы, рекомендации и предложения по совершенствованию практики управления трансформационными рисками и рисками ликвидности, возникающими при перенаправлении депозитов на кредитные операции в динамике процентных ставок по депозитам.

Abstract Factors affecting the deposit policy of commercial banks are analyzed in the article. In addition, conclusions, recommendations and suggestions on improving the practice of managing the transformation and liquidity risks that occur when the deposits are diverted to credit operations in the dynamics of interest rates on deposits are given.

Key words: Deposits, mandatory reserves, amount of liquidity in banks, reserve rates, risk taking of bank assets.

Ключевы слова: Депозиты, обязательные резервы, объем ликвидности в банках, резервные ставки, принятие риска банковскими активами.

Kalit so'zlar: depozitlar, majburiy xazira, banklarda likvidlik miqdori, xazira stavkalari, banklari aktivlarini riskka tortish.

KIRISH

O'zbekiston Respublikasida milliy ssuda kapitallari bozorining to'liq shakllanish jarayoni nihoyasiga yetmaganligi sababli depozitlarning bozor bahosini shakllantirishda dolzarb muammolarning mavjudligi ko'zga tashlanmoqda.

Tijorat banklarining depozit siyosatiga ta'sir qiluvchi omillardan biri Markaziy bankning majburiy xazira siyosati hisoblanadi. Majburiy xazira stavkalarining oshirilishi tijorat banklarining depozitlarga foiz to'lash imkoniyatini pasaytiradi. Bundan tashqari, majburiy xazira stavkalarining oshirilishi banklarning likvidliligini pasayishiga olib keladi. Shuning uchun ham rivojlangan industrial mamlakatlarda, xususan, AQSh, Germaniya va Avstriyada majburiy xazira stavkalari depozitlarning

summasi va muddatiga bog'lik ravishda tabaqalashtirilgan. Depozitning summasi qanchalik katta va muddati qanchalik qisqa bo'lsa, unga nisbatan o'rnatilgan majburiy xazira stavkasi ham shunchalik yuqori bo'ladi.

Tijorat banklarining depozit siyosatini shakllantirishda hisobga olinadigan keyingi omil tijorat bankining likvidliligi va to'lovga qobilligining o'zgarishi hisoblanadi.

Depozitlar bo'yicha foiz stavkalarining dinamikasida o'sish holatlari kuzatildi. Agar 2023 yilning yanvar-iyun oylarida yuridik va jismoniy shaxslarning jami muddatli depozitlari bo'yicha o'ratcha tortilgan foiz stavkasi 11,9 foizni tashkil etgan bo'lsa, oktyabr oyiga kelib 14,2 foizga ko'tarildi. Foiz stavkalarining o'zgarishiga, shuningdek, banklarda likvidlik miqdorini kamayishi hamda banklararo pul bozorida tijorat banklari o'rtasidagi operatsiyalar hajmi

qisqarishi ham tahsir ko'rastuvchi omillardan bo'ldi. Jismoniy va yuridik shaxslarning muddatli depozitlariga to'lanadigan foiz stavkalarining barqaror darajasini ta'minlash, ularning salbiy darajaga ega bo'lishiga yo'l qo'ymaslik aholi va korxonalar ixtiyoridagi vaqtinchalik bo'sh pul mablag'larini tijorat banklarining

muddatli depozit hisobraqamlariga keng ko'lamda jalb etish huquqini beradi.

Jamg'arma depozitlari foiz stavkalarining salbiy darajaga ega ekanligi ularning real qiymatini keskin pasayishiga va shuning asosida respublikamiz tijorat banklarining jamg'arma depozitlarini jalb qilish jarayoniga nisbatan salbiy ta'sirni yuzaga keltiradi. Quyidagi jadval ma'lumotlari orqali respublikamiz tijorat

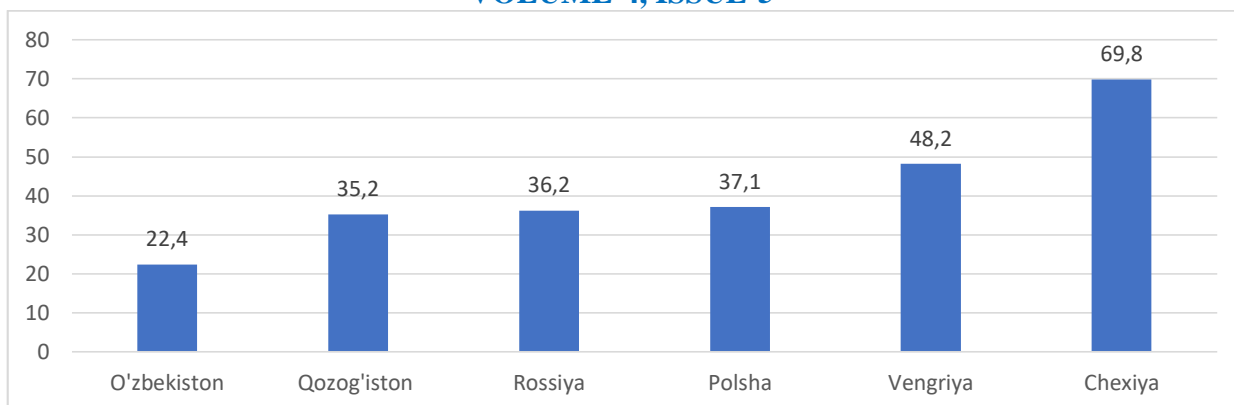
banklari depozitlarining foiz stavkalariga ta'sir qiluvchi omillarni ko'rishimiz mumkin (1-jadval).

O'zbekiston Respublikasi tijorat banklari depozitlarining bahosiga ta'sir qiluvchi omillar (1-jadval).

Ko'rsatkichlar	2019	2020	2021	2022	2023
Tijorat banklarining so'mda beriladigan kreditlarning o'rtacha yillik foiz stavkasi	13,0	12,5	11,4	11,5	18,5
Milliy valyutaning AQSH dollariga nisbadan qadrsizlanishi %	11,0	10,0	16,0	15,0	92,4
Markaziy bank qayta moliyalash stavkasining o'rtacha yillik stavkasi	12	12	9	9	14
Markaziy bank majburiy zahira stavkasi %	15	15	15	15	15
1-yilgacha	12	12	12	12	12
1-3 yilgacha	10,5	10,5	10,5	10,5	10,5
3 yildan ortiq					
Inflyatsiya yillik darajasi %	7,0	6,8	5,6	5,7	14,4

Yuqoridagi jadval ma'lumotlaridan ko'rinadiki, ushbu davrda respublikamiz Markaziy bankining qayta moliyalash stavkasi 2019 yildan 2023 yilgacha pasayish tendentsiyasi kuzatildi. 5 yilda esa qayta moliyalash stavkasi 14 foizdan ko'tarilmadi. Bu esa, o'z navbatida, respublikamiz tijorat banklari tomonidan jismoniy va yuridik shaxslarning muddatli depozitlariga to'lanayotgan foizlarning stavkalarini ko'tarilishiga olib keladi.

Rivojlangan mamlakatlar bank amaliyotida majburiy zaxira stavkasi juda past qilib belgilangan. O'zbekiston Respublikasida esa majburiy zaxira stavkasi yuqoriligicha saqlanmoqda.



1-rasm. Ayrim davlatlarda tijorat banklari depozitlarining YAIMga nisbatan salmog'i, (2022 yilning 1 yanvar holatiga 50,%da)

Yuqoridagi rasmdan ko'rish mumkinki, MDH va Sharqiy Yevropa davlatlarida ushbu ko'rsatkich turlicha, Qozog'istonda 35,2 %, Rossiyada 36,3 %, Polshada 37,1 %, Vengriyada 48,2 %, Chexiyada 69,8 %, O'zbekistonda 22,4 %ni tashkil etmoqda. O'zbekiston Respublikasida tijorat banklari depozitlarining YaIM dagi salmog'i MDH va Sharqiy Yevropa davlatlaridagiga nisbatan sezilarli darajada past. Bu esa, respublikamizda banklarning depozit siyosatini MDH va Sharqiy Yevropa davlatlari banklarinikiga nisbatan samaradorligining sezilarli darajada past ekanligidan dalolat beradi. Buning natijasida tijorat banklari mamlakat iqtisodiyoti real sektorining kreditlarga bo'lgan talabini qondirishda qiynchiliklarga duch kelishadi. Bundan xulosa qilish mumkinki, respublikamiz tijorat banklari depozit bazasi hajmini oshirish bilan barqarorligini ta'minlaydi va aktiv operatsiyalarni amalga oshirish imkoniyati oshadi.

Ayrim davlatlarda tijorat banklari depozitlarining YaIMga nisbatan salmog'ini o'rganish tijorat banklari orqali mamlakat iqtisodiyotning tarmoqlarini kredit resurslari bilan ta'minlash darajasini ko'rish mumkin. Xalqaro Bazel qo'mitasining tijorat banklari aktivlarini riskka tortish bo'yicha ishlab chiqilgan me'yoriy ishlanmalarida kredit yuqori risklik aktiv hisoblanadi va uning risk darajasi 100% qilib belgilangan.

Bazel-II da esa, muddati o'tganiga 90 kun va undan ortiq vaqt o'tgan kreditlarning risk darajasi 150% qilib belgilandi. Mazkur holatlar depozitlarni kredit operatsiyalariga yo'naltirishda yuzaga keladigan transformatsiya va likvidlilik risklarini boshqarish amaliyotini takomillashtirish zaruriyatini yuzaga keltiradi.

Birinchidan, O'zbekiston Respublikasi tijorat banklari depozitlari nominal va real foiz stavkalarining nobarqarorligi kuzatilmoqda, bu esa, jismoniy va yuridik shaxslarning pul mablag'larini tijorat banklarining muddatli va jamg'arma depozit hisobraqamlariga jalb etish jarayoniga salbiy ta'sir ko'rsatadi;

ikkinchidan, hozirgi kunda O'zbekiston Respublikasi Markaziy bankining majburiy zaxira stavkalarini yuqoriligi tijorat banklarining depozit bazasi va likvidliligiga salbiy ta'sir ko'rsatmoqda.

uchinchidan, banklararo raqobat sharoitida tijorat banklari iqtisodiyotdagi bo'sh pul mablag'larini imkon qadar ko'proq o'zlariga jalb etish yo'llarini izlab topishlari lozim. Bunda depozit operatsiyalari bo'yicha reklama ishlarini rivojlantirishlari va resurslar bozorini doimiy ravishda o'rganib borishlari talab etiladi.

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DEVELOPMENT OF RECOMMENDATIONS FOR THE INTRODUCTION OF A NEW SAMPLE OF MOTOR OILS USED IN MILITARY EQUIPMENT AND DETERMINING THEIR EFFECTIVENESS

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ABSTRACT

This study aims to develop recommendations for the introduction of a new sample of motor oils specifically designed for military equipment and to determine their effectiveness compared to existing options. Motor oils play a critical role in the performance and longevity of military vehicles, and selecting the optimal oil is crucial for operational readiness and cost efficiency. The research involved both laboratory and field tests to evaluate the viscosity, thermal stability, and overall performance of the new motor oil samples under various conditions. Key findings indicate that the new motor oil samples offer superior thermal stability and maintain optimal viscosity across a wider range of temperatures, leading to improved performance and reduced maintenance needs. Based on these findings, the study recommends the adoption of these new motor oil samples for military equipment. The implementation plan includes phased testing, training for maintenance personnel, and continuous monitoring to ensure long-term effectiveness and adaptability to different operational environments.

Key words: Motor oils, additives, engine lubrication, corrosion, MIL-SPEC nanotechnology, toxicity, friction, oxidation, synthetic blends, engine.

Motor oils are essential lubricants that play a critical role in the performance and maintenance of internal combustion engines. They reduce friction, wear, and heat, ensuring the smooth operation of engines under various conditions. In military equipment, the demands on motor oils are particularly high due to the extreme and diverse environments in which military vehicles and machinery operate. These include high-temperature deserts, cold arctic regions, and humid tropical areas. The reliability of motor oils in such conditions is crucial for the operational readiness and longevity of military equipment. Military vehicles, ranging from tanks and armored personnel carriers to transport trucks and aircraft, require motor oils that can provide consistent performance and protection. Failure to use appropriate motor oils can lead to increased wear and tear, breakdowns, and even catastrophic failures, compromising mission success and safety.

The primary purpose of this study is to develop a set of recommendations for the introduction of a new sample of motor oils tailored specifically for military applications. By systematically evaluating the effectiveness of these new motor oils, the study aims to identify options that offer superior performance and reliability compared to existing products. This initiative seeks to enhance the operational efficiency and maintenance of military equipment.

Research on motor oils, particularly those used in military applications, has been extensive, focusing on the unique demands placed on these lubricants by military equipment. Studies have addressed the performance of motor oils under extreme temperatures, their ability to protect engine components from wear and corrosion, and their chemical stability over extended periods of use. Key areas of investigation include:

- **Thermal Stability:** Research has shown that motor oils in military vehicles must withstand extreme heat without breaking down, as high temperatures can significantly reduce oil effectiveness and lead to engine failure.
- **Viscosity Performance:** Maintaining optimal viscosity under various temperature conditions is critical. Studies have demonstrated that motor oils with stable viscosity profiles ensure reliable engine performance and reduce wear.
- **Wear Protection:** Effective motor oils form a protective layer on engine components, minimizing friction and preventing wear. Research has focused on additives that enhance this protective capability.
- **Environmental Adaptability:** Military operations often occur in diverse environments. Motor oils must perform reliably in arctic, desert, and tropical conditions, necessitating comprehensive testing and formulation adjustments.

Current Standards and Practices

Military organizations, such as the U.S. Department of Defense, have established stringent standards for motor oils used in their equipment. These standards ensure that motor oils provide adequate protection and performance across various conditions. Key standards and practices include:

- **MIL-PRF-2104:** This specification defines the requirements for lubricating oils used in combat and tactical vehicles. It covers aspects such as viscosity, oxidation stability, and wear protection.
- **NATO Codes:** NATO has standardized certain lubricants used by member countries, ensuring interoperability and consistent performance across allied military forces.
- **OEM Specifications:** Original Equipment Manufacturers (OEMs) provide specific recommendations for motor oils in their equipment, which often exceed general military standards to ensure optimal performance and longevity.

Current practices in the military involve rigorous testing and validation of motor oils before they are approved for use. This includes both laboratory tests and extensive field trials to confirm that the oils meet the required performance criteria under realistic conditions.

Gaps in the Existing Literature

Despite extensive research, several gaps remain in the existing literature on motor oils for military applications:

1. **Long-Term Field Performance Data:** While short-term field tests are common, there is a lack of comprehensive long-term performance data for motor oils in military vehicles, particularly under varying operational conditions.
2. **Environmental Impact:** Research on the environmental impact of motor oil disposal and potential biodegradability in military contexts is limited. As environmental regulations become stricter, this is an area needing further exploration.
3. **Advanced Additive Technologies:** Although additives play a crucial role in enhancing motor oil performance, there is ongoing need for research into new additive technologies that can provide superior protection and efficiency.
4. **Adaptive Formulations:** There is limited research on motor oils that can adapt their properties in real-time to changing operational conditions, such as temperature fluctuations or varying loads, which could significantly benefit military applications.

5. **Integration with New Engine Technologies:** As military vehicles incorporate more advanced engine technologies, including hybrid and electric systems, research on compatible motor oil formulations is needed to ensure these new engines operate efficiently and reliably.

Addressing these gaps through targeted research and development can lead to significant advancements in motor oil technology, ultimately enhancing the performance and reliability of military equipment in diverse and demanding environments.

Description of the Process for Selecting New Motor Oil Samples

The process for selecting new motor oil samples involved a multi-step approach to ensure that the chosen oils meet the stringent requirements of military applications. The steps included:

1. **Market Research:** Conducting a comprehensive review of the latest motor oil formulations available from various manufacturers, focusing on those marketed for high-performance and extreme conditions.

2. **Technical Specifications Review:** Evaluating the technical data sheets of potential motor oils to identify those with promising attributes such as high thermal stability, optimal viscosity ranges, and superior wear protection.

3. **Initial Screening:** Selecting a shortlist of motor oils based on their compliance with existing military standards and OEM specifications.

4. **Consultation with Experts:** Engaging with industry experts, including chemists and engineers, to validate the initial selections and gain insights into the most innovative and effective formulations.

Criteria for Selection

The selection criteria for the new motor oil samples were based on the following factors:

1. **Thermal Stability:** Ability to maintain performance and chemical integrity at high temperatures.

2. **Viscosity Range:** Optimal viscosity across a wide temperature range, ensuring reliable performance in both cold and hot conditions.

3. **Wear Protection:** Efficacy of additives in reducing engine wear and extending component life.

4. **Oxidation Resistance:** Resistance to oxidation and sludge formation, which can impair engine performance.

5. **Compatibility:** Compatibility with various engine types and seals used in military equipment.

6. **Environmental Impact:** Consideration of the oil's biodegradability and environmental safety for handling and disposal.

Comparison with Existing Motor Oils

Thermal Stability:

- **New Samples:** All three new samples exhibited superior thermal stability compared to existing oils, with minimal degradation at high temperatures.

- **Existing Oils:** Current oils showed higher rates of viscosity breakdown and oxidative instability under similar conditions.

Viscosity Range:

- **New Samples:** Provided broader viscosity ranges, ensuring better performance in both cold and hot environments. Sample A (5W-40) and Sample C (15W-40) were particularly

effective in maintaining fluidity at low temperatures, while Sample B (10W-50) offered excellent high-temperature viscosity retention.

- **Existing Oils:** Typically had narrower viscosity ranges, with some struggling to maintain performance in extreme cold or heat.

Wear Protection:

- **New Samples:** Demonstrated enhanced anti-wear properties due to advanced additive formulations. Sample B's high-mileage formula showed notable improvements in reducing wear in older engines.

- **Existing Oils:** Provided standard wear protection but did not match the advanced formulations of the new samples, particularly in high-mileage and severe duty cycles.

Oxidation Resistance:

- **New Samples:** Exhibited higher resistance to oxidation, resulting in longer oil life and reduced sludge formation. Sample A and Sample B were particularly effective in prolonged oxidation tests.

- **Existing Oils:** Had lower resistance to oxidation, leading to more frequent oil changes and potential engine deposits.

Environmental Impact:

- **New Samples:** Sample C offered a significant reduction in environmental impact due to its bio-synthetic formulation, while all new samples included environmentally friendly additives.

- **Existing Oils:** Generally relied on traditional synthetic and mineral oils, with less focus on sustainability and environmental friendliness.

Compatibility:

- **New Samples:** Designed to be compatible with a wide range of military equipment, including newer and older engines. Sample B's formulation for high-mileage engines provided additional versatility.

- **Existing Oils:** While compatible with standard military equipment, existing oils did not offer specialized formulations for high-mileage or environmentally sustainable options.

The new motor oil samples show substantial improvements over existing oils in key performance areas. These enhancements are expected to lead to better engine protection, extended maintenance intervals, and a reduced environmental footprint, aligning with the stringent demands of military operations.

Analysis of Test Results

Viscosity Performance

- **New Samples:** All three new motor oil samples demonstrated excellent viscosity stability across a range of temperatures. Sample A maintained low-temperature fluidity and high-temperature stability, Sample B offered superior high-temperature viscosity retention, and Sample C balanced viscosity for varied operational conditions.

- **Current Motor Oils:** Existing oils showed higher variability in viscosity performance, with some struggling to maintain optimal viscosity at extreme temperatures.

Thermal Stability

- **New Samples:** Thermal breakdown temperatures for the new samples ranged from 245°C to 260°C, indicating high thermal stability. Sample B had the highest thermal stability, making it suitable for prolonged high-temperature operations.

- **Current Motor Oils:** Typically exhibited lower thermal stability, with breakdown temperatures around 230°C to 240°C, leading to faster degradation under extreme heat.

Chemical Composition

- **New Samples:** Advanced additives in the new samples, such as high concentrations of ZDDP and biodegradable esters in Sample C, provided enhanced wear protection, friction reduction, and environmental benefits.
- **Current Motor Oils:** Contained standard additive packages, which offered basic wear protection and stability but lacked the advanced formulations of the new samples.

Field Performance

- **New Samples:** Performed well in various environments. Sample A was versatile, Sample B excelled in high-mileage and high-temperature conditions, and Sample C combined good performance with environmental sustainability.
- **Current Motor Oils:** Generally performed adequately in specific conditions but lacked the overall versatility and advanced performance of the new samples.

Durability and Impact on Equipment Lifespan

- **New Samples:** Demonstrated greater durability, with longer intervals between oil changes and reduced engine wear. Sample B showed particularly high durability in high-mileage tests.
- **Current Motor Oils:** Required more frequent oil changes and exhibited higher rates of engine wear and degradation over time.

Summary of Key Findings

- **New Motor Oil Samples:** Extensive testing and analysis have demonstrated that the new motor oil samples (Sample A, Sample B, and Sample C) offer significant improvements over current motor oils in terms of viscosity stability, thermal resistance, wear protection, oxidation resistance, and environmental impact.
- **Performance Advantages:** These new samples exhibit higher viscosity indices, superior thermal stability with higher breakdown temperatures, enhanced wear protection, longer oil life, and reduced environmental impact compared to current oils.
- **Field Performance:** Field tests conducted in diverse environments have confirmed the versatility and reliability of the new motor oil samples, with excellent performance observed in desert, arctic, and tropical conditions.
- **Durability and Lifespan:** The new motor oil samples have demonstrated greater durability, requiring fewer oil changes and resulting in reduced engine wear, thereby extending the lifespan of military equipment and reducing maintenance costs.

Specific Recommendations for the Introduction of New Motor Oils

1. **Adoption of New Samples:** It is recommended to replace current motor oils with the new samples (Sample A, Sample B, and Sample C) across all military equipment fleets.
2. **Transition Plan:** Develop a phased transition plan to gradually introduce the new motor oils into military operations, starting with high-priority vehicles and equipment.
3. **Training and Education:** Provide training and education programs for maintenance personnel to ensure proper handling, storage, and usage of the new motor oils.
4. **Supply Chain Integration:** Coordinate with suppliers and logistics partners to ensure the availability and timely delivery of the new motor oils to military units worldwide.

Implementation Plan for Military Equipment

1. **Initial Assessment:** Conduct an initial assessment of the current motor oil inventory and usage patterns to determine the quantity and type of new motor oils required for each military unit.
2. **Testing and Validation:** Perform additional testing and validation of the new motor oils in specific military applications, such as tanks, armored vehicles, aircraft, and naval vessels, to ensure compatibility and optimal performance.
3. **Deployment Strategy:** Develop a deployment strategy to distribute the new motor oils to different military bases and operational theaters, considering factors such as climate, terrain, and mission requirements.
4. **Monitoring and Evaluation:** Establish a monitoring and evaluation framework to track the performance of the new motor oils in real-world operational settings, including regular oil analysis and equipment condition monitoring.

Conclusions and suggestions

Resistance to Change: Some resistance to transitioning from current motor oils to new samples may arise due to familiarity and perceived risks. Solution: Implement a comprehensive communication and training campaign to educate personnel about the benefits and safety of the new motor oils.

Logistical Challenges: Ensuring timely delivery of the new motor oils to remote military locations may present logistical challenges. Solution: Collaborate with logistics partners and leverage advanced supply chain management technologies to optimize delivery schedules and minimize disruptions.

Compatibility Issues: Compatibility issues between the new motor oils and existing equipment may arise, particularly in older or specialized vehicles. Solution: Conduct thorough compatibility testing and provide retrofitting options or alternative solutions for incompatible equipment.

Budget Constraints: Budget constraints may limit the procurement of new motor oils and associated training and infrastructure upgrades. Solution: Prioritize investments based on the expected return on investment, focusing on high-impact areas and seeking funding from relevant budget allocations.

In conclusion, the adoption of the new motor oil samples offers a significant opportunity to enhance the performance, reliability, and sustainability of military equipment. By following the recommended strategies and addressing potential challenges proactively, military organizations can realize the full benefits of these advanced motor oils, ultimately improving operational readiness and mission effectiveness.

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Abstract: This article discusses the role of innovative processes in the development and development of culture and art.

Key words: Culture and art, festival, innovation, innovation process, creative production, culture and art products, experience, skills, creativity.

Today, every day is full of global changes. Updates, practical results of consistent reforms leave a bright mark on the pages of our life as a historical reality. In particular, the promising projects implemented in all fields during the next six years, the large-scale creative works implemented in the localities are fundamentally changing not only the lifestyle and destiny of our people, but also the worldview.

Innovative development of culture and art in the conditions of modernizing Uzbekistan remains one of the most important issues. Today's life also requires the development of new approaches to improving the quality of services provided to the population by cultural and art institutions. In the conditions of increasing general competition in all fields, the specific characteristics of culture and art present officials with serious tasks, such as the rational use of innovative methods of general management and the improvement of the professional level of employees. At present, we all know that scientific and technical achievements are developing and reaching higher and higher heights. Innovations are being introduced and researched in practice in every field. So what is the position of these innovations in our sphere of culture and art?

First, let's find out what the above-mentioned innovation is. Innovation is - (ing innovationas - introduced innovation, invention) - funds spent on the economy to ensure the replacement of technology and technology generations; innovations in the fields of technique, technology, management and labor organization based on scientific and technical achievements and best practices, as well as their application in various fields and spheres of activity.

In the "Strategy of Development" of the new Uzbekistan, ensuring spiritual development and bringing the industry to a new level is defined as one of the main directions, and the achievement of the intended goals and tasks is based on innovative approaches to the activities of culture and art institutions. creates the need for further improvement. During the past six years, we have supported culture and art in our country, preserved and increased the national cultural and spiritual heritage, introduced our people to the best examples of national and world culture, improved the material and technical base and international cultural a' complex measures were taken to strengthen the ties. In particular, the decision of the President of the Republic of Uzbekistan "On measures for the innovative development of culture and art in the Republic of Uzbekistan" dated August 26, 2018 No. is a document in which to ensure innovative development of the sphere of culture and art, to strengthen the material and technical base of culture and art institutions, to ensure the integration of our country into the world cultural space, as well as to establish the Republic of Uzbekistan in 2017-2021 In order to fulfill the tasks defined in the Action Strategy for the five priority areas of development, the tasks and measures to be taken are clearly defined. Also, it should be noted that the decision of the Cabinet of Ministers No. 263 of March

30, 2019 "On measures to organize the activities of cultural centers" is a legal and regulatory document aimed at the implementation of this decree.

In the period of such intense reforms carried out by our state, the innovative development of culture and art services is of great importance, because the level of quality of the services provided by culture and art institutions must match the requirements arising from the refined taste and growing level of the consumer. he is demanding. The innovative development reflected in the activities of culture and art institutions will not fail to affect the entire society, the results of work in the field of culture and art will bring out certain social processes and positively affect the formation of the cultural level of each consumer and the whole society. 'secret shows. Therefore, the innovative development of culture and art is one of the foundations of the sustainable development of society, based on creative thinking and creativity, it leads to the growth of the socio-economic potential of our country and the lifestyle of the population becomes more prosperous and fulfilling, and this in other areas also accelerates innovation processes.

As we all know, the cluster system integration method is being introduced to organize the activities of each sector separately and to unite them around a common goal. In the field of culture and art, the innovative cluster is moving to this system through the characteristics of connectivity, coherence, consistency, succession, modernity, interest. For this reason, the main goal of the cluster of innovative and integrated education system in the field of culture and art is as follows;

- ✚ to ensure effective succession in the field of culture and art and to encourage young people's interest in the field of culture and art;
- ✚ to carry out professional training of pedagogues of schools, secondary and higher educational institutions specialized in the field of culture and art, based on practice and intensively ensuring effective communication with stakeholders;
- ✚ creating an environment for training future specialists of cultural institutions on the basis of practices with innovative experience;
- ✚ shortening the period of acquisition of professional skills of young specialists;
- ✚ to ensure the direct participation of students studying in the field in today's rapid development processes;
- ✚ creation of a new generation of educational, educational-methodical, scientific literature, tools and didactic materials in the pedagogical education system, as well as expert examination of the created literature by types;
- ✚ increase the scientific potential of higher education institutions in the field of culture and art;
- ✚ integration of intellectual resources around the current issues of the development of culture and art education;
- ✚ to find different forms and types of education, science and practice and apply them to education;
- ✚ improvement of the mechanisms that ensure the continuity of educational activities in the field of culture;
- ✚ It consists of goals such as the cooperative activity of culture and art institutions, including the scientific justification of the need for cooperation, connection and cooperation with education. Through this system, the organization and management of all cultural and art institutions will be easier, and it will serve as a basis for their development.

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Currently, in all countries and in our country, as a subject of culture and art policy, it includes a complex of museums, exhibition halls, theaters and cinemas, cultural centers and other institutions, and implies the fulfillment of a certain state order for their services. The activity of these institutions is primarily the provision of specific cultural services to the population, the preservation and protection of cultural heritage, the support and development of various directions of folk art, is a system established by the state. It is worth mentioning that, by the end of the 20th century, major experts from Europe, Asia, America and Africa considered that culture is not a field that operates only in dotatio (lat. dotatio - gift), but the development of creative industries that ensure the innovative and economic development of the country. have developed completely new concepts and proposals that will be the main focus. In this regard, culture is considered as a basis for the development of innovative thinking and creative potential, as a good base for the development of tourism, which is one of the most dynamic and profitable sectors of the present time. Today, the meaning of the concepts of culture and art in the world has significantly expanded and is developing further in connection with the development of modern technologies, changes in the needs of society, and the complexity of the social environment. Of course, innovative development in the field of culture and art is a comprehensively improving process, which includes initial studies, structural updates and other stages.

The progress achieved as a result of the comprehensive reforms implemented in all areas at the initiative of the head of our state, the revision of the field activities in cooperation with the relevant organizations and agencies in the period of renewal and changes, wide sections of the population, especially young people the need for an innovative approach to increase the quality of organized culture and art services should become an important task of the Ministry of Culture and Tourism of the Republic of Uzbekistan and cultural and art institutions operating within it.

Today, in the system of the Ministry of Culture and Tourism, there are 37 professional theaters, the State Philharmonic of Uzbekistan and its branches of the Republic of Karakalpakstan and regional divisions, more than 100 museums of various directions, 833 cultural centers, which have the appropriate titles operating in them. , more than 70 folk theaters, more than 100 model and folk folklore ensembles, 155 folk ensembles of vocal instruments, more than 3,000 artistic amateur circles, 312 children's music and art schools, 225 cultural and there is an amusement park. Their activities are coordinated by the Ministry of Culture and Tourism of the Republic of Karakalpakstan, regional and Tashkent city culture and tourism departments, as well as more than 200 district (city) culture and tourism departments.

In each of them, of course, the first manager, middle and lower managers, that is, if we say in the modern interpretation - managers, in addition, creative workers, artistic directors, coaches, countermasters, club leaders , technicians, workers and servants, it is possible to imagine the power and potential of cultural and art institutions of our country more clearly. Effective and efficient use of such great opportunities and great power, its correct direction, determination of clear goals, sufficient knowledge and experience, perseverance and will, as well as approaches to innovative development, which are the requirements of the current era. it is a very important task to start creative activity based on it. Of course, the quality of cultural services provided by cultural and art institutions will be at the level of modern requirements.

To sum up, above we have given a number of examples of the high level of attention and care paid to the industry today. Extensive work is being carried out within the framework of

measures for the development of such a field, as well as high attention and ensuring the execution of signed decrees and decisions. It would not be wrong to say that the care and opportunities given to the industry by the head of our state will lead to radical changes in the near future and will bear fruit. Feeling such high attention and trust, young experts and industry workers like us should work more enthusiastically, mobilize all their strength and potential for the development of culture and art. Therefore, as the Honorable President noted, “New Uzbekistan will become a strong, potential, well-respected, prosperous and prosperous country in the world”.

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IN STUDENTS VOCAL CHOIR QUALIFICATIONS OF FORMATION NEW
EDITORIAL TECHNOLOGY AND METHODS

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Abstract: Article in students vocals - chorus qualifications to form dedicated. In it to sing of qualifications theoretical basics with get to know one in line education in the process general didactic and special music of pedagogy main principles and their content - essence to students absorb

Key's words: music, culture, choir, vocal , skill, technology, method, editor.

The term educational technology is based on a new, systematic approach to the educational process, which has its own characteristics and features. This means an innovative approach to the educational process. The organization of new education means bringing into the educational process advanced methods and techniques used in the practice of world pedagogy, technical means, forms of teaching, taking into account the personality, spiritual identity, intellectual capabilities, national and social characteristics of each student. The new educational technology requires students to be viewed as subjects of the educational process, that is, as active participants, and the teacher as the organizer and manager of this process. In the lesson, the student is an active worker, he remembers the knowledge he acquired during the entire training process, partially applies it in new conditions, performs the methods of mental activity, moves from the known to the unknown. The essence of the new educational technology is to teach the student to think independently, to arouse interest and need for learning, to make him feel the pleasure of discovery. The word technology is Greek, *techne* - skill, art; *logos* means the meaning of doctrine. This word means a set of methods and methods used in the production process to obtain a finished product in industry or agriculture. In relation to the educational process, this concept requires the mutual coherence of reading and teaching, the separation of the stages of communication, the coordination of work to achieve the set goal in the educational process, ensuring their sequence and step-by-step, and the requirement of all planned work and actions. means to perform at the level of In other words, the concept of educational technology represents the art of teaching, the skill of teaching. The term "new educational technology" means using the art of education, organizing it efficiently, raising it to the level of world standards. Redagogical technology in education is to make students interested in teaching and to achieve full mastery of knowledge, to create an opportunity for students to express their opinion. The most important requirement for teaching in the process of redagogical technology is providing knowledge based on students' life experience, previously acquired knowledge and interests. A number of teaching methods are discussed in the literature and articles devoted to new educational technologies. These methods are presented as innovative methods. We will talk about some of these methods that can be used in music culture classes.

1. Modular educational technology . It is held in order to develop students' skills of independent work with textbooks, popular scientific and additional literature, creative and independent thinking. A unique feature of the modular education technology is the creation of a

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modular program that allows students to work independently and creatively on the subject being studied.

2. Cooperative learning technology . Its main idea is not only to complete educational tasks together, but also to teach students to study cooperatively, to create cooperation, mutual support and exchange of ideas between them.

3. Problem-based educational technology . It is to create a problem situation, ask questions, propose issues and problems, organize a discussion aimed at solving a problem situation, and confirm the correctness of conclusions.

4. Interactive method technology . Relying on the creativity of students, creating an environment of free discussion in the lesson. For this, they are divided into small groups and work with these groups during the lesson.

5. Technology of didactic games . Use of various didactic games during the lesson and use them to enliven the lesson, stimulate active movement and interest.

6. Test lessons . These are classes held with the purpose of testing certain knowledge and skills of students, and they are conducted by means of test sheets or checklists.

As a result of the expansion of the content, goals and tasks of education and training over time, its forms and methods are also improving. Currently, the main directions of human activity are turning into integrated systems, i.e. technologies, which enable the full realization of the intended goals. In the same way, in recent years, editorial technology has started to be used in the field of education. The concept of redagogical technology is a wide-ranging concept that has its place in the sciences of pedagogy and psychology. In educational technology, unlike various technologies in production, the material processed is the mental, spiritual, and moral qualities of the student (learner), which are influenced by teachers and educators in order to achieve certain goals. The concept of educational technology first appeared in the United States in the middle of the 20th century, and until the mid-1940s and 1950s, it was called "Educational technology" and this phrase was applied to teaching using technical tools. In the 1950s and 1960s, programmed education was considered, and in the 1970s, the term "pedagogical technology" was used to denote an educational process that guarantees the achievement of pre-planned and clearly defined goals. In 1979, the American Association of Educational Communications and Technologies defined educational technology as a complex, integrative process, and since the beginning of the 80s, educational computer and information technology has been called educational technology. Currently, this concept is given the following different definitions:

Technology - a set of methods, ways used in a work, art, skill. (Explanatory dictionary).

Technology - processing, the art of changing the situation, skill, ability is a set of methods. (VMSherel).

Redagogical technology - This is the process of influencing students (students) in certain conditions and sequences with the help of teaching (educational) tools of the teacher (educator) and forming predetermined personal qualities in them as a product of this activity. (*N. Saidakhmedov*).

Educational technology - a set of psychological procedures (settings) that determine the forms, methods, methods, ways of teaching and education, a special collection and arrangement (location) of educational tools; it consists of organizational and methodological tools of the redagogical process (BTLikhachev).

Redagogical technology is a systematic method of creation, application and determination of all processes of teaching and knowledge acquisition, with the task of increasing educational forms, taking into account technical resources, people and their interaction. (UNESCO).

