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# ECOTOURISM IN UZBEKISTAN: THEORY, CHALLENGES AND RECOMMENDATIONS

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## *ABSTRACT*

*As tourists increasingly seek destinations aligning with their interests, niche market tourism has emerged as a strategic approach. Niche tourism represents diversity and individuality in an increasingly uniform world. It targets a limited consumer base compared to mass tourism but remains a consistent market. Niche tourism focuses more on the activities rather than the volume of visitors at a specific location.*

*Among various niche tourism markets, ecotourism stands out as the fastest-growing sector, accounting for approximately 20% of the global tourism industry (Bunghez, 2021) [1]. Ecotourism's significance lies in its potential to challenge traditional industry practices by promoting environmentally friendly, community-oriented, and educational experiences. Its purpose is to utilize nature in a sustainable way, ensuring ecological integrity and long-term well-being for current and future generations. Uzbekistan has great potential for ecotourism due to its unique climate and natural features. To boost the future of nature-based tourism in the country, we need to address current issues. This paper will explore the ecotourism possibilities in Uzbekistan and identify the obstacles hindering its growth.*

*__Keywords:__ Ecotourism, Uzbekistan, ecotourism routes, environmental challenges, sustainable tourism, niche tourism.*

**Introduction**

Tourism is a global industry with far-reaching economic implications, affecting multiple sectors. Yeoman and McMahon-Beattie (2006) [2] note that over the past 50 years, tourism has grown at an annual rate of 6.6%, with international travel soaring from 25 million in 1950 to over 700 million in 2002. Particularly pertinent to our exploration of ecotourism, the top five vacation destinations in Europe and the Americas accounted for 71% of the market in 1950, but just 35% in 2002, reflecting a growing interest in exploring new regions, especially in Asia, Africa, the Middle East, and the Pacific.

The changing tourism scene highlights the growth of niche tourism, a customized strategy for people with unique interests. Niche tourism stands out as a symbol of diversity and individuality in a world that's becoming more similar. It caters to a specific group of people, avoiding mass tourism in favor of a more specialized and consistent approach. Within the array of niche tourism markets, ecotourism emerges as a prominent star, boasting the fastest-growing sector, accounting for approximately 20% of the global tourism industry (Bunghez, 2021) [1].

Ecotourism is more than just about its market share; it's set to transform the industry by emphasizing eco-friendliness, involving local communities, and providing education. Its main goal is to make the most of nature for tourism while making sure the environment remains healthy and prosperous for both present and future generations.

Ecotourism has expanded the tourism industry's reach and capabilities, despite some claims to the contrary. Its significance lies in its ability to offer new approaches to how the industry operates. These "alternative" methods enhance our understanding of the industry, both in terms of its breadth and depth (Wearing and Neil, 1999) [3]. Ecotourism, much like any other form of tourism, should prioritize environmental friendliness, while still delivering an enjoyable experience for visitors and economic benefits for local communities. Its main goal is to use nature for tourism in a

responsible way, ensuring the long-term ecological health and development for both current and future generations.

Uzbekistan, with its diverse climate, including warm winters, hot summers, vibrant springs, and brisk autumns, stands as a promising destination for ecotourism. The country has the potential to create a unique and sustainable network of ecotourism routes, enhancing its presence in the global tourism market by catering to a wide range of tourists. Today, Uzbekistan is gaining recognition as one of the most sought-after eco-tourism spots in Central Asia.

**Methods**

In this paper, we seek to explore the perspectives and insights of local governments in various ecotourism destinations across Uzbekistan regarding the challenges they face in achieving successful ecotourism initiatives. Our data primarily derives from published sources and books. While a qualitative approach would have yielded more precise and accurate statistics on the subject, conducting interviews with individuals in the tourism sector proved unfeasible. Therefore, our research materials are largely drawn from books, articles, and online resources.

**Results and discussion**

Ecotourism and nature-based tourism are often located in remote and protected areas that boast abundant natural beauty, ecological significance, and cultural value. These areas serve a vital role in preserving biodiversity and preventing widespread destruction of natural ecosystems. According to Wearing and Neil, (1999) [3] currently, there are approximately 8,500 protected areas worldwide, covering about 5.17% of the Earth's total land area. The number of these protected areas has grown significantly over the past two decades.

Tourists with special interests are drawn to activities that allow them to connect with nature, appreciate the beauty of untouched natural environments, experience the joy of observing wildlife in its native habitat, relish the excitement of exploration, discovery, and learning, and find fulfillment in overcoming challenges. They take pleasure in acquiring skills like map reading, navigating rivers, and learning climbing

techniques. Activities such as diving, horseback riding, canoeing, cattle herding, and carrying their own gear are all part of their adventure. For these tourists, the physical effort is a small price to pay for the reward of witnessing a majestic mountain, camping beside a crystal-clear lake, or watching an eagle glide through the sky (Kruja and Gjyrezi, 2011) [4].

According to Fennell (2008) [5] Ecotourism may be effective as a tool to emphasize the human, service qualities that are important to the development of sound recreational programming because it is a form of tourism that is presumably ethical, responsible, small scale, and community based.

According to Wearing and Neil, (1999) [3] Protected areas, on the other hand, are increasingly under threat from a variety of sources:

- demands for "multiple use" parks that allow extractive industries;

- lobby group demands for access to a variety of recreational activities such as four-wheeling, horseback riding, hunting, and fishing;

- indigenous groups' aspirations for park title and management.

Uzbekistan has actively taken steps to promote ecotourism, recognizing its potential to improve the quality of life, generate employment, and enhance international relations. The successful growth of ecotourism in Uzbekistan underscores the importance of fully grasping the scope and value of this innovation as a factor in the country's long-term sustainability. Uzbekistan offers a diverse range of ecotourism opportunities, including places like the Ugham Chatkal State Natural Park, the lush forests along the Amu Darya River delta, the Aral Sea region with its environmental challenges, the desert landscapes of the Kyzyl Kum desert, and the mountains and Lake Nuratin in the Farish district of the Jizzakh region (Saidmamatov, et al., 2020) [6].

According to Saidov and Qudratov, (2022) [7] In Uzbekistan, over 800 tour operators, 600 hotels, more than 30 protected areas (nature reserves, national parks, unique natural monuments, etc.), and 60 foresteries are currently operational. In addition, Uzbekistan has around 400 distinct natural monuments.

Ergashev and Khamidova, (2021) [8] claim that ecotourism's growth in Uzbekistan has the following socioeconomic implications:

•       creation of extra jobs for the local community in other collaborative industries, such as tourism;

•       a boost in the local economy's earning sectors (hotels, catering, transportation complexes, souvenir production, national economy, and so on);

•       stimulating currency exchange;

•       agriculture and the food industry will develop as a result of increased investment and demand for manufactured goods;

•       living conditions, utilities, and transportation services are all being improved;

•       investment in the rational use of tourist resources (attractions) and in protected areas;

•       intensive agriculture as a result of a requirement for land conservation;

•       development of global communication;

•       because of the tourist community's ongoing attention, incentives targeted at protecting the local natural and cultural treasures;

•       the construction of recreational complexes, which, in turn, creates a plethora of opportunities for local residents to have fun.

Today, there is a growing global concern about the ecological crisis. The weakening ability of nature to renew itself, the exhaustion of its resources, and the contamination and poisoning of our environment are the main causes of the increasing environmental problems worldwide. It is vital to cultivate an ecological awareness among the population, encouraging people to care for the environment and preserve its treasures for future generations. Environmental education is essential for maintaining a balance in nature and fostering a harmonious relationship between society and the environment. Building ecological awareness in people is a necessary step for the development of ecotourism in the country, as evidenced by past experiences (Ergashev and Khamidova, 2021) [8].

According to Papathanassis (2011) [9], when we consider the content and qualities of the tourism experience, ecotourism can indirectly compete with two other forms of tourism: cultural tourism and adventure tourism. These three, including ecotourism, are part of the broader category known as alternative tourism.

In Uzbekistan, there are various micro-niche markets associated with ecotourism, such as extreme (adventure) tourism and wildlife tourism. Worldwide, wildlife tourism makes up around 7% of all tourism, as estimated by the United Nations. This figure does not even include animals in captivity, so the actual number is likely even higher. Travelers have numerous ways to observe and interact with wildlife, from safaris in Tanzania to diving on the Great Barrier Reef.

In addition to wildlife tourism, there are various activities related to it, including safaris, bird watching, and opportunities for interaction with animals like lions.

Uzbekistan's diverse natural landscape allows for a unique combination of ecotourism and dark tourism. For instance, during a trip to the Aral Sea, tourists can visit the Moynaq Ship Graveyard in the desert, often referred to as a "ghost town" in the middle of nowhere. This location used to be a bustling fishing port, but with the Aral Sea drying up, all that remains are a few abandoned ships. Businesses shuttered their doors, fishing boats were abandoned in the sand that was previously the bottom, and residents were forced to relocate in order to find work. Now it is being used as a dark tourism destination.

According to Toyirova (2022) [10], Uzbekistan encounters several challenges in the realm of ecotourism. First and foremost, there is a scarcity of national parks. Leading ecotourism destinations worldwide prioritize their national parks, emphasizing self-sustainability. However, in Uzbekistan, 50% of these parks are privately owned, with the remaining 50% under state management. The financing model for developing ecotourism in park reserves differs somewhat. Instead of government support, it relies on state assistance, a model more commonly found in developed nations. Even among these state-owned national parks, the offerings tend to be quite similar, with differences primarily limited to the specific attractions on display.