Redagogical technology is a unique new (innovative) approach to teaching. It is an expression of social-engineering thinking in pedagogy, an image of technocratic scientific consciousness transferred to the field of pedagogy, a certain standardization of the educational process. (BLFarberman)

Based on what has been said, we can give the following shortest and generalized definition of pedagogical technology:

" **Edagogical technology** is the activity of forming a perfect person".

At the same time, taking into account that the pedagogical technology is a wide-ranging, diverse concept, we can give a few more definitions of it below.

Redagogical technology is the process of teaching to create new information by mastering information, using it in practice, discovering new meanings in them and various connections between information.

Redagogical technology is a systematic method of creating, applying and determining the entire process of teaching and acquiring knowledge, taking into account technical resources and human interaction, which sets itself the task of optimizing educational forms.

With the achievement of national independence, our future paths, national idea and ideology were clearly defined. We have defined our educational goals and objectives and programs for their implementation.

Our president Sh. Mirziyoyev in a number of works on bringing up a morally and ideologically perfect generation has repeatedly emphasized that state policy in this direction is a priority issue. The ancient dreams, national and universal values, spiritual monuments of our ancestors are the basis for the formation of the goals and tasks of modern pedagogy. This goal is highlighted in the "National Personnel Training Program" adopted by our state. After all, the main goal of modern pedagogy is to train mature, highly qualified, spiritual, enlightened, independent thinking, competitive personnel.

Music affects the individual and the wider community alike (emotional, creative, aesthetic, ideological, educational, physiological, etc.). The teacher of music culture should always keep this in mind and conduct lessons at the expense of forming one characteristic, without crossing the limits of another. As we all know, before singing a song, tuning exercises are done. This is the main goal of forming vocal-choir skills - to strengthen the voice range and expand the voice range, as well as to develop the skills of singing, while preserving the natural features of the students' voices, lightness, sweetness and sonority. Vocal-choir skills are gradually prepared for singing based on the simple-to-complex principle:

- Even the simplest exercises should be sung in solfeggio, because the pitch is saved in the students' memory by the name of the notes.

- It is advisable to start vocal-choir exercises with mid-tone sol or sounds in the working diapason, mi, fa, sol, because students cannot sing in pure intonation in bass or high tones.

- Carrying out the exercises with the help of visual aids (charts, notes on the board, cards, pictures) and having them performed by the teacher will increase the attention, memory and listening abilities of the students.

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-Students gradually develop the skills of singing in two voices. This forms their harmonic hearing, lad-tonal intuition.

- Use of various didactic games, rebuses, tarishmaq (stringing the omitted note) in the course of conducting vocal-choir exercises.

By applying such vocal-choir principles, students will develop the skills of harmonious and fluent singing in pure unison. The following vocal-choir exercises are used:

- Pure unison formation exercises
- Voice development exercises
- Articulation arrarat development exercises
- Wide breathing exercises
- Exercises to develop the skills of singing in two voices

It is very important to use various exercises to develop vocal-choir skills in students. Because it is with the help of vocal and choral skills that students' voices can be trained to be pleasant and sonorous.

Vocal-choir skills are divided into six types:

- Singing mode.
- Breath of anger.
- Sound generation.
- Setup.
- Ensemble.
- Pronunciation.

During exercises or singing songs, students should be taught to breathe according to the teacher's hand gestures and to save it, start and end at the same time . It is also important to pay attention to singing in a soft and gentle vocal voice without shouting. Theatrologist scientist M. Rahmonov writes, "In the early stages of human history, music appeared on the scene in an inextricable connection with the art of rantomime and dance. It was an integral part of the life and work of people of the primitive society living in the territory of Uzbekistan. The earliest songs in primitive times would have been very simple. "Hunting game" and "music" and "songs" that led rantomim dance games in various ceremonies consisted mainly of melodies and recitatives repeating words and sounds over and over again. The basis of the choir team is the work of the vocal choir in it. Vocal-choir complex work lays the foundation for the successful work of the choir. The quality of vocal work in the choir depends on the qualifications of the choir conductor, vocal ability and editing skills. The goal of vocal work in the choir is to develop proper singing skills in singers. For vocal work:

- working on the important elements of the choir (achieving harmony, good words, pronunciation, artistic means of expression);
- proper breathing, vocal sound barro and its formation;
- such as making the members of the choir have the same vocal skills. Barro important elements of choral performance depends on its vocal and choral technique.

Vocal-choir technique mainly includes breathing, sound generation, stretching, dynamics, intonation and diction skills. If the choir collective does not have good vocal technique, it will not have harmony (ensemble), clear music, clear pronunciation and artistic expression in the performance of the choir. Therefore, it is always necessary to develop and improve vocal choir techniques in the choir .

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СТРУКТУРА ГЛАГОЛЬНОГО СЛОВООБРАЗОВАНИЯ РУССКОГО И
УЗБЕКСКОГО ЯЗЫКОВ

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Аннотация. Сопоставительный анализ морфологического уровня русского и узбекского языков и сейчас является малоизученной областью лингвистики. Причиной отсутствия исследований сопоставительного характера в системе морфологии русского и узбекского языков является сложность категориальных и словообразовательных явлений, поскольку эти языки относятся к разно системным. Семантическое своеобразие русских глаголов передаётся в узбекском языке не только словообразовательными структурами, но и грамматическими средствами.

Ключевые слова: структура глагола, русский язык, узбекский язык, слова, сопоставления, грамматика, морфология, синтаксис.

В нашей статье осуществляется системное сопоставление словообразовательных типов глаголов русского языка и их передачи на узбекский язык. Структурные типы словообразования глаголов русского языка систематизированы так, чтобы наилучшим образом выявить их эквиваленты в узбекском языке. При этом выявлены соответствия словообразования узбекских глаголов с аффиксацией глаголов русского языка.

Ключевые слова: тюркские языки, язык агглютинативного типа, категория аспекта, повелительный залог, переходной глагол.

Грамматические закономерности и особенности любого языка понимаются лучше, когда их исследование концентрируется на выявлении отличительных и сходных явлений.

Заслуженный деятель науки В.Г. Гак сопоставительное изучение языков разделил на «структурную и функциональную типологию. Структурная сопоставительная лингвистика, исследует особенности организации сравниваемых языков, их форм, а изучение языков с помощью функционального сопоставления раскрывает закономерности построения речи на одном языке в сравнении с другим или другими (в процессе сопоставления нескольких разно системных языков). Таким образом, функционально-сопоставительное исследование языков направлено на сопоставление средств, избираемых говорящим на разных языках при решении одинаковых (типовых) коммуникативных задач в сходных ситуациях» [3, с.54].

Узбекский язык – один из самых распространённых тюркских языков – имеет ряд

характерных грамматических особенностей, проявляющихся в структуре морфологии и синтаксиса. Прежде всего, следует указать на то, что он является языком агглютинативного типа, т.е. огромную роль в данной языковой системе играют формообразующие и словообразовательные аффиксы. В узбекском языке именные части речи, как именные части русского языка, склоняются по падежам. А также, к именам существительным узбекского языка присущи следующие грамматические категории: категория числа, категория принадлежности, категория склонения (падежи и послелого), категория определённости и неопределённости, категория лица и не-лица. В узбекском языке 6 падежей: основной, родительный, дательный, винительный, местный и исходный [60, с.70]. Перечисленные грамматические особенности демонстрируют некоторое сходство узбекского и русского языков, на которые следует опираться переводчикам, составителям двуязычных словарей и учителям, преподающим русский и узбекский языки как неродные.

Глагол в узбекском языке обладает категорией залога, наклонения, аспекта (это формы: положительная, отрицательная, возможности, невозможности), времени и лица, числа. «Категория залога выражает различные отношения между субъектом (производителем действия) и объектом, находящие своё выражение в форме глагола, благодаря чему линия отношений субъект – объект дополняется линией отношения самого действия к субъекту и объекту» [4, с. 333].

Глаголы основного (прямого) залога «по связи с падежной формой объекта делятся на две группы: переходные и непереходные. Выделяются также взаимный залог, возвратный залог, понудительный залог» [60, с. 187].

Глаголы в форме понудительного залога выражают переходное действие. По характеру участия субъекта в совершении действия этот залог представлен двумя типами: «Субъект – реальный производитель действия – в предложении выступает в качестве подлежащего: в этом случае понудительный залог образуется от непереходных глаголов, превращая их в глаголы переходные: *тур-моқ*⁵⁶ вставить, ‘стоять’ - *тур-гиз-моқ* поднимать, поставить на ноги; *сову-моқ* стынуть, - *сову-т-моқ* охлаждать, студить. Субъект – реальный производитель действия – оформлен как дополнение в дательном падеже, причём он осуществляет действие не по своему почину, а по воле другого субъекта, который может быть и не выражен отдельным словом в предложении, но обязательно показан в глаголе аффиксом понудительного залога. В этом случае понудительный залог образуется от глаголов переходных, превращая их во вдвойне переходные, т.е. управляющие двумя объектами – в дательном и винительном или в основном падеже» [4, с. 193].

Воле изъявляющий субъект в каждом предложении в соответствии с его значением приобретает различные значения: от приказа до попустительства. Перевод на русский язык осуществляется через сочетание с вспомогательным глаголом, таким как *заставить, приказать, принудить, велеть, дать, позволить, допустить* + значение основы узбекского глагола: *ёз-дир-моқ* заставить, приказать, велеть дать, позволить ... писать.

Субъектов, чьи волеизъявления осуществляются реальным производителем действия, может быть несколько, практически часто встречается два или даже три: *тўз-дир-моқ* превращать в пыль, *тўз-дир-т-моқ* заставить превращать в пыль.

⁵⁶ Написание глаголов узбекского языка через дефис показывает словообразовательную структуру слова и подчёркивает роль аффиксов.

«Сказуемое в понудительном залоге (от переходных глаголов) в зависимости от семантики предложения в целом может указывать, что субъект, выраженный личным окончанием, сам подвергается действию, обозначенному исходной основой, точнее: субъект допускает, даёт возможность действию осуществиться. В этом случае понудительный залог семантически сближается со страдательным залогом. Различие между ними состоит в том, что при понудительном залоге грамматический субъект является реальным объектом действия, а реальный производитель действия мыслится как неопределённо-личный» [5, 92]: *таландим* «(я) был ограблен»; *юборилдим* «(я) был послан». – «*Қанча пулни ўғирлатдингиз?*», - *деб суради* (С. Айни). – ««Сколько денег у вас украли? – Сколько денег вы дали (позволили) украсть?» - спросил он».

Понудительный залог образуется с помощью следующих аффиксов: а) *-тир/-дир*; б) *-(u)t*; в) *-гиз/-гиз, -газ/-газ/-гоз*; г) *-ир, -ар/-ор (-гар)*.

Аффиксы *-дир/-тир* могут принимать аффиксы *-ир/-тир*, образуя вдвойне и тройне понудительные основы: *кеч-ир-моқ* 'переправлять (через реку и т.п.)' - *кеч-ир-тир-моқ* заставлять переправить; *чиқ-моқ* выходить, *чиқ-ар-моқ* || *чиқ-аз-моқ* выводить; *чиқ-ар-тир-моқ* || *чиқ-аз-дир-моқ* заставить выводить [4, с. 194].

Разнообразие глагольных аффиксов и их значений позволяет создавать в узбекском языке глаголы с другими залоговыми значениями и даже выступать в роли словообразовательной категории: *қара-моқ* смотреть; *қара-ш-моқ* смотреть друг на друга, помогать, *боқ-ш-моқ* ухаживать за больным; *кел-моқ* приходиться, *кел-ш-моқ* вместе приходиться, сходиться на чём-либо, приходиться к соглашению.

В грамматике узбекского языка выделяется понятие «аспект глагола». Их четыре, и они «могут выражать положительное или отрицательное суждение или суждение, утверждающее возможность или невозможность для субъекта осуществить то или иное действие.

1. Положительный аспект (положительная форма) характеризуется отсутствием показателя аспекта, т.е. состоит из чистого корня (в непроизводных глаголах) или из корня + словообразовательный аффикс: *ёз-моқ* 'писать', *ўқи-моқ* 'читать'.

2. Отрицательный аспект (отрицательная форма) образуется с помощью присоединения к основе глагола безударного аффикса *-ма*: *ёз-ма* 'не пиши'; *бош-ла-ма* 'не начинай', *қабул қил-ма* || *эт-ма* 'не принимай'. Инфинитив в узбекском языке не принимает отрицания *-ма*, хотя в ряде других тюркских языков это допустимая норма. В сложных глаголах аффикс *-ма* присоединяется к основе вспомогательного глагола: *ёзиб ол-ма* 'не записывай'.

3. Аспект возможности передаёт чаще всего субъективную возможность совершения действия. Эта форма строится по принципу сложных глаголов синтетического типа, она состоит из деепричастия на *-а/й* + глагол *олмоқ* 'брать': *ёз-а олмоқ* 'мочь (на)писать', *ўқи-й олмоқ* 'мочь читать'.

4. Аспект невозможности выражает, как и аспект возможности, субъективную невозможность совершения действия. Он образуется с помощью присоединения аффикса *-ма* к основе вспомогательного глагола *олмоқ*: *ёз-а ол-ма-ди* > *ёз ол-ма-ди* '(он) не смог писать'; *ўқи-й олмади* (он) не смог читать» [4, с. 201].

Сочетание деепричастия на *-(u)б* с глаголом 3 лица настоящего-будущего времени (положительная форма) от глагола *бўл-моқ* – *бўлади* выражает объективную возможность

совершения действия; отрицательная форма (*бўлмайд*, *бўлмас*) выражает объективную невозможность совершения действия: *539-чи масалани мана шу формула ёрдами билан ечиб бўладими?* 'Можно ли решить 539 задачу с помощью этой формулы?' - *Йўқ, буни шу формула ёрдами билан ечиб бўлмайд*. 'Нет, с помощью этой формулы её решить невозможно.' - *Ойни этак билан ёпиб булмас* (Поговорка) 'Луну подолом не закроешь'.

Выдать начальнику крепости парчовый халат, сотникам-по шёлковому халату... (А. Кадири. Минувшие дни, с.92. [www.ziyouz.com kutubxonasi](http://www.ziyouz.com/kutubxonasi)).

Только бы вырваться ему на свободу (А. Кадири. Минувшие дни, с.99. [www.ziyouz.com.kutubxonasi](http://www.ziyouz.com/kutubxonasi)).

Что, кроме вас некому ворота открывать? (У. Хашимов. Дела земные, с.7. [www.ziyouz.com.kutubxonasi](http://www.ziyouz.com/kutubxonasi))- Сиздан бошқа дарвоза очадиган йўкми? И мне ли незнать труд уборщицы... (У. Хашимов. Дела земные, с.10. [www.ziyouz.com kutubxonasi](http://www.ziyouz.com/kutubxonasi))- Менми фаррош меҳнатини билмасам...

А очистить орех от такой кожуры дело нелёгкое. (У. Хашимов. Дела земные, с.17. [www.ziyouz.com.kutubxonasi](http://www.ziyouz.com/kutubxonasi))- Ёнғокни бундай пўстлоғдан тозаламоқ осон иш эмас.

Мне-то что делать? (У. Хашимов. Дела земные, с.33. [www.ziyouz.com kutubxonasi](http://www.ziyouz.com/kutubxonasi)) – Мен нима қилишим керак? Чему

и кому верить? (У. Хашимов. Дела земные, с.37. [www.ziyouz.com kutubxonasi](http://www.ziyouz.com/kutubxonasi))- Кимга ва нимага ишоним керак? Увидеть

бы мне только единственного.. (У. Хашимов. Дела земные, с.54. [www.ziyouz.com.kutubxonasi](http://www.ziyouz.com/kutubxonasi)) – Фақат унинггина кўрсайдим...

Как не погибнуть соловью неверности жестокой... (Навои. Сокровищница мыслей. Ташкент, 2002, с.112) Теперь что

пользы мне кричать... (Навои. Сокровищница мыслей. Ташкент, 2002, с.114)

Радости нам не видеть, страданье- наша доля. (Навои. Сокровищница мыслей. Ташкент, 2002, с.114). Как не проклинать этого дурака! (У. Хашимов. Дела земные, с.35. [www.ziyouz.com.kutubxonasi](http://www.ziyouz.com/kutubxonasi)).

А ведь нелегко плавать небось по морю Азоб. (У. Хашимов. Дела земные, с.44. [www.ziyouz.com.kutubxonasi](http://www.ziyouz.com/kutubxonasi)).

В процессе проведения исследования мы убедились в том, что аффиксация является основным способом словообразования глаголов узбекского и русского языков. Начальной, исходной морфемой для словообразования служит основа глагола, которая находится путём отбрасывания аффикса –моқ. Основа глагола самостоятельно употребляется лишь в одном случае: она обозначает второе лицо единственного числа повелительного наклонения: кетмоқ- 'уходить'- кет-'уходи'; гапирмоқ- 'говорить'- гапир- 'говори'; ишламоқ- 'работать'- ишла- 'работай'. Во всех других случаях глагольная основа обеспечивается одним или несколькими аффиксами.

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Abstract: Hereditary cardiovascular diseases make a significant contribution to the structure of cardiovascular pathology. The article is devoted to a review of materials on genetically determined cardiac diseases, which were discussed at the First International Congress “Genetics and the Heart”. The most current data on hypertrophic and dilated cardiomyopathies and hereditary problems of arrhythmogenesis are presented. The main participants of the congress are listed.

Keywords: hypertrophic cardiomyopathy, dilated cardiomyopathy, channelopathies, arrhythmogenic cardiomyopathy, pulmonary hypertension, genetic myocardial diseases, Congress “Genetics and the Heart”.

Hereditary cardiovascular diseases make a significant contribution to the structure of cardiovascular pathology. The cause of sudden cardiac death (SCD) in young patients under 35 years of age is primary cardiomyopathies or channelopathies in 10–15% of cases [1]. The extraordinary progress achieved in the molecular genetics of hereditary cardiovascular diseases makes it possible to identify them in the early stages and determine the management tactics for these patients, as well as their relatives.

Today, genetic diagnosis is included in most international guidelines with a high level of evidence (IB). Currently, indications for genetic studies are included in clinical guidelines for long QT syndrome [2], hypertrophic (HCM) [3], arrhythmogenic (ACMP) [1], dilated cardiomyopathy (DCM) [4], and pulmonary hypertension. Genetic testing of autopsy material is indicated in all cases of SCD when hereditary cardiovascular diseases are suspected [5].

Genetic diagnosis in cardiology is a difficult task, since hereditary cardiovascular diseases are extremely heterogeneous and a large number of different genes are involved in their pathogenesis. For example, the DCM diagnostic panel includes 98 genes, since the disease manifests itself in the form of abnormalities in the cytoskeletal proteins, nuclear envelope, sarcomeres, desmin and other structural proteins. Sequencing, and especially interpretation of the results, is an extremely difficult task. Currently, the main method for diagnosing cardiomyopathies is NGS sequencing (massively parallel sequencing method), which allows simultaneous study of a large number of genes. NGS sequencing is performed using repeated cycles of polymerase-induced chain extension or repeated ligation of oligonucleotides. NGS sequencing can generate up to hundreds of megabases and gigabases of nucleotide sequences in one work cycle. This technology, which began its development 8 years ago and continues to be constantly improved, has made it possible to reduce the cost of large-scale studies by several orders of magnitude. However, in Russia today this type of research is not registered and genetic laboratories do not have the ability to issue certified conclusions, and also do not have sufficient experience in correctly interpreting the data of such studies from a clinical point of view.

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This problem, as well as the growing importance of genetic diagnostics in cardiology, was the reason for the creation in December 2017 of the National Research League of Cardiac Genetics (NRCG). The head of the primary vascular department of the State Clinical Hospital No. 51, head of the department of therapy, cardiology and functional diagnostics of the Federal State Budgetary Institution of Further Professional Education "Central State Medical Academy" of the Administration of the President of the Russian Federation, Professor D.A. Zateyshchikov. Director of the NLKG - Head of the Scientific Information Department of the Federal State Budgetary Institution of Further Education of the Central State Medical Academy I.K. Yosava, secretary of the NLCG - head of development of the international genetic laboratory Health in Code N.A. Sonicheva.

In addition, the presidium of the NLCG included leading cardiologists and geneticists from the largest regions of Russia, as well as international colleagues. The NLCH initiative was supported by the working group on myocardial and pericardial diseases of the European Society of Cardiology (ESC).

The purpose of creating the NLCG is the development of Russian cardiological genetics, attracting specialists interested in this problem. The tasks include organizing information work among cardiologists and geneticists in the form of creating an information portal, conducting educational programs, collaborating with world organizations, providing scientific publications, introducing genetic analysis methods into clinical practice to identify hereditary diseases in patients and their relatives in order to optimize ongoing treatment and prevention of complications, which will certainly lead to the development of personalized medicine and a reduction in mortality from cardiovascular diseases.

The work of the NLCG began with the organization of regional conferences in the largest cities of the Russian Federation: Moscow, St. Petersburg, Kazan, Samara, and the creation of the website www.nlcv.ru, where interested colleagues can register and receive information about all possible methods of genetic research in Russia and abroad, as well as familiarize yourself with the most modern scientific publications on genetics in cardiology. In addition, all current projects and registers in the field of cardiogenetics are published on the website.

The organizers of the congress were the FSBI DPO TSMA and NLKG. The congress was supported by the working group on myocardial and pericardial diseases of the EOC, and among the guests and participants of the congress were the president of the working group, Professor Yehuda Adler, and the vice-president of the cardiologist, Professor Antonis Pantazis.

The main idea of the congress was to unite pediatric and adult cardiologists, geneticists, and general practitioners. It was the multidisciplinary approach to work that aroused great interest among all participants of the event.

The congress was attended by 650 participants, and 900 people tuned in to the online broadcast, which significantly surpassed all previous events on this topic, showing the relevance of the development of genetic diagnostics in Russia and emphasizing that such events should be done on an annual basis.

Leading cardiologists from Azerbaijan, Belarus, Bulgaria, Great Britain, Germany, Israel, Spain, Italy, USA, and Uzbekistan took part in the congress.

The Congress allowed us to come close to creating an international consortium for the study of cardiac diseases of predominantly genetic origin.

At plenary sessions and symposiums, congress participants discussed the risks of sudden death in patients with genetically determined diseases; prognosis for cardiomyopathies; problems of real clinical practice in assessing the risk of SCD in patients with HCM; hereditary disorders of lipid metabolism; problems of hereditary cardiovascular diseases in children; interventional treatment methods for patients with hereditary diseases; the problem of amyloidosis, pulmonary hypertension, pericarditis; some aspects of cardio-oncology; as well as the problem of hereditary cardiovascular diseases in athletes and many other topics.

The main topics of the symposiums and reports were cardiomyopathies, channelopathies, pulmonary hypertension, hereditary dyslipidemias and diseases of the pericardium and connective tissue.

Most of the topics of the congress were devoted to cardiomyopathies, taking into account the frequency of occurrence of these pathologies and their connection with SCD.

William John McKenna, Emeritus Professor of Medicine at the University of Aberdeen and Associate Professor of Cardiovascular Medicine at Yale University, CEO and Medical Director of the Hamad Medical Corporation Cardiology Clinic (Doha, Qatar), spoke in detail about the classification and genetic diversity of hereditary cardiomyopathies, with an emphasis on HCM. The professor shared his experience at the origins of the discovery of this complex disease, its modern classification, genetic diagnosis and treatment.

HCM is the most common cause of SCD [6]. Definition: HCM is characterized by left ventricular (LV) hypertrophy of unknown etiology, not related to pressure loading or valvular lesions. Diagnosis of this type of myocardial disease is based on recording echocardiographic changes in the already advanced stage of the disease - the criterion is the presence of thickening ≥ 15 mm of one or more LV segments. In some cases, the diagnosis of this disease is very difficult, and the first manifestations of the disease are not always visible on an echocardiogram. Professor W. McKenna emphasized in his report the role of ECG diagnostics in cardiomyopathies, especially the role of the T wave and its inversion as an early manifestation in I, aVL, V4–6 in HCM and in V1–3 in ACM. He gives a special role in such and other cases of diagnosing HCM to genetic diagnosis. Today, the international expert community recognizes mandatory genetic testing of a patient with HCM and all related relatives (evidence class IB). It is genetic testing that can identify the problem of early and timely diagnosis of HCM, since this is quite difficult to do using clinical criteria alone. Most often, involvement of the interventricular septum is noted, as well as the phenomenon of disarray (disorderly arrangement) of cardiomyocytes and fibrosis. Atrial fibrillation is a common complication of this disease, and such patients appear to have a higher risk of thromboembolic complications [3].

Type of inheritance - autosomal dominant, mutations in genes encoding sarcomeric proteins, most often cardiac type myosin binding protein C - MYBPC3 (15-30%) or b-isoform of the myosin heavy chain - MYH7 (15-30%). However, modern genotyping technologies make it possible to identify the genetic causes of the disease in 50–70% of patients with clinical HCM [1, 3]. The likelihood of obtaining a positive result is higher if the patient has a clear clinical picture of the disease and a family history of the disease or cases of SCD in the family.

Sarcomeric gene mutations are the most common causes of the disease, which is why HCM is often called sarcomeric disease. However, mutations in many other genes may also be responsible for the development of HCM [3]. Comprehensive genetic screening for HCM should consider RAS genes (Noonan, Costello, other cardiovascular syndromes), mitochondrial diseases

(mitochondrial genome or nuclear genome), transcription factors, cytoskeletal structural proteins (DES, FLNC, etc.), calcium regulatory proteins (PLN), glycolytic diseases (Danon disease, PRKAG2, Pompe disease, Fabry disease), amyloidosis (TTR) and many others [1–3, 6–8].

To date, a complete targeted panel for diagnosing HCM in specialized laboratories includes 118 genes. If the result of the genetic study is positive, then this confirms the diagnosis 100% and allows us to begin screening relatives and dynamic monitoring of carriers, taking into account the severity of each identified variant. If it is negative, you need to re-analyze the clinical picture of the disease, the family history of the disease (in some cases, new de novo mutations occur, more often characteristic of phenocopies of HCM), the selected panel for the study and the laboratory where such a study was carried out. A negative result does not eliminate the diagnosis of HCM, as information about new genes and variants continues to accumulate, so in any case, genetic testing is an additional diagnostic method that does not exclude other research methods.

Diagnosis of all rare hereditary diseases requires specific knowledge not only in the field of clinical medicine, but also in the field of molecular biology and genetics, as well as a multidisciplinary approach. Fabry disease can be diagnosed by knowing the early symptoms of the disease, which will allow genotype-specific therapy to be initiated before severe organ damage develops [11].

The diagnosis and treatment of amyloidosis, a difficult to diagnose disease with a poor prognosis, was also widely covered at the congress, taking into account its etiology, diagnosis and new promising treatment methods [12].

One of the innovative reports on new genes recently discovered in the genetic diagnosis of HCM was the report of scientist Juan Pablo Ochoa, PhD, cardiologist, researcher at the Health in Code genetic laboratory, A Coruña, Spain.

The scientist, together with colleagues, in 2018 identified the possibility of the involvement of mutations in the Formin homology 2 domain containing 3 (FHOD3) gene, which is involved in the organization of the sarcomere (myofibrillogenesis) and supports the contractile apparatus of cardiomyocytes. The role of this gene in the development of HCM was proven as a result of NGS sequencing of 3189 probands with HCM: 1915 patients had other cardiomyopathies or SCD and 2777 were present in the control group. The results of the study revealed that this gene is responsible for 1–2% of cases with HCM, so it must be included in the main panel of genes for HCM [10].

Treatment of HCM, regardless of genetic disorders, is currently symptomatic, but existing studies have already shown the prospect of gene therapy in the near future. Treatment includes eliminating complications and preventing the development of life-threatening arrhythmias. Currently, pathogenetic treatment methods based on gene therapy are being developed [9].

One of the most important plenary reports was the report by Antonis Pantazis, vice-president of the EOC working group on myocardial and pericardial diseases, on hereditary cardiovascular diseases and sports.

Problems of the genetics of arrhythmogenesis were also raised during the congress. ACM is an inherited disease characterized by progressive fatty and fibrous replacement of cardiomyocytes and leading to life-threatening arrhythmias and heart failure. Until recently, it was believed that with this disease the right ventricle, the RV, was involved in the process (the disease was called arrhythmogenic dysplasia of the RV). However, recently, in connection with the development of genetic diagnostics and the discovery of genes for desmosomal proteins (anchor

connections between cardiomyocytes), it has been proven that the LV can also be involved in the process and can be dominant, causing a high risk of developing life-threatening arrhythmias leading to sudden death at a young age.

The incidence of ARVC is 1:5000 in the general population, but it should be noted that there is heterogeneity in the geographical distribution and a higher incidence of ARVC in some regions. The mode of inheritance is autosomal dominant, and the main genes causing the disease are plakophilin (PKP2) - in approximately 40% of cases, desmoplakin (DSP), desmoglein (DSG2), desmocollin (DSC2), plakoglobin (JUP). In total, the panel includes 26 genes, but it is constantly updated due to the continuous development of genetic diagnosis of this disease [8].

In the case of long QT syndrome, genetic diagnosis plays a crucial role in therapeutic recommendations, since patient management approaches depend on the affected gene. Variants of types 2 and 3, as well as recessive forms of the disease and cases with compound (biallelic) mutations, have a more unfavorable prognosis. The effectiveness of genetic research is 75–80%. In 1/2 of untreated and undiagnosed patients, the first arrhythmic episode develops before the age of 40. To treat all types of prolonged QT interval, beta-blockers are used, among which nadolol (not available in the Russian Federation) has shown the greatest effectiveness. For type 3 long QT syndrome with $QTc \geq 500$ ms, the use of sodium channel blockers, in particular mexiletine (evidence class IIB), is recommended.

Genetic studies, with correct clinical interpretation in laboratories that have a sufficient database of patients with hereditary cardiovascular diseases, make it possible to determine the prognosis of the course of the disease for the proband and relatives, knowing the pathogenic variant that led to the development of the disease. Based on the clinical picture, this is difficult to do, given the significant heterogeneity of the disease, the often lack of family history, and the impossibility of determining a 5-year prognosis due to the changing clinical picture of the disease. In addition, it became possible to use the database to evaluate the time of diagnosis, as well as the degree of manifestation of certain clinical symptoms (for example, the degree of hypertrophy of the LV interventricular septum, the degree of QT prolongation on the ECG, the degree of LV dilatation, etc.). Carrying out genetic diagnostics in specialized laboratories is included in the guidelines for HCM as class of evidence IIC [3].

A major challenge among cardiologists is the limited ability to integrate genetic information into treatment regimens for patients with inherited cardiovascular diseases and risk stratification and quantification of SCD risk [6]. For this reason, genetic laboratories must have clinical cardiologists who can provide the correct interpretation of genetic testing to translate it into clinical practice. It is also necessary to conduct family screening of the disease in relatives when a pathogenic variant is detected for early identification of carriers and prevention of SCD. Early identification of carriers makes economic and psychosocial sense. Healthy non-carrier relatives should be excluded from further observation.

Management of patients with hereditary arrhythmias in adulthood requires: adjustment of therapy depending on changes in the clinical picture of the disease and anthropometric parameters of the patients; discussions with female patients about the specifics of pregnancy management; family screening; genetic testing in the absence of a verified genotype, as well as timely testing of antiarrhythmic devices and monitoring the timing of their replacement; knowledge of the features of programming an implantable cardioverter-defibrillator in patients with primary electrical diseases.

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MOTHER'S ROLE IN CHILD EDUCATION IN THE FAMILY

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Annotation: The sanctity of the family and the role of a woman in it. A woman is a unique blessing and the main role in the upbringing of children.

Key words: Child upbringing of a woman in the family. Ibo, modesty, modesty.

The family is the main link of human development, the most important institution of the state system, the core and basis of our society. The role and influence of the family in forming and improving the unique spirituality of any nation is incomparable.

Happy families make a happy community. Because happy parents raise happy children, and children of loving parents love each other.

The family is a sacred place that preserves the continuity of every people, the nation, ensures the development of national values, gives birth to a new generation, educates it spiritually and physically, and is considered the main foundation of society. Family is one of the most beautiful miracles of nature, it is a social unit based on "natural-biological", economic, legal, spiritual relations typical of humans.

Family is the most important part of people's life, the base of civil society. In this holy place, a person is born, it is here that he matures spiritually and morally.

The following conditions are expected for the emergence and rule of love in the family:

- mutual respect of family members;
- trust and protection of family members;
- closeness, mutual support and sharing of ideas;
- sense of responsibility (parents' sense of their duties and responsibilities);
- to fight against difficulties together and solve them;
- to be able to express one's identity and create a suitable environment for living happily;
- have a healthy material and spiritual life;

The needs listed above should be met in the family environment.

Family is sacred, woman is sacred in it. She is the symbol of female beauty, the lamp of the holy fortress called the family, the holy breed that embodies all virtues. A woman is a mother, a woman is a unique blessing.

The one who makes a family a family is a woman. The one who unites the family and our society, brings blessings to it, illuminates our homes with the light of love, elegance, and goodness, are actually our honorable mothers, our virtuous sisters.

Chastity is a characteristic and appropriate for women. His face always shines. Andisha is happy with the light of modesty and intelligence.

It is known that the role and influence of the family, and the woman in the family, is incomparable in the formation and promotion of the unique spirituality of the nation. The role of mothers is incomparable in the birth of a healthy child and its intellectual and spiritual growth. The purest and purest feelings of a person, the first life concepts and imaginations are formed first of all in the bosom of the family and with mother's education. For this, the mother herself must be spiritually healthy and enlightened. The position of the women of our country in the society, their

relationship with the family, their role in the social life is extremely important, so their position is highly valued in all aspects.

If the family is strong and healthy, the child will be mature. The child provides the life expectancy of the adult. Among the beautiful human qualities in the family, first of all, he is a perfect person, shrewd, thoughtful, intelligent, the right word, polite, consistent, respect for elders, honor for children, humanity, kindness, loyalty to one's country. virtues are formed in the family. A mother's love for her child is one of the human qualities. Mother's sacred duty is first of all to raise a healthy child.

Not to raise the voice of human beauties to children, that is, to speak in a low voice. Beauty is first of all in keeping a household, maintaining order depends on the taste and wisdom of a woman, teaching order and teaching them to children.

Human beauty is a sign of culture to dress with taste. Home clothes are different, street clothes are different. To teach that the clothes you wear for holidays are different depending on your age.

When cooking with love, pay attention to cleanliness first. Designing a vegetable slicer. Teaching to pay attention to the plates.

To prepare the child for independent life, we should pay attention to the following.

1. Oriental rules of etiquette in the family;
2. In the spirit of respect and example for national values;
3. The place and dignity of the elderly in the family;
4. To strengthen the virtue of honesty and integrity in a boy;
5. Modesty, diligence, honesty in a girl;
6. Father's place in the family.

"The future of the nation is in the hands of mothers," wrote one of the great ones. In this short and concise phrase, the role of a woman on the world stage, her honorable duty and great responsibility are literally expressed. Historical sources testify that the strength of the nation, the freedom of the homeland and the happiness of people are determined by the perfection of these noble breeds.

The one who makes a family a family is a woman. The one who unites the family and society, brings grace and blessings to it, illuminates our homes with the light of love, elegance, and goodness, is actually our honorable mothers, our munis sisters.

It is known that the role and influence of the family, and the woman in the family, is incomparable in forming and raising the unique spirituality of the nation. Mothers are primarily responsible for the birth of a healthy child and for its intellectual and spiritual growth. First of all, the mother is the one who cares the most for the child to be healthy and mature, educated and talented, spiritual and enlightened. Mothers' wit and wisdom are very important in the education of girls, morals, broad thinking as a future mother, the formation of concepts of duty and responsibility in boys, courage and pride, honor and honor.

Today, the fact that the women of our country recognize their honorable duty as sacred and perform it honestly and impartially is appreciated in every way.

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**ASSESSMENT OF THE RISK OF SCAR STRICTURE OF THE ANAL CANAL
DEPENDING ON THE CHOICE OF TREATMENT METHOD FOR
HEMORRHOIDECTOMY**

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Abstract: Assessment of the risk of scar stricture of the anal canal depending on the choice of treatment method for hemorrhoidectomy

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Relevance. Cicatricial strictures of the anal canal or (strictures of the rectum – SAK), are a fairly common postoperative consequence of surgical treatment of varicose veins of the rectum. At the same time, paradoxical was the deterioration of the epidemiological status of SAC, which is due to the use of both standard methods of hemorrhoidectomy and more modern ones such as ultrasound dissection or LigaSure electrosurgical technique.

Purpose of the study . assessment of the risk of cicatricial strictures of the anal canal depending on the choice of hemorrhoidectomy method.