Many of these parks are situated in remote locations, which can lead to dissatisfaction among tourists who have traveled long distances in the hopes of experiencing a unique tour but find a degree of sameness. Additionally, the challenging weather conditions, particularly the intense heat during Uzbekistan's peak tourist season in the summer, can deter travelers from venturing to more distant, natural sites, prompting a preference for closer destinations.

Furthermore, there is a notable deficiency in the management of ecotourism in Uzbekistan. Long-distance tour packages that combine various attractions are notably lacking. Families visiting often struggle to find recreational activities suitable for all members, and alternative options are also quite limited. The management of the country's transport infrastructure presents another challenge. The quality of transportation services frequently falls short of the expectations of tourists, and many roads are in need of substantial improvement.

An emerging concern in the parlance of Uzbekistan's travel industry is the concept of an "off-season". This term is no longer limited to just the winter months; it's increasingly observed during the summer season as well. While Europe traditionally experiences a surge in tourism during the summer, Uzbekistan often witnesses a significant drop in hotel occupancy. In the midst of summer vacations, the number of tourists in Uzbekistan can sometimes be as low as a few dozen, primarily due to unfavorable climatic conditions.

**Recommendations**

To address the challenges effectively, the following strategies should be implemented:

a) Conduct an in-depth study of the experiences and advanced technologies employed in ecotourism by developed countries. It is crucial for any nation aspiring to develop ecotourism to adopt systematic approaches and sophisticated solutions from developed countries. International recommendations are essential for making informed decisions. The wealth of experience from these countries can significantly benefit any developing nation aiming for a promising ecotourism sector.

b) Improve infrastructure, including transportation (transport services and road conditions), railway networks, and airports. Accessibility to tourism destinations is paramount, and this necessitates ongoing improvements in transportation and road conditions.

c) Foster partnerships with local communities. Local residents possess a deeper understanding of the ecological conditions in their area and may offer valuable insights and ideas.

d) Invest in the training and education of specialists in the ecotourism field. Equipping employees with the necessary qualifications is vital, and businesses should allocate resources for employee training and development.

e) Create recreational amenities in ecotourism areas, such as bike trails, roller skating paths, and walking routes.

f) Attract investments from both local and foreign sources. To bolster ecotourism, increased investment is necessary, particularly for projects aimed at enhancing sustainability. Establishing partnerships is vital to manage the development initiatives associated with ecotourism effectively.

**Conclusion**

Uzbekistan is at a pivotal juncture in its pursuit of ecotourism development. As the nation faces certain challenges, it simultaneously enjoys numerous opportunities for growth and transformation in the ecotourism sector.

While challenges such as the shortage of national parks, transportation infrastructure issues, and uniformity in offerings need to be addressed, the strategies outlined, including learning from developed nations, attracting investment, and engaging local communities, provide a clear path forward. These strategies can help Uzbekistan tap into its vast potential for ecotourism, ensuring that its natural beauty and ecological treasures are preserved, while also creating economic opportunities and enhancing the overall tourism experience. By implementing these strategies effectively, Uzbekistan can position itself as a compelling ecotourism destination on the global stage.

This journey not only promises the preservation of its natural beauty and ecological treasures but also offers economic opportunities and an enriched tourism experience for visitors. Through strategic planning and concerted efforts, Uzbekistan has the potential to become a leading ecotourism destination in the years to come.

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# JUVENILE DELINQUENCY ARRIVE GENERAL DESCRIPTION

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*Annotation: This article covers the general description, causes and enabling conditions of juvenile delinquency.*

*Key words: crime, juvenile, economics, politics, social relations, ideology.*

There are different views on explaining the causes of delinquency, including the causes of juvenile delinquency. Many explain this with various conflicts in society (economics, politics, social relations, ideology and other areas). Unfortunately, the criminological literature does not have a clear understanding of what should be understood as the causes of crime and its factors. In some cases, these two concepts are confused or overlapped. These cases also apply to the problem of the causes and conditions of juvenile delinquency [1].

Thus, this approach to explaining the causes of crime is related to socio-psychological factors that cause crime, primarily motives (subjective reasons). Conditions are considered as macro and micro environment. In this, the main attention is paid to the microenvironment, because it is at this level that the individual is socialized[2].

It can be said that the second approach to explaining the reasons for the commission of crimes and the conditions that made them possible is also worthy of attention for other reasons.

Some scientists include the following among the causes of juvenile delinquency: negative influence of living, studying or working environment; that teenagers who drop out of school do not engage in certain work for a long time; conditional factors that

determine the improper upbringing of a teenager; testimony of older criminals; the influence of books and films depicting violence and lawlessness[3].

When talking about two different approaches to explaining the causes of crime, one more difference should be noted.

A second approach to explaining the causes of crime is related to interaction. The cause itself manifests itself through the interaction with the conditions and produces the effect.

It affects the formation of deficits in social psychology at the microenvironmental level, and directly affects specific individuals through social institutions at the microenvironmental level. The subjective cause, that is, the interaction between the individual's state of inclination and the situation in which the individual is (objective conditions) occurs only on a single level. It is this interaction that produces the effect[4].

On the other hand, the interaction (in this case, the interaction between the specific situation and the dispositional state of the individual) cannot be realized through its final result, the consequence (crime). Likewise, an effect cannot affect its cause (a person's dispositional state) which has already occurred and disappeared after the effect has occurred[5].

**We can divide the causes and factors of juvenile delinquency into the following groups:**

- factors in the economic and social sphere - changes in economic processes (increase in prices, inflation, increase in poverty, etc.), increase in the level of unemployment, divorces in society, addiction of teenagers to drugs and alcohol products, failure of the social protection system, etc.;

- social-psychological factors - the existence of injustices in society, the impact of divorce on the psyche of a minor, the weakness of spiritual and educational propaganda and the strengthening of elements of mass culture, the low level of legal culture, as well as the negative impact of media and modern social networks in the form of video, audio, and photos various unethical information;

- factors (deficiencies) in the administrative-organizational sphere - slowness of authorities in working with minors, solving their problems, deficiencies in the activity of entities involved in the prevention of juvenile delinquencies, low level of cooperation, in particular, deficiencies in identifying and keeping records of this type of delinquency. It should be said that the issue of responsibility of the minor offender who committed the offense is not resolved or he is not notified (concealed) of the fact that he has committed an offense to the appropriate body, it creates a feeling of disdain for the moral rules and legal norms in the mind of the minor, and this causes even more problems. will be.

Analyzing juvenile delinquency and its prevention is the main link in the fight against crime in the society as a whole.According to data, 50-60% of recidivists start their "criminal career" as a minor, still a teenager.Therefore, determining how early juvenile delinquency and their steps on the antisocial path, preventing them, guarantees that the state's criminal-legal policy will be effective in the future.Before addressing the issue of juvenile delinquency, who is a juvenile? it is necessary to pay attention to such issues as what are their specific characteristics, their legal status in international and national legislation.

The criminological features of juvenile and youth crimes can be explained as follows. Adolescence is the period when a person's personality is formed. At this stage, a person is extremely changeable, that is, very susceptible to negative environmental influences. Due to insufficiently developed sense of self-control in adolescents, "social stagnation" resulting from such events, social adaptation defects are relatively easy to manifest in the form of antisocial acts, and sometimes they are strengthened as stable behavior, which becomes more difficult to return to the right path over time. The most important thing is that from this period they should start forming their personality and make a choice to determine the future path. Of course, during this period, teenagers, family, and society need help.

In certain periods, classical, positive and other schools of criminology looked at crime as a theological, psychological, biological, social phenomenon. Also, the relationship between personality and crime depends on the age factor.

They consider that not only subjective factors, but also external influences play an important role in how early a person commits a crime. The influence of external, objective influences on the personality and psychology of adolescents should always be under certain control, the role of family, neighborhood and society is important in this place.

It is also important to know what characteristics juvenile delinquency, especially criminality, is acquiring today. Criminologists have found a stable relationship between those who are on different medical lists (alcoholism, drug addiction, mental illness, etc.) based on the percentage of the total number of juvenile prisoners.

Also, there is a close relationship between juvenile delinquency and family and family relations, we can see that this indicator is low in areas where families are in a conflict environment, where there are many divorces, and where there are many divorces, this indicator is low.

It is known that such crimes include crimes committed by individuals between the ages of 14 and 18. Due to the fact that the achievement of social, psychological and physiological maturity leads to the emergence of a number of legal consequences, it is absolutely important to strictly separate minors from adults. Having such a strict limit is of great importance in the implementation of justice.

Juvenile delinquency has a number of specific characteristics, which are first of all manifested in the causal complex and motivation of the formation of criminal behavior, as well as in its level and development trends. At the same time, the listed characteristics are also related to the personal qualities of minors and their social and legal status in society. Therefore, juveniles differ from adults in many personal characteristics and criminal behavior.

Most of these international documents have been ratified by the Republic of Uzbekistan and their main principles and rules have been used in the formation of our national legislation.