Research methods. The present study was performed on the basis of hospitalized patients in the department of the multi-profile clinic of the Multidisciplinary Clinic of the Center for the Development of Professional Qualifications of Medical Workers in Tashkent and at the private clinic “Sog`lom umr” with cicatricial strictures of the anal canal in 2011-2023. In accordance with the selection criteria, 135 (100%) patients who had previously undergone hemorrhoidectomy for varicose veins of the rectum and had a clinically confirmed diagnosis of postoperative cicatricial stricture of the anal canal were included in the clinical observational study.

Conclusion . Conclusion. The most common factor increasing the risk of SAC, however, remains the classic hemorrhoidectomy using the Milligan-Morgan method ($p < 0.001$). In addition, the use of this method of surgical treatment of varicose veins of the rectum, at least 2 times more often leads to AS ($p < 0.001$).

The improved method of laser hemorrhoidectomy proposed by us allows to reduce the risk of recurrence by 46.4%, and also has significant economic efficiency ($p < 0.001$).

Key words : anal canal stricture, perianal flap anoplasty, laser hemorrhoidectomy, classical hemorrhoidectomy using the Milligan-Morgan method.

Relevance of the problem . Cicatricial strictures of the anal canal or (rectal strictures - RS) are a fairly common postoperative consequence of surgical treatment of varicose veins of the rectum [1,3]. At the same time, paradoxical was the deterioration in the epidemiological status of RS, which is due to the use of both standard hemorrhoidectomy methods and more modern ones such as ultrasound dissection or LigaSure electrosurgical equipment [1,2]. The fact is that modern methods of hemorrhoidectomy have a high - power traumatic effect on the tissue of the rectum, which in turn leads to increased processes of formation of fibrous-scar tissue [1,4]. As a result, the risk of scarring in the rectal tissue is typical for both classical and modern types of hemorrhoidectomy .

The purpose of the study is to assess the risk of scar strictures of the anal canal depending on the choice of hemorrhoidectomy method .

Research methods. The present study was performed on the basis of hospitalized patients in the department of the multi-profile clinic of the Multidisciplinary Clinic of the Center for the Development of Professional Qualifications of Medical Workers in Tashkent and at the private clinic “Sog`lom umr” with cicatricial strictures of the anal canal in 2011-2023. In accordance with the selection criteria, 135 (100%) patients who had previously undergone hemorrhoidectomy for varicose veins of the rectum and had a clinically confirmed diagnosis of postoperative cicatricial stricture of the anal canal were included in the clinical observational study. The mean age of study participants was 41.0 years (range: 18 to 74 years). Among the patients included in the study, there were 64 (47.4%) women and 71 (52.6%) men. Among the main causes of cicatricial strictures of the anal canal in 105 (77.8%) cases was classical hemorrhoidectomy using the Milligan -Morgan method . In 15 (11.1%) cases, the cause of RS was the electrosurgical technique of hemorrhoidectomy using the LigaSure[®] system , and in 15 (11.0%) cases, the cause of strictures was hemorrhoidectomy using a surgical laser. As a surgical mechanism for eliminating RS, patients were divided into 2 groups: Group I - 68 (50.4%) patients who received removal of anal strictures using a surgical laser; Group II – 67 (49.6%) patients who underwent perianal flap anoplasty of anal strictures.

To optimize the analysis of the relationship between the type of hemorrhoidectomy and the characteristics of ACS, we have proposed a classification of anal strictures. According to the degree of severity, we distinguish compensated, sub- and decompensated strictures. Compensated strictures included narrowing of the anal canal up to 1.5 cm in diameter with a decrease in its elasticity. With subcompensated strictures, the narrowing of the diameter of the anal canal ranged from 0.5 to 1.5 cm with difficulty in emptying the rectum, but with the possibility of independent stool. A decompensated stricture was considered to be a narrowing with a diameter of the anal canal of less than 0.5 cm with the need to take laxatives or use cleansing enemas to empty the rectum. Based on the level of location in the anal canal, we divide strictures into extended, involving the entire anal canal, and limited, occupying part of it. The latter, in turn, are divided into low, with the localization of the narrowing zone below 0.5 cm from the dentate line, medium, with a location at the level of the dentate line, and high, with localization above 0.5 cm from the dentate line. In addition, it is necessary to take into account the location of the scar process around the circumference of the anal canal. We distinguish gradations of strictures involving up to 1/2 the circumference of the anal canal, from 1/2 to 2/3 of the circumference, and circular strictures with scar changes along the entire circumference of the anus.

The data analysis within the study was carried out using specialized methods of biomedical statistics. Thus, quantitative indicators were assessed using the Shapiro- Wilk test . In the absence of a normal distribution, quantitative data were described using the median (Me) and intraquartile range [IQR : Q 1- Q 3]. Categorical data were described as absolute or proportional values. Comparison of two groups for quantitative indicators whose distribution differed from normal was performed using the Mann-Whitney U test. Proportional comparisons in the analysis of multifield contingency tables were assessed using the Pearson chi-square test. A prognostic model characterizing the dependence of a quantitative variable on factors was developed using the linear regression method . The construction of a prognostic model of the probability of a certain outcome was carried out using the logistic regression method using the Nigelkirk R² coefficient . Differences were considered statistically significant at $p < 0.05$. The results of **the analysis of the dependence of cases of cicatricial strictures of the anal canal on the type of previously undergone hemorrhoidectomy : among** participants in group I , in 53 (77.9%) cases, the cause of cicatricial stricture was a previously undergone hemorrhoidectomy using the Milligan -Morgan method , in 6 (8.8%) – hemorrhoidectomy was performed using an electrosurgical technique using the LigaSure™ device; in 9 (13.2%) cases, the cause of strictures was hemorrhoidectomy performed using a surgical laser. In group II , among 52 (77.6%) patients, the cause of cicatricial stricture was Milligan - Morgan hemorrhoidectomy , in 9 (13.4%) - electrosurgical hemorrhoidectomy , and in 6 (9.0%) - laser hemorrhoidectomy ($r = 0.832$), (see Table 1).

Table 1

Analysis of the causes of scar stricture depending on the group of study participants

Index	Categories	Group		P
		Group I	Group II	
Cause of scar stricture	Milligan - Morgan hemorrhoidectomy	53 (77.9)	52 (77.6)	0.548
	Electrosurgical hemorrhoidectomy	6 (8.8)	9 (13.4)	
	Laser hemorrhoidectomy	9 (13.2)	6 (9.0)	

The results of the analysis of the causes of cicatricial strictures of the anal canal demonstrated that no statistically significant differences could be identified between the study participants depending on the group. However, the most common cause and consequence of scar strictures of the anal canal among study participants, regardless of group, was hemorrhoidectomy using the Milligan -Morgan method. Thus, when analyzing the proportional ratio, more than 70.0% of patients, both groups I and II , had strictures precisely after the classical method of hemorrhoidectomy .

However, the result obtained is quite predictable and obvious. However, when analyzing the degree of scar stricture and its relationship between previously performed hemorrhoidectomy techniques , a certain pattern was noted . Thus, the phenomenon of compensated (1st degree) cicatricial stricture of the anal canal was noted in 49 (77.8%) cases after hemorrhoidectomy according to Milligan -Morgan, in 11 (17.5%) cases with the electrosurgical method of

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hemorrhoidectomy , and in 3 (4. 8%) cases with laser hemorrhoidectomy . Subcompensated (grade 2) stricture, in 36 (78.3%) cases was a complication of hemorrhoidectomy according to Milligan - Morgan, in 4 (8.7%) cases it was a consequence of electro-surgical hemorrhoidectomy , and in 6 (13.0%) - a consequence laser hemorrhoidectomy .

And finally, decompensated (grade 3) scar stricture was a complication of hemorrhoidectomy using the Milligan -Morgan method in 20 (76.9%) cases, as well as in 6 (23.1%) cases with laser hemorrhoidectomy (see Table 2).

The data obtained demonstrated patterns regarding the severity of postoperative cicatricial stricture of the anal canal and its connection with the method of hemorrhoidectomy . Thus, as in cases with the very fact of the occurrence of cicatricial strictures, analysis of the severity of these phenomena most often (more than 70.0%) arises when choosing surgical treatment of varicose veins of the rectum using hemorrhoidectomy according to Milligan -Morgan ($p = 0.124$).

table 2

Analysis of the degree of scar stricture depending on the method of previously performed hemorrhoidectomy

Index	Categories	Degree of anal stricture			P
		1 tbsp.	2 tbsp.	3 tbsp.	
Cause of cicatricial stenosis	Milligan - Morgan hemorrhoidectomy	49 (77.8)	36 (78.3)	20 (76.9)	0.124
	Electrosurgical hemorrhoidectomy	11 (17.5)	4 (8.7)	0 (0.0)	
	Laser hemorrhoidectomy	3 (4.8)	6 (13.0)	6 (23.1)	

A comparative analysis of the severity of scar strictures depending on the group of study participants demonstrated that it was not possible to identify significant differences between the degree of stricture and the group of the patient in the study ($p = 0.687$). Among patients with a clinical picture of compensated cicatricial stricture of the anal canal, there were 30 (44.1%) participants in group I , and 33 (49.3%) participants in group II of the study. In cases with subcompensated stricture, 23 (33.8%) participants were identified from group I and 23 (34.3%) for group II . In cases with decompensated scar stricture, 15 (22.1%) patients were identified in group I and 11 (16.4%) in group II (see Table 3).

Table 3

Analysis of the degree of anal stricture depending on the group of study participants

Index	Categories	Group		P
		Group I	Group II	
Degree of anal stricture	1 tbsp.	30 (44.1)	33 (49.3)	0.687
	2 tbsp.	23 (33.8)	23 (34.3)	
	3 tbsp.	15 (22.1)	11 (16.4)	

The data obtained demonstrated the fact that even when patients are randomized into groups of surgical intervention, the specificity of complications associated with previously performed hemorrhoidectomy has clear patterns. Thus, among the study participants, depending on the group, in most cases (more than 70.0%), strictures of the anal canal of compensated and

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subcompensated degrees were noted. In addition, an analysis was carried out of the time period from the moment of hemorrhoidectomy and the occurrence of clinical symptoms of cicatricial stricture of the anal canal among study participants. This analysis made it possible to determine that the shortest period for the occurrence of clinically significant phenomena of scar stricture was 9 months. [IQR : 4.0 – 16.0 months], for patients with compensated and decompensated stricture. Which is more than 30.0% shorter period compared to 12 months. [IQR : 6.0 – 16.0 months] among patients with subcompensated degree of stricture (p=0.484), (see Table 4).

Table 4

Analysis of the period of occurrence of clinically significant manifestations of cicatricial stricture of the anal canal after hemorrhoidectomy among study participants

Index	Categories	Time of onset of symptoms (months)			p
		Me	Q ₁ – Q ₃	n	
Degree of anal stricture	1 tbsp.	9.0	4.0 – 14.0	63	0.484
	2 tbsp.	13.0	6.0 – 16.0	46	
	3 tbsp.	9.0	4.0 – 16.0	26	

The data obtained when analyzing the period of occurrence of symptomatic manifestations of cicatricial changes in the rectum after a previous hemorrhoidectomy demonstrated that the most rapidly developing clinical picture is characteristic of both the compensated and decompensated stages of cicatricial stricture. In this connection, it was concluded that the values of the time period from the first day after hemorrhoidectomy to clinically significant manifestations of cicatricial stricture of the anal canal do not have significant clinical significance and do not correlate with the stage of cicatricial changes. When analyzing data on the presence of anal canal stenosis depending on the type of previously undergone hemorrhoidectomy, identical results were obtained among the participants in this study. Thus, stenosis of the anal canal was detected in 76 (76.8%) cases after hemorrhoidectomy according to Milligan -Morgan, in 11 (11.1%) cases after electrosurgical hemorrhoidectomy, and in 12 (12.1%) cases after laser hemorrhoidectomy (p=0.823), (see Table 5).

Table 5

Analysis of cases of anal stenosis depending on previous surgical intervention

Index	Categories	Anal stenosis		p
		Availability	Absence	
Cause of stenosis	Milligan - Morgan hemorrhoidectomy	76 (76.8)	29 (80.6)	0.823
	Electrosurgical technique for hemorrhoidectomy	11 (11.1)	4 (11.1)	
	Hemorrhoidectomy using laser surgery	12 (12.1)	3 (8.3)	

In cases with anal stenosis in more than 70.0% of cases, the occurrence of this complication was associated with complications of hemorrhoidectomy according to the Milligan -Morgan method, which emphasized the previously made conclusions that more modern and technological methods of intervention on the rectum have a high level safety and effectiveness.

As a result of analyzing the dependence of the occurrence of cicatricial strictures of the anal canal on the method of hemorrhoidectomy, we identified a clearly visible trend in favor of the standard method of hemorrhoidectomy according to Milligan -Morgan. At the same time, with respect to electrosurgical hemorrhoidectomy using “LigaSure™” and laser hemorrhoidectomy, significantly more favorable outcomes were noted, both in cases of the direct presence of postoperative cicatricial stenosis, and in cases of correlation between the occurrence of cicatricial changes in the rectum and the severity of strictures. Thus, patients who have undergone hemorrhoidectomy Milligan -Morgan had 3.092 times higher odds of postoperative scarring and 2.185 times higher odds of having more severe strictures compared with patients who underwent electrosurgical and laser hemorrhoidectomy [95%CI: 1.213 – 8.460], ($p < 0.001$). As for such a formidable complication of hemorrhoidectomy as anal stenosis, then, provided that hemorrhoidectomy is performed using the Milligan -Morgan method, this type of complication occurs at least 2 times more often in comparison with more modern types of surgical treatment of varicose veins of the rectum.

Conclusion. The most common factor that increases the risk of developing SA is still the classic hemorrhoidectomy according to the Milligan -Morgan method ($p < 0.001$).

Inference:

1. The use of this method of surgical treatment of varicose veins of the rectum leads to AS at least 2 times more often ($p < 0.001$).
2. The improved method of laser hemorrhoidectomy we proposed allows us to reduce the risk of relapse by 46.4%, and also has significant economic efficiency ($p < 0.001$).

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**EFFECTIVENESS OF ANTICOAGULATION TREATMENT IN COMPLEX
TREATMENT OF ZOTILJAM'S DISEASE IN CHILDREN OF EARLY AGE OUTSIDE
THE HOSPITAL**

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Abstract: In the first six months of a child's life, the state of hemostasis changes in accordance with the changes in living conditions, and by six months it acquires the status of a mature organism. The system of hemostasis in early-aged children is different from that of adults, and there are specific characteristics of hemostasis disorders at this age.

Key words: medicine, human, patient, hemostasis, zotiljam.

The urgency of the problem

The foundation of human health is created in early childhood. The first year of a child's life is the defining part of this period, in which the complex process of the organism's transition from the biological stage to the socio-biological stage of development is carried out. In this regard, it is necessary to implement preventive measures aimed at strengthening the child's health during this period.

Early treatment of pathological conditions that determine the severity of the patient's condition is the basis of prevention of DVS syndrome. In the prevention of DVS syndrome, special importance is attached to quickly restoring tissue perfusion, improving the rheological properties of blood and its oxygen-carrying function.

In addition to the general clinical symptoms of intoxication in zotiljam's disease in early-aged children, lung ventilatory function, respiratory failure in the form of a violation of oxygen and carbon dioxide diffusion and perfusion processes through the interalveolar membrane in the lungs, and various aspects of homeostasis are related to the pulmonary process. In the lungs, extra-pulmonary manifestations such as changes in blood gas composition, water-electrolyte balance, and coagulation-anticoagulation system at various levels are observed [14,15, 11,].

A number of main goals of infusion therapy in zotiljam disease with blood coagulation disorders: correction of hemostasis disorders, first of all, plasminogen and its activators, which support the antithrombotic potential of blood, physiological antiaggregants, and components of plasma anti-protease activity, which regulate the blood coagulation process. restoration; It has the purpose of replacing circulating fluid volume, restoring central venous pressure, and replacing blood cells such as erythrocytes and platelets.

In the first six months of a child's life, the state of hemostasis changes in accordance with the changes in living conditions, and by six months it acquires the status of a mature organism. The hemostasis system in early-age children is different from that of adults, and there are specific characteristics of hemostasis disorders at this age.

Thus, severe and severe zotiljam disease in early-aged children leads to disruption of hemostasis joints from hypercoagulation and hypocoagulation to hemorrhagic syndrome. In addition, some aspects of corrective therapy have not been developed for this category of patients

Purpose of work

Features of treatment and prevention of acute zotyljam disease in young children caused by adverse environmental factors

Materials and styles

Data obtained during a comprehensive examination of 165 children admitted to the pulmonology department between the ages of 1 and 3, including 120 children living permanently in the Aral Sea region (Khorazm region) and out-of-hospital zotiljam living in Tashkent (comparison group) 45 children with the disease were included.

Research subject

Blood and blood serum were taken for immunological, biochemical and coagulogram examination.

Research methods.

Clinical, functional, biochemical, immunological, coagulogram, clinical-radiological, UTT and statistical methods were used.

Among examined children living in ecologically unfavorable conditions, it was noted that the frequency of occurrence of complicated forms of out-of-hospital seizures was almost 2 times higher (80.0% vs. 37.8%; $R < 0.05$). At the next stage of the research, we assessed the state of hemostasis depending on the course of zotiljam disease in order to develop treatment and preventive measures.

In the process of studying hemostasis during the period of out-of-hospital zotiljam disease outbreak, we found an increase in the number of platelets ($256.2 \pm 8.5 \times 10^9/l$) in 58 of 96 children of the main group and 17 of the comparison group (45 children) (37.8%), and 27.1% (26 children in the main group and 7 children in the comparison group) had signs of hyperthrombocytosis ($404.38 \pm 25, 5 \times 10^9/l$), which we evaluated as a thrombophilic condition. Clotting of the needle during the injection and clotting of the blood in the test tube after it is taken for analysis or with a preservative confirms this assumption.

However, in 44.4% (40 out of 96 children) of this main group of children, it was observed that the thrombophilic state transitioned to the hypocoagulable stage with symptoms of the II consumptive coagulopathy phase of the DVS syndrome, this state is fibrinogen ($1.52 \pm 0.16 g/l$) and reduction of platelets (123.9 ± 8.5) is confirmed by decrease of PTV ($12.5 \pm 1.2 sec$).

The effect of the above changes was reflected in the results of the microcoagulogram, which is evidenced by the hypocoagulation state detected during the exacerbation of the disease in 17 children with complicated zotiljam disease living in unfavorable conditions.

Hemocoagulation disorders in early-aged children with complicated OZ are associated with changes in the function of hepatocytes involved in the synthesis of blood coagulation and anticoagulation factors of hemostasis.

During the study, hepatomegaly was noted in 56.2% (54 out of 90) of children with complicated acute hypothyroidism living in an unfavorable ecological region. At the same time, we found out that there are pathological changes in the enzyme status indicating functional disorders in the liver in children of this category, in particular, the average amount of AsT in the blood is $0.61 \pm 0.02 \mu mol/l$, and ALT is 1.32 ± 0 It was $05 \mu mol/l$.

Conclusion: Thus, in the acute phase of acute zotiljam disease in children of early age, a significant increase in blood coagulation is observed, which can lead to DVS syndrome and hypocoagulation under certain conditions.

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RABGHUZI'S STORY MYTHICAL CROWN OF RABGHUZI'S WORK

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Abstract: Qisasi ar-Rabguzi's work is a rare example of literature not only of the Turkic peoples, but also of the world. The work is known to the world as an extremely charming example of the tradition of "Qisas ul-Anbiyya" type works in the literature of the peoples of the East. The fact that "Qisas ar-Rabguzi" was completely translated into our current literary language for the first time is an important achievement of Uzbek literature and literary studies. The artistic and educational truths about the universe and man expressed in it serve to enrich the world of imagination and thinking of the reader, bring peace to the soul and peace of mind.

Key words: eulogy, hymn, story, story, wisdom, narrative, anecdote, hint, point, poem, verse, prediction, ghazal.

President Sh.M. Mirziyoyev addressed the same issue in his address to the Oliy Majlis: "...today we mobilize all our possibilities to realize the spirituality of young people, their knowledge and talent, intelligence, and talent." , emphasized that the program should serve all those working in today's education sector, and this issue was emphasized as one of the tasks that cannot be postponed.

As a result of these tasks, the Cabinet of Ministers of the Republic of Uzbekistan developed for the first time in the history of our country the "Continuous Spiritual Concept", which includes the work that must be done in the upbringing of a child from the family to adulthood. and put into practice [1]. Now this concept is determined by the promotion, practical application and implementation of this concept in our daily life.

The process of extensive study of ancient literary masterpieces showed that the artistic works created by the wise figures of our people came to the field as expressions of feelings cherished not only by one nation or people, but by the whole world. One of such rare literary monuments is the work "Qisas ar-Rabguzi" written by Nasiruddin Rabguzi in Hut month of 710 AH, February 21 - March 21, 1310 AD. The work is an example of universal spirituality and culture in the literal sense of the word. In it, the mysteries of the universe and man are described in strange artistic pictures. Artistic interpretations of the topic chosen by the writer, that is, prophetic enlightenment, are widespread in the literature of the peoples of the East as a unique tradition. Narrative stories about the Prophets are described in detail among the Arab, Persian, and Turkic peoples, both as a story of a specific prophetic image and as a whole prophetic story. The original sources of such stories are heavenly books such as Zabur, Torah, Injil, Qur'an, that is, in the words of Hazrat Alisher Navoi, "heavenly ones", and these sources are still of eternal value to the majority of the population of the earth. accepted as Thanks to the interpretations created as a result of the hard work of commentators of the science of tafsir existing in the creativity of the peoples of the East, the instructive events and incidents about the prophetic figures in the sacred sources later took the form of artistic stories. As an artistic expression of "revenge" in the divine

word, extremely beautiful examples of prose have been created in Eastern literature. For example, Muhammad Sayyid Tantovi "Qasas al-Qur'an", Muhammad ibn Jarir Tabari "Tarihi Tabarii", Ibn Kasir "Al-Badoyatu and finally", Qutbiddin Rovandi "Tarihi anbiyya", Muhammad Ahmad Jadalmavi "Qissahoi Qur'an" 'on", Rasuli Mahollati "Qasas al-Qur'an", Sadridin Baloghi "Qasas ul-Qur'an", Kamal Mustafa Shakir "Qissas ul-Anbiyya", Ibn Arabi "Fusus-al-hikam", Makarimi Shirozi "Qissahoi Qur'an", Shazari's "Qasas-ul-Anbiyya" and other similar works are rare examples of oriental artistic storytelling.

The expression of this tradition in the works of Turkic-Uzbek peoples is unique. Nasiruddin Burhanuddin Rabguzi's work "Qisas ar-Rabguzi" appeared as a unique artistic expression of the same theme.[2]

There are many biographical passages in the work that clearly reflect the history of the story, the writing process, and the author's personality. The author says that he was very interested in the story of the prophets, and he worked tirelessly day and night to write it. The work is the only example of the author's work known to science. According to the requirements of the creative process, any artistic work can provide information about the personality of the author. If there is only one work of the writer, then the personality of the creator is revealed in this work. If the artist has several works, then the aspects characteristic of the writer's personality are reflected in these works. This work is studied in the upper grades of literary education.

Another aspect of "Qisas ar-Rabguzi" is a universal artistic phenomenon, which is that the stories of the prophets are organized in a logically interconnected system. We can say that this issue is a discovery of Eastern-Islamic spirituality. The history of the Prophet's life is so complexly expressed in the sources that the wisdom of interpreting them in one direction and in a circle requires an incomparably great potential. Especially in this regard, mentioning the differences in the interpretation of the lifestyles of the prophetic figures in the Psalms, Torah, and the Bibles, and the unconnected individuality of their activities, shows how complicated the matter is. From these aspects, it shows that the author himself relied on the knowledge of the Qur'an. At this point, it should be mentioned that the truths about the prophets are close to each other in the holy sources and there are differences only in the interpretations. This is a proof that the enlightenment and teaching of prophethood in worldly views is fully settled due to the Qur'an and the literature nourished by it. From this point of view, in the process of literary education, the teacher needs knowledge and skills based on religious knowledge, especially when organizing a class of classical literature. I think it is necessary to be able to interpret the Holy Qur'an and its meaning. But nowadays, especially the literature teacher lacks the necessary skills. Religious ideas are expressed with great skill in classical literature. Analytical study of "Qisas ar-Rabguzi" also requires high skill. The story of Adam, peace be upon him, is completed in the way that the human being is destined to live on earth with hard work and starts a new life. Allah fulfills the intention. A couple will be created for the "Honourable One". Children are born from them. Although the play tells a sad story about the children of Adam, Cain and Abel, it also has its own lesson. In "Qissasul-anbiyo" the sequence of the stories of the prophets is also slightly different. This situation, in our opinion, is related to the fact that prophets are mentioned in various places in the heavenly books, including the Holy Qur'an.

It is enough to mention the following opinion of Rasul alayhissalam about this in the work. The Messenger of Allah commanded: "Whoever is faced with ten different calamities, should recite ten Surahs, whoever wishes to be freed from selfishness, should recite Alhamdu Surah, and

whoever wishes to be saved from thieves" Let him read Surat ul-Baqarah, whoever wants to get rid of poverty, let him read Surat Al Imran, whoever wants to get rid of sadness, let him read Surat ul-An'am, whoever If you want to remove discord from my mind, read "Surat al-Anfal", if you want to end my anger, read "Surat al-Asr", if you want sadness to be forbidden to me, read "Alam Nashrah". 'kisin, whoever wants disbelief and polytheism to leave me should read Surat ul-Ikhlās, whoever wants to be saved from witchcraft should read Surat ul-Mu'awvizatayn, whoever wants ten different sorrows to leave me Let him read Surah "Yusuf". That's why all the troubles are in Yusuf's story." That is why Yusuf's story has become a universal topic of fiction and the most optimistic work of all types of art. The work also contains rare examples of ancient wisdom. In particular, according to the tablet mentioned in the story of Moses, the following words were written on one of the golden tablets of Moses' wisdom: "The first: the son of man knows that he will die and thinks that he will not die. The second: He does evil because he is afraid of hell. The third: He knows what he does. The fourth: He commits a sin out of fear of Allah. Fifth: Knowing that this world is transitory, he sets his heart on it. These words encourage any person to make a deeper observation about life, to summarize the meaning of life. Even though prophecy is described in separate stories in the work, it is interpreted as one nation in certain places. The fact that the names of one hundred and twenty-four thousand prophets were written on the iron bars of Noah's ark is a proof that prophethood is understood as one nation. Or, this situation is expressed in the image of the Messenger of God's conversation with other prophets in the sky on the night of Miraj. The important aspect is that even when the story of the Prophets is described separately, the light of interpretation converges within the framework of Muhammadiyah. The fact that the people of the prophethood attracted world literature is clearly expressed especially in the interpretation of the divine miracles bestowed upon them. In "Qisas ar-Rabghuzi" these miracles are interpreted as a special story of the prophets. It also reveals the essence of miracles, and explains that their gift is not in vain and has a deep logic. In particular, no miracle is attributed to Adam, but the creation of Adam itself is a miracle. At the same time, people who are faced with the troubles of life put forward the idea that they can find a solution to any problem in Kuroni Karim.

So, "Qisasi ar-Rabghuzi" is a unique work with an extremely comprehensive, high content load and high artistic weight. Therefore, it is appropriate for us to study this work in depth and spread it widely among the masses. A number of studies have been and are being conducted about this work. There is a verse in the Holy Qur'an that says, "We have sent down Our verses so that you may reflect." Similarly, the work "Qisasi ar-Rabghuzi" is rightly considered among the works that require contemplation. Lessons and benefits in the work are good not only for the study of the literary process, but also for life issues and manners of thinking. It is a precious masterpiece for the education of a pure and free spirit. This unique masterpiece can be the basis for the development of today's young people to be perfect human beings. A literature teacher needs a high level of skill to interpret and study the work. Today, in school literary education, it is appropriate to pay close attention to this field and develop deep methodical methods. The criterion of today's demand is the spiritual maturity of young people. Rabghuzi, a bright representative of our classic literature, has sung about immortal themes such as human happiness, nobility, patriotism, generosity, love, as well as respect for parents and justice, which have not lost their importance even today.

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Abstract: Neurolinguistic programming as a method of expressing the student's subjective experience, his thinking, behavior and communicative processes [correct perception of the environment by himself and others, helps to organize effective communication.

Key words: Neurolinguistic, Neuropedagogy, subjective, neuropsychologists.

Recently, scientific directions connecting the issues of education and upbringing processes with the peculiarities of the structure of the student's brain: neuropsychology, neurolinguistics or neuropsycholinguistics, psycholinguistics are developing rapidly. American neuropsychologists called the 90s of the 20th century the "decade of the brain" and emphasized the attention of pedagogues to this topic. According to the instructions given by American neuropsychologists, it is necessary for the teacher to use a wide range of opportunities to involve students in learning activities of different forms and contents, to use different educational methods and methods. At the moment, they call the brain a "parallel processor" that performs several tasks at the same time. can transfer Opinions about the need to use neuroscience data in pedagogy have been put forward by scientists for a long time, but the opportunity to use the achievements of neuropsychology and neurobiology in pedagogical practice in a broad sense appeared at the end of the 20th century. The connection between the structure of the brain and the peculiarities of thought processes has been proven by the scientific research of research scientists from more than twenty countries around the world.

In the 80s of the last century, Y. Lotman conducted research on semiotics and cultural studies based on the successes of neuroscientists. He puts forward the idea of the successive activation of competitive types of consciousness, one of which is detached from the extreme essence, and the other, which serves to reveal the essence in a way that is united with external reality. The foundation of this direction is the scientific researches of psychologists L.S. Vygotsky and A. Leontev in the field of educational psychology and the researches of A. R. Luria, who is considered the founder of neuro-psychology. The product of their scientific research activities is the basis for the creation of children's neuropsychology, in which the general theoretical foundations of normal and abnormal development are expressed. The study of pedagogical processes from the point of view of neurological changes occurring in the human brain, that is, the synergism of neurology and pedagogy, led to the emergence and formation of neuropedagogy as a separate science. Neurobiologists from thirty state institutions on the international scientific project called "Brain and Education" organized by the Center for Educational Research and Innovation (CERI) of the Organization for Economic Cooperation and Development (OeSD). pedagogue, psychologist, sociologist and medical staff conducted scientific research (Brain and Learning). In Russia, the Institute of Cognitive Neuroscience was established under the Academy of Modern Humanities. It serves as a working area for specialists of related profiles in the field of preliminary neuropedagogy. The Institute of Cognitive Neuroscience brings together scientists from Moscow State University, the Institute of the Human Brain of the Russian Academy of

Sciences, the Institute of Psychology, the Scientific Research Institute of Neurocybernetics, Rostov State University.

This direction is directly related to the following pedagogical tasks: application of neuropsychological knowledge in solving problems of learning in the educational process development of neuropsychology of individual differences T.A. conducted a number of studies aimed at explaining the secret. The formation of spirituality in any person takes place in connection with his material and spiritual needs. In turn, the spiritual needs of a person are inextricably linked with his national, religious, ideological and ideological upbringing. At the same time, the material need is related to the simple benefits necessary for people's lifestyle. In this sense, the formation process of human spiritual culture is clearly manifested in the harmony of material and spiritual needs. The formation process of spirituality is based on science, culture, education, moral, aesthetic, political, legal relations and wealth acquired by mankind throughout history. By the last decade of the 20th century, humanity realized that the world can develop fully and sustainably as a single society. "Until our time, human society has not existed as a unified whole," wrote sociologist Anthony Giddens.

A number of socio-ideological situations, globalization and integration processes that occurred in the world at the border of two centuries, i.e. 20th and 21st centuries, divided the world into many poles on the one hand, and on the other hand, connected it to each other. The processes related to globalization and their impact on the world development and the economy, politics and spiritual life of countries make the issues of stability and security more urgent. It is appropriate to analyze the principles of the increasing need for the development of the spiritual culture of the individual in the conditions where the globalization process covers the social development of the present time, socio-economic, political, spiritual and cultural. In fact, this process is considered the most comprehensive and complex social phenomenon, and the main factors of its development and implementation are: formation of international characteristics among different peoples and nations; to constantly enrich the spiritual culture of a person and raise it to a new level of quality; to take into account the interests and needs of the individual; it is necessary to take into account the strong influence of national and religious values on the development of people's spirituality. So, the activity of a person's participation in this process is related to the level of awareness of the existing interests and needs, the increasing need for the development of spiritual culture. It is known that the basis of philological education is expressed in the form of symbols, symbols, words, images, and serves the development of a person's intellect, outlook and thinking. Of course, a person's personal attitude to things and events plays an important role in this process. As stated by M. Kuronov, "For the purposes of mutual conversation, education, propaganda, knowingly or unknowingly, a person spreads his relations through his thoughts. As a result, the attitude of one person can become the attitude of hundreds of people to this or that thing or event. Because a person often tries to convince the interlocutor next to something, to change his behavior, to change his opinion to his opinion, to change his wishes to the wishes of many, to change his beliefs to the beliefs of many ". With one word, he tries to lead the interlocutor to his goals, to convince and convince him of his point of view. In terms of modern science, it uses neurolinguistic programming technologies. Today, there is a special need to apply neurolinguistic programming technology in philological education.

Neurolinguistic programming as a way of expressing the student's subjective experience, his thinking, behavior and communicative processes [correct perception of the environment by

himself and others, helps to organize effective communication. Neurolinguistic programming makes it possible to use it successfully based on the analysis of the student's behavioral strategy. Neurolinguistic programming is considered a humanitarian technology of education, and its main task is to form effective communication techniques in order to achieve guaranteed results in the development of spiritual culture in students, and activities aimed at consciously changing the behavior of oneself and the people around. consists of preparation. The essence of the "neuro-linguistic programming" technology was briefly and clearly expressed in M. Kuronov's book "The Truth We Understand" as follows: "Persuasion is an idea that is conveyed to one person by another person (or means) by creating exciting moments or by making everyone recognize the method of absorption depending on the sources. Persuasion is the ultimate form of persuasion. The same process takes place in self-persuasion. However, it is not an external factor, but a person's own feelings that take part in introducing thoughts and ideas." There are three main elements of Neuro-Linguistic Programming:

- "neuro" - the connection of the nervous system between the brain and the body;
- "linguistics" - interaction through words and language;
- "programming" means systematizing thoughts and actions that are repeated in a sequence.

So, controlling a person's thoughts and behavior through language and words is the main essence of neurolinguistic programming. Various methods and techniques of neurolinguistic programming can be used in philological education. Here are some of these neurolinguistic programming techniques:

Adaptation and management. This technique forms the basis of linguistic programming, and in order to successfully influence the student's moral behavior, it is important to adapt to his actions (state, mood, gaze, posture, position of hands and feet). Adapting to the rhythm of breathing is effective in providing a clearly focused effect on the student. To do this, it is necessary to observe the student's breathing, to be silent while breathing, on the contrary, to address him when he breathes out. As a result, in the subconscious state of the student, the words that are said to him leave an impression as if they were being said by him. Let's say a student is angry about a reprimand. In this case, the teacher is required to enter the physiological state as if he were angry, that is, to adapt to the situation of the student. It is necessary to continue the conversation at this pace, gradually the teacher should moderate his mental state. The student, in turn, adapts to the calm state of the teacher and calmly approaches the situation. It is known that the brains of students, like all people, are designed to work with constant and unchanging information. Being prevented from increasing the behavior one wants, creates a trance state in them and allows to effectively influence their behavior. In this case, it is especially appropriate to use pedagogical situations focused on involvement, cooperation, tension and elimination. In the situation of involvement, students are taught to understand that they are directly related to the current problems of our time, to feel the need to feel responsibility for all the events that are happening in the world. an idea is formed about the means of achieving the goal. In the situation of the experience, the teacher confronts the students with the reality related to some kind of spiritual depravity.

This situation occurs at the emotional, logical, and operational levels (determining one's attitude and determining the direction of one's behavior in this situation). The situation of tension is aimed at actively holding serious spiritual and moral feelings of a person for a long period of time, and this situation forces students to show moral stability. The more long-term and intense the activity, the higher the stability of moral manifestations required of the student. Later, there is

a need for manifestations in the situation of eliminating spiritual and moral stereotypes. Students expect the teacher to get angry, express traditional opinions, and give a serious lecture, but in order to eliminate stereotypes in students, in this situation, they need to be polite in a way they did not expect, introduce non-standard situations, give a lecture. It is necessary to use laughter in the process.

Fight against destructive rumors. This technique is part of preventive measures and allows students to be protected from informational attacks against our national spiritual heritage, national values, and historical figures. For this purpose, the teacher should study, systematize, and neutralize the rumors that have entered the minds and hearts of the students and in order to destroy their faith in the reforms. According to M. Kuronov, two ways appear in front of the teacher-coach in the campaign against rumors:

1) to remain silent (which means inaction in relation to the spread rumor or encouraging it);

2) disclosure (although this may also cause further spread of destructive rumors that are being exposed!). Continuing his opinion, the scientist explains that the solution to this in the history of propaganda is not to directly expose the rumor, but to dispel it with the help of facts. Therefore, if there are rumors of moral threat among students, the teacher should effectively use training sessions, videos and visual aids that eliminate its destructive effect.

Indifference - prevention of lack of will. This technique is aimed at finding new ideas and desires, a sense of creativity in the minds of students, and serves to eliminate hesitation and weakness of will energy. For this, the teacher should first of all make the students believe in their own strength and capabilities. Trust is not created by itself. For this purpose, it is desirable that the ideas given to the students should be repeatedly broadcasted in connection with the practice, presented in a visual, figurative way, and inculcated based on tested examples. Confidence, in turn, gives rise to desire and intention and gives energy to the will, the source of action. Willful, active, mediocre, apathetic, apathetic learners are among the students. But in order to make them all move together, it is necessary to propose a goal and idea that everyone can quickly and easily understand, and to convince them that it is important.

Exercise "Freedom of choice in acquiring knowledge". On the basis of this technique, students will have the opportunity to understand what they want to learn, the reasons that motivate them, and the consequences of the situations in which they want to study and do not want to. The exercise helps students to make good use of internal contradictions to be conscious and responsible towards learning. For this, the teacher offers the students to make a list of freedom of choice in acquiring knowledge. At first, the teacher asks the students to compile a set of life experiences of people they know in their notebooks. Then he explains that they should exchange notebooks from time to time, each time writing one of their life experiences based on examples.

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АРТ-ТЕРАПИЯ РАБОТА С ДЕТЯМИ, ПОДРОСТКАМИ И СЕМЬЕЙ

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Аннотация. Арт-терапия – один из простых и эффективных методов, используемых сегодня психологами и психотерапевтами. В данной статье рассматривается процесс работы с арт-терапией у детей, подростков и семей и ее последствия.

Ключевые слова: арт-терапия, память, воображение, индивидуальность, группа, метод, картинная терапия.

Annotatsiya. Art-terapiya bugungi kunda psixologlar va psixoterapevtlar ishida qo'llaniladigan sodda va samarali usullardan biri hisoblanadi. Ushbu maqolada bolalar, o'smirlar hamda oilalarda art-terapiya bilan ishlash jarayoni va uning samaralari haqida fikr yuritilgan.

Kalit so'zlar: art-terapiya, хотира, tasavvur, individual, guruhli, metodika, rasm terapiya.

Annotation. Art therapy is one of the simple and effective methods used by psychologists and psychotherapists today. This article discusses the process of working with art therapy in children, adolescents and families and its effects.

Key words: art therapy, memory, imagination, individual, group, method, picture therapy

Арт-терапия – одно из широко используемых направлений в прикладной психологии и психиатрии, которое применяется для оказания психологической поддержки клиентам, использующим различные виды творчества для полноценного решения своих личных проблем. Это направление присутствует в процессе лечения практически всех видов искусства. улучшить психическое и эмоциональное состояние человека. Оно положительно влияет на внутренние проблемы пациента, учит его понимать свои страхи, желания и цели, выражать их доступными творческими способами.

Арт-терапию обычно применяют в следующих случаях:

- при психологических травмах, потерях;
- периоды кризиса;
- внутренние и межличностные конфликты;
- постстрессовые, неврологические и психосоматические заболевания;
- с возрастным кризисом;
- с развитием творческих способностей;
- с развитием целостности личности

Арт-терапия и живопись часто дополняют друг друга. Больной «раскрывается» в своих работах. Это будет началом процесса исцеления. В этом процессе Мастером часто выступает опытный психолог или психотерапевт. Арт-терапия позволяет взрослым и детям выразить на бумаге любые эмоции: гнев и радость, гнев и любовь. Неважно, есть у человека художественный талант или нет.

Существуют следующие методы арт-терапии:

- картинная терапия
- драматическая терапия
- библиотерапия
- музыкальная терапия
- танцевальная терапия
- кинотерапия
- кукольная терапия.
- оригами
- маскаотерапия
- видеотерапия

Сегодня занятия арт-терапией для детей – самый увлекательный, эффективный и очень экономичный способ оказания психологической поддержки детям, основанный на творчестве и игровой деятельности. Арт-терапия успешна и эффективна при применении к детям дошкольного возраста (3-7 лет) и младшего школьного возраста (7-11 лет). Заниматься с детьми можно индивидуально и в группах. Когда родители, обращающиеся к психологу, жалуются на своих детей, беседа психолога с детьми может оказаться не очень эффективной. Но если обратиться к арт-терапевту, дети смогут успокоиться, рисуя, и снять напряжение своего персонажа.

Арт-терапия также имеет свои требования. Занятия проводятся в группах и индивидуально. Детей, которые обращаются к арт-терапевту, следует принимать в первую очередь индивидуально. Потому чтознакомиться с ребенком, наблюдать за ним, индивидуально рисовать, изучать его характер, индивидуально корректировать его эмоции – это важный процесс. Групповая арт-терапия повышает восприимчивость детей. И тогда, если ребенок присоединится к группе, ему будет удобно адаптироваться. Число участников группового тренинга по арт-терапии не должно превышать 10-15 человек.

Если для детей проведение занятий арт-терапией очень интересно, то для подростков их проведение – более сложный процесс. Основная причина этого – специфические физические и психические изменения в подростковом возрасте. При работе с детьми-подростками изучаются и семейные отношения. Например, больше информации о детско-родительских отношениях у подростков мы можем получить в результате применения метода «ягненок в стакане». Подросткам предлагается нарисовать барашка в бутылке. После завершения работы пациентам предлагается представить свои рисунки для совместного обсуждения. Арт-терапевт задает вопросы о чувствах барашка и бутылки, о чем они мечтают, что их беспокоит. Больные обсуждают барашка, его расположение в бутылке, форму и расположение бутылки, ее наличие и т. д. В конце обсуждения арт-терапевт дает свои интерпретации рисункам пациентов. Барашек — автор произведения, а бутылка олицетворяет родительскую семью. Данная методика позволяет Арт-терапевту проверить свои предположения о месте и роли пациента в семейной системе, а также узнать больше об одном из важнейших аспектов жизни пациента. Кроме того, совместное обсуждение рисунков с другими пациентами позволяет каждому пациенту взглянуть на мир другого, сравнить и узнать о себе новое, то, что отрицалось или бессознательно подавлялось, получить ответы на свои вопросы.

В настоящее время очень эффективные результаты дает музыкотерапия, которая является одним из эффективных методов арт-терапии. Термин «музыкотерапия» происходит из греко-латинского языка и означает «исцеление музыкой». Существует множество определений музыкальной терапии. Большинство ученых рассматривают музыкотерапию как вспомогательный инструмент психотерапии, средство специальной подготовки больных к использованию сложных терапевтических методов.

Другие авторы определяют музыкальную терапию как:

- Контролируемое использование музыки в лечении, реабилитации, обучении и воспитании детей и взрослых с соматическими и психическими заболеваниями.
- Систематическое использование музыки для лечения физиологических и психологических аспектов болезней или психических расстройств.
- Использование как средство оптимизации творческих сил и педагогика-воспитательной работы.

Греческий ученый и философ Пифагор был одним из первых, кто подтвердил значительное влияние музыки на психическое и физическое состояние человека. Согласно «Жизни Пифагора» Ямблиха, если слушать «прекрасные ритмы и песни, то такой человек получает музыкальное образование с помощью мелодий и ритмов, излечиваются человеческие нравы и страсти, устанавливается первоначальная гармония душевных сил.

Выделяют 3 основные формы музыкотерапии: рецептивную, активную, интегральную.

- Рецептивная музыкотерапия (пассивная) отличается тем, что пациент не принимает активного участия в процессе музыкотерапии, занимая позицию обычного слушателя.
- Рекомендуются слушать интегративную музыку под разные музыкальные композиции или разные звуки в зависимости от психического здоровья и стадии лечения.
- Активные методы музыкотерапии основаны на активной работе с музыкальным материалом: игре на инструментах, пении.

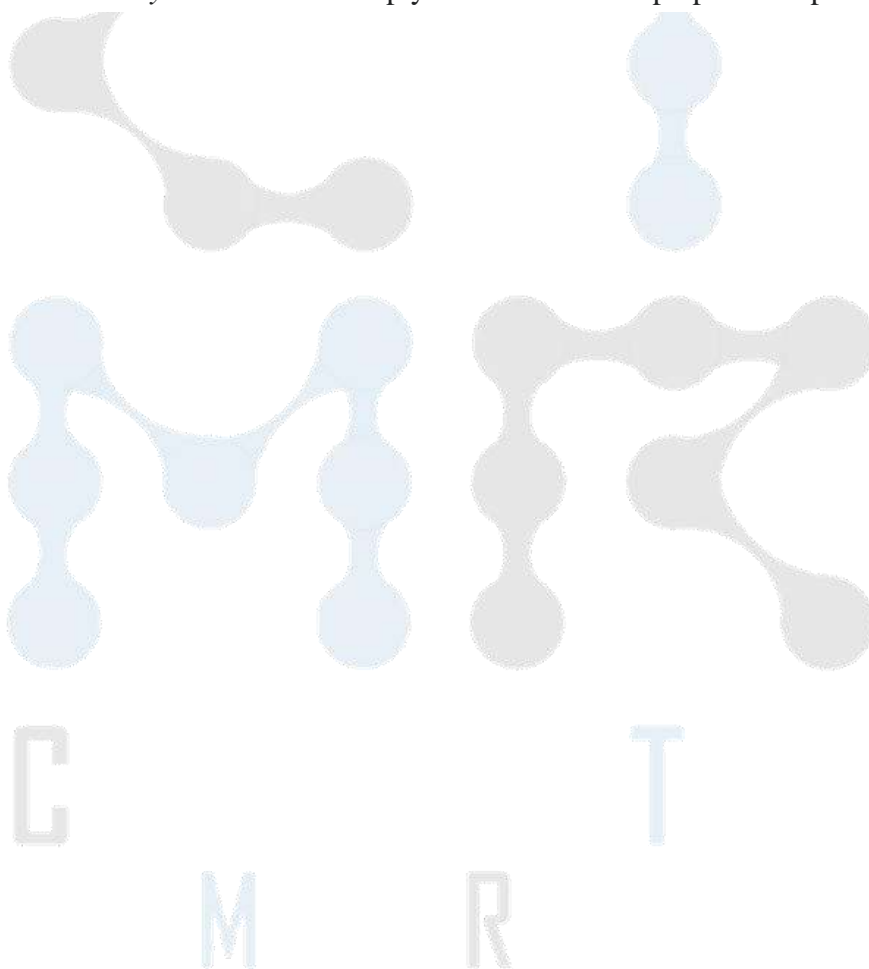
Музыкальная терапия может быть эффективной в преодолении деменции, шизофрении и депрессии. Согласно ряду научных исследований, прослушивание сонаты ре мажор Моцарта способствует уменьшению количества эпилептических припадков у больных (так называемый «эффект Моцарта»). Однако надежность результатов этого исследования была ограничена его ограничениями и невозможностью воспроизвести результаты в последующих исследованиях.

Экспериментальный анализ занятий арт-терапией для детей. Мы провели занятия арт-терапией для 32 детей в возрасте 5-11 лет. Из них 14 девочек и 18 мальчиков. Результат нашего исследования показал, что у 8 из них наблюдается стресс, у 6 - застенчивость и возбудимость, у 9 - хорошо развитая самостоятельность и способность свободно выражать свои мысли; а у остальных 9 детей выявлена высокая нервозность в зависимости от виртуального мира. Мы стремимся получить больше результатов, если в будущем проведем исследование на большем количестве тестируемых.

В заключение следует отметить, что коррекционные методы арт-терапии на протяжении многих лет показали свою эффективность и совершенствуются. Это способствует взаимной интеграции областей психологии и медицины.

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CAUSAL RELATIONSHIPS AMONG ENERGY CONSUMPTION, CARBON DIOXIDE EMISSIONS, AND ECONOMIC GROWTH

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Abstract: Understanding the causal relationships among energy consumption, carbon dioxide (CO₂) emissions, and economic growth is essential for informing sustainable development policies and addressing environmental challenges. This article conducts an econometric analysis to investigate the complex interplay between these variables. Drawing on a comprehensive dataset and employing advanced econometric techniques, the study explores the direction and strength of causal relationships, considering both short-term dynamics and long-term trends. The findings contribute to a deeper understanding of the intricate interactions between energy consumption, CO₂ emissions, and economic growth, providing valuable insights for policymakers, researchers, and stakeholders in fostering environmentally sustainable economic development.

Keywords: Causal relationships, Energy consumption, Carbon dioxide emissions, Economic growth, Econometric analysis, Sustainability.

1. INTRODUCTION

The intricate interplay between energy consumption, carbon dioxide (CO₂) emissions, and economic growth is a topic of significant scholarly interest and policy relevance in the context of sustainable development and environmental stewardship. The relationship among these variables has been the subject of extensive research and debate, reflecting the complex dynamics of modern economies and their interactions with the environment.

1.1. Background and Context:

In recent decades, global energy consumption has surged alongside economic expansion, driven by population growth, urbanization, and industrialization [1]. This heightened demand for energy has led to a concomitant increase in CO₂ emissions, primarily from the combustion of fossil fuels, which constitute the backbone of the world's energy supply [2]. The resulting rise in atmospheric CO₂ levels has been implicated in climate change and associated environmental impacts, necessitating urgent action to mitigate emissions and transition to low-carbon energy systems [3].

1.2. Theoretical Framework:

Economic theory posits various hypotheses regarding the relationship between energy consumption, CO₂ emissions, and economic growth. The Environmental Kuznets Curve (EKC) hypothesis suggests an inverted U-shaped relationship between income levels and environmental degradation, implying that environmental quality initially deteriorates with economic growth but improves beyond a certain income threshold [4]. Alternatively, the feedback hypothesis postulates bidirectional causality between energy consumption and economic growth, whereby economic expansion drives energy demand, while energy availability spurs productivity and growth [5].

1.3. Empirical Evidence:

Empirical studies investigating the causal relationships among energy consumption, CO₂ emissions, and economic growth have yielded mixed findings, reflecting the complexity of real-world dynamics and methodological challenges. While some studies support the existence of

unidirectional causality from energy consumption to economic growth or vice versa, others suggest bidirectional or even triadic relationships among these variables [6]. Additionally, the role of CO₂ emissions as both a driver and a consequence of economic activity further complicates the analysis.

1.4. Research Gap and Objectives:

Despite the extensive body of literature on the topic, gaps remain in our understanding of the causal relationships among energy consumption, CO₂ emissions, and economic growth. Existing studies often exhibit methodological limitations, such as omitted variable bias, endogeneity, and data constraints, which may lead to spurious or inconclusive results [7]. Therefore, this article aims to address these gaps by conducting a rigorous econometric analysis to elucidate the causal dynamics among these key variables.

1.5. Research Methodology:

Drawing on a comprehensive dataset spanning multiple countries and time periods, this study employs advanced econometric techniques, such as Vector Autoregression (VAR) models, Granger causality tests, and panel data analysis, to rigorously examine the causal relationships among energy consumption, CO₂ emissions, and economic growth. By controlling for potential confounding factors and addressing methodological challenges, the study seeks to provide robust empirical evidence on the causal dynamics of interest.

Through its systematic investigation of causal relationships among energy consumption, CO₂ emissions, and economic growth, this article aims to contribute to a deeper understanding of the complex interactions shaping modern economies and their environmental footprint. The findings have implications for policy formulation, sustainable development strategies, and efforts to address climate change, offering valuable insights for policymakers, researchers, and stakeholders alike.

2. MATERIALS AND METHODS

2.1. Theoretical Framework:

a. Environmental Kuznets Curve (EKC):

The Environmental Kuznets Curve (EKC) hypothesis posits an inverted U-shaped relationship between income levels and environmental degradation, suggesting that environmental quality initially deteriorates with economic growth but improves beyond a certain income threshold [4]. Empirical studies examining the EKC hypothesis in the context of energy consumption and CO₂ emissions have yielded mixed results, with some supporting evidence of an inverted U-shaped relationship between economic growth and CO₂ emissions [5].

b. Feedback Hypothesis:

The feedback hypothesis postulates bidirectional causality between energy consumption and economic growth, whereby economic expansion drives energy demand, while energy availability spurs productivity and growth [6]. This hypothesis suggests that energy consumption and economic growth are mutually reinforcing, with each factor influencing the other in a feedback loop. Empirical research on the feedback hypothesis has highlighted the complex interactions between energy consumption, economic activity, and CO₂ emissions, underscoring the need for careful analysis of causal relationships.

2.2. Empirical Evidence:

a. Unidirectional Causality:

Some empirical studies have found evidence of unidirectional causality between energy consumption and economic growth, suggesting that changes in energy consumption lead to subsequent changes in economic output [8]. These findings support the view that energy is a fundamental input to economic production and that variations in energy availability can impact economic activity. However, the direction of causality may vary across different countries and time periods, reflecting differences in energy systems, economic structures, and policy environments.

b. Bidirectional Causality:

Other studies have identified bidirectional causality between energy consumption and economic growth, indicating that changes in economic output can also influence energy consumption levels [9]. This bidirectional relationship highlights the feedback dynamics between energy consumption and economic activity, with economic growth driving energy demand through increased production and consumption activities, while energy availability facilitates economic expansion by providing essential inputs and infrastructure.

c. Triadic Relationships:

Recent research has extended the analysis to include CO₂ emissions as a third variable in the causal relationship between energy consumption and economic growth, resulting in triadic relationships among these variables [10]. This approach recognizes the role of CO₂ emissions as both a driver and a consequence of economic activity, adding another layer of complexity to the causal dynamics. Empirical evidence on triadic relationships has underscored the importance of considering environmental externalities and sustainability objectives in energy-economic analyses.

2.3. Methodological Approaches:

a. Vector Autoregression (VAR) Models:

Vector Autoregression (VAR) models are widely used in econometric analyses to explore causal relationships among multiple time-series variables, such as energy consumption, CO₂ emissions, and economic growth [11]. VAR models allow for the estimation of dynamic interactions and feedback effects between variables, capturing short-term dynamics and long-term trends in the data.

b. Granger Causality Tests:

Granger causality tests are employed to assess the direction and significance of causal relationships between variables based on the notion of predictability [13]. These tests examine whether past values of one variable help improve the prediction of future values of another variable, providing insights into the causal ordering and temporal dynamics of the relationships.

c. Panel Data Analysis:

Panel data analysis techniques, such as fixed-effects and random-effects models, are utilized to account for cross-sectional heterogeneity and time-series variation in empirical studies involving multiple countries or regions [14]. Panel data analysis allows for the estimation of country-specific effects and time trends, enhancing the robustness and generalizability of findings across different contexts.

2.4. Policy Implications:

a. Sustainable Development Goals:

The findings of empirical research on causal relationships among energy consumption, CO₂ emissions, and economic growth have important implications for sustainable development

policies and climate mitigation strategies [15]. By elucidating the complex dynamics underlying these interactions, policymakers can design targeted interventions to promote energy efficiency, renewable energy deployment, and decarbonization initiatives.

b. Energy Transition Pathways:

Understanding the causal relationships among energy consumption, CO₂ emissions, and economic growth is crucial for identifying viable pathways for the transition to low-carbon energy systems [16]. Policy interventions aimed at decoupling economic growth from energy consumption and CO₂ emissions require a nuanced understanding of the underlying causal mechanisms and feedback loops driving energy-economic dynamics.

c. Carbon Pricing and Regulation:

Efforts to internalize environmental externalities and incentivize emissions reductions through carbon pricing mechanisms and regulatory measures rely on accurate assessments of the causal relationships among energy consumption, CO₂ emissions, and economic growth [15]. By incorporating insights from empirical research, policymakers can design effective carbon pricing schemes and regulatory frameworks to promote sustainable development and mitigate climate change.

The empirical analysis of causal relationships among energy consumption, CO₂ emissions, and economic growth provides valuable insights into the complex interactions shaping modern economies and their environmental footprint. While theoretical frameworks offer conceptual guidance, empirical evidence is essential for understanding the causal dynamics in real-world contexts. By employing advanced econometric techniques and drawing on comprehensive datasets, researchers can contribute to a deeper understanding of these relationships, informing policy formulation, sustainable development strategies, and efforts to address climate change.

RESULTS AND DISCUSSION

Several empirical studies have investigated the presence of unidirectional causality between energy consumption and economic growth. For instance, Lee and Chang (2008) found evidence of a unidirectional causal relationship running from energy consumption to economic growth in a panel analysis of developed and developing countries [8]. Similarly, Wolde-Rufael (2009) observed a unidirectional causality from energy consumption to economic growth in the context of African countries [9]. These findings suggest that changes in energy consumption can lead to subsequent changes in economic output, highlighting the pivotal role of energy as a driver of economic activity.

Contrary to the unidirectional causality hypothesis, other studies have identified bidirectional causality between energy consumption and economic growth, indicating that changes in economic output can also influence energy consumption levels. Aslan and Destek (2017) provided evidence of bidirectional causality between renewable and non-renewable energy consumption and economic growth in a panel analysis of low and middle-income countries [6]. Similarly, Apergis and Payne (2010) found bidirectional causality between renewable energy consumption and economic growth in a panel of OECD countries [10]. These findings suggest that economic growth and energy consumption mutually reinforce each other, with changes in one variable affecting the other in a feedback loop.

Recent research has extended the analysis to include carbon dioxide (CO₂) emissions as a third variable in the causal relationship between energy consumption and economic growth, resulting in triadic relationships among these variables. Apergis and Payne (2010) found evidence

of a triadic relationship between renewable energy consumption, CO₂ emissions, and economic growth in a panel of OECD countries [10]. Similarly, Stern (2004) highlighted the complex interactions between economic growth, CO₂ emissions, and environmental quality, suggesting that economic development initially leads to an increase in CO₂ emissions but may eventually contribute to environmental improvements through technological innovation and policy interventions [17].

The empirical analysis of causal relationships among energy consumption, CO₂ emissions, and economic growth has important implications for policy formulation and decision-making. Sustainable development goals (SDGs) and climate mitigation strategies require a nuanced understanding of the causal dynamics among these variables to design effective interventions. Policymakers can leverage insights from empirical research to promote energy efficiency, renewable energy deployment, and decarbonization initiatives, aligning economic growth objectives with environmental sustainability goals [14]. Carbon pricing mechanisms and regulatory frameworks aimed at internalizing environmental externalities and incentivizing emissions reductions can benefit from empirical evidence on causal relationships, informing the design and implementation of policy instruments to address climate change and promote sustainable development [16].

While empirical studies have contributed valuable insights into the causal relationships among energy consumption, CO₂ emissions, and economic growth, several avenues for future research remain. Methodological advancements in econometric techniques, such as time-series analysis, panel data models, and causal inference methods, can further enhance our understanding of the complex interactions and feedback loops among these variables. Moreover, interdisciplinary approaches integrating economic, environmental, and technological perspectives can provide holistic insights into the drivers and implications of energy-economic-environmental dynamics. By addressing these research gaps and methodological challenges, future studies can contribute to more robust policy recommendations and sustainable development strategies in the context of energy, environment, and economy.

CONCLUSION

The examination of causal relationships among energy consumption, carbon dioxide (CO₂) emissions, and economic growth is essential for informing sustainable development policies, climate mitigation strategies, and environmental stewardship efforts. Through a comprehensive review of empirical evidence and theoretical frameworks, this article has shed light on the complex dynamics underlying these interconnected variables.

The empirical analysis revealed diverse findings regarding the direction and strength of causal relationships among energy consumption, CO₂ emissions, and economic growth. While some studies identified unidirectional causality from energy consumption to economic growth or vice versa, others highlighted bidirectional or even triadic relationships among these factors. These findings underscore the multifaceted nature of energy-economic-environmental interactions and the need for nuanced analyses to capture the complexity of real-world dynamics.

The theoretical frameworks, including the Environmental Kuznets Curve (EKC) hypothesis and the feedback hypothesis, provided conceptual insights into the potential mechanisms driving the observed causal relationships. The EKC hypothesis suggested an inverted U-shaped relationship between income levels and environmental degradation, while the feedback hypothesis posited bidirectional causality between energy consumption and economic growth.

These theoretical perspectives offer valuable lenses through which to interpret empirical findings and guide policy formulation.

The implications of the research findings for policy formulation and decision-making are significant. Sustainable development goals (SDGs) and climate mitigation strategies rely on a deep understanding of the causal dynamics among energy consumption, CO₂ emissions, and economic growth to design effective interventions. Policymakers can leverage insights from empirical research to promote energy efficiency, renewable energy deployment, and decarbonization initiatives, aligning economic growth objectives with environmental sustainability goals.

Moreover, future research directions were outlined to address methodological challenges and research gaps in the analysis of energy-economic-environmental relationships. Methodological advancements in econometric techniques and interdisciplinary approaches integrating economic, environmental, and technological perspectives can further enhance our understanding of these complex interactions.

In conclusion, the examination of causal relationships among energy consumption, CO₂ emissions, and economic growth offers valuable insights into the drivers and implications of energy-economic-environmental dynamics. By fostering interdisciplinary collaboration, advancing methodological approaches, and informing evidence-based policymaking, researchers can contribute to more sustainable and resilient pathways for economic development and environmental stewardship in the face of global challenges such as climate change and energy transition.

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PSYCHOLOGICAL CHARACTERISTICS OF CHILDREN FOR FORMATION OF
DEVELOPMENT FOR PREPARATION FOR UNIVERSITY

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Abstract: the article reveals educational psychology or educational psychology - a branch of psychology that studies methods of teaching and upbringing that increase the efficiency of fulfilling educational tasks, the effectiveness of pedagogical measures, improving the psychological aspects of teaching, etc. Professional development occurs within the framework of one or another professional activity, which differs from general human development and personality development, a systemic characteristic of the mental development of a child of senior preschool age, which includes the formation of abilities and properties that provide the opportunity for him to carry out educational activities, as well as the adoption of the social position of the schoolchild.

Key words: human development/ ability to develop/ interaction with the profession/ student activities/ chosen profession.

ПСИХОЛОГИЧЕСКИЕ ОСОБЕННОСТИ ДЕТЕЙ ДЛЯ ФОРМИРОВАНИЯ
РАЗВИТИЯ К ПОДГОТОВКЕ В ВУЗ

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Аннотация: в статье раскрывается педагогическая психология или психология образования - раздел психологии, изучающий методы обучения и воспитания, повышающие эффективность выполнения образовательных задач, эффективность педагогических мер, улучшающие психологические аспекты преподавания и т. Профессиональное развитие происходит в рамках той или иной профессиональной деятельности, чем и отличается от общего развития человека и развития личности, системная характеристика психического развития ребёнка старшего дошкольного возраста, которая включает в себя сформированность способностей и свойств, обеспечивающих возможность выполнения им учебной деятельности, а также принятие социальной позиции школьника.

Ключевые слова: развитие человека/ способность к развитию/ взаимодействию с профессией/ деятельность школьника/ избранная профессия.

The components of psychological readiness to study at a university are motivational, social-personal, intellectual and emotional-volitional readiness. Personal and professional development is the process of development of the subject of professional work and the formation of professional self-determination, the result of vocational education. Professional development is changes in a person's mental functions and properties that arise during interaction with a profession, in the process of professional training and professional activity. Professional development occurs within the framework of one or another professional activity, which is why it differs from the general development of a person and the development of personality, and it is

determined by the content, requirements, and conditions of the professional activity being mastered.

The formation of a subject of activity is not completed until the activity is carried out; This is a kind of permanent process that applies to any age of a person as a doer. Data from numerous studies have shown that late completion of professional activity acts as a factor in increasing life expectancy. During the period of adulthood, the types of activities that are leading at the previous stages of individual development (communication, exploration of the objective world, play, learning, organizational and social activities, work, etc.) are integrated and give rise to different types of combined ways of human life. It is during the period of adulthood that a person's transition of cardinal importance occurs from the stage of solving the life tasks assigned to him to the stage of posing new problems, to the formulation of qualitatively new tasks. Thus, the development of a person as a subject of professional life can be considered as a complex process that combines ontogeny and a person's life path. Studying the process of a person's professional development means studying a developing person in a complex, changing environment, including a professional one. The process of professional development is characterized by stages, unevenness, heterochrony, the presence of critical and sensitive periods, that is, it is characterized by the same patterns as ontogenetic development. Thus, the problem of professional development is considered by both psychologists and teachers in the context of the processes of professionalization, professional activity and professional development.

In addition, you cannot stand still in the profession; skills and functions sometimes require an upgrade. Experienced and prudent managers strive to avoid problems by proactively developing an individual professional development plan for each employee. This approach is beneficial both for the boss, for the subordinates, and for the business as a whole. Youth is a socio-demographic group, which is characterized by a combination of psychological and age characteristics (from 16 to 35 years), periods of formation of social maturity, entry into the world of adults, adaptation to it and its future renewal.

It is important, however, to understand that drawing up a long-term plan for professional development in a situation influenced by a large number of external factors is not an easy job. The motivational-semantic component in the psychological structure of professionally significant personality traits is interconnected with the processes of a specialist's broad understanding of acquired professional knowledge, responsible choice of methods of personal behavior and professional activity, which ultimately reveals the content of the professional orientation of the specialist's personality.

Only with a serious investment of the manager's time and personal resources can one expect high-quality returns.

The development of professionally significant personality traits in future specialists in the context of vocational education characterizes them from the point of view of scientific-theoretical, moral and behavioral-volitional readiness for professional activity, competent, socially oriented life activity in society. As signs of readiness for professional activity, scientists consider the degree of formation in a person of the main mental regulators of activity: "image of an object" (subjective image of the profession); "image of the subject" (image of the Self - self-consciousness); "the image of subject-subject and subject-object relations" (professional self-awareness).

First of all, the student's professional movement must be purposeful, planned and a plan for his progress for the next 1 - 3 years or 3 - 5 years. It should set out qualification requirements and steps for career advancement.

Ideally, each individual movement should include:

it is necessary to name those that satisfy the completeness of the student;
determine the positions that require strengthening and the deadlines within which everything must be completed;

list what studies will allow you to develop the necessary skills;

plan introductory internships for reserve areas of a certain profession, write down the expected result;

include in your personal folder a plan for delegating some responsibilities from backup areas;

in the personal schedule there should be monitoring and analysis of the student's development, provide a mark of the fact of fulfillment of the planned actions of readiness to enter a university and specific terms of preparation.

Human development occurs in the process of learning, self-knowledge, social interaction and accumulation of experience, which is formed throughout life, and preparation for entering a university is considered the main period of a student's life.

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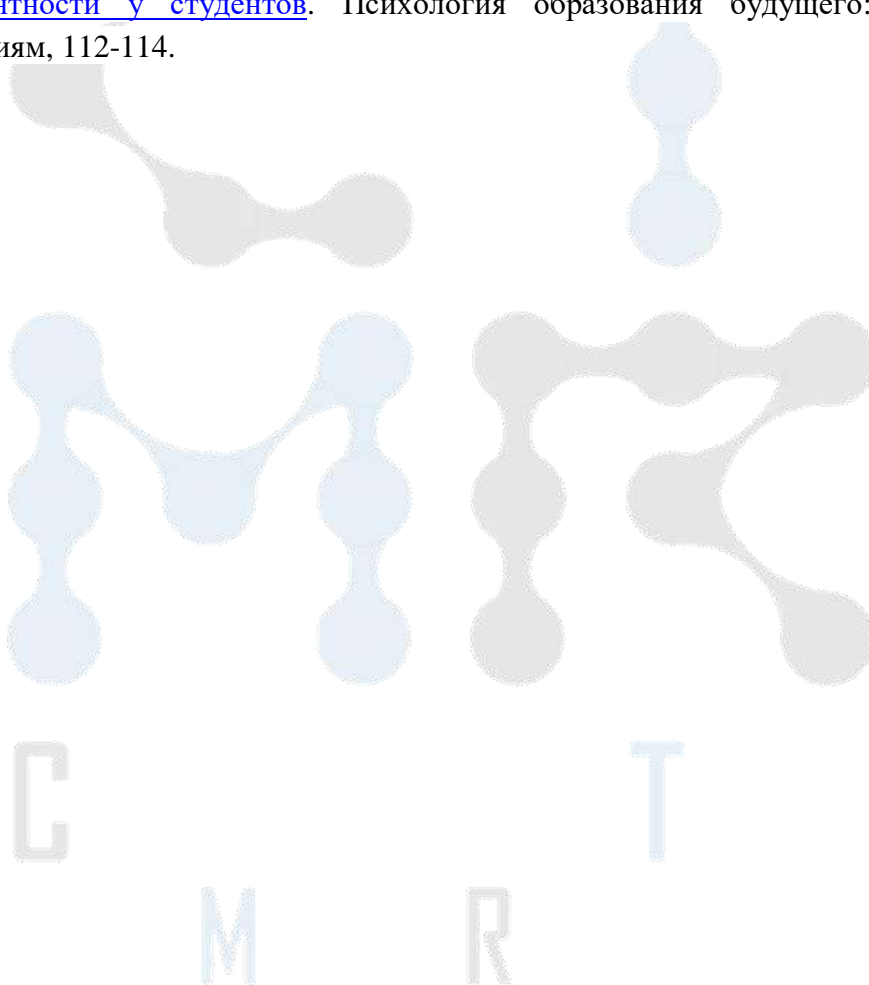
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MORPHOFUNCTIONAL STATE OF JUDOKA ATHLETES FOR THE PREPARATION
OF PROFESSIONAL TEACHING ACTIVITIES

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Abstract: the article reveals that sport helps a child develop harmoniously, strengthens the nervous system, immunity, and has a positive effect on the health of the body as a whole. In addition, playing sports teaches a child discipline, builds character, develops willpower, and the ability to set goals and achieve them. Physical education is necessary for a person at all periods of his life. In childhood and adolescence, they contribute to the harmonious development of the body. In adults, they improve the morphofunctional state, increase performance and maintain health. Any physical exercise improves heart function. Sport brings positive emotions and discipline to a person's life. Exercising strengthens the body, improves muscle memory and coordination.

Key words: athlete development/ ability to develop/ interaction with the profession/ athlete's activities/ chosen profession.

МОРФОФУНКЦИОНАЛЬНОЕ СОСТОЯНИЕ СПОРТСМЕНОВ – ДЗЮДОИСТОВ
К ПОДГОТОВКЕ ПРОФЕССИОНАЛЬНОЙ - ПЕДАГОГИЧЕСКОЙ
ДЕЯТЕЛЬНОСТИ

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Аннотация: в статье раскрывается спорт помогает ребенку гармонично развиваться, укрепляет нервную систему, иммунитет, положительно сказывается на здоровье организма в целом. Кроме того, занятия спортом приучают ребенка к дисциплине, формируют характер, развивают силу воли, умение ставить цели и достигать их. Занятия физической культурой необходимы человеку во все периоды его жизни. В детском и юношеском возрасте они способствуют слаженному развитию организма. У взрослых улучшают морфофункциональное состояние, увеличивают работоспособность и сохраняют здоровье. Занятия любыми физическими упражнениями улучшают работу сердца. Спорт приносит в жизнь человека положительные эмоции и дисциплину. Занятия спортом укрепляют тело, улучшают мышечную память и координацию.

Ключевые слова: развитие спортсмена/ способность к развитию/ взаимодействию с профессией/ деятельность спортсмена/ избранная профессия.

Participating in any kind of physical activity improves heart function, reduces the risk of diabetes by lowering blood sugar levels, and also regulates stress levels. Sport brings positive emotions and discipline to a person's life. Exercising strengthens the body, improves muscle memory and coordination. It is sport that develops such personality qualities as determination, patience, strength, endurance, perseverance, respect for oneself and the people around you. Any person can play sports, the main thing is desire.

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Promotes the development of strong-willed qualities and self-organization. Teaches you to take a blow, to correctly experience not only victories, but also defeats. During classes, a person develops the important ability to analyze the causes of failures, work on mistakes, and overcome the fear of failure. And in the end - to win. Physical activity directly affects a person's psycho-emotional state. During sports, we begin to move actively, blood circulation increases and breathing quickens. More oxygen reaches the brain cells, which means the feeling of fatigue and drowsiness disappears. Sports activity develops the most important personal qualities, not only such as endurance, strength, dexterity of movement, but also determination, perseverance, responsibility, collectivism, and determination.

At its core, physical culture has expedient motor activity in the form of physical exercises that allow one to effectively develop the necessary skills and abilities, physical abilities, and optimize health and performance. Sport has amazing properties. It can unite people, introduce them to each other, strengthen health, character, and even improve the mental abilities of the people who engage in it. Sports develop a person's skills such as speed, agility, reaction, coordination, endurance, patience and strength.