In the effective organization of the protection of the interests of minors, legal education and legal problems of family strengthening are of particular importance. Because a strong family is one of the most important foundations of a civil-legal society, and it is a social environment where minors grow as individuals. It is urgent to direct the activities of all relevant specialists in this direction - pedagogues, doctors, sociologists, lawyers, etc. to this goal. Juvenile delinquency is one of the main issues in the subject of criminology, and the development of a definition that reflects its content in detail is of great scientific-theoretical and practical importance. In the social sense, crime is a behavior capable of endangering the rights and interests of society, citizens and public associations, which makes it difficult for the development of social relations and causes their disruption.

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*Annotatsiya: Ushbu maqolada Sog‘lom turmush tarzining shakllanishi va kasallliklarni oldini olish, harakat va jismoniy mashqlar yordamida tayanch harakat tizimini mustahkamlash va sog‘lom turmush tarzini takomillashtirish haqida so‘z boradi.*

*Kalit so‘zlar: Sog‘lom turmush, jismoniy mehnat, organlari tizimi, harakat faolligi, rivojlanish, energiyaga sarfi.*

*"Harakat – slomatlik mezonidir".*

*Ibn Sino*


Sog‘lom turmush tarzini shakllantirish va kasallliklarni oldini olishda asosan to‘g‘ri tashlik etilgan jismoniy faollkidir. Jismoniy harakat natijasida odamning turli a'zo va tizimlarining faoliyati normallashadi, buzilgan funksiyalar tiklanadi,aqliy va jismoniy mehnatga bo‘lgan faollik oshadi. Harakat natijasida enrtgiya sarfi oshadi, to‘qimalarning kislorod,qon va oziq moddalar bilan ta'minlanishi yaxshilanadi.Yurak muskul tolalarininmg tuzilishi mustahkamlanadi, organizmni regulyasi qiluvchi garmonal va asab tizimining faolligi oshadi.

Harakat va jismoniy mashqlar tayanch harakat tizimini mustahkamlaydi, muskullar kuchini oshiradi, natijada ularning bir xil shaklini saqlaydi. Ayniqsa yosh

bolalar va maktab yoshidagi  bolalar uchun  harakatning ahamiyati juda muhm bo'lib,u bolalar organizmning rivojlanishiga, shakllanishiga, tayanch  harakat, yurak qon-tomir, endokrin, nafas olish  va boshqa  organlar  tizimining rivojlanishiga  yaxshi ta'sir  qiladi.

Harakat faolligi muskullar va skeletni  rivojlantiradi, qaddi -qomatni raso qiladi, moddalar  almashinuv  jarayonlarini,qon  aylanishi  va  nafas  boshqaruvini takkomillashtiradi,yurak  qon – tomir sistemasining rivojlanishini belgilab beradi.

Kundalik hayotimizda har kuni ertalab badantarbiya bilan  shug'ullanishni kanda qilmaslik, sportning bir turi bilan shug'ullanish, jismoniy mehnat qilish, yugurish, piyoda yurish  zarur. Bunda jismoniy mashqlarning ahamiyati katta bo'lib, kishi har jihatdan  intizomlilik,  kuchlilik,  chaqqonlik,  irodalilikni  o'zida  rivojlantiradi  va shakllantiradi.

Jismoniy mashqlar   odam organizmga ijobiy ta'sir  ko'rsatib, ularni bajarishda gigiyenik talablarga rioya qilish zarur.Bu  talablar  mashg'ulot o'tkazadigan zallar, xonalarga, atrof – muhitga va fasllarga ham   bog'liqdir. Jismoniy  mashqlar o'tkaziladigan   xonalar yorug', havosi  almashtiriladigan, harorati bir me'yorda saqlanadigan keng va jismoniy  mashqlar xiliga  mos  bo'lishi kerak,yoz  kunlarida jismoniy  mashqalrni ochiq havoda o'tkazish  mumkin.

Jismoniy mashqlar yengil, harakatlar uchun  qulay yil  faslariga mos, paxtadan tayyorlangan   kiyimlar  kiyish lozim. Poyafzallar esa tabbiy teri yoki matodan bo'lishi kerak.

Jismoniy mashqlar bilan sharoit bo'lgan hamma joyda shug'ullanish  mumkin. O'tzorlar, o'rmon so'qmoqlari, tuproqli  yo'llar, bog'lar, xiyobonlar, stsdionlar, jismoniy mashqlar uchun alohida ajratilagan yo'lkalar hamda boshqa  turli  joylarda mashq larni  bajarsa  bo'ladi.

Jismoniy mashqlarni bajarishda  har bir odam quyidagi qoidalarga amal qilishi shart.

- Asta -sekinlik;
- Muntazamlilik;

- O'ziga  xos yondoshish;

- Har tomonlamalik;

- O'z – o'zini nazorat qilish;

Jismoniy mashqlarni asta - sekinlik bilan boshlab, doimo uzluksiz shug'lullanish, ularning har xilligidan foydalanish, o'z shaxsiy  qobiliyatlarini hisobga  olish  va mashg'ulotlarning qanday   foyda  berayotganini doimo nazorat qilish zarur.

Jismoniy mashqlar nafaqat sog'lomlashtiruvchi, balki davolovchi omil  sigatida ham katta ahamiyatga ega. Uning davolovchi ta'siri  hozir  davolash  jismoniy  mashqlari keng qo'llanilmoqda. Davolash  jismoniy  mashqlar  amaliyoti  hatakatining quyidagi ta'sirotlariga asoslangan:

- Tonusni  oshiruvchi  va stimullovchi, ya'ni tetiklashtiruvchi

- Trofik  yoki oziqlantiruvchi

- Kompensator

- Tinchlantiruvchi

- Buzilgan faoliyatlarni  qarta tiklovchi

Ushbu  ta'sirotlar natijasida organizmning  umumiy tonusi  oshadi,immunitet  va reaktivlik  holati  ko'tariladi,faoliyati buzilgan  a'zolarning oziqlanishi yaxshilanad, kasal a'zolar faoliyati tiklanadi.

Jismoniy  mashqlarni  biron  turi  bilan  shug'lullanishdan  oldin  jismoniy yuklamalarni organismga ta'sirini ko'tara olish qobiliyatini yoki past nuqtasini aniqlab olish zarur.Buning uchun "o'tirib - turish"mashqlaridan foydalaniladi.Asosiy holat – oyoqlarni  bir joyga qo'yib (tavonlar birlashgan,oyoq uchlari uzoqlashgan), pul's sanaladi.-P. Qo'llarni oldinga ko'tarib,20 – 30 marta o'tirb turiladi  va  shu  zahoti P sanaladi – $P_2$.Bir  daqiqa o'tkazib

P- yana  sanaladi  - $P_3$.

P –( Ruf'e  indeksi) - $-\Pi1 + \Pi2 + \Pi3 - 200) = 10$

Olingan  ma'lumotlarquyidagicha  baholanadi.

0+  -  jismoniy kuchlanishga a'lo reaksiya,

0 – 5 - yaxshi reaksiya,

6 – 10 – qoniqarli reaksiya

11 – 15 – sust reaksiya

15 -   qoniqarsiz reaksiya

Jismoniy tarbiya mashqlari xilma – xil bo'lib, yurish, sog'lomlashtiruvchi yugurish, suzish, velosiped haydash, gimnastika, turli  xil sport o'yinlari, chang'i, aerobika, terrenkur, trenakyorlar  va  boshqalar.

**Sog'lomlashtiruvchi  yugurish** mashqi bilan asta-sekin va muntazam ravishda shug'ullanish  salomatlikni mustahkamlashning zarur shartidir.

Sog'lomlashtiruvchi yugurish  bilan  shug'ullanuvchi odamlar uchun ayrim tavsiyalarga rioya qilishlari  kerak va  mashg'ulotlar paytida quyidagi  maslahatlardan foydalanishlari  lozim.

Ko'pchilik  mutaxassislar sog'lomlashtiruvchi yugurishni   yurish bilan navbatlashtirib boshlashlarini  taklif qiladilar.Boshda besh 5 –6  daqiqa tez yurish, so'ngra 1- 2 daqiqa yugurish va shundan keyin yana yurish kerak.

Shunday navbatlashtirilgan holda yugurishni ko'paytirib  borish kerak  va bu holat bir necha oy davomida doimo  bir  xil bo'lib,1 km masofani taxminan 7-1o daqiqada  yugurib o'tish   kerak. Agar odam o'zini yaxhi his qilsa yugurish tezligini avvalgi tezlikdan 10 – 15 daqiqagacha  ko'paytish  mimkin.

- Gorizantal, vertical va  yonlamasiga ortiqcha tebranmaslik,chayqalmaslik va sakramaslik kerak.Yugurish vaqtida gavdani  tik holatda saqlashga  harakat qilish;
- Oldinga engashmaslik va o'zini orqaga tashlamaslik lozim,bu esa o'z navbatida energiyani ortiqcha  sarflashga  olib  keladi;
- Qo'l panjalarini bosh  tutish,ularni musht qilmaslik;
- Boshni  ortiqcha  harakat  qilmaslikka  intilish,  boshni  har  tomonga chayqamaslik  va orqaga tashlamaslik kerak.

Sog'lomlashtiruvchi   yugurish bilan yakka holda   yoki guruh   bo'lib shug'ullanish  mumkin.

**Velosiped haydash** – mashgʻulotlari umumiy chidamliliknioshirishga yordam beradi. Velosipedda tezlikni oshirmay tekis yoʻlda sayr qilish barcha yoshdagi yigit – qizlar uchun ham,erkak va ayollar uchun ham yengil va qulay mashgʻulotdir.

**Terrenkur -** ( fransuzcha soʻz boʻlib, terren - joy va nem- kur – davolash) asosan sixatgohlarda, kurortlarda davo maqsadida maxsus belgilangan yoʻl boʻivha maʼlum masofada sayr qilishdir.Tekis yoʻlda qiyalik joydanoʻtib yurish yurak qon – tomir faoliyatini mustahkamlaydi va rivojlantiradi, toʻgʻri nafas olish uchun sharoit yaratadi,asb – muskul tonusini oshiradi,oyoq muskullarini yuritiradi,moddalar almashinuvini yaxshilaydi.

   **Suzish** - yugurishdan farqi yurak qon – tomir,nafas tizimi faoliyatini takomillashtirib, tayanch – harakat aʼzolarini mustahkamlabgina qolmasdan, balki organizmning atrof – muhit oʻzgarishlaiga moslashuvi zarurligi tufayli ancha kuchli ,chiniqtiruvchi taʼsirga ham egadir. Bundan tashqari suzish kuch – quvvatni oshiradi,odamni irodali, epchil qiladi, harakatlarning muvofiqligini takomillashtiradi.

   Jismoniy mashqlar bilan ertalab shugʻillangan maʼqul, chunki kun oxiriga borib odam charchab qoladi, natijada mashgʻulotlarni samarasi kam boʻladi.Ammo ish kuni soʻngida bir oz dam olgandan keyin oqshom paytlarida shugʻullanish mumkin va u koʻpgina omillarga bogʻliq: ish xarakteriga (aqliy yoki jismoniy ish), insonlarning bioritmiga (ish qobiliyatining pasayishi va koʻtarilish vaqt), oilaviy ishlarga va boshqalarga bogʻliqdir.

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# METHODS OF TEACHING FOREIGN LANGUAGE

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*ANNOTATION*

*This article highlights different methods used in foreign languages and ways of achieving this goal. It is employed to determine how to provide learners with learning resources of varying scales.*

*KEY WORDS*

*Foreign language, methods, form of teaching, interactive method,methodology, education .*

Teaching methods are the broader techniques used to achieve student learning outcomes, while activities are different ways of appliying those methods. Learning methods help students; acquire course content, learn how to use the content in a specific context. There are a lot of methods in foreign languages, for example, grammar translation method, text translation method ,explicit method ,direct method ,translation method  and other.

The method of translation. "Translation methods" is another phrase that is sometimes used interchangeably with the name of this procedure. It is not challenging to understand what the name means: foreign linguistic resources are translated into the

original vocabulary. Translation was initially utilized throughout Europe. as a means of comprehending Greek, and afterwards Spanish. In the latter part of the 18th century, Between the 18th and 19th centuries, French was studied, and during the 1920s, English and German was ultimately studied through conversion. Among Muslims, Arabic and Foreign languages were studied, including Persian. Living and dead languages, like Latin, were translated information, a procedure that was thought to have played a role in the creation of rational thought. Alternatively, Arabic was a way to instruct in Islamic

Grammar translation method is a way of teaching in which students study grammar and translate words into their own language. Richards and Rodgers claim that grammatical problems constituted the main focus of the mid-1800s. To clarify the language's grammatical norms, they provided examples of constructions. Authors from this era were primarily concerned in organizing the morphology and syntax of L2. There weren't many written or oral exercises. The most common author of this era is most likely Karl Plötz. The only way to learn in his textbooks was through translation. Plötz frequently employed the phrases "Thou hast a book," which Titone cited. The home is exquisite. He owns a good dog. There is bread [sic]. Titone (1968), page 27 Richards and Rodgers (1986), page 3.

Direct method. In response to the grammar-translation method, the direct method—also referred to as the natural approach—was developed. The spoken language is highlighted here. This method focuses on hearing and comprehension in the early stages of language learning, drawing on observations of young toddlers acquiring their mother tongues.The target language is used to teach lessons; speaking in one's own tongue is actually severely prohibited. In a typical class, students would first see graphics while the teacher goes over the vocabulary words, and then they would listen to recordings of these words being used in understandable language. Since grammar teaching isn't given directly, speaking is encouraged at all times once pupils have had time to listen to and process the sounds of the target language.Instead, grammar should be taught to students inductively. Give them permission.

Explicted method

With little left for students to figure out on their own, explicit teaching is a teachercentered approach that emphasizes explaining what has to be doneand how to do it. To clearly define what is expected of students in order for them to achieve, teachers establish and communicate explicit learning objectives and associated success criteria (Victorian Government, 2022).

Furthermore, teachers employ modeling to guide students through new material and regularly assess their comprehension before concluding each class with a summary that ties the whole learning process together (Victorian Government, 2022).To help students acquire mastery, teachers should design lessons that progress in complexity step by step and give them opportunities to practice what they have learned.

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# DANIEL DEFOE'S "ROBINSON CRUSOE" AS AN EXTRAORDINARY EVENT IN THE HISTORY OF LITERATURE

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*ANNOTATION*

*This article is dedicated to the study of Daniel Defoe's world famous novel "Robinson Crusoe". The theme is very interesting and is worth of paying special attention. Uzbek readers enjoy reading the novel immensely. The book is rightly included to the list of masterpieces even created by Daniel Defoe. The author's work is estimated and read both by grown ups and children. Daniel Defoe founder of the early bourgeois realistic novel and he was the first and fore most a journalist, and in many ways the father of modern English periodicals.*

*KEY WORDS*

*Daniel Defo, Robinson Crusoe, personality, novel, life, role of English literature, narrator, birthplace.*

Daniel Defoe is famous was an English novelist, journalist and pamphleteer, famous for «Robinson Crusoe,» «Moll Flanders,» «Memoirs of a Cavalier,» and many other works. He was one of the founders of the English novel. Read more about the life and works of Daniel Defoe.

By Macmillan E. Novak. Oxford University Press. From the publisher: «Novak illuminates such works as Robinson Crusoe and Moll Flanders, novels that changed the course of fiction in their time and have remained towering classics to this day. And he reveals a writer who was a superb observer of his times—an age of dramatic historical, Daniel Defoe is perhaps best known for his novels, Robinson Crusoe and Moll Flanders, but he was also the quintessential «brilliant scoundrel» of the Augustan Age. In rough chronological order, Daniel Defoe was a hosier, soldier, wine merchant, factory owner, bankrupt, spy, pamphleteer, and convict, journalist, editor, political flunkey, hack writer and novelist.

The history of Robinson's life on the island is a story about creative work of a man, about his courage, his will, creative searching. This is a hymn to labor the source of life. Thanks to his creative work Robinson Crusoe remained a man. This is most remarkable and educative significance of the novel. The novel joined the elements of biographical documentary and adventure novel. The theme of creative labor should be emphasized especially Labor helped Robinson to stay a man in inhuman conditions of his life many years lonely in an island. There are very few selected books which can complete with this world known novel.

Daniel Defoe is not only the author of "Robinson Crusoe" he is the author of, as his researchers consider, about four hundred separately published works, polemic and publicist articles, pamphlets and so on. Which had been published by him in different editions. Creative energy of Defoe was extraordinary and almost unique for his country and his time, his people.

An unnamed editor explains his reasons for offering us the narrative we are about to read. He does not mention the name or story of Robinson Crusoe explicitly but, rather, describes the narrative as a "private man's adventures in the world" and focuses on its realism when he calls it a "just history of fact." He claims it is modest and serious, and that it has an instructive value, teaching us to honor "the wisdom of Providence." Thus, the editor asserts he is doing a great service to the world in publishing Crusoe's tale.

*Robinson Crusoe* occupies an important place in literary history as the first English novel and the forerunner of the realist tradition continued by Fielding and Dickens. There had, of course, been works of fiction prior to 1719 but these were not *novels* as we would recognise them today. What was new about Defoe's narrative was its convincing air of verisimilitude and the fact that its central character is a solid, believable individual with an inner life of remarkable consistency and power. Defoe himself draws attention to its verisimilitude in the Preface when he remarks: 'The Editor believes the thing to be a just History of Fact; neither is there any Appearance of Fiction in it.' The story has exercised a continuing hold on the human imagination; it has been translated into almost every language on earth and has even formed the basis of pantomime. Clearly, a story that has achieved the status of a fable must possess considerable literary and imaginative qualities and respond to some deep need in the human psyche.

## Conclusion

*Robinson Crusoe* is in fact one of the great myths of Western civilisation, entertaining succeeding generations with its vision of a solitary Englishman on a desert island laboriously rebuilding a semblance of order around his lonely domain. As a 'desert island' myth the novel has spawned a multitude of imitations ranging from Ballantyne's *The Coral Island* (1857) to Golding's *The Lord of the Flies* (1954) and exercises an enduring fascination as a case study in survival. Today we no longer read the novel as a child's adventure story or a religious parable, but recognise it as a watershed in English literature and an allegory of the human condition.