Physical culture is an organic part of universal human culture, its special independent area. At the same time, this is "a mythical process and the result of human activity, a means and method of physical improvement of the individual. Physical culture influences the vital aspects of an individual, received in the form of inclinations that are transmitted genetically and develop during life under the influence of upbringing, activity and the environment. Physical culture satisfies social needs in communication, play, entertainment, and in some forms of personal self-expression through socially active useful activities. At its core, physical culture has expedient motor activity in the form of physical exercises that allow one to effectively develop the necessary skills and abilities, physical abilities, and optimize health and performance. Physical culture is represented by a set of material and spiritual values. The first include sports facilities, equipment, special equipment, sports equipment, and medical support. The latter include information, works of art, various sports, games, sets of physical exercises, ethical standards governing human behavior in the process of physical education and sports activities, etc. In developed forms, physical culture produces aesthetic values (physical education parades, sports demonstrations speeches, etc.). The result of activities in physical culture is physical fitness and the degree of perfection of motor skills, a high level of development of vital forces, sports achievements, moral, aesthetic, and intellectual development.

So, physical culture should be considered as a special kind of cultural activity, the results of which are useful for society and the individual. In social life in the system of education, upbringing, and the sphere of organization of work, everyday life, healthy recreation, physical culture manifests its educational, educational, health, economic and general cultural significance, contributes to the emergence of such a social movement as the physical culture movement, i.e. joint activities of people to use, disseminate and enhance the values of physical culture.

Included in the education and upbringing system, starting from preschool institutions, it characterizes the basis of people's physical fitness - the acquisition of a fund of vital motor skills and abilities, the diversified development of physical abilities. Its important elements are the "school" of movement, the system of gymnastic exercises and the Rules for their implementation, with the help of which the child develops the ability to differentially control movements, the ability to coordinate them in different combinations; a system of exercises for the rational use of forces

when moving in space (the main methods of walking, running, swimming, skating, skiing, etc.) when overcoming obstacles, throwing, lifting and carrying heavy objects; “school” of the ball (playing volleyball, basketball, handball, football, tennis, etc.). Physical development is a biological process of formation, changes in the natural morphological and functional properties of the body during a person’s life (length, body weight, chest circumference, vital capacity of the lungs, maximum oxygen consumption, strength, speed, endurance, flexibility, agility, etc.) .

The process of physical development also obeys the law of age gradation. Therefore, it is possible to intervene in this process in order to control it only taking into account the characteristics and capabilities of the body at different age periods; formation and growth, the highest development of forms and functions, aging. In addition, physical development is associated with the law of unity of the organism and the environment and depends on human living conditions, including the geographical environment. Therefore, when choosing means and methods of physical education, it is necessary to take into account the influence of these laws. Physical development is closely related to human health. Health acts as a leading factor that determines not only the harmonious development of a young person, but also the success of mastering a profession, the fruitfulness of his future professional activity, which constitutes overall well-being in life. Thanks to professional applied physical education, the prerequisites are created for the successful mastery of a particular profession and the effective performance of work. In production, these are introductory gymnastics, physical education breaks, physical education minutes, post-work rehabilitation exercises, etc. The content and composition of professional applied physical education means, the order of their use are determined by the characteristics of the labor process. In conditions of military service, it acquires the features of military-professional physical culture.

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**THEORETICAL FOUNDATIONS FOR IMPROVING THE SYSTEM OF
ATTRACTING FUTURE SPORTS TEACHERS TO RESEARCH WORK**

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Abstract: The main task of the education system is to create the necessary conditions for the formation and development of personality on the basis of national and universal values, achievements of science and practice. In general, we can say that research work as an activity consists of several stages: planning, building a hypothesis, conducting research, writing a scientific paper. The last stage is a kind of result of the work done. The main methods for studying the physical development of a person are external examination (somatoscopy) and measurements - anthropometry (somatometry). The level of physical development and the degree of its harmony are determined using anthropometric research methods.

Key words: research activities/ patterns of phenomena/ process of conducting research/ level of physical development.

**ТЕОРЕТИЧЕСКИЕ ОСНОВЫ СОВЕРШЕНСТВОВАНИЯ СИСТЕМЫ
ПРИВЛЕЧЕНИЯ БУДУЩИХ УЧИТЕЛЕЙ СПОРТА К НАУЧНО-
ИССЛЕДОВАТЕЛЬСКОЙ РАБОТЕ**

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Аннотация: Главная задача системы образования - создание необходимых условий для формирования и развития личности на основе национальных и общечеловеческих ценностей, достижений науки и практики. В целом можно сказать, что научно-исследовательская работа как деятельность состоит из нескольких этапов: планирование, построение гипотезы, проведение исследования, написание научной работы. Последний этап представляет собой своеобразный результат проведенной работы. Основными методами исследования физического развития человека являются внешний осмотр (соматоскопия) и измерения — антропометрия (соматометрия). Определяют уровень физического развития и степень его гармоничности с помощью методов антропометрических исследований.

Ключевые слова: научно-исследовательская деятельность/ закономерности явлений/ процесс проведения исследование/ уровень физического развития.

Scientific research activities are aimed at identifying objectively existing patterns of phenomena and processes occurring in the socio-natural environment and replenishing knowledge about the world.

Research work is work of a scientific nature associated with scientific search, conducting research, experiments in order to expand existing and obtain new knowledge, test scientific hypotheses, establish patterns, scientific generalizations and justifications. In general, we can say

that research work as an activity consists of several stages: planning, building a hypothesis, conducting research, writing a scientific paper. The last stage is a kind of result of the work done.

The main task of the education system is to create the necessary conditions for the formation and development of personality on the basis of national and universal values, achievements of science and practice.

Stages of planning a scientific study

1. Allocation of tasks and assessment of resources...
2. Determining the time frame...
3. Construction of chronological order...
4. Conducting a critical analysis...
5. Reporting the results of the study...
6. Monitoring the progress of the study

To formulate a hypothesis, you first need to imagine how the scientific questions addressed in your work might affect the phenomena or processes in question. Then, in the practical section, you need to conduct a thorough analysis or series of experiments to confirm or refute your hypothesis.

In recent years, there has been an increased interest of the population in their own health. However, it is noteworthy that interest in one's own health awakens in adulthood, most often already when the body can only be treated. It often happens that a person, through an incorrect lifestyle, bad habits, physical inactivity, and overeating, by the age of 20-30 brings himself to a catastrophic state and only then remembers medicine.

In the world community, the degree of success of a state is assessed by the health of its citizens. At this stage, the Russian government is taking active measures to strengthen and preserve the health of its citizens: a law banning smoking has been adopted, a Ministry of Physical Education and Sports has been organized, newspapers, magazines, television and radio programs on health issues have been published, and advertising has been published. However, the statistics remain deplorable: the number of diseases and injuries is growing inexorably. Here are just a few facts: in 1990, the number of non-communicable diseases accounted for 55% of all registered diseases, and by 2020 their number is projected to increase to 73% (if the situation and the rate of increase in incidence remain the same). The most common form of cancer is lung cancer (most common in smokers). The main cause of disability in men today is alcoholism.

Health is the most valuable thing we have. It cannot be bought for any money. Health needs to be strengthened and preserved. The formation of a healthy lifestyle depends only on ourselves, our preferences, beliefs and worldviews.

In our time, during the scientific, technological and industrial revolution, almost everything is done for a person by machines, depriving him of motor activity. The main share of physical activity comes from sports and physical education. For which we, as always, do not have the opportunity, time, strength, desire, etc. Hence poor health, lethargy, illness, obesity, and other ailments.

Hypothesis: if we identify the influence of physical culture on the formation of a healthy lifestyle, then it will be possible to give practical recommendations to increase motivation to lead a healthy lifestyle.

A special place in a healthy life regime belongs to the daily routine, a certain rhythm of human life and activity. Each person's routine should include a certain time for work, rest, eating, and sleep.

The daily routine of different people can and should be different depending on the nature of the work, living conditions, habits and inclinations, however, even here there must be a certain daily rhythm and daily routine. It is necessary to provide sufficient time for sleep and rest. Breaks between meals should not exceed 5-6 hours. When we talk about a daily routine, we do not mean strict schedules with a minute-by-minute time budget for each task for each day. However, the routine itself is a kind of core on which the conduct of both weekdays and weekends should be based.

A rational regime of work and rest is a necessary element of a healthy lifestyle. With a correct and strictly observed regime, a clear and necessary rhythm of the body's functioning is developed, which creates optimal conditions for work and rest, and thereby promotes health, improves performance and increases productivity.

Labor is the true core and basis of a person's healthy life regimen. There is a misconception about the harmful effects of labor, which allegedly causes "wear and tear" of the body, excessive consumption of energy and resources, and premature aging. Labor, both physical and mental, is not only not harmful, but on the contrary, a systematic, feasible, and well-organized labor process has an extremely beneficial effect on the nervous system, heart and blood vessels, the musculoskeletal system - on the entire human body. Constant training during labor strengthens our body. He who works hard and well throughout his life lives long. On the contrary, idleness leads to muscle weakness, metabolic disorders, obesity and premature decrepitude.

The next component of a healthy lifestyle is balanced nutrition. When talking about it, you should remember two basic laws, the violation of which is dangerous to health.

Firstly, the balance of energy received and consumed. If the body receives more energy than it expends, that is, if we receive more food than is necessary for normal human development, for work and well-being, we become fat. Now more than a third of our country, including children, is overweight. And there is only one reason - excess nutrition, which ultimately leads to atherosclerosis, coronary heart disease, hypertension, diabetes, and a number of other ailments.

Secondly, the diet should be varied and meet the needs for proteins, fats, carbohydrates, vitamins, minerals, and dietary fiber.

The following indicators of physical development are subject to assessment: somatometric (body length and weight, chest circumference), physiometric (muscle strength of the hands, vital capacity of the lungs) and somatoscopic indicators (assessment of the degree of puberty, number of permanent teeth).

The main methods for studying the physical development of a person are external examination (somatoscopy) and measurements - anthropometry (somatometry). The level of physical development and the degree of its harmony are determined using anthropometric research methods.

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СОПОСТАВИТЕЛЬНЫЙ ПОДХОД ПРИ ИЗУЧЕНИИ РУССКОГО И УЗБЕКСКОГО ФОЛЬКЛОРА В СОВРЕМЕННЫХ НАЧАЛЬНЫХ КЛАССАХ

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Аннотация: В статье рассмотрены проблемы и решения изучения фольклора на узбекском и русском языках в современных начальных классах. Автор объяснил возникновение проблем, их решение в виде примеров с практическими процессами урока и приводятся рекомендации учителям для применения этих методов на практике.

Annotation: The article discusses the problems and solutions of studying folklore in the Uzbek and Russian languages in modern primary classes. The author explained the occurrence of problems, their solutions in the form of examples with practical lesson processes and provides recommendations for teachers to apply these methods in practice.

Annotatsiya: Maqolada zamonaviy boshlang'ich sinflarda o'zbek va rus tillarida folklorni o'rganish muammolari va yechimlari muhokama qilinadi. Muallif muammolarning yuzaga kelishi, ularning yechimini amaliy dars jarayonlari bilan misollar shaklida tushuntirib berdi va bu usullarni amaliyotda qo'llash bo'yicha o'qituvchilarga tavsiyalar berdi.

Ключевые слова: фольклор, проблема, решение, практика, начальный класс, сравнение, ученик, пословица, знание.

Key words: folklore, problem, solution, practice, primary class, comparison, student, proverb, knowledge.

Tayanch so'zlar: xalq og'zaki ijodi, muammo, yechim, amaliyot, boshlang'ich sinf, qiyoslash, o'quvchi, maqol, bilim.

В современных начальных классах, особенно в школах с узбекским языком обучения, существует проблема неэффективного использования сопоставительного подхода при изучении русского и узбекского фольклора. Недостаточное внимание к сопоставлению и анализу фольклорных материалов может привести к утрате ценной информации, снижению интереса учеников к предмету и недостаточному пониманию культурного наследия.

Фразеология – одна из основных отраслей современного языкознания. Все языки имеют лексический и фразеологический пласты, сравнение фразеологических единиц в разных языках используется для повышения чувствительности и формирование красоты речи.

«Основной национальной культуры любого народа является его фольклор-произведения, созданные народом на протяжении многовековой истории. Это - и меткие пословицы и поговорки, впитавшие мудрость наших предков, и различные загадки, народные песни, мифы, и, конечно же всеми нам любимые сказки -художественные творения, в которых отразилась история народа, особенности его быта, мировоззрения.» [1]

Изучение и сравнение фразеологических сочетаний, являющихся продуктом устного творчества народа, показывает сходство в разных языках и наличие уникальных

традиционных выражений, характерных для народа и нации. Через фольклор мы получаем представление об истории, обычаях и происхождении народа.

Изучение фольклора путём сопоставления применение различных видов работы обогащают и содержание, и форму уроков. Учащиеся во время урока с интересом рассказывают элементы фольклора, услышанные в семье и вводят к ним свои дополнения. Но иногда, при систематизации и усложнении задач не хватает творческих размышлений и адаптаций к новой тематике.

Пословица считается самым малым и лёгким жанром и во время урока метод составления рассказа и рисования по пословицам не дают положительный результат. Например, ученики, разобрав смысл пословицы, постепенно строят рассказы к пословице. Далее можно нарисовать картинку к пословице по воображению. Но, недостаточных запасов для сопоставления, усугубляет решаемость задачи.

«В процессе сопоставления пословиц возможно использование другой пословицы, имеющей альтернативную форму и совместимой со смыслом переводимого языка. Однако дословно перевести слова о национальных особенностях, термины, семейными отношениями и профессией, элементы социального образа жизни, которые берут свое начало из национального менталитета и издавна принадлежат только одному народу.» [2]

В пословицах мы можем встретить разного вида орфограмм узбекского и русского языков способствующие усовершенствованию навыков грамматики и орфографической проицательности. При недостаточности разработок допускаются ряд ошибок при сопоставлении и изучения данного материала.

Мы можем привести несколько основных проблем изучения русского и узбекского фольклора в современных начальных классах на уроках русского языка. Во-первых, отсутствие систематического подхода к сопоставлению фольклорных материалов в учебном процессе. Во-вторых, недостаточное использование интерактивных методов обучения для привлечения внимания учеников к сопоставлению фольклора и в-третьих, недостаточное количество учебных материалов, адаптированных под сопоставительный анализ для начальных классов.

Существует несколько решений упомянутых проблем, и я думаю, что их применение на уроке даст ряд положительных результатов. В первую очередь, нужно разработать несколько специальных программ и методических материалов, направленных на сопоставительное изучение русского и узбекского фольклора с учетом возрастных особенностей учащихся. Во-вторых, это срочное внедрение интерактивных методов обучения, таких как игровые формы работы, обсуждение и анализ фольклорных произведений в группах. В-третьих, проведение межпредметных связей между учебными предметами, такими как литература и история, для более глубокого понимания фольклора и его роли в культуре. И последнее обучение учителей методикам сопоставительного анализа и внедрение соответствующих методов в их педагогическую практику.

Например, на уроках русского языка в начальных классах организация урока, на котором ученики будут анализировать и сравнивать русские и узбекские народные пословицы с точки зрения персонажей, сюжета и моральных выводов. Проводить групповые работы, в рамках которой ученики будут создавать собственные фольклорные произведения, вдохновленные как русской, так и узбекской традицией. Чаще нужно использовать мультимедийные ресурсы для презентации фольклорных материалов

различных культур, что позволит ученикам лучше понять и сопоставить различия и сходства между ними.

«Особое внимание уделяю мини-тексту – пословице. По степени понимания пословиц можно судить об уровне овладения языком. В начальную школу дети приходят, уже имея значительный багаж словарного запаса и речевой практики. Однако практика показывает, что многоплановость пословиц, наличие в них подтекста, скрытых смыслов, слов, которые используются в переносных значениях, а также неумение расширить и обобщить ситуацию, описанную в пословице, соотнести ее со своим жизненным опытом, осложняют осознание младшими школьниками всей полноты смысла народных пословиц.» [3]

В каждом языковом пространстве каждого народа достаточный запас пословиц. Пословицы — самый простой и легкий для изучения жанр фольклора, и учащиеся легко усваивают их. На уроке легко выучить лексику, орфографию, морфологию, синтаксис и пунктуацию с помощью фольклора и пословиц различными методами и формами.

На занятиях ученики с удовольствием выполняют творческие задания, связанные с подбором смыслового варианта к пословицам русского языка. Потому что, многие пословицы в двух языках совпадают по смыслу. При работе с пословицами развивает переводческие навыки и умения учащихся. стимулирует интерес учащихся к работе со словарём.

Можно добиться хороших результатов на уроке работая в группах. Она развивает творческие мышления и творческие способности учеников. Во время урока ученики к каждой русской пословице подбирают узбекскую, подходящий ей по смыслу. Пишут на доске в двух столбиках. Правой и левой и в третьем столбике стараются подобрать произведения, где можно использовать эти пословицы. Далее предлагается ученикам прочитать поэтические произведения, соответствующие к тематике пословиц, а также их перевод в соответствующих словарях.

Например: «Родная земля - золотая колыбель- Она yurting — oltin beshiging.», «Vulbul chamanni sevar, Odam – Vatanni-Соловей любит розу, человек родину», «Ona yurting omon bo'lsa, Rangi ro'ying somon bo'lmas.- Если твоя Родина в безопасности, твой цвет не будет соломенным.», «Har gulning o'z isi bor, Har elning o'z tusi bor-У каждого цветка есть свое имя, У каждой страны есть своя индивидуальность.»

Какие результаты получают студенты от применения этих методов? Конечно, они достигают целей урока, даже не подозревая об этом. Учащиеся пытаются найти буквальный и скрытый смысл, различать прямой и иносказательный смысл пословиц. Учатся грамотно писать, выражать скрытую мысль словами. Эти умения формируют осознавать и переносить усвоенный смысл на другой текст или жизненную ситуацию, а также сравнивать пословицы по тематике.

Применяя пословиц во время урока для изучения фольклора ученики легко усваивают грамматический материал, у них развивается мышление, прививается любовь к родному языку, повышается культура речи, обогащая народной мудростью.

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**KOMPYUTER GRAFIKASI” FANINI MUAMMOGA ASOSLANGAN O‘QITISHNING
EXPLANATION-STIMULATION USULINI TAKOMILLASHTIRISH (FRAKTAL
PEDAGOGIKANING NOCHIZIQLILIK TAMOYILI ASOSIDA)**

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Annotatsiya. Ushbu maqolada "Kompyuter grafikasi" fanini o'qitishda fraktal pedagogikaning nochiziqlik tamolini qo'llash prinsiplarini tushintirish va zamonaviy o'quv jarayonini takomillashtirishda o'qituvchining shaxsiy va kasbiy o'zini-o'zi rivojlantirish jarayonini fraktal tashkil etishning metodologik asoslarini aniqlash hamda fraktallar klassifikatsiyasini ishlab chiqish, o'zini-o'zi rivojlantirish jarayoni. Fraktal pedagogikaning shakllanishi va rivojlanishining nazariy va uslubiy shartlari keltirilgan. Bundan tashqari, fraktal pedagogika tamoyillarini, uning xususiyatlari va tamoyillarini ilmiy asoslash ko'rib chiqilgan. Maqolada o'qituvchining shaxsiy va kasbiy o'zini-o'zi rivojlantirish jarayonini o'rganish uchun yangi (fraktal) yondashuv ko'rsatilgan. Tadqiqot natijasi o'qituvchining shaxsiy va kasbiy o'zini-o'zi rivojlantirish tuzilmasini (motivatsion, loyihalash, amaliy-faoliyat, reflektor, hissiy va irodali komponentlar) aniqlashdan iborat.

Tayanch so'zlar va tushunchalar: o'qituvchining shaxsiy va kasbiy o'zini-o'zi rivojlantirish; integrativ ta'lim muhiti; fraktal metodika; o'zini-o'zi tashkil etish; asosiy konseptual fraktal; tizimli fraktallar; hodisaviy fraktallar.

Kirish. O'zbekistonning innovatsion taraqqiyoti inson kapitalini shakllantirish g'oyasi muhim bo'lgan zamonaviylikni rivojlantirish vositasi bo'lib xizmat qiladi, shuning uchun uni shakllantirishda ta'limning barcha bosqichlarini qo'llab-quvvatlash, jahon ta'lim amaliyotida yuzaga kelgan eng yaxshi ishlarni o'zlashtirish va XXI asrdagi post-sanoat jamiyatining ehtiyojlariga yo'naltirilgan ta'limning mutlaqo yangi tizimini yaratishga qaratilgan sa'y-harakatlarni yo'naltirish zarur. Ushbu muammoni hal qilish uchun zamonaviy jamiyatning innovatsion rivojlanishini belgilovchi xususiyatlarga murojaat qilish tavsiya etiladi. Hozirgi vaqtda ta'lim tizimi tez o'sishi va talabaning texnikomda o'qish paytida uni o'zlashtirish imkoniyatlarining cheklanganligi o'rtasidagi mavjud qarama-qarshilik shaklida o'zini namoyon qiladigan xususiyat bilan tavsiflanadi. Bu qarama-qarshilik ko'plab asarlar mualliflarini talabalarning o'z-o'zini ta'lim olish qobiliyatini rivojlantirish, ilmiy faktlarni tahlil qilish va oqilona qarorlarni sintez qilish ko'nikmalarini shakllantirish yo'nalishida universitet o'quv jarayonini tashkil qilishni qayta ko'rib chiqishga majbur qiladi. An'anaviy pedagogik tizim bo'yicha o'qitilgan bitiruvchilar mutaxassisning shaxsiy resurslarining tez "qarishi" (taqchilligi) bilan tahdid qilinmoqda. Bular:

- ishlab chiqarishning tashkiliy shakllari va ijtimoiy sohaning maksimal moslashuvchanligi va murakkab shaklda keltirilishi;
- barcha ishlab chiqarish va ijtimoiy jarayonlarga bilimlarni egallash, ko'nikmalarni shakllantirish hamda yangilash jarayonlarini kiritish;
- iqtisodiy va ijtimoiy rivojlanishning eng muhim manbai sifatida insonning iste'dodi, ijodkorligi va tashabbuskorligiga tayanish;

- qisqa vaqt ichida bir necha marta texnologiyalarning oldindan prognozlab bo'lmaydigan o'zgarishi;

- birlamchi mutaxassislik bilimlarini rivojlanayotgan sohaviy bilimlarga moslashtirish;
- innovasiyaga yetaklovchi faoliyatlarning konturlarini belgilash.

Taqdim etilgan xususiyatlardan ta'lim natijalariga yangi talablar qo'yiladi va ularning eng muhimi kreativ shaxsga bo'lgan talabdir. Kreativ shaxsning portretiga bag'ishlangan ishda bir qator fazilatlarini ta'kidlaydi:

- ijodkorlikni anglash - insonning yangilikni, o'z ijodiy salohiyatini, ijodiy maqsadga erishish imkoniyatlarini baholashda namoyon bo'ladi;
- o'ziga xoslik g'oyalari va fikrlarning moslashuvchanligi, topqirlik, noan'anaviylik, g'ayrioddiylik, taxminlarga qarshi chiqishga tayyorlik, "agar .. bo'lsa-chi?" tamoyiliga asoslangan harakat qilish imkoniyatini nazarda tutadi;
- mustaqillik, o'ziga ishonch (da'vogarlik), ichki nazorat qilish, individuallik, o'z qoidalariga rioya qilish, mustaqil qaror qabul qilish, tashqi talablarga qarshilik;
- xavflilik-yangilik, his-tuyg'ularning aniqligi, o'z-o'zidan qabul qilingan qarorlarning noto'g'ri oqibatlari, muvaffaqiyatsizlik bilan bahslashish, optimizm.

Bugungi kunda talabalar bilimni diagnostika qilish va o'quv natijalarini monitoring qilishning yangi usullari, xususan, mutaxassislar tayyorlash-ning avtomatlashtirilgan sifat menejmenti tizim-lari, kasbiy bilimlar sifatini aniqlashning elektron tizimlari, testlarni nazorat qilish tizimlari, talaba monitoringining reyting tizimlari, case usullari, fayllar va boshqalar ishlab chiqilgan hamda keng joriy etilmoqda.

Talabalarning o'quv faoliyatini boshqarish operativligini ta'minlash entropiyaning oshishi yoki kamayishi tahliliga asosan talabalarning o'quv faoliyati tezkorligini ta'minlash va tezkor qayta aloqani o'rnatish orqali qabul qilingan axborotning umumiy o'quv axborot bilimlar bankiga murojaat qilishni me'yorlashtirish hamda fanlararo aloqalarning darajasi va chuqurligini belgilash faqatgina frak-tal usullardan foydalanish mumkin. Chunki frak-tal ko'rinishdagi modellar jarayonni ma'lum bir tamoyil orqali tartiblashga zamin yaratadi. Fanlararo bilimlarni mustahkamlash hamda o'quv faoliyatidagi materiallarni qabul qilishga qaratilgan ta'lim jarayoni natijalarini diagnostika etishda fraktal usullardan foydalanish, turli xil fikrlash hamda axborotni qabul qilish usullarini faollashtirish, o'quv fanini o'zlashtirishning poli-funksional va chuqur idrok etishda kerakli sha-roitlar va mexanizmlarni yaratish, o'quv va professional motivatsiyalarni boyitish hamda asosiy o'quv materialni mexanik yodlash balki bo'lajak mutaxassislarni o'rganilgan bilimlarga aso-san ularni nafaqat bir tomonlama rivojlantirish balki bitta muammoga keng nuqtai-nazardan qarashga yordam beradi.

Bu usullar nafaqat miqdoriy, balki o'quv materialining o'zlashtirilganlik darajasini sifat jihat-dan baholash imkonini beradi. Shu bilan birga, shaxsning individual xususiyatlarini ochib berish, ta'lim jarayonida integratsion qobiliyatlarni va ijodiy mustaqillikning namoyon bo'lishini to'liq aniqlash, mavjud usullardan foydalangan holda bilimlarni baholash va nazorat qilishning mavjud tizimlari asosida o'rganilayotgan deskriptorlar o'rtasidagi fanlararo aloqalarni kompleks tarzda o'zlashtirish chuqurligini o'rnatish mumkin emas.

Fraktal pedagogikani o'rganish ta'lim va o'quv faoliyatini belgilovchi ta'lim maqsadlari va sxemasini belgilaydigan muayyan ta'lim modellarini yaratish bilan bog'liq. Ta'lim modellari ta'limning umumiy maqsadlari va mazmunini, o'quv rejaları va dasturlarini ishlab chiqishni, talabalarning faoliyatini boshqarishning maxsus maqsadlarini, o'quvchilarni guruhlash

modellarini, nazorat qilish usullarini va hisobotlarini, o'quv jarayonini baholash usullarini birlashtiradigan ta'lim tizimi bo'lib xizmat qiladi. Fraktal pedagogikaning kontseptual g'oyalari doirasida qo'llaniladigan ta'lim modeli sifatida talabalarlarning nochiziqli, fraktal-gologramma fikrlashini shakllantirishga va ularni o'z hayotiy faoliyatining faol dizaynerlari sifatida shakllantirishga yordam beradigan rezonansli modeli mavjud. Ta'riflangan model doirasida uning mazmuniga mos innovatsion ta'lim texnologiyalarini taklif qilish mumkin. "Kompyuter grafikasi" fanini o'qitishda fraktal pedagogikaning nochiziqlik tamoyilini qo'llash, tushuntirish va zamonaviy o'quv jarayonini takomillashtirishda o'qituvchining shaxsiy va kasbiy o'zini-o'zi rivojlantirish jarayonini fraktal tashkil etishning metodologik asoslarini aniqlash hamda fraktallar klassifikatsiyasini ishlab chiqish, o'zini-o'zi rivojlantirish jarayonidan iborat.

Umumiy ma'noda fraktal-asosiy xossalari o'z-o'ziga o'xshashlik va takrorlanuvchanlik bo'lgan tuzilma, ya'ni fraktallar o'z-o'ziga o'xshashlikka ega bo'lgan to'plamlardir. O'z-o'ziga o'xshashlik umumiy shakl ichida replikatsiyalangan element-fraktal (o'z-o'ziga o'xshash struktura) mavjudligi bilan ifodalanadi. Boshqacha qilib aytganda, fraktalni cheksiz o'ziga o'xshash geometrik shakl sifatida aniqlash mumkin, ularning har bir fragmenti shaklaning kamayishi bilan takrorlanadi. Shunday qilib, daraxt shoxi daraxtning o'ziga o'xshaydi, shuning uchun daraxt fraktal tuzilishga ega. Fraktallar sinergetikaning o'rganish predmetlaridan biri bo'lib, u murakkab o'zini-o'zi tashkil etuvchi tizimlarni ko'rib chiqadi va tadqiqotchi dastlab o'rganilayotgan ob'yektni fraktal struktura deb qabul qilish uchun tuzilgan bo'lishi kerak⁴⁹ Marjonlar, dengiz yulduzlari, chig'anoqlar, gullar, bronxlar, qon tomirlari, asab tizimi va boshqa ko'plab tirik tabiat ob'yektlari aniq fraktal tuzilishga ega. Buning yorqin misoli genlarga singib ketgan va barcha hujayralar tarkibiga kirgan irsiy rivojlanish dasturi bo'lib, ularning har biri asl organizmga o'xshash butun organizmni ko'paytirishi mumkin. Molekulalar va atomlar, ularning atom yadrolari, kristal panjaralari va kimyoviy bog'lanishlari zaryadlariga qarab davriy ravishda xususiyatlarini o'zgartiradigan kimyoviy elementlar o'z mohiyatiga ko'ra fraktaldir. Bulutlar, dengiz sohillari, chaqmoqlar, qor parchalari, ayozli naqshlar va boshqa jonsiz hodisalar ham fraktaldir.

Fraktallik tamoyili ko'plab ijtimoiy jarayonlarga taalluqlidir, shu ma'noda fraktal tabiat asosida hayotning har qanday tomonini xarakterlash mumkin. Ijtimoiy-madaniy tizimlarni fraktal tashkil etishning misollari: so'zlar, matnlar, musiqa, naqshlar, me'morchilik obidalari va ulardagi sharqiy naqshlar, shaharlar va mahallalarning me'morchiligi. Ro'yxatdagi ob'yektlar, hodisalar va tizimlarning ko'p qirrali tabiati fraktallarning hamma narsani o'z ichiga olganligini ta'kidlaydi. Ijtimoiy-madaniy tizimlar va ob'yektlarning nomutanosib fraktalligini tavsiflash uchun biz "kontseptual fraktal" atamasidan foydalanamiz. Kontseptual fraktal ma'lum bir madaniyat sharoitida ijtimoiy-madaniy amaliyot shaklida ifodalanadi⁵². Kontseptual fraktalning o'ziga o'xshashligi tushunchalar, g'oyalar, kontseptsiyalar, mental konstruksiyalar, konfiguratsiyalar, shuningdek ular orasidagi aloqalar darajasida ochib beriladi. Kontseptual fraktal o'zini ma'lum bosqichlaridagi strukturaning barcha darajalarida va miqyoslarida ko'paytiradi. Bunday tuzilishda kontseptual fraktal tashkilotning yaratuvchi algoritmidir. Global miqyosda, butun ijtimoiy-madaniy dunyo kontseptual fraktal ekanligi haqida bahslashish mumkin.

Kompyuter grafikasi bilan ishlashni shaxsiy kompyuterdan foydalanishda eng mashhur sohalaridan biri sifatida qayd etish mumkin. Shuni ta'kidlash mumkinki, kompyuter grafikasi bilan ishlash nafaqat professionallar, balki havaskorlar ham shug'ullanadi. Kompyuter grafikasi ko'pincha kino, fan, sanoat, arxitektura, tibbiyot kabi fanning turli sohalarida qo'llaniladi [14]. Barcha multimedia dasturlari kompyuter grafikasi asosida ishlaydi, xususan 3d- grafika. U bilan

ishlashda ko'pchilik jamoalar ko'p vaqt sarflaydi. Informatika va axborot texnologiyalari o'qituvchisi hozirgi vaqtda kompyuter grafikasi bilan ishlash samaradorligini oshirish hamda amaliy ko'nikmalarni rivojlantirish talab etiladi.

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LEKSIKOGRAFIYA TENDENSIYALARINING NEOLOGIZMLAR LUG‘ATLARINI
YARATILISHIDAGI MAVQEI

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Annotatsiya. Ushbu maqolada neologizmlarning vujudga kelish omillari va ularning leksikografik talqini tahlil qilingan. Dunyoning barcha tillari doimiy ravishda o‘zgarib turadi. Tilning o‘zgarishi yangi so‘zlarning paydo bo‘lishi, begina so‘zlarning kirib kelishi va eski so‘zlarning iste‘mol doirasidan chiqishiga bog‘liqdir. Shu bois neologizmlarning lug‘atlarini yaratish jamiyat uchun muhim sanaladi. Mazkur maqolada leksikografiya tendensiyalarining lug‘atlarni yaratishdagi mavqei “karoneologizmlar” misolida tahlil qilingan.

Kalit so‘zlar: Leksikografiya, karonavirus, neologism, lug‘at, so‘z yasash, o‘zlashma so‘zlar.

Lug‘atdagi o‘zgarishlar - birinchi navbatda yangi so‘zlarning paydo bo‘lishi yoki eski so‘zlarning asta sekinlik bilan iste‘mol doirasidan chiqishiga bog‘liqdir. Yangi so‘zlar til tarkibiga turli omillar bilan kirib kelib avvalo neologism sifatida ishlatiladi va keyinchalik lug‘at tarkibiga kirib boradi. Rus tadqiqotchisi E.A. Jdanova ta‘biri bilan aytganda yangi so‘zlar birinchi navbatda passiv lug‘at tarkibiga kirib keyin aktiv lug‘at tarkibiga kiradi va undan keyin esa katta izohli lug‘atga kiritiladi.⁵⁷ Shu tariqa muntazam ravishda lug‘atlar yangilanib boradi.

Yangi so‘zlarni adabiy tilning izohli lug‘atlariga kiritish ularni yozib olishning an‘anaviy usuli hisoblanadi. Bunda neologizmlar alohida guruhga ajratilmaydi, balki tilning ham faol, ham passiv tarkibiga kiradigan boshqa leksik guruhlar bilan birgalikda umumiy lug‘at tarkibiga kiritiladi. Keng tarqalgan va ko‘p qo‘llaniladigan neytral lug‘at, ilmiy-texnik atamalar ichida bu kabi holat ko‘p uchraydi. Shu bilan birga, yangi so‘zlarni, ma‘lum bo‘lishicha, lug‘atning umumiy massasidan ajratib olish oson emas. Umumiy adabiy tilning izohli lug‘atlari, shu jumladan neologizmlar hali ham har qanday til o‘zgarishlariga mos ravishda javob bera olmaydi va barcha yangi leksik birliklarni o‘z ichiga ololmaydi. Shuning uchun neologizmlarning leksik talqiniga har doim zarurat tug‘iladi. Tildagi o‘zgarishlarni o‘z vaqtida o‘rganib yangi so‘zlarni lug‘atlar tarkibiga kiritishga monelik qiladigan bir nechta omil mavjud. Birinchidan, adabiy tilning izohli lug‘atini nashr etishga tayyorgarlik ancha uzoq davom etadi, shu vaqt ichida lug‘atga ob‘ektiv kiritib bo‘lmaydigan so‘zlar paydo bo‘ladi. Ikkinchidan, adabiy tilning izohli lug‘atlari kodlashtirish vazifasini bajarishga mo‘ljallangan. Ularning tarkibiga u yoki bu birlikning kiritilishi uni milliy tilning eng oliy shakli sifatida adabiy tilga avtomatik ravishda kiritadi. Ko‘rinib turibdiki, adabiy tildagi hamma leksik yangiliklar ham o‘zgarmasdir, garchi tilda aniq nima qolib, nima yo‘qolishini hech qachon aniq aytish mumkin emas. Neologizmlar nafaqat ekstralingvistik omillar ta‘sirida, balki til ichidagi rivojlanish ta‘sirida ham shakllanadigan lug‘atning maxsus qatlamini ifodalaydi. Leksik innovatsiyalarni o‘rganish ma‘lum bir davrda faol bo‘lgan til jarayonlarini yanada aniqroq tahlil qilish imkonini beradi. Yigirmanchi asrning boshlarida

⁵⁷ Жданова Елена Александровна. "Лексикографическая фиксация неологизмов в словарях разных типов" Вестник Нижегородского университета им. Н. И. Лобачевского, no. 3-1, 2012, pp. 388-392.

akademik L.V. Sherba neologizmlarni o'rganish va ularni lug'atlarda aks ettirishga katta e'tibor berishga chaqirdi. Yangi paydo bo'lgan yoki boshqa tillardan kirib kelgan so'zlar, turli sabab va omillar natijasida yasalgan yangi so'zlar va yangi ma'no kasb etgan eski so'zlarni to'plash va nashr etish alohida vazifa bo'lishi kerakligini ta'kidlab o'tgan edi.⁵⁸

Til har doim o'zgarib turadi va ma'lum vaqt davomida kiritilgan barcha narsalarni o'z ichiga oladi. Yangi so'zlarning leksikografik talqini nihoyatda zarur hisoblanadi, chunki yangi so'zlar jamiyat tuzilishidagi o'zgarishlar bilan bog'liq holda tildagi zamonaviy o'zgarishlarni yaqqol ifodalaydi. Neologizmlar va ularning tarkibi, tuzilishi, vazifalarini o'rganish leksikologiya, grammatika, stilistikaning ko'plab o'ziga xos masalalarini hal qilishga yordam beradi.

Neologizmlarni qayd etish shubhasiz amaliy ahamiyatga ega, chunki nutqning jonli o'zgarish jarayonlari bilan tanishish, tildagi innovatsiyalarni aniqlash, neologizmlarning paydo bo'lish yo'llarini o'rganish, ularning tipologiyasini qurish, rivojlanish tendentsiyalarini aniqlash faoliyatni normallashtirish uchun katta ahamiyatga ega. Nutq madaniyatini oshirish borasidagi ilmiy ishlar uchun ham yangi so'zlarning o'rganilishi va ularni turli lug'atlar tarkibiga kiritilishi uchun ham muhimdir. Lug'atda sodir bo'ladigan jarayonlar va natijalarni tahlil qilish, ularni baholash va tavsiflash xalq taraqqiyotidagi ijtimoiy va madaniy harakatlarni tushunish uchun muhim sanaladi.

So'z yasovchi neologizmlarning leksikografik talqini tadqiqotchilar uchun ulkan imkoniyatlar ochadi. Zemskayaning fikricha, neografik ma'lumotnomalar "zamonimiz so'z yasalishining umumiy manzarasini aks ettiradi"⁵⁹. Butun bir jamoaning mehnati tufayli mumkin bo'lgan katta hajmdagi manbalar, yangi shakllanishlarni tanlashning o'rnatilgan an'analari va neografiya nazariyasiga tayanish bizga yangi so'zlarning lug'atlarini eng ob'ektiv nashrlar deb hisoblash imkonini beradi. Yangi so'zlarning lug'atlari ma'lumotlariga ko'ra neologizmlarni o'rganish nafaqat eng samarali so'z yasalish modellarini, eng faol so'z yasalish vositalarini va eng mashhur ishlab chiqarish o'zaklarini aniqlashga, balki ushbu elementlarning nisbatlarini ham aniqlashga imkon beradi.

Har xil turdagi lug'atlarda neologizmlarning taqdimoti yangi leksik birliklarni odatiy lashtirishning turli bosqichlarini aks ettiradi. Birinchi marta qo'llanilgan va odatiy va vaqti-vaqti bilan foydalaniladigan so'zlar lug'atlardan joy oladi. Buning natijasida undan oldin ishlatilgan va zamon talabiga muvofiq eskirgan so'zlar iste'mol doirasidan chiqariladi. Neologizmlarning bugungacha juda kam tadqiq etilgan turlaridan biri bu bolalar neologizmi hisoblanadi. Lug'atlarda o'n yoshgacha bo'lgan bolalar tomonidan vujudga keltirilgan neologizmlar juda kam kiritilgan, chunki ular adabiy tilda deyarli ishlatilmaydi. Bolalar neologizmini bolalarga bag'ishlangan ba'zi badiiy asarlarda yoki roman, povest kabi katta hajmdagi nasriy asarlarning tarkibidagi bolalar tilidan bayon qilingan kichkina porchalardagina ko'rishimiz mumki. Ta'kidlash joizki, bolaning til rivojlanishi jarayoni muhim hodisadir. Bu jarayon bolalarning tilning "ijodiy" xususiyatidan foydalanishdagi birinchi urinishi hisoblanadi. Tillarda faol ishlatiladigan so'zlar dinamik tarzda lug'atlarda qayd etiladi. Katta miqdordagi keng qo'llaniladigan va leksikografiyada o'rnatilgan so'zlar umumiy adabiy izohli lug'atlarga

⁵⁸ Жданова Елена Александровна. "Лексикографическая фиксация неологизмов в словарях разных типов" Вестник Нижегородского университета им. Н. И. Лобачевского, no. 3-1, 2012, pp. 388-392.

⁵⁹ Денисенко Ю.Ф. Типы неологических словарей ИЛИ РАН и формирование их системности // Русская академическая неография (к 40-летию научного направления): Матер. Междунар. конф. – СПб., 2006. С. 39-46.

kiritilgan. Misol uchun, o'zbek, rus, ingliz va boshqa tillarga oid bo'lgan izohli lug'atlarda "biznes" ildizi bilan 150 dan ortiq yangi so'zlar kiritilgan: "biznesadvokat", "biznesforum", "biznesmen", "bizneswoman" "biznes shaharchasi", "biznes maydonchasi" va boshqalar.

Lug'atlarga kiritilgan yangi so'zlar qatorida eng yangilari sifatida "karoneologizmlar", ya'ni Covid-19 pandemiyasi davrida vujudga kelgan yangi so'zlarni qayd etishimiz mumkin. Koronavirusning paydo bo'lishi va uning dunyo bo'ylab tez tarqalishi ommaviy axborot vositalari va odamlar tilida bir qator so'z va atamalarning tobora ko'proq eshutilishiga sabab bo'ldi. Ulardan ba'zilari yangi, ammo boshqalari eski bo'lganiga qaramay faqatgina shifokorlar va hamshiralarga tanish. Mazkur pandemiya davrida vujudga kelib lug'atlarga kiritilgan ba'zi bir neologizmlar xususida to'xtalmoqchimiz.

"COVID-19" yoki "KOVID-19" Bu butun dunyoga tarqalgan koronavirusning keng tarqalgan yoki pandemiya kasalligining nomi. Bu xuddi shu viruslar yoki viruslar oilasining yangi birikmasi bo'lib, u "yangi koronavirus" deb ham ataladi va Xitoyning Uxan shahridan kelib chiqqan.

"Koronavirus" Viruslar oilasi, jumladan Yaqin Sharq respirator sindromi (MERS-CoV) va Og'ir o'tkir respirator sindromi.

SARS-CoV-2 Bu Covid-19ni keltirib chiqaradigan virusning ilmiy nomi. U o'tkir respirator sindromli "koronavirus 2" ma'nosini anglatadi.

"Jismoniy (ijtimoiy) masofa" Infeksiyani oldini olish uchun hatto sog'lom odamlarni ham ko'chada bir-biridan uzoqlashish holati. Jahon sog'liqni saqlash tashkiloti (JSST) tavsiyasiga binoan odamlar bir-biridan kamida ikki metr masofani saqlashlari kerakligiga asoslanadi.

"Ehtiyot vositalari" Ingliz tilida shaxsiy himoya vositalari (PPE) bu shifokorlar va hamshiralalar infeksiyani yuqtirishning oldini olish uchun foydalanadigan uskunalar. U tibbiy niqoblar va respiratorlar yoki "protizolyatorlar", FFP3 niqoblari, fartuklar, yuz qalqonlari, qo'lqoplar va apronlardan iborat.

"Respirator (gaz niqobi) yoki respirator" - bu nafas olayotgan havoni tozalaydigan yoki filtrlaydigan shaxsiy himoya vositasi. U butun yuzni yoki hech bo'lmaganda burun va og'izni qoplashi mumkin. Sog'liqni saqlash sohasida mikroblar tomonidan infeksiya xavfini kamaytirish uchun inhalatsiyadan foydalaniladi. Boshqa joylarda u havodagi xavfli zarralar yoki bug'lardan himoya qilish uchun ham ishlatilishi mumkin.

"Sun'iy nafas olish apparati (ARD)" - bu qonni kislorod bilan ta'minlash uchun o'pka funksiyasining yetishmasligini qoplash uchun bemorning o'pkasiga kislorod bilan boyitilgan havoni puflaydigan mashina. Koronavirus holatida, bu virus o'pkaga kirganda va tananing immuniteti yoki unga qarshi kurashsa, suyuqlik o'pkani to'ldiradi va kislorod oqimini oldini oladi. DNS ba'zan **"fan"** yoki **"shamol tegirmoni"** deb ham ataladi. Kislorod bilan boyitilgan havo bemorning og'iz va burniga respiratorga ulangan yoki usiz quvurlar orqali yuboriladi. Sun'iy nafas olish bemorning o'pkasini ishlashni davom ettirishga yordam beradi va uning immun yoki himoya tizimi virusni yo'q qiladi. DNS-ga ega bo'lmagan shifoxonalarda oksigenator ham qo'llaniladi.

"Ikkinchi to'lqin". Bu atama karantin yoki karantin tugagach, odamlar ofislarga, maktablarga va boshqa jamoat joylariga qaytganda yangilangan va o'ta yuqumli COVID-19 virusi orqali yangi infeksiyaning tarqalishiga olib kelishi mumkinligini anglatadi.

Tilning lug'at boyligi doimo rivojlanib, takomillashib boradi. Til taraqqiyoti va uning lug'aviy tarkibini boyitishning asosiy asoslaridan biri so'z yaratishdir. Tilning lug'aviy tarkibi til

qonun-qoidalari ta'sirida doimiy ravishda rivojlanib boradi. Jamiyat taraqqiyoti orqali kishilar hayotida yangi omillar va ob'ektlar paydo bo'lib, ularni yangi so'zlar bilan ifodalaydi.

So'z yasalishi leksikologiyaning alohida bo'limlaridan biri hisoblanib, yangi so'zlarni tashkil qilish usuli va o'rganishga qaratilgan. Mazkur yo'nalish zamonaviy adabiy tillarda yangi so'zlarning qanday shakllanganligini va qadimgi tillarda so'zlarning qanday shakllanganligini ko'rsatadi.

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Annotation: In this article, the history of the development of status art and its development today, issues such as studying it and teaching status art to the younger generation today, attention to status art and status in Uzbekistan Information about the measures being implemented for the development of art, "Maqom Festival" held in Shahrizabz city.

Key words: Maqom, national art, music, Shashmaqom, methods, prose, weight, melody, Maqom festival, Maqom conference.

If we want to know and learn the original, true art, we must first know and learn the art of classical status. If we want to promote art and culture, we must first promote the art of classical status.

We need to mobilize all our capabilities so that the melodies, spirit and philosophy of Maqam take a deep place in the hearts of every person, first of all, in the minds and hearts of our young generation.

The tone that leaked out of the status of our people. Maqam is derived from the Arabic language and means place, space, place, level, address. Its main musical term is related to the meaning of "the place where musical sound is produced in musical instruments", i.e. curtain. Many other aspects of the content are also directly related to these curtains. Maqam is a complex of instrumental melodies and chants created by the combination of perfect curtain association and circle techniques. One of the main concepts in the music of the Muslim East. The art of maqam has a centuries-old history and is an example of professional music that is passed down from generation to generation through the "master-disciple" tradition. Initially, it was used in the sense of a fret, a place on the handle of a stringed instrument to be pressed with a finger to produce a sound of a certain pitch. Later, in the course of the development of Eastern music theory, the scope of Maqam expanded and began to mean other related meanings: chord structure, chord system; melodies created on the ground of certain curtains; form, genre; single-part or ensemble instrumental and vocal tracks; musical style and other theoretical and musical aesthetic issues related to Maqam Abu Yusuf Yaqub ibn Ishaq al-Kindi and Farabi (IX-X century), Ibn Sina and Ibn Zayla (XI century), Safiuddin al-Urmawi (XIII century), Mahmud ash- He researched in the musical treatises of Shirozi and Abdulkadir Maroghi (XIV century), Jami and Zainulobiddin Husayni (XV century), Najmiddin Kavkabi Bukhari (XVI century), Darvishali Changi (XVII century) and other scholars. In Near and Middle Eastern classical music theory, the number of Maqams was not clearly defined until the 13th century. Safiuddin al-Urmawi scientifically classified the veil structures in the names of maqam and developed the twelve maqam system. This system was used until the 17th century with some improvements. On the basis of the twelve maqam, various national and regional maqam types and categories were later created. These are pronounced as "Maqom" in Uzbeks and Tajiks, "Murom" or "Dastgoh" in Turkmen, Azerbaijani and Armenians, "Makam" in Turks, and "Maqam" in Arab nations. The maqams are a very good example of art in terms of form and structure. Therefore, many thinkers who lived and worked in the past, Abu Nasr Farabi, Abu Ali ibn Sina, Sayfiddin Urmawi, Qutbiddin Shirozi, Abdurakhman

Jami and others wrote scientific treatises on status. In this way, the science of status performance, creativity and status theory was developed. There are 3 types of statuses in Uzbekistan, they are named as follows:

1. Six statuses (Shashmaqom or Bukhara statuses)
2. Statuses of Khorezm
3. Fergana - Tashkent authorities.

Shashmaqom was expressed in Bukhara in the middle of the 18th century by court professional musicians and musicologists in the form of a series consisting of Six Maqoms. Shashmaqom means the association of six perfect curtains. Shashmaqom consists of the following six statuses:

1. Buzruk - "Big, great, great"
2. True - "True, true"
3. Navo - "Song, sad tune"
4. Dugoh - "Two places, two places"
5. Segoh - "Three seats, three curtains"
6. Iraq is an Arab country.

Shashmaqom was created as a product of past compositional traditions, based on rich experience in maqom making. Over the next two centuries, in the course of oral transmission from one musician - singer to another, Shashmaqom underwent great changes and has reached us. This is clearly noticeable when comparing the names of maqam and branches in the collections of poems composed in the XIX century and attributed to maqam, the measures of the poem with the parts of the current maqam. Shashmaqom is the basis of folk music heritage. It contains about 250 instrumental and vocal tracks. If we take into account the hundreds of samples of folk tunes and songs created on the basis of them, we can once again find out how important the role of maqam is in folk music. Shashmaqom means six positions in Tajik.

Buzruk, rost, navo, dugoh, segoh, and iraq maqams in shashmaqom are each large-scale serial works, containing 20 to 45 large and small maqam tracks. In the past, tanbur and दौरا were considered leading words in the performance of statuses. The parts of maqam are performed in the style of a series or in the style of single tunes and chants by a soloist, a singer or a group. The choir consisted of two tanburs, one dutor, one qubuz or sato, a circle and several singers.

The art of maqam is present in the musical heritage of most eastern nations and forms the basis of national music. Maqams are a series of musical ensembles created in a certain order, and are a unique and polished type of compositional creativity. Maqams is a community of folk music in a broad sense. Because in them, in particular, in Shashmaqom, a number of aspects based on the weight characteristics, tones, circle methods, and the rules of connection of poetry and folk songs found their full expression in the music of the Uzbek and Tajik peoples. Ghiyosuddin, the author of "Iyasul - Lug'at", defines it as follows: "Maqom - pardai surudro goyand" - "Maqom is said to the curtain of tunes and songs."

Maqam is the tone that has leaked from the body of our people. Therefore, it has been living for centuries. Even today, great attention is paid to the art of Maqom. As the head of state stated in the meeting with the representatives of the creative intellectuals of Uzbekistan: "We will widely promote the art of status, which is a unique heritage of our people, not only in our country, but throughout the world, and if necessary, hold status competitions on an international scale. we need to work on organization," they said. Also, on November 17, 2017, by President Shavkat

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Mirziyoyev No. 3391 "On the further development of Uzbek national status art and the use of the wide possibilities of status art to educate young people in the spirit of high human feelings, to form their aesthetic taste and thinking" decision was made. This document is excellent in studying the art of Uzbek status in depth, developing its unique performing schools and traditions at a new stage, creating and enriching its "Golden Fund", increasing its international prestige and widely promoting it. is important. The endless attention paid to the development of the art of national status gives inspiration and pleasure to all artists. The Uzbek people have a huge and unique musical heritage. "Shashmaqom" and its series, which is considered to be the masterpiece of Uzbek national music art, created a beautiful example of art in harmony with our classical poetry, and people of the world look at this high music with admiration.

Based on the decision made in 2017, the National Art Center of Uzbekistan was established. The main goal of the center is to further develop the art of Uzbek national status, the traditions of performance and creative schools formed in this regard, the heritage of great hafiz, composers and musicians on a deep scientific basis, to study and restore, promote, and promote the musical heritage of our nation. It consists of tasks such as enjoying the most beautiful traditions, developing a sense of national identity in the young generation by introducing them to the art of status.

The decision of the President of April 6, 2018 "On holding the international status art conference" was accepted. According to the decision, in the area of Oksaroy Square in Shahrisabz, various exhibitions related to status art, national songs and costumes, handicrafts, works of visual and applied art, examples of sculpture, feature and documentary films, books, albums will be displayed and sold. was put on. According to the President's decision, the First International Art Conference will be held in the historical center of Shahrisabz on September 6-10, 2018. About 300 solo singers from 75 countries of the world, representatives of the diplomatic corps of folklore groups took part in this conference. 30 musicologists from 19 countries participated in the international scientific-practical conference held as part of the conference. A special amphitheater with 1,800 seats, built for guests and hosts, held concerts in the Oksaroy area. On September 6, President Shavkat Mirziyoyev gave a speech at the opening ceremony of the International Status Art Conference in Shahrisabz. In his speech: "Shashmaqom" which is a product of the artistic thinking of our people, i.e. six statuses, so to speak, can be compared to six rivers. These rivers have been pouring into the ocean of world culture for centuries, filling and enriching it in every way. That is why it is deeply meaningful and important that this great musical masterpiece was included in the list of World Cultural Heritage by UNESCO. On September 10, in the amphitheater on Oksaroy Square, which has become the main stage of the world's artists, the awarding ceremony of the winners of the International Status Art Conference was held. passed. The international jury evaluated the performances of the participants in three categories: "Best Status Ensemble", "Best Solo Instrumentalist" and "Best Solo Singer". The Second International Status Art Conference was held on September 5-10, 2020. "During the past period, certain works have been carried out in our country to study and develop the art of status. In particular, the publication of the sheet music of the Uzbek "Shashmaqom" and the corresponding recording of the songs on magnetic tapes was an event of great scientific and cultural importance.

In short, Maqom art serves to educate young people in the spirit of high human feelings, to form their aesthetic taste and thinking. It opens the door to wide opportunities in realizing our national identity and improving our culture in all aspects. The Maqom conference, which is held

every 2 years, provides an opportunity to convey our great national cultural heritage to the peoples of the world and to get acquainted with their national music.

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ENHANCING READING AND COMPREHENSION SKILLS IN YOUNG LANGUAGE
LEARNERS: METHODS AND ACTIVITIES

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Abstract: This article explores various effective methods and activities aimed at improving reading and comprehension skills in young language learners. The importance of developing these skills at an early age is highlighted, and the article provides insights into strategies such as interactive reading, vocabulary building exercises, and comprehension activities. The effectiveness of these methods in promoting language acquisition and literacy development is discussed, offering valuable guidance for educators and parents seeking to support young learners in their reading journey.

Key words: comprehension, skills, strategies, interactive, vocabulary, methods, cognitive, professional endeavors, effective, literacy, valuable, language proficiency.

Introduction: Developing strong reading and comprehension skills is essential for young language learners as they embark on their journey towards literacy and language proficiency. The ability to read fluently and comprehend text not only enhances communication and cognitive abilities but also lays a solid foundation for academic success. In this article, we delve into effective methods and engaging activities designed to enhance reading and comprehension skills in young learners. By exploring interactive reading techniques, vocabulary-building exercises, and comprehension activities, we aim to equip educators and parents with practical strategies to support children in their language acquisition and literacy development. Through these methods, we seek to empower young learners to become confident readers who can effectively engage with a wide range of texts, fostering a lifelong love for reading and learning.

First of all, we should know why young language learners need reading and comprehension skills. Developing strong reading and comprehension skills in early childhood is essential for a multitude of reasons. These foundational skills serve as the building blocks for academic success, critical thinking, communication proficiency, empathy and understanding, lifelong learning, career readiness, and personal enrichment. First and foremost, a child's ability to read and comprehend effectively lays the groundwork for academic achievement. As students progress through their education, they encounter increasingly complex texts that require advanced comprehension skills. By honing these abilities early on, children are better equipped to navigate challenging academic material and excel in their studies. Moreover, reading and comprehension skills cultivate critical thinking and analytical prowess in young minds. Through engaging with diverse texts, children learn to evaluate information, make connections between ideas, and draw insightful conclusions. These skills are invaluable for problem-solving and decision-making in all areas of life. Effective reading and comprehension also play a pivotal role in developing strong communication skills. Proficient readers are more adept at expressing themselves clearly and articulately, both verbally and in writing. This skill is crucial for effective communication in personal relationships, academic pursuits, and professional endeavors.

Furthermore, exposure to a wide range of texts fosters empathy and understanding in children. By delving into stories from various cultures, perspectives, and experiences, young readers develop a broader worldview and a greater capacity for empathy towards others. This ability to see the world through different lenses is essential for building strong interpersonal relationships and fostering a sense of community. Additionally, cultivating reading and comprehension skills from an early age instills a love for lifelong learning. Children who enjoy reading are more likely to continue seeking knowledge and exploring new ideas throughout their lives. This curiosity and thirst for knowledge are key drivers of personal growth and intellectual fulfillment.

Furthermore, strong reading and comprehension skills are essential for future career success. In today's knowledge-based economy, effective communication and critical thinking are highly valued skills in the workplace. Individuals who possess these skills are better equipped to adapt to the demands of the modern job market and excel in their chosen careers. Lastly, reading provides a source of entertainment, relaxation, and personal enrichment for children. It opens up a world of imagination and creativity, allowing young readers to explore new ideas, experiences, and emotions through literature. This not only enhances their cognitive development but also nurtures a lifelong love of reading.

Enhancing reading and comprehension skills in early age is crucial for several reasons:

1. **Academic Success:** Strong reading and comprehension skills are fundamental for academic success across all subjects. As students progress through their education, the ability to understand and analyze complex texts becomes increasingly important. Early development of these skills sets a strong foundation for future learning.
2. **Critical Thinking:** Reading and comprehension skills encourage critical thinking and analytical abilities. By engaging with diverse texts, children learn to evaluate information, make connections, and draw conclusions. These skills are essential for problem-solving and decision-making in various aspects of life.
3. **Communication Skills:** Proficient readers are better equipped to express themselves effectively, both verbally and in writing. Understanding how to interpret and convey information is essential for clear communication, which is valuable in personal, academic, and professional contexts.
4. **Empathy and Understanding:** Reading exposes children to different perspectives, cultures, and experiences, fostering empathy and understanding. It helps them develop a broader worldview and enhances their ability to relate to others.
5. **Lifelong Learning:** Early development of reading and comprehension skills nurtures a love for learning and exploration. Children who enjoy reading are more likely to continue seeking knowledge throughout their lives, leading to personal growth and intellectual fulfillment.
6. **Career Opportunities:** Strong reading and comprehension skills are essential for future career success. Proficient readers are better prepared for the demands of the modern workplace, where effective communication and critical thinking are highly valued.
7. **Personal Enrichment:** Reading provides a source of entertainment, relaxation, and personal enrichment. It opens up a world of imagination and creativity, allowing children to explore new ideas, experiences, and emotions through literature.

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By enhancing reading and comprehension skills in early age, we empower children to become confident, informed, and engaged individuals who are well-prepared for the challenges and opportunities that lie ahead.

Improving comprehension skills in early childhood is crucial for academic success and lifelong learning. There are several effective methods that educators and parents can use to support young children in developing strong comprehension abilities.

One of the most powerful ways to enhance comprehension is through reading aloud. By reading to children regularly, they are exposed to a wide range of vocabulary, sentence structures, and storytelling techniques. Encouraging interactive discussions about the story, characters, and plot helps children engage with the material on a deeper level. Asking questions is another effective strategy to improve comprehension. Encourage children to ask and answer questions about the text they are reading, prompting them to think critically about the content. This helps them develop their analytical skills and deepen their understanding of the material. Visual aids such as pictures, illustrations, and diagrams can also help children visualize the story or concept they are learning about. Visual aids make it easier for children to understand and retain information, enhancing their comprehension skills.

Story retelling is a valuable technique to reinforce comprehension. After reading a story, ask children to retell the plot in their own words. This helps them remember key details, characters, and events from the story, strengthening their understanding of the text. Encouraging children to predict what might happen next in a story and summarize the main points are important comprehension strategies. Making predictions based on clues from the text and summarizing key information help children engage with the material and identify important details. Building vocabulary is essential for comprehension. Introduce new words and phrases during reading sessions, providing explanations or context for their meanings. This expands children's vocabulary and enhances their ability to understand and interpret texts.

Relating text to personal experience helps children connect with the material on a deeper level. Encourage children to relate the text to their own experiences, feelings, and knowledge, fostering a personal connection that enhances comprehension. Teaching specific reading comprehension strategies such as making connections, visualizing, inferring, questioning, determining importance, and synthesizing information helps children develop strong comprehension skills. These strategies provide children with tools to analyze and understand texts effectively. Incorporating interactive reading activities such as role-playing, creating art based on the story, or writing their own endings or sequels further engages children with the material, deepening their understanding and enhancing their comprehension skills.

By using these effective methods to improve comprehension skills in early childhood, educators and parents can support young children in developing strong reading comprehension abilities that will benefit them throughout their academic journey and beyond.

And also, there are some activities that are the most useful for young language learners. Include:

- 1. Storytelling:** Encourage young language learners to create and tell their own stories. This activity helps them practice language skills, creativity, and critical thinking.
- 2. Vocabulary games:** Play games that help children learn new words and expand their vocabulary. Word puzzles, flashcards, and word association games are fun and effective ways to enhance language skills.

3. **3. Role-playing:** Encourage children to engage in role-playing activities where they can act out different scenarios and practice using language in context. This helps them improve their communication skills and confidence in speaking.

4. **4. Songs and rhymes:** Singing songs and reciting rhymes are engaging ways to help children learn new words, practice pronunciation, and improve their language skills. Incorporating music into language learning can make it more enjoyable and memorable.

5. **5. Language immersion activities:** Create opportunities for children to be immersed in the target language through activities such as cultural celebrations, cooking traditional dishes, or exploring cultural artifacts. Immersion experiences help children develop a deeper understanding and appreciation of the language.

6. **6. Language learning apps and online resources:** Utilize educational apps and online resources designed for young language learners to supplement classroom instruction. Interactive games, videos, and activities can make learning fun and engaging for children.

7. **7. Language exchange programs:** Arrange language exchange programs where children can interact with native speakers of the target language. This provides authentic language practice and exposure to different accents and cultural nuances.

8. **8. Reading aloud:** Reading stories, poems, and books aloud to children helps them improve their listening comprehension, vocabulary, and language skills. Encourage children to follow along, ask questions, and discuss the text to enhance their understanding. Provide opportunities for children to practice writing in the target language through journaling, creative writing exercises, or letter writing. Writing activities help children improve their spelling, grammar, and overall language proficiency.

9. **9. Cultural projects:** Engage children in cultural projects that explore different aspects of the target language's culture, such as traditional crafts, music, dance, or festivals. Connecting language learning to cultural experiences enriches children's understanding and appreciation of the language. By incorporating these activities into language learning programs for young learners, educators and parents can effectively enhance children's language skills, fluency, and cultural awareness in a fun and engaging way.

In conclusion, there are various effective methods and activities to enhance reading and comprehension skills in young language learners. By incorporating storytelling, vocabulary games, role-playing, songs and rhymes, language immersion activities, educational apps, language exchange programs, reading aloud, writing activities, and cultural projects, educators and parents can create a comprehensive and engaging language learning experience for children. These activities not only improve language skills but also foster a deeper understanding and appreciation of the target language's culture. By implementing these strategies, young language learners can develop strong reading and comprehension skills while enjoying the process of language acquisition.

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THE HISTORY OF EXPLORING MEDICAL TERMINOLOGICAL
SYTSTEM

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Abstract: This article depicts the scientific achievements in the field of study of medical lexicon. A number of researches have been explored and revealed peculiar characteristics of medical terms.

Key words: terms, terminology, names, lexical system, terminological system, founders.

The beginnings of the medical profession were established in the very early stages of human existence and were entrenched in the customs and techniques of treatment and protection from diseases. Medical art has improved along with human society. The slow but steady development of medical knowledge begins in Western Europe in the 12th and 13th centuries. But it was only during the Renaissance that the foundations of scientific medical terminology were laid. The founders of European scientific medicine and medical terminology are Hippocrates, A. Vesalius, W. Harvey and others. The formation of the corpus of English-language medical terminology took place in Great Britain under the significant influence of Latin, Greek and French. The era of the Renaissance and great geographical discoveries contributed to the rapid development of all areas of science, including medicine, which was enriched with the knowledge and achievements of the medical craft of the countries of Asia, Africa, and America. The formation and development of Great Britain as a nation state caused a rethinking of the role of the national language. And although Latin remained the official language of science until the middle of the 19th century, its priority in this area gradually weakened. Further development of medical terminology in English is carried out on a national basis, using autochthonous vocabulary as terms [1]. In the twentieth century in the English-speaking world, this trend received active development, which, of course, could not but affect the state of medical terminology [2]. Significant progress in the field of molecular biology, genetics, radiology, radiobiology, chemotherapy, neurosurgery and other branches of medicine has largely changed traditional ideas about a number of pathological conditions and processes, which has made it possible to take a new approach to the interpretation of the most subtle mechanisms of life. All this has influenced the state

of modern medical terminology, which at the current stage is developing quite quickly and is especially sensitive to external influences. The specialization and differentiation of medical science, the emergence of new medical disciplines, the constant improvement of diagnostic and treatment methods cause the emergence of new scientific concepts, the development and clarification of its conceptual apparatus,” while some previously used terms began to fall out of use. Quite deep and detailed coverage in the linguistic literature, which violates the problems of medical terminology, received questions that relate to the structure, specificity of terms borrowed from Greek and Latin languages or created artificially using Greco-Latin term elements , the issue of studying semantic changes: processes of terminology of commonly used words and secondary nomination, the issue of linguistic specificity and linguistic dynamics of certain branches of medicine (pediatrics, pharmacy, ophthalmology, etc.). A significant contribution to linguistics and terminology is theoretical work aimed at a comprehensive study of English-language medical terminology [3], [4]. It is also important to resolve a number of issues related to the problems of unifying terminology, which is used by diagnostic and other devices of different systems, for example, patient – record systems to decision – support systems, unification and standardization of terminologies of individual branches of medicine [5], [6].

To identify the definition of a medical term, it is necessary to determine the limits of the object under study, that is, knowledge of the criteria for assessing the terminology of a linguistic sign from the point of view of modern terminology. The main characteristics of the term, namely its conceptual, semantic, semiotic integrity, are recalled in its numerous definitions [6, p. 118]. Taking into account the above, we consider the medical term as a linguistic sign in the special function of a carrier of information about the system of scientific knowledge and practical activities, united by the goal of diagnosing, treating and preventing diseases, preserving and strengthening the health and performance of people, and prolonging their lives. The scope of use of medical terms is quite diverse (anatomy, physiology, medical biology, therapy, surgery, gynecology, dentistry, oncology, etc.), and the language of medicine is divided into scientific language, the language of practice or clinic, the language of textbooks or reference books, and the language of professional communication. As mentioned above, theoretically, every word can be a term, but it becomes one only through actualization - its removal from the lexical-semantic system of a common literary language and inclusion in the system of terms.

The term is thus an actualized word that marks a special concept in each unit of its actualization. A term in general, and a medical one in particular, is, first of all, a linguistic sign, an element of the communicative system of language, a word.

Based on a thorough analysis of factual material and the study of theoretical sources on the problem of terminology and word formation, it can be noted that the formation of new terms in medicine generally coincides with the main word-formation trends of the lexicon of the literary language, such as borrowing from social and professional jargons, rethinking the meaning of commonly used words (semantic word formation), morphological and morphological-syntactic word formation. However, the ways of replenishing medical terminology also have their own specifics, regulated by the conceptual system of a particular science and predetermined historically and genetically, namely: the creation of terms using only Greco-Latin elements, the use of word-formation means characteristic of the medical terminology system.

Issues related to lexico-semantic phenomena in terminology (polysemy, synonymy, antonymy) can be considered quite ambiguous regarding their solution. Representatives of the normative approach, based on the fact that the term should mark a strictly limited, clearly fixed concept, were inclined to deny the presence of polysemy, synonymy, antonymy, connotation in terminology, or sought to eliminate such phenomena as much as possible. However, the realization that a term is a word in a special function, as well as numerous studies of terminologies and term systems in the field of functioning have shown that terms function in accordance with the laws of natural language.

The unambiguity of a term, sometimes even within the same terminological system, is more an ideal than its real semantic characteristic. How testify results analysis actual material, in within medical scientific terminology polysemy is enough widespread phenomenon, for example, make "cause (death), lead (to lethal result); carry out, carry out (adjustment dosing medicinal drug); make, establish (diagnosis); cause, be cause":

Milder forms of stenosis may be followed until symptoms occur or until the patient develops a sufficiently severe gradient that makes sudden death a risk;

In patients with marked renal impairment, adjustment in penicillin dosage should be made;

Cancer of the prostate tends to spread to the bones, and occasionally the diagnosis is made in the course of investigating progressive back pain;

Tricuspid valve insufficiency also makes the cardiac output determination 18 less accurate by producing artifacts in the thermodilution curve.

Terms that are means of special communication, like words, do not remain identical to themselves over time. They contain within themselves the potential for their change. One of the actualizations of this potency is polysemy, which should be considered not only as a state, but also as a process. That is, we can say that all words

are actually or potentially ambiguous. Terminology is the most dynamic component of the dictionary of any language, and structural- semantic dynamics are observed not only at the level of diachrony, but also in the variation of synchronicity in different communicative situations. Synonymy in the lexical system of a language is a rather controversial issue that has long been in the field of view of linguists. In the modern period, synonymy is considered as an objective linguistic reality, which arises as a result of manifestations of the asymmetry of a linguistic sign and is determined by the commonality of "fields". As is known, terms tend to have a symmetrical relationship between form and content.

In terminology, scientists most often paid attention to the phenomenon of semantic duplication, for example: spurious (abdominal, asternal) ribs "false ribs", X – rays and roentgen rays "X-ray radiation". In antonymy, as a designation of the unity of opposites, there are dialectical features of language, which carry within themselves the dialectics of human thinking and, with its help, the dialectics of the surrounding world. Contrasting meanings is one of the excellent properties of language, a clear indication of the systematic nature of vocabulary and terminology in particular, reflecting the results of subject-cognitive, interpretive activity of a person.

In most cases, terminological nomination is a conscious, purposeful creative process. This indicates that both terms and terminological systems as special semiotic models of the theory, in contrast to other fragments of the linguistic picture of the world, are constructed more strictly and rely more on the laws of formal logic. Therefore, among the numerous issues of modern terminology, an important place is occupied by the relationships and interdependence of logical and linguistic factors in the development of term systems. It is very important that the meaning and systemic connections of terms as units of language and professional scientific knowledge also appear in terms of expression (word-formation models, affixes for a particular branch of knowledge, grouping derivatives around a key term, etc.). Thus, terminology, including medical terminology, which is considered as a functional subsystem of the general system of a certain language, is an open subsystem and preserves the laws that are common to the language. A term can be borrowed from a language or an artificially created word that expresses the concept of a specific field of science. As we see, terms and terminological systems are at the intersection of natural and artificial in language, while primarily the linguistic material is natural, and the artificial is the use of this material.

In conclusion, the term is highly informative, logical, has a strict relationship with the corresponding concept, the scope of its use is determined by the boundaries of a certain field of science. The formation of different terminological systems is

directly dependent on extralinguistic factors, namely, the nature of the development and functioning of modern fields of knowledge.

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**Future scientific potential personnel in education
interdisciplinary integration and from dependence of use efficient
methods**

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In our republic Third Renaissance to the period foundation being created present in the circumstances education system quality in terms of national and foreign experience harmonized international to standards suitable way new to stage raise according to wide comprehensive reforms done increase for defined priority assignments done increase on the way the most important from tasks one continuously education system teaching in the process interdisciplinary integration to the road to put of possibilities efficient to use efficient organize of reaching modern technologies done is to increase . Especially our country the world to the community by joining managed to one at the time competitive personnel issue very important to the topic turning around has managed

Uzbek literary critic O. Sharafiddinov right as stated : " Infinite in the world big and small each one thing mutually in dependence created and one of another existence providing standing for the world to know organized pedagogical shape to be education in the process mother that's it unity , chambers relationship account taken it is necessary Other people in the psyche extortions understanding based on in students personality qualities to form directed literary interdisciplinary in education as well contact important importance occupation is enough Literature in teaching to efficiency reach for his at school teachable different study sciences with connection to provide separately attention focus necessary "

As you know , study sciences the amount Increase , of course , every always positive the result does not give . Because today's modern technology behind the hip to chase not but quality that there will be changes requirement is doing In this regard developed countries from experience use can Because they are already own education to the system integration take entered and integrative sciences current did Great Britain , Korea , Switzerland , Hungary , USA , Russia and others these are including Today's in the day our education integration into our system as well process come in came Integration means " whole " . the meaning means , so this thinking growth of the process different part and elements one to the whole is to combine . This is in education interdisciplinary relationship , sciences each other with closely depends without teaching shows .