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# HOW TEACHERS HANDLE CLASSROOM MANAGEMENT PROBLEMS

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*Annotation. This article describes what is classroom management and gives real problems of the teachers related to it. It also tries to explain effective classroom management goes beyond enforcing rules and maintaining order. This pertains to eliciting and preserving the student's focus, keeping the student's openness, and attaining sufficiency*

*Key words: classroom, classroom management, strategies, teaching competence.*

## Introduction.

Although the term "classroom management" refers to more than just punishment, it is often understood to refer to a group of techniques for dealing with students' unruly or disruptive behavior. When it comes to classroom management, the idea of punishment has given way to a more thorough body of information about how to raise student accomplishment through the avoidance of behavioral issues. Classroom management may also be defined as the strategies and techniques teachers employ to establish a productive learning environment that positively affects students' achievement of the objectives and requirements set forth for them. Maintaining a balance between the behaviors of teachers who clearly punish inappropriate behavior and those who acknowledge and encourage appropriate behavior is crucial when it comes to controlling the classroom atmosphere.

# I. Literature review.

Teachers serve as mentors, planners, and assessors when it comes to classroom management. According to Gebhard (1996: 69), classroom management describes how instructors set up the activities that take place in the classroom. Teachers have the ability to shape the type of interaction that takes place in the classroom since they are the most powerful individuals there

Creating a classroom environment that supports meaningful English-language interaction is another objective of classroom management. It was probably not overstated in Marzano's book on classroom management (2003:9) to say that teachers have always prioritized classroom management since there have been teachers in the classroom. But the scientific investigation of efficient classroom management is a comparatively new development..

Certain aspects of classroom management have the potential to be key components in fostering favorable conditions for the teaching and learning process. Classroom management should be set up to provide a climate that facilitates the kinds of experiences and activities that are conceivable, according to Mursell and Nasution (1995: 41). The physical classroom setting reveals a lot about the expectations as a teacher, according to Konza, Grainger, and Bradshaw (2001) in their book Classroom Management: A Survival Guide. Additionally, they said that placing students, organizing desks, decorating the classroom, and playing music all contribute to the physical environment of the classroom.

Assembling groups and pairs of students is another facet of classroom management. Here, teachers can mix or group students based on similar characteristics, according to Gebhard (1996: 77). For instance, shy and gregarious kids could be put together, or shy students with enthusiastic pupils.

Procedures for organizing, implementing, and assessing the success of the classroom rules should be part of a successful rule management strategy. The school day offers numerous chances to establish routines. The majority of activities in the classroom take place on a regular basis, according to Project PARA. Daily tasks in a

classroom can include gathering supplies and initiating lessons, seeking help from a peer educator, and transitioning from one task to the next. Classrooms that have protocols in place for completing tasks are more productive.

## II. Methodology.

In support of the aforementioned justifications, the earlier study clarified a number of classroom management strategies that promote a positive teaching and learning environment. For their classroom to be well-managed and for their pupils to be engaged, teachers need to be strong leaders. There is no denying that a well-run classroom can affect students' motivation levels and academic performance.

**Participants.**

| N | Participants | Work place | Experience | What classes they teach | Level of the teacher |
|---|---|---|---|---|---|
| 1. | M.S | 29th Fergana region | 2 year | 1st, 2nd, 9th, 11th | C1 |
| 2. | M.X | 16th Fergana region | 2 year | 7th | C1 |
| 3. | O.T | 51st Fergana region | 2 year | 1st, 2nd | B2 |
| 4. | A.Z | 9th Fergana region | 2 year | 1st, 2nd | C1 |
| 5. | M.M | 18th Fergana region | 2 month | 10th | B2 |

**Research method:** An interview is a structured conversation between two or more individuals, typically conducted to gather information or assess the suitability of a candidate for a job or admission to an institution. It involves a series of questions and responses, allowing the interviewer to evaluate the interviewee's qualifications, skills, experience, and personality traits in order to make informed decisions.

**When:** 19th of October          **Where:** At university          **How:** Face to face

**Data collecting tool:** Interview.

**Interview questions:**

1. Describe your classroom management.
2. How do you handle disruptive students?
3. What is your biggest weakness?

### III. Data analysis and discussion.

Each participant nearly all gave the same response to the first question. They claimed to conduct warm-up exercises prior to lessons and entertaining activities either in the middle of lessons or when the pupils are creating noise. Additionally, I believe that having engaging warm-up exercises at the beginning of the lesson is quite useful.

Three interviewers responded to the next question by saying that they penalize their pupils by having them stand up until the end of the lesson or by having them complain to the school's administration, while the others had contrasting responses. Making disruptive pupils accountable for something, like helping the teacher by gathering worksheets or handouts, is one strategy M.S employs. As for A.Z, she had an additional intriguing strategy that involved praising a student's one redeeming quality or using that student as an example for other students. Making kids responsible or praising them can help to handle these kind of students. Penalizing cannot always be effective.

The last query asked about the teachers' greatest area of weakness. While M.M has trouble controlling high school male students, two of the participants claimed that time management is their major weakness. When M.S is unable to be severe with her students, A.Z struggles since she lacks back-up exercises for her class.

### Conclusion

It is well known that very little academic work can be done in badly run classrooms. Teaching beginners often find that managing the classroom is an extremely difficult assignment, and they must assume a crucial role in this function. Improved management can be achieved through reflective teaching. However, different courses and teachers require different approaches and strategies for classroom management. It is important to understand various models and strategies. Teachers should begin each day afresh until they have a firm grasp on classroom management. In order to get a feeling of accomplishment and fulfillment in their teaching, they must employ several tactics. Teachers can use their special abilities to encourage positive student behavior in the classroom, which will support effective learning, rather than focusing on reducing inappropriate classroom behavior.

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# QANDLI DIABET BILAN KASALLANGAN BEMORLARDA MAKULADAGI ERTA MORFOMETRIK O'ZGARISHLAR

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### *ANNOTATSIYA*

*Ushbu tadqiqotning mazmuni diabetik retinopatiya klinik belgilari mavjud bo'lmagan qandli diabet 2tipi bilan kasallangan bemorlardagi makulaning morfometrik parametrlarini aniqlash va kasallik davomida unda yuzaga kelish ehtimoli bo'lgan o'zgarishlar orasidagi bog'liqlikni o'rganish.*

*Ushbu maqsadda 50 ta qandli diabet 2tipi bilan kasallangan diabetik retinopatiya klinik belgilari kuzatilmagan bemorlarda retinal qavatning holati, to'r parda qalinligi va hajmi klinik-morfometrik tekshiruvlardan o'tkazildi.*

*Tekshiruvga quyidagi mezonlar kiritildi: 1. MCVA > 0,8 refraksiya buzilishlari ± 3,0 dioptridan ko'p bo'lmagan. 2. Anamnezida hech qanday oftalmologik operatsiyalar o'tkazmagan, to'r parda va optik nerv (AMD, epiretinal membrana, glaukoma va boshqalar) patalogiyasi yo'q. Makular maydonni (5 mm) E MM5 protokoliga muvofiq skanerdan o'tkazildi. Bu tomograf ichki (ganglioz hujayralar kompleksi) va tashqi to'r pardaning (ichki pleksiform qavat va pigment qavatlar orasi) qalinligini o'lchash va uni segmentlarga bo'lish imkonini beradi. To'r pardaning foveal (foveadan 1mm diamaetrga mos keladi), parafoveal (foveadan 3mm) va periferik ( foveadan 5mm) zonalari ichki va tashqi qavatlari baholandi.*

*Kalit so'zlar: qandli diabet, fovea, OKT, diabetik retinopatiya, makular maydon, ganglioz hujayralar, ichki pleksiform qavat.*

# EARLY MORPHOMETRIC CHANGES IN THE MACULA IN PATIENTS WITH DIABETES

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### ANNOTATION

*The purpose of this study is to determine the morphometric parameters of the macula in patients with type 2 diabetes without clinical signs of diabetic retinopathy and to study the relationship between the changes that may occur in it during the course of the disease.*

*For this purpose, 50 patients with type 2 diabetes without diabetic retinopathy underwent clinical and morphometric examinations of the state of the retinal layer, and the thickness and size of the retina.*

*The following criteria were included in the examination: 1. MCVA > 0.8 with refractive errors not greater than ± 3.0 diopters. 2. Has not had any ophthalmological operations in the anamnesis, and has no pathology of the retina and optic nerve (AMD, epiretinal membrane, glaucoma, etc.). The macular area (5 mm) was scanned according to the E MM5 protocol. This tomograph allows you to measure the thickness of the inner (complex of ganglion cells) and outer retina (between the inner plexiform layer and the pigment layers) and divide it into segments. The inner and outer layers of the retina were evaluated in the foveal (corresponding to 1 mm diameter from the fovea), parafoveal (3 mm from the fovea), and peripheral (5 mm from the fovea) zones.*

***Keywords:*** *diabetes, fovea, OCT, diabetic retinopathy, macular area, ganglion cells, inner plexiform layer.*

## РАННИЕ МОРФОМЕТРИЧЕСКИЕ ИЗМЕНЕНИЯ МАКУЛЫ У БОЛЬНЫХ САХАРНЫМ ДИАБЕТОМ

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### АННОТАЦИЯ

*Цель настоящего исследования — определение морфометрических периметров макулы у больных сахарным диабетом 2 типа без клинических признаков диабетической ретинопатии и изучение взаимосвязи изменений, которые могут возникнуть в ней в течение заболевания.*

*С этой целью у 50 пациентов с сахарным диабетом 2 типа без диабетической ретинопатии были проведены клинико-морфометрические исследования состояния сетчатого слоя, толщины и размеров сетчатки.*

*При обследовании учитывались следующие критерии: 1. MCVA > 0,8 с аномалиями рефракции не более ± 3,0 диоптрий. 2. Офтальмологических операций в анамнезе не имел, патологии сетчатки и зрительного нерва (ВМД,*

*эпиретинальная мембрана, глаукома и др.) не имел. Макулярную область (5 мм) сканировали по протоколу E MM5. Этот томограф позволяет измерить толщину внутренней (комплекса ганглиозных клеток) и наружной сетчатки (между внутренним плексиформным слоем и пигментными слоями) и разделить ее на сегменты. Внутренний и наружный слои сетчатки оценивали в фовеальной (соответствует диаметру 1 мм от ямки), парафовеальной (3 мм от ямки) и периферической (5 мм от ямки) зонах.*

*Ключевые слова: сахарный диабет, фовеа, ОКТ, диабетическая ретинопатия, макулярная область, ганглиозные клетки, внутренний плексиформный слой.*

### Kirish

Qandli diabetning (DM) muqarrar asoratlardan biri diabetik retinopatiya hamda to'liq ko'rlikka asosiy sabab bo'luvchi asorati diabetik makulaning shishidir (DMO) [1, 2]. Giperglikemiyaning eng erta va eng ko'p tarqalgan, hamda oftalmoskopik tekshiruvlarda aniqlab bo'lmaydigan asoratlaridan biri bu retinal neyrodegenerativ va mikrovaskulyar o'zgarishlardir[4].