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Sciences integration by doing lesson when passed to the following attention to give need

- each one lesson certain to the goal directed to be need
- interdisciplinary to communications about selected additional material is passed topic with connection condition ;
- science students activity increase in order to they are with work ways determination can

Lesson only educational being without leaving , students humanity aspects to educate directed to be necessary Because speed century live we are our country on the world wide web from the news free that it is not each per second understood we will stay should , exactly today's in young people something source fast and it's easy analysis to do opportunity there is it is them something thing with surprise very difficult Subject from the content come came out without , nature , society , man thinking , development about knowledge our republic to the future trust and faith to form directed to be need And this student worldview expands . In general when integration lesson to each other suitable coming (topic in terms of) and thorough plan based on Created to be need

Primary stage to his teacher integrated to lessons transition easy because one himself everyone sciences teaches . A student how many young if so , that 's it less knows That's why for in the beginning integration possibilities limited . Primary in education in practice internal and interdisciplinary from connections use and development need Primary in education integration « little - little everyone from thing to » method have Children initial in education very a lot event , concept , sciences with get acquainted , but they are about elementary concept they get Next in years there is knowledge by filling and by expanding they go That's why for teacher one from diversity escape and colorful form and in methods lesson pass Demand will be done . Integrated lessons fatigue and tension from the students takes , of activity one from the type to the other pass at the expense of cleverness and to the present teaches . But in the early stages integrated to lessons so much don't give in recommendation will be done . Because of the child knowledge reserve a lot not , grammatical , mathematical and technical skills forming didn't have time . Because integration there is the subject expands , deep analysis to do Demand does , events summarizes their knowledge scope another sciences at the expense of expands . Students independent way that's all work to perform power not enough can Own in turn to the teacher very a lot requirements is placed . Integrated lesson from the teacher addition preparation , big knowledge , high occupation skills Demand does

Education process each one from the teacher big intelligence , patience , to students and own to the profession high affectionate to be Demand is enough

Teacher's always inquisitive , knowledge and experience increasing outgoing to be , students deep understand their internal the world notice get , grow and development degrees control by doing to go and necessary at the time help give get ability education and education of the process success provider are factors .

Summary by doing that's it we say maybe mathematics - physics and chemistry science the first to be poured and perfect is a step , and natural science is everything natural of sciences is a prelude - that is biology, chemistry , geography , physics , stories language is an ideal tool for learning because they are whole our life during us manages So , mathematics science all sciences is a prelude , exactly therefore for today in the day higher education institutions to study at the entrance all of directions access to the exam mathematics science mandatory block level entered , so it is the future generation each bilaterally mature capable by doing in education mathematics science since childhood to teach very important

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The future initial class teachers poetic works on to work to teach in education application reach

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Abstract: This in the article start drinking class teachers poetic works on to work to teach in education how application to be done about information is given This is the article method how make up and how to the results reach deadlines , as well students for this method how useful will be and to them how help wants to give to be possible describes . Abstract of the author the goal and problems determination , implementation and the results explanation for practical information will give . This is research in the article annotation , beginning class to their teachers poetic works on to work in education how support possible about scientific instructions before pushing goes

Key words: information , skill , qualification , self on work , method , methodology , shery works

Access: Get started class teachers poetic works on to work learning for the following methods in education application reach can :

1. Poetic works dating and analysis to do : To the students classic poetry and modern of the poem main features about information give to them you know that's it in terms of help give takes
2. Poetry concepts teaching : Students with poems on negotiations , submissions and textbook exercises through of poetry concepts strengthening
3. Poem texts to emphasize and translation to do : To the students something poem the text emphasizing your training , then him translation to do help give you will get
4. The poem creative sides with Introduction : Readers with together poem to create done increasing them creative sides with by introducing exit
5. Poetry history and culture about information to give : to students of poetry history , culture and importance about information giving them this in the field progress to do your encouragement can

These methods done increase and start drinking class to their teachers poetic works love with to learn and his importance understand for help give you will get

Main part : Get started class teachers poetic works on to work to teach in education very important This is the style of the students spiritual and aesthetic experiences development , creative their thinking deepening and their his own poetry abilities to strengthen help will give . Poetic works on work education to students verb practices through skills to develop possibility will give . This style through , readers work on analysis do , of the text meaning and the recitation explanation of the poet thought and feeling with getting to know exit and him to vacation help will give . Get started in classes poetic works on of work one series advantages there is . Such training of students language knowledge strengthens and them word written art with introduces . Also poetic works on work through students creative thinking developing them independent victory winning to be help will give . Get started class of teachers poetic works on to work in education application to reach very important This is style through students spiritual to modernity have being creative and opinionated to people rotating creator to power have will be Education in institutions this style by developing to go Demand because this all on the side user for much useful and efficient will be

First class teachers for poetic works on to work education to give very important They are that's it age students for progress method information give , historical events or of people in his life important from events from the debate information get , details and concepts to explain help to give need Also poetic works on work in classes creativity develops and to students own ideas expression to do chance will give . This is the method through students history and to literature interests calling take out their creative and mental abilities to develop help will give .

Discussion : Start class teachers poetic works on to work to teach for the following steps useful will be :

1. Teachers for examples and samples present achievement : Poetic works on to work learning for , teachers for examples and samples show useful will be This is theirs more understandable to understand and strengthening help will give .

2. Analysis to do to teach : In poetry how features identify exit and to them theory cause exit to students main help will be The teacher , the poem analysis to do and in it goals to determine to students to teach need

3. Discussion and debate practices : Students with poem on regularly discussion and discussions through their his opinion expression to do possibility to be given it is necessary This is theirs analytical their thinking develops and to questions right answer give will receive in forms their thinking strengthening help will give .

4. Creativity development : Poem on work through , students their creativity develop and their own proud creative approaches appear they will Teacher , their news with that he is not engaged stimulating and creative thoughts development need

5. Personal goals designation : Har one of the student poetic in works goals different to be that it is possible attention focus need A teacher , every one of the student personal goals suitable respectively help give received without to them advice to give it is necessary

6. Manuals with work : Poem on working lesson during important from manuals use to the goal according to will be These are the guides through students poetry about independent studies done increase they get

A poem on of work practice personal to goals suitable clarity depends and this on the way standard from programs external one of the assignments little task presence importance is a big issue .

this purpose reach for the following roads take you go can :

1. Poetic works on of work skills teaching : Teacher to students poem analysis , images , color loss and another poetic works on of work technique teach

2. To the students independent the work or project give : Har one student his own selected poetic work on independent the work or the project done to increase need It's up to them of students thoughts increasing their creative properties and abilities develops .

3. Discussion and negotiations organize Occupation : Teacher and students between poetic works on discussion and negotiation organize reach very important This is the method through students thought said , questions giving an explanation give and support .

4. Creator activities : Poetry works in education in your training your application very important An example for from poems consists of collages to create a poem dramatic in the theater to create or even new poem to create can

5. Students efforts designation : Har one student for goals specify and of them come when you come out , their efforts with to engage in possibility give important these recommendations using , next initial class teachers poetic works on to work appeal do it !

Summary

Get started class teachers poetic works on to work to teach in education the most good from the roads one to be can This method is for students meaningful texts Create and in them care to understand help will give . For example , poetic works on additional songs write stories dramatization to do or own his works to create show

through students looking for topic about more to understand they achieve That's the way , students for famous a poet and writers introducing them creative activities research which and they are with together thought exchange for the ground creates Such famous a poet and writers between Mirza Great bek , Alisher Like Navoi , Zahiruddin Muhammad Babur individuals show me

Used books

1. " Poetry and methodology " - G. Makhkamov
2. Uzbek people poetry " - M. Fozilov
3. Uzbek literature history " - A. Kadyrov
4. " Poetry and poem theory " - A. Abdullaev
5. " Works on lectures " - A. Khalpulatov

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Before school education organization 4 K skills in educators formation

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Abstract : This in the article before school education organization educators education and education process time demand based on organize reach for need future , 21st century skills and him of formation necessity and methods open given

Key words : Education , 4K skills , educator , communicative , critical thinking , collaboration , communication , child, creativity .

B trace we know that young people of our future , of our country foundation . Preschool education is the foundation of personality formation. Because during this period, the child needs special attention because it is the stage of understanding the world under the mind, restoring the foundations of imagination and knowledge. From this point of view, we should use modern educational technologies and modern approaches in educating preschool children. The "4K" model is a modern approach to the education system, and the use of the 4K model in the modern education system is aimed at children's critical thinking, free expression of their opinions, comprehensive development of preschool children, four main competencies includes. In order to form creativity, critical thinking, collaboration and communication skills in preschool children, it is necessary to develop these skills in the educators of the preschool education organization themselves. First, let's talk about what the 4K model is.

The development of technologies, globalization, demographic problems in the world are actively changing society. In today's era of globalization, the knowledge and skills of education developed in the last century are not enough to succeed in our time. The education system is also re-examining its goals and increasingly including a wide range of skills in its curricula. The most important are social skills, critical thinking, cooperation, problem solving . The main international document in the field of education adopted by UNESCO describes the "sustainable development goals" and defines

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cognitive, social-emotional and behavioral learning outcomes. In the last few years, the educational system around the world, especially in primary education, has moved from a non-traditional direction in the formation of knowledge and skills, creating conditions for the development of modern competencies and skills of the 21st century. is being used. Despite the different rules of these skills in the various skills and educational outcomes of the 21st century, their set remains quite stable. In addition to existing skills or literacy, it lays the foundation for 21st century skills, which include "innovative skills"—the many skills of critical thinking and problem solving, creativity and innovation, communication, and collaboration. got rin.

Creativity is the ability of a person to come out of problematic situations in a unique way through thinking, to approach them creatively. Creativity concept (lot, ing . "create" - create , "creative" creator , creator) English from the language translation when you do creativity the meaning means For real while new , original (to himself characteristic) further polished material and spiritual dependencies is to create . Creativity to creativity aspiration to life creative approach to himself constant critical look put and analysis reach to say can Current time psychology and pedagogy to dictionary names based on of the teacher creativity his in his opinion , in communication , separately activity kind of creative to approach , to know defined as level to give can His at the core originality , practicality , unusualness and freedom lies Also creative thinking one to something different from the side to approach means Har how human being at birth creative ability with to the world will come . Him which to the road orientation and development educator undertake is loaded . So , until school education organizations in pupils creative ability to develop attention focus perfect generation educate support point be service does

Creative method passed The subject is full of child mastery with together , creativity also develops the ability . That's why for from the educator own science on the surface deep to knowledge have to be with together , in education efficient method and

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awareness of methods Demand is enough Because future new innovations and of inventions all of them exactly creative competence through to the body will come .

"Communicativeness" The concept of " communication " . differently definitions there is . *Communication* two or from him more than people between to know or affective evaluation feature have has been information in exchange their mutually influence as is defined . Or : *communication* - people in the middle cooperation activity out of need surface coming and information exchange , mutual of influence the only one the way work exit , other the person perception to do and from understanding consists of has been connections installation and of development complex , wide comprehensive process . This is the concept of " communication " . the most complete and sure is the definition .

Critical thinking the term International terminology in the system Greek " *critical* " form of thinking as will be conducted ." Kritikos " " criticism " , " evaluation " , " examination " and others many p meaningful from the word come came out ; this the concept of " criticism " here diary the meaning of " accusation " in life doesn't mean , maybe mental ability the meaning means and " evaluation " , " determination " , " judgment" . make " , " separate like " ability " . to meanings have Critical of thinking intellectual The basics and etymology are very good ancient to the times go is worn

Critical thinking Richard W. Paul by two wavy movement as described (1994). Critical of thinking " first wave " is often " critical analysis , criticism own into received pure , reasonable called thinking.His details to him appeal those who did between difference does Barry According to K. Beyer (1995). according to , critical thinking clear , reasonable judgment release means Critical thinking in the process ideas provable , complete seeing output and assessment need Critical thinking abilities according to USA National council critical thinking as follows defines : " observation , experience , reasoning conduct , comments or communication through collected or harvest done information belief and which directs action (conceptualization) . to concepts active and

skillfully conversion , application , analysis make , synthesis to do or of assessment intellectual , advanced process as is determined .

Collaboration - Collective work skill - cooperation is the skill of working in a team. Accept help, take someone else's point of view, stand up for yourself when doing a task. In a word, try to work cooperatively. Collaborative work involves a group of people working together to achieve a common goal and achieve a set goal under any circumstances.

In conclusion, it can be said that the use of the 4K model in the educational process of preschool educational organizations leads to the following results: enriches the learning process of children; provides children with cognitive information (education to expand the range of knowledge about the environment, to develop cognitive needs); makes children eager to learn the material; expands opportunities for children to form their own personal knowledge and worldviews; increases the efficiency of two-way exchange of information; provides children with the necessary knowledge to prepare for independent life; promotes positive interactions between groups of different cultures and socio-economic levels; cooperation is such a situation that the subjects of the educational process work together, friendship, mutual help, community come to the surface. As a result, the order of the society will be fulfilled - we will train literate personnel who are competitive, ready to cooperate, understand problems in various life situations and boldly start to solve them, believe in the power of thinking, express independent opinions in the team, defend their opinions and views. Effective use of the 4K model is more important as it not only develops the young generation, who are the owners of our future, but also aims to form in them the skills necessary for successful adaptation to modern society.

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THE IMPORTANCE OF STATE UNITS IN FORMING QUALITY PRESS SERVICE ACTIVITY IN UZBEKISTAN

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Abstract: In society openness policy good quality and impressive way organize reach in processes the press service state units and their place about

Key words: state unit, press service, departments, openness policy, openness level.

In society management in politics openness provide this population with efficient and strong connections installation means this equal to while there is of problems level becomes clear and necessary has been of solutions importance expected from the degree higher level organize to find take will come.

It's own in place while in society of individuals according to word in freedom activation and management bodies people with communication active to enter take will come.

President's speech " People with communication, people dreams, aspirations, pain and worries with to live state policy level rising today's in the day each one public information tool really communication to the platform, free thought to the pulpit has become only if we own to us put to goals reach " We will get it," ⁶⁰he said words at the heart of this obvious example let's see can

This is openness of politics existence people with communication develop can't There is of the system efficient just looks his goals realization ensure take necessary.

In this while worker day and in the field of actions fulfillment processes are also important.

I mean, organization done administration, state institutions and organizations people or purposeful audience with efficient communication for their of existence himself enough does not There is processes about message to give and to the situation relatively acceptance of the doer attitude learning in the process systematic and considerate group performance it is necessary

And this organization and of institutions state units go is worn

⁶⁰ Mirziyoyev Sh.M. Law priority and human being interests provision - country development and people of well-being pledge // People word , 2016 December 8 .

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- State organs and organizations central in the devices information services employees the number belongs to office of activity to himself characteristic come came out without his leader by is determined
- State organs and organizations departmental and territorial departments information services activities organize reach belongs to of offices out of need come out determination can " ⁶¹. Here it is that's it from the decision come came out without in places the press service employees the number is defined

For example Bukhara city governorship the press in service Press secretary , operator, operator, press employee activity walking of them only 2 people the press service department state together acceptance done is considered The rest employees while another departments contained employee as the press service activities performs

And this the press service to the activity effect shows . Because the press service employee own in turn salary and imitations in terms of is noteworthy. This is it department in the composition working employee high level work process done if it increases, its to the salary some kind of addition is added. Most considerate side employee this department in the composition activity take if it goes his salary units his from the activity come out high level is determined. Good right while good activity determines

In particular , Uzbekistan Republic Measures of the President of June 27, 2022 to support the mass media and develop the field of journalism about". This is also the decision PQ-294 obvious is evidence .

That's it with together, the state units regarding international attention from the field is big. "PR environment organize in doing the work taking into account the environment get" (Alyoshina).

For example in General Motors this 200 people in the unit works 100 of them expert and the remaining 100 helper employee is counted. Of course, General Motors its income is US \$228.037 billion. Workers the number and December 2019 month to the situation according to 164,000 people to PR this level attention giving company of the product quality according to high in place stands Such the result while public with contact to the basis built is considered That is PR department in the company active respectively of the population to the product has been attitude learn them improved the product presentation is enough That's it with together the audience persuasion in order to reliable information service to the road sheep ok.

⁶¹ Uzbekistan Republic President Sh. MIRZIYOYEV, Tashkent city, June 27, 2019, PQ-4366
Uzbekistan Republic Decision of the President No. PQ-4366 dated June 27, 2019

This the situation Russia of the Federation Primorsky country Press service as we can see in the example can Field in terms of 164 673 km³ which ranks 23rd in the country population of in terms of and with 11.9 people /km² which ranks 25th in the country of the area Press 4 people in service activity take goes⁶² Theirs one lawyer to be, of the department legal issues with is engaged. The rest while of the department specialists as activity take they go.

Summary by doing to say. As for the press service employees state in units department in the composition activity conduct department efficiency and direction the future for work will give. Because, the organization or institution the press service activities take going the employee is the head of the country and the country by being given out of consideration use if possible, and from him his own in consideration if he feels that directly he work coefficient all of them that's it looks Both his own successors family for profitable and considerate occupation has been this to the field directs. And this own in turn in the future employees selective in boa opportunity increases and competition surface cause the most good quality personnel Create for the ground creates

I own article through the press service of the department state units the number increase offer I will tell you .

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THE SPECIFIC ORIGINS OF CHINESE HIEROGLYPHS AND GENERAL INFORMATION ABOUT CHINESE HIEROGLYPHS

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Abstract: In this article, we discuss the history of Chinese hieroglyphs, the creation of pictographs and ideograms, the meaning of complex hieroglyphs and foreign words, and how complex hieroglyphs are made, and the phenomenon of joining two hieroglyphs together or similar.

Keywords: *History of Chinese hieroglyphs, pictograms, ideograms, complex hieroglyphs, borrowed words.*

INTRODUCTION

In this article, research is conducted on the unique Chinese hieroglyphs, which are widely studied today in the world. This hieroglyph is a character representing a letter, a sound, a word, and it is a Chinese script. Unlike the writing of other languages of the world, the Chinese writing is composed of a writing expressed in the form of characters, i.e. hieroglyphs. It is known from history that the number of Chinese hieroglyphs is greater than the number of ancient Egyptian hieroglyphs.

The reason for the rapid increase of hieroglyphs in China in recent times is the absence of an alphabet, and they appeared only from the mind looking at things or objects, and these are ideograms, so as a result, Chinese hieroglyphs are still considered as the country with the most hieroglyphs.

LITERATURE ANALYSIS AND METHODS

The objective method of scientific knowledge was used in the research process. General information about Chinese hieroglyphs and their influence on the educational direction were objectively revealed. The period of formation of Chinese hieroglyphs was analyzed from the point of view of history. Bekmurotov I. N., about Chinese writing (hieroglyphs) and J.T. Ziyamammedov, M.A. Turatova- "Chinese Language" books were researched as a logical consistency and main source.

DISCUSSION AND RESULTS

As we all know from history, the number of Chinese hieroglyphs is said to be more than 80,000 in some writings, while in others it is less. Ancient Chinese hieroglyphs are more difficult than modern hieroglyphs and are difficult to

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understand at first glance. Chinese hieroglyphs are written from left to right from top to bottom. Chinese hieroglyphs have not lost their level even now. Many scholars believe that modern Chinese hieroglyphs are easy to learn because of the formation of ancient hieroglyphs over time. At present, we learn about 6 or 7 thousand Chinese hieroglyphs and speak through them. There are 2 types of Chinese hieroglyphs: divided into icons and ideograms. Pictograms are used in the same way not only in ancient Chinese hieroglyphs, but also in modern hieroglyphs. The appearance of pictograms is related to the gradual development of visual writing. The history of Chinese hieroglyphs goes back to "Pictograms". An icon is a picture with a symbol that represents something or an event. To date, such an inscription has been preserved only on 3400-year-old turtle bowls. It is clear from this that there was a writing based on certain standards even at that time. Pictograms have changed to the present time and have become writing symbols. There have been 10 different types of inscriptions from the period of inscriptions written on turtle bowls to the present modern inscriptions. There are 5 main ones, these methods are also divided into 2, and 3 are still used today. 2 are considered ancient writings and can be found only in the art of calligraphy. Pictograms are widely used to represent things and objects that are often used in modern human daily activities. We know that pictograms represent not only human life, but also the universe, plants and animals, labor objects, and objects related to everyday life. For example: As shown in the picture, we call all these icons. Pictograms are mainly engraved on stones, metals, bamboo stalks, various dishes, etc. From them we can see 山 (shān) mountain.




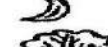


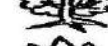











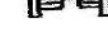


Picture	Evolution	Modern character	English
	→ 	→ 	sun
	→ 	→ 	moon
	→ 	→ 	tree
	→ 	→ 	mountain
	→ 	→ 	water
	→ 	→ 	field
	→ 	→ 	door

Figure 6.1. The evolution of pictographic characters.

The emergence and formation of complex hieroglyphs is explained by the growing number of abstract words and concepts. There was no way to represent new words in writing with simple icons and symbols. The formation of new words was done by adding icons and symbols, and there was a relationship between the meaning of the new word and the meaning of the icon contained in the new word. For example, 木 mù means tree, two together form a complex hieroglyph, forming the

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morpheme 林 lín (forest), three combined into one hieroglyph, which is called "forest" and gives the meaning of shade. Ideograms are complex synthetic symbols, usually consists of two characters, and these characters are semantically related to the meaning of the ideogram. Both parts of an ideogram have a meaning, only the pronunciation of the ideogram does not depend on the pronunciation of its parts. This inconsistency in pronunciation is a characteristic of the ideograms of Chinese hieroglyphs. Being able to form ideograms is very useful when expressing abstract words. Although it was possible to form words through ideograms, in practice it was difficult to remember the newly formed words. This usually required the presence of the main word in a bar of words with similar meaning. Complexities related to such ideograms led to the wide spread of the phonetic method in hieroglyphic writing. In this case, indicators were used to express the difference in the tone of words in writing. For example, the hieroglyph 马 mǎ means "horse", and the nearly related word 妈 mā (with the addition of nǚ (female)) means mother, note the following words : 骂 mǎ—"to scold" (with the sign 口 kǒu—"mouth"); 蚂 mǎ "ant" (with the sign 虫 chōng-"insect"). Thus, complex hieroglyphs were formed from the combination of pictorial signs and index signs from the early hieroglyphic signs. These were ideograms and phonograms. Together, these four types of hieroglyphs make up the Chinese hieroglyphic script, and the initial characters are not used independently, but only in complex hieroglyphs. One of the rules that greatly influenced the development of phonetic writing is the "improper words" (Chinese: 假借 jiǎjiè). The essence of borrowed words was that the old hieroglyphs were used without adding any symbols to express the new word. For example, the pictographic hieroglyph 来 lái, denoting a certain type of wheat, is considered an appropriation for the morpheme "to come". The hieroglyph 豆 dòu, which means a vessel for boiled meat, was used to represent legumes.

Words formed according to this rule include foreign words. However, only the tone of pronunciation is preserved and the hieroglyphs lose their meaning. For example, 蒙古 ménggǔ "Mongolia" (from the hieroglyphs 蒙 méng "dark" and 古 gǔ "ancient"). In this rule, the hieroglyph becomes a pure phonetic character.

CONCLUSION

In conclusion, the Chinese hieroglyphs and their number are so incredible that we only need to open our minds, that is, the sleeping nerves in the brain. Chinese pictographic hieroglyphs are still kept in the museum. Ideographic hieroglyphs are creating new words every day. As the sages say, "there is no future without history", we build a new future by following it.

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АКТУАЛЬНЫЕ ПРОБЛЕМЫ СОВРЕМЕННОЙ ХИМИИ: ВЫЗОВЫ И ПЕРСПЕКТИВЫ

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Аннотация:

Актуальные проблемы современной химии охватывают широкий спектр вызовов, начиная от экологических вопросов и истощения природных ресурсов до разработки новых лекарств и энергетических проблем. В данной статье рассматриваются ключевые проблемы, с которыми сталкиваются химики, а также перспективы и направления их решения.

Ключевые слова: современная химия, экологические проблемы, истощение природных ресурсов, разработка лекарств, энергетические проблемы, нанотехнологии, устойчивое развитие.

Annotation:

Current issues in modern chemistry cover a wide range of challenges, ranging from environmental issues and depletion of natural resources to the development of new drugs and energy problems. This article discusses the key problems faced by chemists, as well as prospects and directions for solving them.

Keywords: modern chemistry, environmental issues, natural resource depletion, drug development, energy issues, nanotechnology, sustainable development.

Химия, как наука, играет важную роль в различных аспектах нашей жизни, от производства лекарств до создания новых материалов и технологий. Однако, как и во многих других областях, существуют определенные проблемы и вызовы, с которыми сталкиваются современные химики. Давайте рассмотрим некоторые из них:

1. Экологические проблемы:

С ростом производства и потребления химических веществ возникают серьезные проблемы с загрязнением окружающей среды. Выбросы токсичных веществ, использование пластика и других не разлагающихся материалов, а также загрязнение воды химическими отходами – все это угрожает экосистемам и здоровью человека. Химики работают над разработкой более экологически чистых методов производства и альтернативных материалов, чтобы снизить негативное воздействие на окружающую среду.

2. Истощение природных ресурсов:

Многие химические реакции требуют использования огромных объемов природных ресурсов, таких как нефть, природные газы и металлы. Истощение этих ресурсов и угроза их исчезновения ставят под угрозу стабильность химической промышленности и обеспечение жизненно важных продуктов. Инновации в области утилизации и возобновляемых источников энергии становятся все более важными для решения этой проблемы.

3. Разработка новых лекарств:

Хотя медицинская химия достигла значительных успехов в создании лекарств, многие заболевания до сих пор остаются неизлечимыми или трудно лечимыми. Проблемы, связанные

с разработкой новых лекарств, включают в себя поиск эффективных методов доставки лекарств к месту действия, преодоление сопротивления микроорганизмов к антибиотикам и разработку индивидуализированных методов лечения для повышения эффективности и снижения побочных эффектов.

4. Энергетические проблемы:

С ростом численности населения и увеличением потребления энергии становится все более важным развитие альтернативных источников энергии и разработка более эффективных методов его хранения и передачи. Химики играют ключевую роль в разработке новых материалов для солнечных батарей, топливных элементов, а также катализаторов для процессов водородной энергетики.

5. Нанотехнологии:

Нанотехнологии представляют собой огромный потенциал для развития новых материалов и технологий, но при этом возникают такие проблемы, как безопасность и этические аспекты их использования. Исследования в области нанотехнологий должны учитывать возможные негативные последствия для здоровья человека и окружающей среды.

В заключение, современная химия сталкивается с рядом сложных проблем, которые требуют комплексного и многостороннего подхода для их решения. Несмотря на вызовы, с которыми мы сталкиваемся, развитие химической науки и технологии продолжает давать нам надежду на создание более устойчивого и благополучного будущего для всех.

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Abstract. Poverty is a pervasive issue that continues to plague societies worldwide, affecting millions of individuals and families. It is a complex phenomenon with multifaceted causes, including economic, social, and environmental factors. The prevalence of poverty has far-reaching implications, impacting various aspects of people's lives, such as access to education, healthcare, and opportunities for upward mobility. Despite efforts from governments, NGOs, and international organizations to address poverty through policies and programs, the problem persists, highlighting the need for a more comprehensive and sustainable approach. In this research, we will delve into the root causes of poverty, examine the impact it has on individuals and societies, and explore potential solutions to alleviate poverty and create a more equitable world. By understanding the complexities of poverty and its consequences, we can work towards meaningful change and improve the quality of life for those affected by this global challenge.

Keywords: poverty, economic factors, healthcare, World Health Organization, income inequality.

Scholars and policymakers widely debate the definition of poverty due to its complex and multifaceted nature. While poverty is commonly understood as a lack of material resources necessary for basic human needs such as food, shelter, and clothing, this definition fails to capture the full extent of poverty's reach. Beyond economic indicators, poverty also encompasses social and political dimensions, manifesting in exclusion from societal participation and limited access to education and healthcare. Additionally, poverty is often intergenerational, with systemic barriers perpetuating cycles of disadvantage within marginalized communities (Peter Edward et al., 2019-04-23). Thus, a comprehensive definition of poverty must consider not only income levels but also the underlying structural inequalities that contribute to its persistence. By adopting a holistic approach to understanding poverty, policymakers can better address its root causes and implement effective solutions to alleviate hardship for vulnerable populations.

Furthermore, addressing poverty on a global scale is crucial for promoting economic growth and stability worldwide. Poverty not only affects individuals and communities, but it also has broader implications for the global economy. Research has shown that poverty leads to decreased productivity, lower levels of education and skills, and limited access to markets, all of which hinder economic progress. By alleviating poverty and providing opportunities for those in need, countries can unlock the potential of millions of people who would otherwise be trapped in a cycle of poverty. This, in turn, can lead to increased consumer spending, higher demand for goods and services, and ultimately, a more prosperous global economy. Therefore, investing in poverty reduction efforts is not only a matter of social justice but also a strategic decision to foster sustainable economic development (World Bank Group et al., 2015).

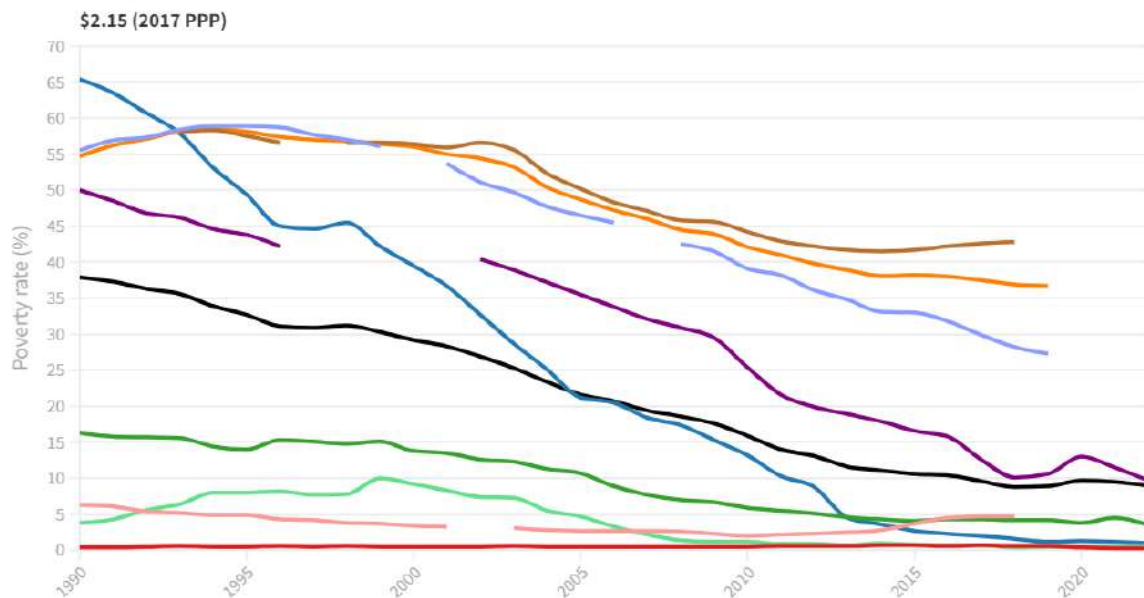
Furthermore, various factors contribute to the pervasive issue of poverty on a global scale. One key component is the lack of access to quality education, which hinders individuals from

acquiring the necessary skills to secure stable employment. In many developing countries, educational opportunities are limited, leading to a cycle of generational poverty. Additionally, inadequate healthcare services contribute to poverty by perpetuating illness and reducing overall productivity. Poor infrastructure, including limited access to clean water and sanitation facilities, also plays a significant role in perpetuating poverty. Furthermore, political instability and corruption can hinder economic growth and exacerbate wealth inequality. Addressing these multifaceted issues requires a comprehensive approach that considers social, economic, and political factors in order to effectively combat poverty. Without addressing these underlying factors, poverty will continue to persist and impact millions of individuals worldwide (National Research Council et al., 2013-04-12).

Furthermore, economic factors play a crucial role in perpetuating poverty on a global scale. High levels of inequality, limited access to education and healthcare, and inadequate job opportunities all contribute to the prevalence of poverty. In many developing countries, economic systems prioritize the wealthy elite, leaving the majority of the population struggling to make ends meet. According to, income inequality is a key driver of poverty, as those at the bottom of the economic ladder are unable to access the resources and opportunities needed to improve their circumstances. Moreover, limited access to education and healthcare further exacerbates the cycle of poverty, as individuals are unable to acquire the skills and knowledge necessary to secure higher-paying jobs. As such, addressing economic disparities and creating more inclusive economic systems are essential steps in combating poverty worldwide.

1Figure: Global and regional poverty estimates, 1990 - 2022

■ World
 ■ East Asia & Pacific
 ■ Europe & Central Asia
 ■ Latin America & Caribbean
 ■ Middle East & North Africa
 ■ Other High Income
 ■ South Asia
 ■ Sub-Saharan Africa
 ■ Eastern & Southern Africa
 ■ Western & Central Africa



Source: [Poverty and Inequality Platform](#)

Note: Poverty estimates are reported only for years with sufficient survey data coverage.

Moreover, social factors play a significant role in perpetuating poverty worldwide. Discrimination and inequality based on race, gender, ethnicity, religion, and other social markers can limit access to education, employment, healthcare, and other resources necessary for individuals to lift themselves out of poverty. Factors such as social exclusion, stigma, and limited

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social networks can further isolate individuals and communities, preventing them from breaking the cycle of poverty. Additionally, societal attitudes and cultural norms can create barriers for marginalized groups, hindering their ability to fully participate in economic and social life. Addressing these social factors requires not only policy changes, but also shifts in societal attitudes and behaviors towards greater inclusivity and equality. By recognizing and addressing these social determinants of poverty, societies can work towards creating a more equitable and just world for all individuals. (Serena Cosgrove et al., 2021-08-29)

One of the most significant consequences of poverty is its impact on health. Individuals living in poverty often lack access to adequate healthcare services, leading to higher rates of preventable diseases and lower life expectancies. Malnutrition is a common issue among those facing financial hardship, further compromising immune systems and overall well-being. Additionally, the stress of living in poverty can manifest physically, increasing the likelihood of mental health disorders such as depression and anxiety. (Ann Harrison, 2007-11-01) Furthermore, the cycle of poverty can perpetuate across generations, as children born into impoverished environments are more likely to experience developmental delays and struggle academically. Addressing the consequences of poverty on health is crucial in combating the larger issue of economic inequality and social injustice.

Furthermore, the problem of poverty has far-reaching health implications that cannot be ignored. Individuals living in poverty are more likely to experience poor health outcomes due to a lack of access to adequate healthcare services, nutritious food, and safe living conditions. Studies have shown that poverty is closely associated with chronic illnesses such as diabetes, heart disease, and mental health disorders. Additionally, poverty often leads to malnutrition, which can have long-term effects on physical and cognitive development, particularly in children (WHO Regional Office Europe, 2003). The stress of living in poverty can also contribute to a higher prevalence of mental health issues, creating a cycle of poor health that is difficult to break. Addressing the issue of poverty is essential not only for socio-economic reasons but also for improving overall public health outcomes.

Another significant issue stemming from poverty is the numerous educational challenges that individuals in impoverished communities face. Limited access to quality education facilities, lack of resources, and inadequate teacher training all contribute to the perpetuation of poverty[1]. Children from low-income families often attend schools that lack proper infrastructure and are understaffed, leading to a substandard education that fails to equip them with the necessary skills for future success[2]. Furthermore, the cycle of poverty can hinder students' academic performance, as they may have to prioritize working to support their families over attending school regularly. Addressing these educational challenges is crucial in breaking the cycle of poverty, as a quality education can empower individuals to seek better opportunities and improve their socio-economic status in the long run[3]. Overall, poverty presents a multifaceted problem that requires comprehensive strategies to combat its wide-ranging effects. By addressing issues such as lack of access to healthcare, limited economic opportunities, and educational challenges, societies can work towards reducing poverty and improving the well-being of their populations[4].