Kasallik kech aniqlanishining sabablari: oftalmoskopik tekshiruvlarda kasallikning dastlabki bosqichlarini aniqlashning qiyinligi hamda diabetik makulyar shishning yuqori xavf omillari uchun obyektiv kriteriyalarning yetishmasligidur[7,8]. Fundus strukturalarining optik koherens tomografiyasi (OKT) diagnostik usulini tanishtirish orqali makular zonadagi eng kichik o'zgarishlarni aniqlash imkoniyati paydo bo'ldi [3,6]. Retinaning minimal qalinlashish darajalarigacha (10 mikrondan kam) aniqlay olishi uning oftalmoskopga nisbatan afzalligidir [7,8]

Qandli diabet bilan kasallangan diabetik retinopatiyaning klinik ko'rinishlari bo'lmagan bemorlardagi optik koherent tomografiyaning(OKT) natijalari haqidagi ma'lumotlar mavjud adabiyotlarda ham yetarlicha emas[4,5].

**Tadqiqot maqsadi**: Diabetik retinopatiya klinik belgilari mavjud bo'lmagan qandli diabet 2tipi bilan kasallangan bemorlardagi makulaning morfometrik parametrlarini erta aniqlash va kasallik davomida unda yuzaga kelish ehtimoli bo'lgan o'zgarishlar orasidagi bog'liqlikni o'rganish.

**Tadqiqod materiallari va usullari**

Tadqiqod davomida 2 guruh ishtirok etdi: asosiy va nazorat guruhlari. Asosiy guruhga 34 ta (68 ko'z) DRsiz 2-toifa qandli diabet bilan kasallangan, 36 yoshdan 75 yoshgacha (o'rtacha yoshi - 49,89 ± 6,65), kasallik davomiyligi 5 kundan (yangi tashxis qo'yilgan QD) 22 yilgacha (o'rtacha kasallikning davomiyligi 9 yil) bo'lgan bemorlar kiritildi. Nazorat guruhi – 16ta sog'lom 40 yoshdan 62 yoshgacha (o'rtacha yoshi - 51,6 ± 8,2) bo'lgan bemorlar kiritildi. Guruhlar orasidagi o'rtacha qiymatlardagi farq (p = 0,05) yoshga qarab sezilarli darajada namoyon bo'ldi.

Asosiy guruhda yoshdan qat'i nazar, barcha o'rganilgan zonalarda to'r pardaning tashqi qatlamlarining qalinligi ishonchli tarzda kamayishi aniqlandi: fovea, para- va perifovea (p = 0,0001, p 0,006, p = 0,03 mos ravishda) va foveada, tashqi qatlamlarga qo'shimcha ravishda, umumiy qalinligi (p = 0,001) va ichki fovea qalinligi (p = 0,02) kamayadi. Umuman olganda, parafoveal zonaning qalinligi yosh omilidan qat'iy nazar kamayadi (p = 0,05). Perifoveal zonada aniqlangan o'zgarishlarga kelsak, ular taqqoslangan guruhlardagi o'rtacha yosh farqiga bog'liq bo'lishi mumkin. Shunday qilib, guruhlardagi sub'ektlar sonining to'r pardaning umumiy qalinligi va fovea zonasi tashqi qatlamlarining qalinligi ko'rsatkichlari bo'yicha taqsimlanishi shuni ko'rsatadiki, fovea zonasining umumiy to'r pardasi qalinligi 300 mkron va undan kam. Parafoveal zonaning tashqi qatlamlari to'r pardasining qalinligi 170 mkm dan kamligi faqat asosiy guruhda uchraydi. Bu shuni ko'rsatadiki, bu ko'rsatkichlar o'ziga xosdir va yuqoridagi zonalarning to'r pardasi qatlamlarining yupqalashishi 2-toifa diabetdagi o'ziga xos patologik o'zgarishlar deb aytishimiz mumkin.

Korrelyatsiya tahlilini o'tkazishda quyidagi natijalarga erishildi: DRsiz diabet bilan og'rigan bemorlarning yoshi va retinal periferik zonaning umumiy qalinligi (r = -0,44, p = 0,01), ichki qatlamlarning qalinligi o'rtasidagi salbiy korrelyatsiya. retinaning para- va periferik zonalari (mos ravishda r = -0,37, p = 0,03 va r = -0,47, p = 0,005); LEDning davomiyligi va umumiy qalinligi, retinaning ichki qatlamlarining qalinligi para- (r = -0,37, p = 0,03 va r = -0,4, p = 0,02) va periferik (r = -0,36) , p = 0,04 va r = -0,44, p = 0,009) zonalari.

**Xulosa**

Shunday qilib, DR klinik belgilari boʻlmagan 2-toifa diabet bilan ogʻrigan bemorlarda umumiy toʻr pardaning qalinligi va uning tashqi qatlamlari qisqaradi. Foveal, para- va perifoveal zonalarda ma'lum pasayishlar boʻlib, bemorning yoshi va kasallikning davomiyligi bilan bogʻliq emas. Tashqi qatlamlardan farqli oʻlaroq, retinaning peri- va parafoveal sohalarining ichki qatlamlarining qalinligi nazorat guruhidan sezilarli darajada farq qilmaydi (foveal zonalardan tashqari), ammo bemorning yoshi va kasallik davomiyligi bilan teskari bogʻliqdir. OKT usuli 2-toifa diabet bilan ogʻrigan bemorlarda DR klinik koʻrinishisiz makulaning tashqi va ichki qatlamlarida erta oʻzgarishlarni aniqlash imkonini beradi.

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# HAR XIL TABIIY SHAROITDAGI KURKALAR POSTNATAL ONTOGENEZIDA OYOQ SUYAKLARINING MORFOMETRIK XUSUSIYATLARI

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*Annotatsiya. Ushbu tezisda Respublikamiz chorvachiligiga ziyon yetkazayotgan, parrandachilikdagi oyoq suyaklari bo‘yicha adabiyotlar sharhi asosida ma’lumotlar keltirilgan.*

*Kalit so‘zlar: kurka, oyoq suyaklari, ozuqa, to‘qima.*

**Kirish.** Aholi o‘rtasida parranda go‘shtiga bo‘lgan ehtiyoj yildan-yilga ortib bormoqda. Tarkibidagi oqsil miqdori (24% dan ortiq) boshqa hayvon go‘shtiga nisbatan yuqoriligi, yog‘, xolesterin miqdorining kamligi va fosfor moddasining ko‘pligi hamda PP, B1 va B2 vitaminlarga boy ekanligi, ushbu go‘sht turining parhez mahsulot ekanligini belgilaydi. Parranda go‘shtini iste’mol qilish bo‘yicha jon boshiga dunyoda, Belorusiyada 58 kg, Rossiyada 29,4 kg, Ukrainada 26,9 kg bo‘lib, O‘zbekiston Respublikasida ham bu ko‘rsatgich so‘ngi yillarda ortib bormoqda, chunki parranda go‘shti va tuxumi parxez mahsulotlari hisoblanib, inson organizmi uchun muhim oziq ovqat manbai hisoblanadi[6].

Qushlar sinfining xususiyati turlarni ma’lum bir taksonomik birlikka (sinfga) talqin qilishning o‘ziga xos morfologik mezonlarini hisobga oladi. Tabiiy tanlanish jarayonida qushlar havoda harakat qilish qobiliyatiga ega bo‘lib, parvozga moslashdilar, buning natijasida ular bir qator evolyutsion xususiyatlarni oldilar, masalan, qanotlari va patlari, yaxshi rivojlangan elkama-kamar va tabaqalashtirilgan mushaklar, to‘rtta qushlar. -kamerali yurak, yuqori doimiy tana harorati (tananing

gomeotermiyasi), o'pka va kuchli skelet, maxsus nafas olish tizimi. Qushlar yuqori nerv faoliyatining yaxshi rivojlangan darajasiga ega, bu ularga individual va guruh harakatlarini bajarishga imkon beradi

Sinflararo farqlar bu hayvonlarning anatomik tuzilishidagi xususiyatlarni va fiziologik darajadagi ayrim omillarni hisobga oladi [Lysov V.F., Maksimov V.I., 2003].

**Olingan natijalar tahlili.** Qushlar sinfi 9000 ga yaqin turni o'z ichiga oladi, ular ikkita infra sinfga bo'lingan: ratitlar - Ratidae va keeled - Carinatae. Ulardan faqat o'n ikkitasi qishloq xo'jaligiga tegishli. Barcha ferma va parrandachilik novdalar yoki ikkita to'plamga bo'lingan (yuqori tartib) infra-sinf karinae (yangi palatin) ga tegishli ( Beycek V., Shtyastny K., 2004). – galliformes – bu birlikka tovuqlar, kurkalar , qirg'ovullar, qora guruch kiradi;

– g'ozsimon qushlar – anseriformes – vakillari – o'rdak, g'oz, oqqushlar. Inson qushlarning ba'zi turlarini qo'lga kiritib, ulardan to'liq, parhezli oziq-ovqat manbai sifatida foydalanishni o'rgandi (Kocish I.I., Petrash M.G., Smirnov S.B., 2007).

Go'shtli parrandachilikda 42 kunlik broylerlarning tana vazni 2,5 kg ga etadi. Shu bilan birga, selektsionerlar yosh hayvonlarning erta o'sish tezligiga, go'sht tanasining shakliga, go'sht sifatiga va mushak tolalari hajmiga e'tibor berishadi. Biroq, broyler tana vaznining o'sish sur'atlarini oshirishga qaratilgan naslchilik faoliyati ko'pincha suyak to'qimalarining shakllanishi va uning minerallashuvi jarayonlarini hisobga olmaydi, bu fiziologik zaxiralarning pasayishiga olib keladi va genetik potentsialning namoyon bo'lish imkoniyatlarini ta'minlash uchun mo'ljallangan. yuqori mahsuldorlik va qushning optimal salomatligi o'rtasidagi muvozanat [Ejkov D.V., Gerasimov A.P. Yapparov I.A., 2022]

A.Nikolaev va L.Teltsov (2006) fikriga ko'ra zamonaviy yuqori mahsuldor xochlarning broylerlarini etishtirish ko'pincha oyoq-qo'llarning suyak to'qimalarining o'sishi va rivojlanishining buzilishi bilan birga keladi, ularning shakllanishi osteogenezda mineralizatsiyaning o'ziga xos xususiyatlari bilan bog'liq.

**Parranda suyak to'qimalarining biologiyasi.** Tovuqlarda skelet tana vaznining taxminan 12-13% ni va g'ozlarda taxminan 15% ni tashkil qiladi. Skelet tizimining ko'rinadigan yengilligidan farqli o'laroq, u skeletning strukturaviy birliklari - suyaklarning ingichkaligi va shakllangan bo'shliqlari va ularning birlashishi bilan ta'minlangan mustahkamlik va elastiklik xususiyatlariga ega. Shu bilan birga, suyaklarning ixcham moddasi ohak tuzlariga boy [5].

Kıkırdak to'qimasi organ sifatida suyakning tarkibiy qismlaridan biridir. Bu uzun suyaklarning diafizalarini qoplaydigan elastik va elastik to'qimadir. Xaftaga gialin, elastik va tolali bo'linadi. Embrion rivojlanish davrida gialin xaftaga embrionning kelajakdagi skeletini ifodalaydi. Postembrional davrda hayvonlarda bu turdagi xaftaga to'qimalari bo'g'imlarni qoplaydi, qovurg'alarning xaftagasini hosil qiladi, shuningdek, nafas olish tizimidagi butun xaftaga skeletini ifodalaydi [1].

Oraliq moddaning bir qismi sifatida tolali xaftaga to'qimalarida parallel yoki kesishgan to'plamlari bo'lgan kollagen tolalari mavjud. Ushbu turdagi xaftaga lokalizatsiyasi intervertebral va ba'zi artikulyar xaftaga tushadi [2].

Postembrional davrda xaftaga to'qimalarining o'sishi yosh biriktiruvchi to'qima hujayralarini (appozitsiya o'sishi) o'z ichiga olgan perixondrium qobig'i orqali amalga oshiriladi. Bu qobiq zich tolali biriktiruvchi to'qimadan qurilgan bo'lib, yosh biriktiruvchi to'qima hujayralariga boy. Qatlamlash orqali etuk xaftaga yopishib, xaftaga va uning oraliq moddasi hosil bo'ladi. Tashqi qatlamlanishdan tashqari, xaftaga xaftaga to'qima hujayralarining murakkab bo'linishi tufayli ichkaridan ham o'sishi mumkin [3].

Umumiy strukturaviy va funktsional xususiyatlariga ko'ra, xaftaga to'qimalari qon tomirlariga ega emas, uzluksiz o'sishga qodir, o'zi kuchli va elastik va deformatsiyani qaytarish qobiliyatiga ega. Shu bilan birga, u metabolizmning nisbatan past darajasiga ega, uning oziqlanishi perixondriyaning qon tomirlaridan chiqarilgan ozuqaviy suyuqlikning to'qimalarga oqib chiqishi va xaftaga tushadigan hujayralariga kirib borishi orqali diffuziya orqali amalga oshiriladi va shu bilan uni oziqlantiradi [4].

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# BOSHLANG'ICH SINFLARDA TEXNOLOGIK TA'LIM JARAYONIDA O'QUVCHILARNI IJTIMOIY-HISSIY RIVOJLANTIRISH METODIKASINI TAKOMILLASHTIRISH

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*ANNOTATSIYA*

*Ushbu maqola boshlang'ich sinf o'quvchilarini ijtimoiy-hissiy rivojlantirish metodikasini takomillashtirish haqida ma'lumot va tavsiyalar berilgan.Maqolada tavsifiy metoddan foydalanilgan.*

*Kalit so'zlar*

*Kommunikativ savodxonlik, ko'nikma, malaka, ijodiy qobiliyat, xulq-atvor me'yorlari.*

Bugungi zamonaviy texnologiyalar rivojlanayotgan bir davrda boshlang'ich sinflarga ham texnologik ta'limni rivojlantirish zamon talabidir. Bu davrda o'quvchilarning ijtimoiy-hissiy rivojlantirish metodikasini takomillashtirish ham alohida ahamiyatga ega.

Ta'lim o'qituvchi va o'quvchilarning hamkorlikdagi faoliyati bo'lib, shu jarayonda shaxsning taraqqiyoti, uning ma'lumoti va tarbiyasi ham amalga oshadi. Darslarda o'qituvchi o'z bilimi, ko'nikma va malakalarini mashg'ulotlar vositasida o'quvchilarga yetkazadi, o'quvchilar esa uni o'zlashtirib borishi natijasida undan foydalanish qobiliyatiga ega bo'ladi. O'rganish jarayonida o'quvchilar o'zlashtirishning turli ko'rinishlaridan foydalanishadi, ya'ni o'zlashtirilayotgan ma'lumotlarni qabul qilish, qayta ishlash hamda amaliyotga tatbiq etishda o'ziga xos tafovutlarga tayanadi. Ta'lim jarayonida o'qituvchi va o'quvchilarlarning dars

paytidagi hamkorligi, o'quvchilarning mustaqil ishlashi, sinfdan tashqari ishlar shaklida ta'lim va tarbiya masalalari hal etiladi. Ta'limning maqsadi jamiyat ehtiyojiga mos ravishda shakllanadi. Shunday ekan, ta'lim-tarbiya maqsadi mos va mutanosib bo'lishi kerak. Ilmiy adabiyotlarda ta'limning maqsadi imkoniyatlaridan to'g'ri, aniq, o'rinli foydalanish ko'nikma va malakalarini hosil qilish, mantiqiy-ijodiy tafakkurni rivojlantirish, kommunikativ savodxonlikni oshirish, milliy g'oyani singdirish, sharqona tarbiyani shakllantirish, shaxsni ma'naviy boyitishdan iboratligi ta'kidlangan. Ta'limiy maqsad asosida o'quvchilarda mustaqil fikrlash, og'zaki va yozma savodxonlikni oshirish, mantiqiy tafakkurni rivojlantirish orqali ularning muloqot madaniyati takomillashtiriladi.[Boshlang'ich sinf o'quvchilarining ijodiy faoliyatga tayyorlash texnologiyasi.Maqola. Davlayeva Malika Abraxmatovna. Denov tadbirkorlik va pedagogika instituti ta'lim tarbiya nazariyasi va metodikasi boshlang'ich ta'lim yo'nalishi 1-kurs magistranti Eshkarayev Ulug'bek Choriyevich.Ilmiy rahbar pedagogika fanlari doktori, dotsent]

Boshlang'ich sinf o'quvchilarining ijodiy qobiliyatlarini rivojlantirishning psixologik xususiyatlari muammosi psixologiya fanida qiziqarli va ma'lum darajada tadqiq qilingan muammolardan biridir. Ijodkorlik deganda insonning yangilik yaratish, muammolarni yechishga qaratilgan ijodiy qobiliyati tushuniladi. Uning tag zamirida amaliylik, noodatiylik va erkinlik yotadi. Shuningdek, ijodiy fikrlash muayyan masala yuzasidan har tomonlama fikrlash, bir nuqtaga turli rakursdan qaray olishni anglatadi. Ijodiy fikrlash- bu shunday fikrlashki, natijada ma'lum bir muammoni tubdan yangi yoki takomillashtirilgan yechimini topish demakdir. Biz boshlang'ich sinf o'quvchilarini o'qitish va tarbiyalashning eng muhim nazariy va amaliy jihatlarini bilishimiz kerak. [Boshlang'ich o'quvchilarining ijodiy qobiliyatlarini rivojlantirishning psixologik xususiyatlari.Maqola. Jumayeva Habiba G'aforovna Buxoro davlat universiteti boshlang'ich ta'lim metodikasi kafedrasi o'qituvchisi]

Boshlang'ich ta'lim o'quvchilarining ijtimoiy – hissiy rivojlantirishga doir olib boriladigan pedagogik ishning mazmun mohiyati juda muhim masaladir. Chunki bugungi kunda boshlang'ich ta'lim o'quvchilarni ijtimoiy hayotning tobora

axborotlashuvi hamda ijtimoiy munosabatlar mazmunining murakkablashuvi yosh avlodni ijtimoiy hayotga tayyorlash, ularni ijtimoiylashtirishni taqoza etmoqda. Boshlang'ich ta'lim o'quvchilarining ijtimoiy munosabatlarini tog'ri tashkil etishga tayyorlash kelajakda o'ta murakkab jarayonda samarali faoliyat yurita olishlari uchun imkon beradi.