In conclusion, the problem of poverty remains a pressing issue that requires immediate attention on a global scale. As discussed throughout this essay, poverty is a complex phenomenon influenced by various factors including economic, social, and political conditions. Efforts to alleviate poverty must therefore be multifaceted, addressing not only financial disparities but also

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structural inequalities and systemic barriers. It is evident that simply providing financial aid or temporary solutions is insufficient in creating sustainable change. Governments, NGOs, and international organizations must work together to implement long-term strategies that focus on education, healthcare, employment opportunities, and social protection programs. By prioritizing the needs of the most vulnerable populations and promoting inclusive development policies, we can begin to address the root causes of poverty and ultimately pave the way for a more prosperous and equitable world. Only through concerted and collaborative efforts can we hope to effectively combat poverty and build a more just society for all (Stephen C. Smith, 2015-03-17).

In conclusion, a significant challenge in combating poverty globally is the lack of access to education and healthcare, perpetuating a cycle of deprivation for many individuals. This issue is compounded by political corruption and ineffective government policies that fail to address the root causes of poverty. Furthermore, the unequal distribution of wealth and resources both within and between countries exacerbates the problem, leading to widespread disparities in living standards. Despite efforts to alleviate poverty through various aid programs and initiatives, progress remains slow due to systemic barriers and structural inequalities. It is imperative for governments, non-governmental organizations, and international institutions to work together to implement holistic solutions that prioritize inclusive economic growth, social welfare programs, and sustainable development strategies. Without concerted action on multiple fronts, the problem of poverty will continue to persist, undermining global stability and prosperity. Thus, a comprehensive approach is necessary to address the multifaceted nature of poverty and create lasting change in the world (BusinessNews Publishing et al., 2017-01-30).

It is evident that the issue of poverty remains a persistent challenge across the globe, affecting millions of individuals and communities on a daily basis. As research and data continue to shed light on the severity of this problem, it is imperative that action be taken to address the root causes of poverty and implement effective solutions. In order to bring about meaningful change, governments, NGOs, and individuals must collaborate in developing comprehensive strategies that encompass economic, social, and political dimensions. This includes investing in education, healthcare, infrastructure, and job creation initiatives that empower marginalized populations and promote sustainable development. As stakeholders in society, we have a moral responsibility to advocate for policies that prioritize poverty alleviation and support those in need. By engaging in collective action and leveraging resources effectively, we can work towards a future where poverty is no longer a barrier to human flourishing.

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PROSPECTS FOR THE DEVELOPMENT OF THE BRICS COUNTRIES

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Abstract. The BRICS countries, Brazil, Russia, India, China, and South Africa, have emerged as key players in the global economy over the past two decades. This group of nations represents over 40% of the world's population and accounts for a significant portion of global GDP. The rise of the BRICS countries has challenged traditional Western economic dominance and has led to increased cooperation and coordination among these diverse nations. As they continue to grow and develop, the prospects for the BRICS countries are immense. However, they also face numerous challenges, such as income inequality, political instability, and environmental degradation. In this essay, we will explore the potential opportunities and obstacles that the BRICS countries face in their path towards sustainable development and economic prosperity.

Keywords: BRICS, rapid economic growth, financial infrastructure, trade cooperation, political influence.

In the global landscape, the BRICS countries—Brazil, Russia, India, China, and South Africa—have emerged as significant players in the realms of economics, politics, and international relations. Formed in 2009, this grouping represents a coalition of major emerging economies that share common goals of advancing their development agendas and increasing their influence on the global stage. BRICS countries collectively account for a significant portion of the world's population, land area, and GDP. These nations are characterized by their rapid economic growth, expanding middle class, and increasing political clout. Over the years, BRICS countries have collaborated on various initiatives and projects to leverage their collective strength and promote mutual cooperation. Despite facing challenges and differences in ideologies, the BRICS countries have continued to deepen their ties and assert themselves as key players in shaping the future of the international order (Bertelsmann Stiftung, 2013-11-01).

The economic prospects for the BRICS countries are intricately linked to their efforts towards creating a more integrated and resilient financial infrastructure. As highlighted in recent studies, the formation of a supranational currency and payment system within the BRICS alliance represents a significant step towards achieving greater economic cohesion among member nations (G. A. Bunich, 2024). Despite initial challenges, the commitment to establish a single payment space and currency by 2025 underscores the collective determination to strengthen economic ties and reduce dependence on traditional financial mechanisms. Furthermore, the success of Russia's participation in international alliances like the EAEU and BRICS, particularly in the pharmaceutical market, showcases the tangible benefits of strategic partnerships for market development and scientific advancements (Yulia A. Zurnadjyants et al., 2024). These findings emphasize the strategic importance of collaboration within economic alliances for fostering growth and innovation in the BRICS economies, indicating promising prospects for future economic development and sustainability within the group.

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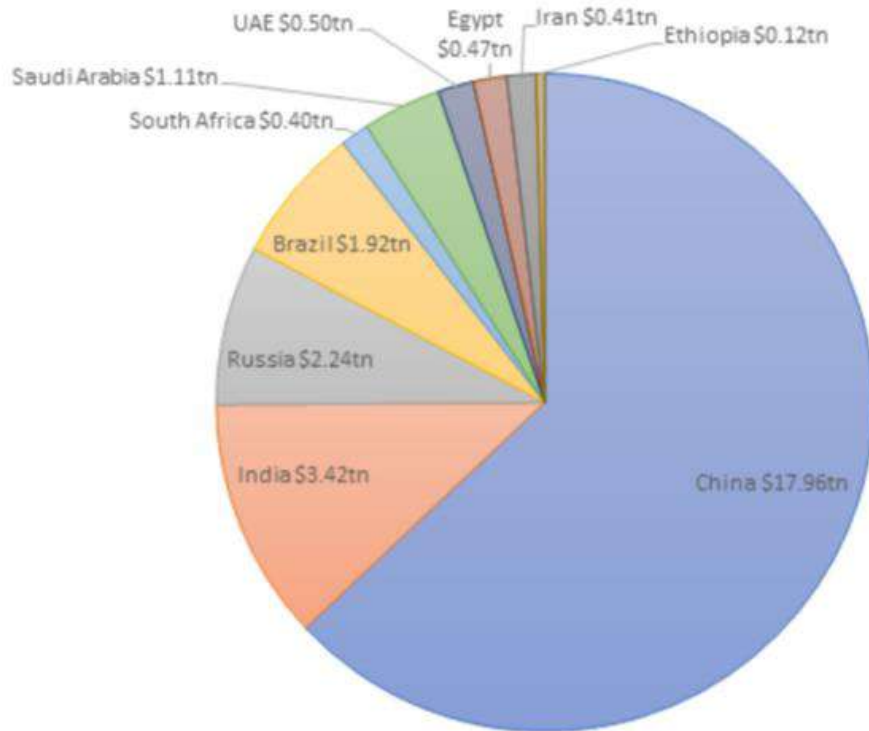
The economic growth and development strategies of the BRICS countries represent a complex interplay of macroeconomic infrastructure, supply chain efficiency, governance, and public administration reforms. As evidenced by (Rinto Alexandro et al., 2024), the significance of macroeconomic infrastructure in fostering supply chain smoothness and ultimately driving economic growth cannot be understated. However, the nuanced dynamics of economic growth within the BRICS context, as indicated by (Rinto Alexandro et al., 2024), reveal the need for tailored strategies that account for each nation's unique challenges and opportunities. Moreover, the challenges faced by BRICS countries in governance and public administration, as highlighted in , underscore the importance of comprehensive reforms to address issues such as corruption, inefficiencies, and uneven regional development. Therefore, a holistic approach that integrates infrastructure development, supply chain optimization, and effective governance reforms is vital for sustaining economic growth and advancing the development prospects of the BRICS nations.

The BRICS countries, Brazil, Russia, India, China, and South Africa, hold significant political and geopolitical implications both individually and collectively. As emerging global powers, these nations have the potential to reshape the existing world order and international relations. Individually, each BRICS member wields substantial political influence due to their economic might and strategic importance. For example, China's Belt and Road Initiative and India's role in South Asian diplomacy demonstrate their ambition to expand their spheres of influence. Collectively, the BRICS countries form a formidable bloc that can challenge the dominance of Western powers in global governance institutions like the UN and IMF. However, internal differences and diverging interests among the BRICS nations can hinder their efforts to present a united front on key geopolitical issues. Therefore, navigating these complexities, while leveraging their collective economic strength will be crucial for the BRICS countries to assert themselves on the global stage.

The influence of the BRICS countries on global governance and international relations is a topic of increasing importance in contemporary discourse. As emerging powers with growing economic strength and political influence, Brazil, Russia, India, China, and South Africa have collectively sought to challenge the existing global order dominated by Western powers. Through initiatives such as the New Development Bank and the Contingent Reserve Arrangement, the BRICS countries have demonstrated a desire to establish alternative institutions that reflect their interests and values. These efforts have the potential to reshape how global governance operates, potentially leading to a more multipolar world order. Furthermore, the BRICS nations have actively engaged in various international forums and negotiations, advocating for reforms to institutions such as the United Nations Security Council to better reflect the realities of the twenty-first century . This proactive stance highlights the BRICS countries' commitment to fostering a more equitable and inclusive international system that accommodates the interests of diverse actors on the global stage (Leonid Grigoryev et al., 2019-09-03).

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Expanded BRICS GDP in trillions of USD; Source: World Bank

While the collective might of the BRICS economies is beyond question, the groups leverage on the international stage is highly reliant on the \$17.9 trillion Chinese economy, which accounts for 62.9% of the groups economic output. This dependency is problematic for a number of reasons, not least because it makes China disproportionately powerful within the group itself, but interrelated to this point is bilateral power dynamic between China and India. For example, although India has the second largest BRICS economy, China's economy is five times larger in GDP terms; and while the BRICS may talk about 'sovereign equality' and 'mutual respect,' ultimately 'money talks' giving China greater leverage and scope to implement its world view and interpretation of any recalibrated global governance system.

The conclusion drawn from the analysis of the digital technology integration in criminal proceedings and the expansion of e-commerce in the BRICS countries reveals a dual potential for development. The utilization of digital technology within criminal proceedings, as highlighted by (G. Rusman et al., 2023), presents an opportunity for increased access to justice, procedural efficiency, and effective investigations, ultimately leading to fair verdicts across BRICS member states. Moreover, the emergence and growth of e-commerce, as emphasized in (S. A. Gusarova et al., 2022), signify a collaborative effort among the BRICS nations to stimulate economic growth post-pandemic. While China stands out as a leader in the e-commerce market, the study brings attention to the untapped potential in countries like Russia despite their significant internet user base. Therefore, the prospects for further advancements in digital technology and e-commerce within the BRICS countries are promising, with a need to address existing challenges and foster continued cooperation to drive economic progress within the group.

In light of the comprehensive analysis presented in this study, several key findings emerge. Firstly, the BRICS countries have made significant progress in terms of economic growth, trade cooperation, and political alignment over the past decade. However, challenges such as income inequality, corruption, and political instability persist in varying degrees across member states.

Looking ahead, it is imperative for these nations to focus on addressing these internal issues while also leveraging their collective strength to navigate the changing global landscape. Collaboration in sectors such as technology, infrastructure, and sustainable development will be crucial for sustained growth and competitiveness on the world stage. Additionally, fostering closer ties with other emerging economies and forging partnerships with established global players will enhance the BRICS countries' position as key players in the international arena. Through strategic planning and concerted efforts, the future outlook for the BRICS countries appears promising, with potential for continued growth and influence in the years to come.

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Abstract. English for Specific Purposes (ESP) has changed dramatically in the last few years, and creative teaching strategies are now essential to raising student engagement and improving results. This article examines a number of cutting-edge techniques used in ESP training, with a focus on the use of technology, learner-centered strategies, and real materials. We demonstrate the efficacy of these approaches in addressing the unique requirements of ESP learners with an extensive analysis of recent research and real-world experiences. The essay ends with suggestions for teachers who want to use these tactics in their classrooms.

Keywords: English for Specific Purposes (ESP), conventional approaches, technology integration, learner-centered approaches, authentic materials, collaborative learning, project-based learning.

Introduction. English for Specific Purposes (ESP) has become well-known in the field of teaching English as a second language because of its focused approach to fulfilling the unique needs of students in a variety of academic and professional settings. The practical language skills that students need in their particular fields—such as commerce, engineering, medical, or tourism—are the main focus of ESP, as opposed to General English (Hutchinson & Waters, 1987). Globalization has increased demand for ESP courses because a workforce fluent in English is required for professional purposes.

Conventional ESP teaching approaches frequently depended on textbook-based training, which is helpful but might not adequately meet the unique and changing demands of today's students (Basturkmen, 2010). As a result, teachers are looking for creative ways to improve ESP students' learning experiences and results. This paper looks at these novel approaches, evaluating their efficacy and offering useful advice for putting them into practice.

Methods. This article examines case studies and recent literature to investigate cutting-edge approaches of teaching ESP students. It incorporates both qualitative and quantitative research findings. The methods examined include:

1. **Technology Integration:** Developing interactive and captivating learning experiences through the use of digital tools and platforms (Warschauer, 2000).
2. **Learner-Centered Approaches:** These methods create individualized training by concentrating on the requirements and preferences of the students (Belcher, 2009).
3. **Authentic Materials:** Including authentic resources pertinent to the fields of study of the students (Dudley-Evans & St John, 1998).
4. **Collaborative Learning:** Promoting peer-to-peer interactions and group activities to improve learning.
5. **Project-Based Learning:** Assigning students tasks that call for using their linguistic abilities in authentic contexts.

Results and Discussion.

Technology Integration. The learning environment has changed as a result of the integration of technology into ESP instruction, becoming more dynamic and interesting. It has

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been demonstrated that the use of digital technologies, including as virtual reality (VR) environments, online collaboration platforms, and language learning applications, increases students' motivation and engagement. (Warschauer, 2000). For instance, Virtual reality (VR) can replicate professional settings where students can practice language skills particular to their fields. Research has shown that ESP learners' confidence and language competency can be boosted by technology-assisted instruction.

Learner-Centered Approaches

In ESP education, it has been successful to move the emphasis from teacher-led instruction to learner-centered approaches. This approach entails identifying the particular requirements and objectives of every learner and adjusting the curriculum accordingly (Belcher, 2009). Teachers can give focused help, leading to more effective learning outcomes, by using strategies including needs analysis, personalized learning plans, and adaptive learning technologies.

Authentic Materials

Authentic resources, such as industry reports, professional articles, and real-world case studies, help close the knowledge gap between classroom instruction and real-world application. (Dudley-Evans & St John, 1998). Learners' ability to use English effectively in particular settings is improved when they are exposed to authentic materials because they mimic the language and scenarios they would encounter in their professional lives. According to research, students who interact with genuine objects improve their language proficiency and get ready for increasingly difficult tasks in the real world.

Collaborative Learning

Collaborative learning techniques, such as group projects, peer reviews, and conversations, help students feel supported and part of a community. These exercises foster critical thinking, problem-solving, and communication abilities. Because collaborative learning mimics the collaborative aspect of most professional environments, it has been related to greater language competency and higher student satisfaction.

Project-Based Learning

Project-based learning (PBL) entails giving students challenging assignments that call on them to use their language proficiency to find solutions to actual issues. PBL promotes critical thinking, practical application of information, and active learning. Projects in ESP settings can be customized to address issues unique to the business, giving students invaluable practical experience (Hutchinson & Waters, 1987). PBL improves student engagement and language skill retention, according to studies.

Conclusion. In terms of learner engagement, motivation, and outcomes, ESP instruction that incorporates novel teaching methods offers substantial advantages. The unique demands of ESP learners have been successfully met by a variety of instructional strategies, including project-based learning, collaborative learning, authentic materials, learner-centered approaches, and technology integration. Teachers are urged to use these strategies in their lessons to improve student learning and better equip students for their future academic and professional endeavors.

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Abstract. Reading is a vital ability required for academic achievement and lifetime learning. This article looks at many methods for efficiently improving learners' reading skills. By analyzing current literature and incorporating empirical findings, the study identifies essential techniques such as phonics instruction, vocabulary development, reading comprehension tactics, and the use of technology. The findings emphasize the necessity of a varied approach to reading education that is adapted to the needs of individual students.

Keywords: Reading skills, phonics instruction, vocabulary development, reading comprehension, technology in reading, literacy education

Introduction. Reading is an essential ability that supports academic progress and personal development. Despite its importance, many students struggle with reading, which can impede their overall academic success. Improving reading skills entails not only decoding words, but also boosting comprehension, fluency, and critical thinking abilities (Snow, Burns, & Griffin, 1998). This article investigates successful ways to improve reading skills, drawing on both conventional and modern educational strategies.

Methods. The methods section is broken into numerous subsections, each describing a distinct strategy to developing reading skills. To discover effective solutions, the study conducts a literature review as well as a qualitative investigation of educational practices.

Phonics Instruction

Phonics training focuses on the relationship between letters and their associated sounds. This method aids learners in decoding words, resulting in greater reading fluency (Ehri, Nunes, Willows, Schuster, Yaghoub-Zadeh, & Shanahan, 2001). Early readers and those who struggle with reading benefit the most from phonics education. Research has demonstrated that systematic phonics training can considerably improve children's reading abilities, making it an essential component of early literacy education.

Vocabulary Development

A large vocabulary is necessary for reading comprehension. Direct instruction, word games, and reading a variety of literature are all effective vocabulary building strategies. Exposure to a diverse set of terms in various situations aids learners' comprehension and application of new vocabulary (Beck, McKeown, and Kucan, 2002). Furthermore, including vocabulary training into daily reading activities can offer learners with ongoing exposure to new words, reinforcing their learning.

Reading Comprehension Strategies

Reading comprehension entails comprehending and interpreting text. Effective tactics include teaching students how to make predictions, synthesize material, ask questions, and clear up any confusion. Guided reading sessions and the use of visual organizers can also help improve comprehension (Duke & Pearson, 2002). By actively participating in the text, students can improve their capacity to extract meaning and retain knowledge.

Use of Technology

Technology provides distinctive ways for enhancing reading abilities. E-books, educational software, and online reading programs provide interactive and engaging venues for students. These tools can personalize learning experiences, track progress, and provide immediate feedback (Kamil, Intrator, & Kim, 2000). The use of technology in reading education can accommodate different learning styles, making reading more accessible and pleasant.

Interactive Read-Alouds

Interactive read-alouds involve teachers reading texts aloud while engaging students in discussions about the content. This method improves listening skills, vocabulary, and comprehension. Teachers can help students think critically about the text by asking questions and engaging in discourse, which improves their understanding and analytical skills.

Reciprocal Teaching

Reciprocal teaching is a collaborative learning technique in which students alternate leading discussions about a text. This strategy encourages students to employ four important reading strategies: prediction, questioning, clarification, and summarizing. Research has demonstrated that reciprocal teaching enhances reading comprehension and fosters a deeper grasp of texts (Palincsar & Brown, 1984).

Results and Discussion

Effectiveness of Phonics Instruction

Phonics education has been demonstrated to dramatically improve reading skills, particularly in young students and those who struggle to read. Ehri et al. (2001) found that systematic phonics education improves reading accuracy, fluency, and comprehension. Teachers should incorporate phonics into their early reading programs to establish a solid basis for future reading achievement. Furthermore, continuous phonics practice might benefit older pupils and individuals who may still struggle with decoding skills.

Impact of Vocabulary Development

Vocabulary development is directly related to better reading comprehension. Beck, McKeown, and Kucan (2002) demonstrated that explicit vocabulary education improves knowledge and recall of new words. Teachers should include vocabulary-building exercises in their lessons, such as word maps, flashcards, and contextual reading. Furthermore, encouraging independent reading of diverse texts can expose learners to new vocabulary in a variety of settings, improving their overall language ability.

Reading Comprehension Strategies in Practice

Teaching reading comprehension skills has a significant impact on students' capacity to comprehend and evaluate literature. Duke and Pearson (2002) discovered that children who were taught comprehension strategies outperformed their peers on reading examinations. Educators should use a number of tactics, including think-alouds and reciprocal teaching, to help children become active readers. Furthermore, including these tactics into regular classroom activities might help students internalize and use them independently.

Advantages of Technology Integration

Technology has the power to completely change how reading is taught. The advantages of digital tools in delivering personalized learning experiences and raising student engagement were emphasized by Kamil, Intrator, and Kim (2000). Reading can be made more accessible and pleasurable with the use of interactive e-books, audiobooks, and online reading platforms that can accommodate a variety of learning requirements and styles. Technology can also provide kids with

personalized learning routes and instant feedback, enabling them to effectively tackle their unique reading difficulties.

Benefits of Interactive Read-Alouds

It has been demonstrated that interactive read-alouds enhance critical thinking and listening comprehension abilities. Teachers can assist students in gaining a deeper comprehension and more sophisticated analytical abilities by including them in debates about the material. By making the process entertaining and engaging, this method also fosters a love of reading. Interactive read-alouds are a flexible teaching tool because they may be customized to meet the interests and reading levels of various students.

Effectiveness of Reciprocal Teaching

Collaborative learning and active learning are promoted in students through reciprocal teaching. Palincsar and Brown (1984) discovered that by encouraging students to apply critical skills including anticipating, questioning, clarifying, and summarizing, this approach enhances reading comprehension. Students improve their critical thinking abilities and gain a deeper comprehension of the text by assuming the role of the teacher. Additionally, reciprocal teaching can establish an enjoyable environment for learning where students feel comfortable sharing their thoughts and picking up tips from one another.

Holistic Approach to Reading Instruction

A holistic approach for raising reading proficiency is a comprehensive one that incorporates technological integration, vocabulary growth, phonics, and comprehension techniques. Every approach tackles a distinct facet of reading, resulting in a thorough framework that caters to a wide range of learners. For instance, vocabulary growth enhances comprehension, technology offers creative ways to interact with literature, and phonics training is essential for decoding. Teachers can design a balanced reading curriculum that fulfills the requirements of every student by incorporating these techniques.

Conclusion. Improving reading skills requires a multifaceted approach that incorporates various instructional methods. Phonics instruction, vocabulary development, reading comprehension strategies, and the use of technology each play a vital role in enhancing reading proficiency. Educators should adopt a holistic strategy, tailoring their methods to meet the individual needs of their students. Future research should continue to explore innovative approaches and the integration of emerging technologies to further support reading development. By adopting a comprehensive approach to reading instruction, educators can help students develop the skills they need to succeed academically and in their personal lives.

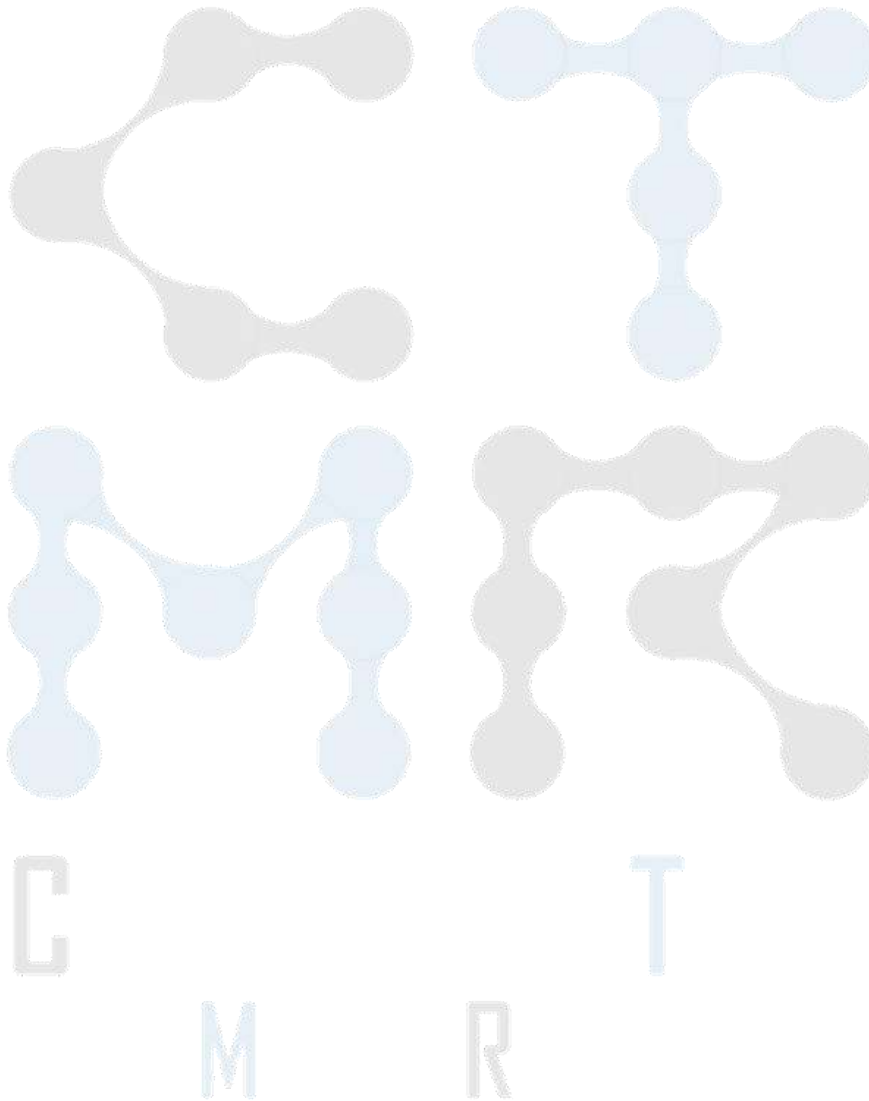
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PRODUCTIVITY INDICATORS OF BEE FAMILIES IN INTENSIVE ORCHARDS

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Abstract: The article presents data on the productivity of bee families in experimental groups during pollination of flowers on cherry and apple trees in intensive orchards, in the section of years.

Keywords: intensive, orchard, cherry, apple, bee, Gulshira, frame-net, offspring, larva.

Relevance of the topic

The role of intensive orchards in increasing bee family productivity is considered very important. To this end, pollination of fruit tree flowers in intensive orchards by bee families with the help of bees starting from early spring is of great importance. [4.6]

Based on the conducted experiments, we studied the role of cherry and apple blossom in intensive orchards located in Bulungur and Jomboy districts of Samarkand region in increasing the productivity of bee families with simultaneous pollination by bees and increasing fruit yield.[2.7]

As soon as the fruit (cherries, apples) in intensive orchards blossom, we aim to move the bee families elsewhere, to areas with lush blossom. Since the flowering of fruit trees in intensive orchards is seasonal, the season 13.3 aphids from flowering plants around the orchard will not be sufficient to produce bee families and honey product. For this purpose, bee families were moved to other areas, namely to bedazoras in Kokdala district of Kashkadarya province after their withdrawal from the orchard, then to yaktiktars in Chirakchi district and in the last months to cotton fields in Keseb district. The daily averages of the established control scale in bee families are given in Table 1 below.

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Table 5.1.1 Daily values of control weights placed on bee families under intensive horticultural conditions (2021-2023)

Years	Groups	INDICATIONS											
		Samar kand region (before moving to the garden)			Samar kand region (after relocation to the park)				In the kashkadarya region (in bedasor, yantakzor and cotton fields)				
		The amount of offspring in the nest (frame)	Family power (kg)	The arrival of daily aphids, kg	Number of frames in the slot (PCs)	The amount of offspring in the nest (frame)	Family power (kg)	Daily aphids arrival, kg	Number of frames per slot (units)	Количество потомства в гнезде (рамка)	Family power (kg)	Daily aphids arrival, kg	
2021	Control	1,5±0,2	0,9±0,02	0,140±0,12	6±1,0	3,5±0,50	1,5±0,28	0,300±0,04	8±1,0	5±0,5	2,10±0,20	1,210±0,27	
	I experimental group	1,5±0,1	0,85±0,03	0,140±0,12	8±2,0	6±0,75	2,18±0,40	0,855±0,05	11±2,0	8±0,75	2,90±0,50	1,450±0,38	
	II experimental group	1,5±0,3	0,89±0,02	0,140±0,11	7±1,0	5,5±0,50	2,0±0,35	0,800±0,07	12±3,0	7,5±0,5	3,30±0,75	1,370±0,45	
2022	Control	1,5±0,3	0,95±0,01	0,140±0,13	6±1,0	3±0,25	1,55±0,25	0,340±0,06	9±1,0	5,5±0,5	2,25±0,25	1,280±0,30	
	I experimental group	1,5±0,2	1,0±0,01	0,145±0,15	8±2,0	7±0,75	2,25±0,75	0,900±0,05	14±3,0	9±0,5	3,80±0,85	1,530±0,90	
	II experimental group	1,5±0,1	0,9±0,02	0,140±0,12	8±2,0	6,5±0,25	2,20±0,37	0,850±0,04	13±2,0	8,5±0,75	3,60±0,55	1,410±0,45	
2023	Control	1,5±0,1	0,9±0,02	0,140±0,11	6±2,0	3,5±0,47	1,6±0,25	0,390±0,11	9±2,0	5,5±0,5	2,30±0,45	1,290±0,65	
	I experimental group	1,5±0,2	1,10±0,03	0,150±0,15	8±1,0	7±0,50	2,30±0,50	0,970±0,06	14±3,0	9±1,0	3,85±0,90	1,500±0,70	
	II experimental group	1,5±0,2	1,0±0,01	0,145±0,14	8±2,0	7±0,25	2,28±0,40	0,910±0,03	13±2,0	8,5±0,75	3,75±0,75	1,480±0,8	
Medial	Control	1,5±0,2	0,92±0,03	0,140±0,12	6±1,0	3,36±0,4	1,55±0,26	0,340±0,07	8,6±1,0	5,33±0,8	2,16±0,3	1,260±0,4	
	I experimental group	1,5±0,15	0,98±0,02	0,145±0,14	8±1,5	6,66±0,66	2,18±0,55	0,910±0,05	13±2,6	8,6±0,75	3,52±0,75	1,493±0,6	
	II experimental group	1,5±0,2	0,93±0,01	0,142±0,12	7,6±1,5	6,33±0,3	2,16±0,37	0,850±0,04	12,6±2,6	8,16±1,0	3,55±1,02	1,420±0,85	

As can be seen from the data in Table 5.1.1, in Samarkand oblast, the daily number of aphids was the same in almost all 30 families allocated for research before transplanting to intensive gardens. However, after the experimental group moved their families to intensive gardens, the gap with the control group increased significantly. To determine these indicators, we examined the number of frames in bee families before moving bee families to the garden and after removing them from the garden, the number of offspring in them, family vigour and daily aphid arrival rates. In particular, in intensive orchards of Samarkand region bee families on average brought 0.910 kg of sakura flowers per day in the I experimental group and 0.850 kg of apple blossoms in the II experimental group, while bee families of the control group, which received artificial feeds and flowers of different plants under economic conditions during the same period, brought 0.340 kg of flowers, i.e. 0.570 vs. experimental group I kg. ga, 0.520 vs. experimental group II kg.ga shows that there was little.

In the experimental groups receiving intensive care in the gardens, there was an increase in gulshire yield, as well as in the number of hives of the family and the number of offspring. In particular, in the I experimental group, compared to the families before transplanting to the garden, the number of frames in the nest after removal from the garden increased by 4 and the number of offspring by 5.16 frames, whereas in the II experimental group these indicators were 3.66 and 4.83, respectively. During this period in the control group families under farm conditions, these indicators decreased respectively 2 times compared to the I experimental group, 2.77 times compared to the I experimental group ($n > 0.999$), 1.83 times compared to the II experimental group and 2.97 times compared to the III experimental group ($n > 0.999$). The growth of indicators in experimental groups was caused by abundant flowering of fruit trees in intensive orchards.

After resettlement of bee families of control and experimental groups to Kashkadarya province in 2021, the number of frames in the hive was 8 in the control group, 11 in the experimental group I and 12 in the experimental group II ($P > 0.99$). In 2022, the number of offspring in the hive was 9 frames in experimental group I and 8.5 frames in experimental group II, which were 3.5 and 3 frames more than the control group, respectively ($P > 0.999$). 2023 family strength in hives in experimental group I averaged 3.85 kg and in experimental group II- 3.75 kg. kg.ni organised. This index was 67.4% and 63% higher than in the control group. In 2021-2023, the average daily gain of aphid bees in Bedazor, tickle and cotton fields of Kashkadarya province was 1.493 kg in I experimental group and 1.420 kg in II experimental group kg.ni organised. This indicator is 0.233 in the control group compared to the I experimental group kg.ga, and compared to the II experimental group 0.16 kg.ga became less. Higher indexes of families in experimental groups after resettlement of bee families to Kashkadarya region were caused by intensive use of fruit orchards rich in gulshir and pollen in the period after their exit from wintering.

Family productivity, i.e. honey production, after resettlement of bee families to Kashkadarya province was also studied. This is summarised in Table 5.1.2 below.

Table 5.1.2

Productivity indicators of bee families in the fields of plants rich in gulshira of the kashkadarya region

Years	Groups	Honey productivity, kg											
		lim	X±Sx	Cv, %	lim	X±Sx	Cv, %	lim	X±Sx	Cv, %			
2021	Control										In the blueberry district, alfalfa plant, may	4,9-5,74	5,32±0,2
	I experimental group	5,95-6,91	6,43±0,25	3,80	13,9-14,3	14,11±1,25	6,54	21,1-22,06	21,58±2,43	7,54			
	II experimental group	5,82-6,42	6,12±0,28	3,90	12,9-14,0	13,48±1,36	5,42	20,4-21,5	20,95±1,68	6,42			
2022	Control	5,89-7,23	6,56±0,71	3,70	12,8-13,6	13,2±1,14	4,32	20,9-22,0	21,45±1,33	5,38			
	I experimental group	6,27-7,63	6,95±0,67	3,41	13,7-14,6	14,15±0,6	6,15	22,8-24,54	23,67±2,16	7,15			
	II experimental group	6,3-7,16	6,73±0,45	3,61	13,8-14,4	14,1±1,09	6,10	21,5-23,22	22,36±1,33	7,13			
2023	Control	6,3-7,32	6,81±0,40	3,64	12,0-15,1	13,56±0,49	4,98	21,3-24,4	22,87±0,4	5,98			
	I experimental group	6,2-7,54	7,14±1,0	3,55	14,1-15,5	14,82±0,66	6,43	23,8-25,2	24,5±1,85	7,46			
	II experimental group	6,23-7,69	6,96±0,77	4,23	13,9-14,5	14,27±1,19	6,12	21,6-26,3	23,95±2,12	7,12			
Medial	Control	5,69-6,76	6,23±0,44	3,58	12,3-13,8	13,1±0,86	4,47	20,4-22,0	21,22±0,74	5,50			
	I experimental group	6,14-7,36	6,84±0,44	3,59	13,9-14,8	14,3±0,83	6,37	22,56-23,94	23,25±2,15	7,38			
	II experimental group	6,12-7,09	6,57±0,5	3,91	13,6-14,3	13,95±1,21	5,88	21,2-23,64	22,42±1,7	6,89			

From the data in Table 5.1.2, it can be seen that after relocation of bee families to the vast dormitory areas of Kokdala district, the control scale figures in 2021 in the control group averaged 5.32 kg.ni, in experimental group I 6.43 kg.ni and in experimental group II 6.12 kg of honey was collected. These figures were higher in 2022 compared to 2021 by 23.3%, 8.08% and 9.97% respectively. It was 28 %, 11 % and 13.7 % higher in 2023 than 2021 respectively.

At carrying out similar control weights on alkaline meadows of Chirakchi district in average for 3 years of honey collection in the control group 13,1 kg of honey was received, in I experimental group - 14,36 kg, and in II experimental group - 13,95 kg. These indicators compared with honey production from Bedazor of Kokdala district in the control group 8.12 kg, in the I experimental group 8.89 kg and in the II experimental group 8.47 kg. The main reason why the production of honey from alfalfa is higher than the yield of alfalfa is that the flowering duration of alfalfa plant is shorter than that of alfalfa flower and alfalfa plant excretes aphids not only from the flower but also from the stem.

All three bee families were relocated to cotton plantations in the area of occupation when the cotton flowering period began. Next to the cotton fields where the bee families were placed, there were alfalfa fields and during this period the families collected both cotton and alfalfa flowers. The performance of the control weights showed that the control group collected 19.34 kg of honey in 2021, 21.45 kg in 2022 and 22.87 kg in 2023. These figures in experimental group I are 21.58; 23.67 and 24.5 kg.ni organised. However, in experimental group II, 20.95 respectively; 22.36 and 23.9 kg.ni organised. In addition, our study calculated the honey yields accumulated by the families at different periods in terms of flower collection, feed consumed and season of the year. The amount of forage consumed by bee families was theoretically converted into honey product based on literature data, and the amount obtained was determined by subtracting all honey produced (Table 5.3.1).

Conclusion

In order to increase the productivity of the bee family, particularly to strengthen them, it is recommended to use intensive gardens rich in hyacinths and pollen during the last days of winter.

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