 Boshlang'ich ta'lim o'quvchilarini tizimli yondashuv asosida kattalar va tengdoshlari bilan muloqatchanlikka o'rgatish psixologik zo'riqishlarga nisbatan bardoshli bo'lish ko'nikmalarini shakllantirishga ko'maklashadi. O'quvchi uchun ijtimoiy munosabatlar subyektlari: ota-onalar.oila a'zolari,tengdoshlari,ustoz

Har qaysi yosh guruhiga tegishli bolalarni ijtimoiy munosabatlarga kirishishga qaratilgan ta'lim-tarbiyaviy vazifalar mavjud.

O'qituvchi har bir bolaning qobiliyatini alohida baholab borishi kerak. Keyinchalik jamoada hayot tajribasining to'plashi natijasida «men», «meniki» tushunchasining o'rnini «biz», «bizniki» degan tushunchalar egallaydi. Bu esa bolalarning o'zini jamoa a'zosi deb tushunib olganidan va o'z shaxsi manfaatini umumiy maqsadga buysundira oladigan davridan boshlanadi. Yaxshi o'rtoq bulish,- bu boshqalar bilan o'zini bir qatorda qo'yishi, ular to'g'risida g'amxo'rlik qilish, shu bilan birga sen yolg'iz emassan, sen to'g'ringda boshqalar ham o'ylaydi, senga boshqalar ham g'amxo'rlik qiladi degan ma'noni anglatadi.

Bolalar jamoasini shakllantirish uchun ma'lum shart - sharoitlar zarur hisoblashadi.

Bular:

- o'quvchilar uchun muammoli vaziyatni tashkil etish;
- o'quvchilarda o'zaro ahillik, g'amxo'rlik, jamoatchilik, insoniylikni tarbiyalashga yordam beruvchi mashg'ulotlar;
- bolalar uchun har xil qiziqarli faoliyatlarni tashkil etib borish; oila bilan mustahkam aloqa o'rnatish,
- bolalarga xulq - atvor me'yorlari va qoidalarini o'rgatib borish.
- o'quvchilar o'rtasida ijobiy xayrixohlik muhitini yaratish.

Xulosa sifatida shuni aytishimiz mumkinki, o'quvchilarni ijtimoiy-hissiy rivojlantirish uchun sharoit va muhit yaratshimiz kerak.

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# ОСНОВЫ ОПРЕДЕЛЕНИЯ ТЕПЛОТЕХНИЧЕСКИХ ПАРАМЕТРОВ ИНСОЛЯЦИОННЫХ ПАССИВНЫХ СИСТЕМ СОЛНЕЧНОГО ОТОПЛЕНИЯ

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*Статье рассмотрена, исследование теплотехнических параметров инсоляционных пассивных систем солнечного отопления. Приведено расчетная выражения тепловой эффективносты их светопрозрачной стены в здание с системой прямого солнечного обогрева через остекление и сглаживания суточного хода температуры воздушной среды отапливаемого с помощью инсоляционной пассивной системы солнечного отопления с краткосрочным аккумуляторов дневного излишка солнечного тепла, совмещенным с приемниками солнечного излучения и внутрикомнатным отопительным прибором, расположенных внутри помещения около светопроема.*

***Ключевые слова:*** *солнечное излучение, светопроем, рефлектор излучения, краткосрочный аккумулятор тепла, солнечное отопление, инсоляционные пассивные системы, тепловая эффективность, отапливаемое помещение.*

# ИНСОЛЯЦИОН ПАССИВ ҚУЁШ ИСИТИШ ТИЗИМЛАРИНИНГ ИССИҚЛИК ТЕХНИК КЎРСАТКИЧЛАРИНИ АСОСЛАШ

*Мақолада инсоляцион пассив қуёшли иситиш тизимларининг иссиқлик техник кўрсаткичлари ва илмий тадқиқотларнинг ҳолати таҳлил этилган. Ишлаб чиқилган тизимлар ва уларнинг иссиқлик техникавий ҳисоби*

*услубларининг афзаллик ва камчиликлари кўрсатиб берилган. Мазкур типдаги қуёшли иситиш тизимлари бўйича бажарилган ҳисобий – назарий тадқиқотларнинг мақсадлари асосан уларнинг иссиқлик самарадорлигини тизимнинг алоҳида унсурлари иссиқлик техникавий параметрларининг оптималлаштирилиш даражасини ҳисобга олмаган ҳолда тақрибий баҳолашга йўналтирилган.*

*__Таянч сўзлар:__ қуёш нурланиши, шаффоф тўсиқ, нур қайтаргич, қисқа муддатли иссиқлик жамлагич, қуёшли иситиш, инсоляцион пассив тизимлар, иссиқлик самарадорлиги, иситиладиган уй.*

## FUNDAMENTAL OF THERMAL PARAMETERS OF INSOLATION PASSIVE SOLAR HEATING SYSTEMS

*The article is considered, the calculated study of heat and power parameters of insolation passive solar heating systems. Calculated expressions are given for the thermal efficiency of their translucent wall in a building with a direct solar heating system through glazing and smoothing the daily temperature variation of the air environment heated using an insolation passive solar heating system with short-term accumulators of daily surplus solar heat, combined with solar radiation receivers and an indoor heating device, located inside the room near the light opening.*

*__Key words:__ solar radiation, window, reflector of radiation, short-term accumulator of heat, solar heating, insulation passive system, thermal efficiency, heating building.*

Разработка и натурные исследование теплотехнического режима объектов с инсоляционными пассивными системами солнечного отопления выполнены значительное число работ по их расчетному исследованию. Такие исследование по математического моделирования компонентов солнечного отопления с пассивными системами приведены в литературных источников. Исследователи

ограничивались лишь выполнением ориентировочных расчетов по определению теплотехнического режима помещений с инсоляционными пассивными системами солнечного отопления [1,2].

Основные показатели выше изложенных систем солнечного отопления является тепловая эффективность светопрозрачной стены.

Преимуществом рассматриваемого типа является то, что преобразование энергии солнечного излучения в тепловую происходит внутри отапливаемых помещений, т.е. после поступления солнечного излучения в помещение через светопроемы. Тепловые потери с поверхности совмещенного коллектора-аккумулятора системы, установленного около вертикального светопроема с внутренней стороны, конвекцией и излучением (составляющие до 50% падающего излучения) передаются в отапливаемое помещение как полезная энергия. Тепловая эффективность таких систем может оказаться более высокой, чем у традиционных пассивных систем солнечного отопления, в которых коллектор солнечной энергии и совмещенный с ним аккумулятор тепла расположены снаружи здания.

Для определения тепловой эффективности светопрозрачной стены используется выражение [3]

$$\eta_{cc} = \tau_{ccp} - \frac{K_{mn}^{co}}{\sum q_{na\partial,s}^{c.c}}\left(t_{on} - t_{oc}\right).$$ (1)

Коэффициент пропускания суммарной солнечной радиации светопрозрачной стены вертикального расположения $\tau_{ccp}$ в соответствии с [3] определяется из выражения

$$\tau_{ccp} = \frac{\tau_{ncp}q_{s}^{na\partial.np} + \tau_{pcp}\left(q_{s}^{na\partial.p} + q_{s}^{na\partial.omp}\right)}{q_{s}^{na\partial.np} + q_{s}^{na\partial.p} + q_{s}^{na\partial.omp}},$$ (2)

$\tau_{ncp}$ - коэффициент пропускания прямой солнечной радиации, $\tau_{pcp}$ - коэффициент пропускания рассеянной солнечной радиации; $q_{s}^{na\partial.np}$ - плотности потока прямой

солнечной радиации, $q_в^{пад.р}$ - плотности потока рассеянной солнечной радиации и $q_в^{пад.отр}$ - плотности потоков отраженной солнечной радиации.

$\tau_{пср}$ зависит от $i$ (угл падения луча) прямой солнечной радиации, значение $\tau_{рср}$ мало зависит от значения $i$.

Методы расчета $\tau_{пср}$ и $\tau_{рср}$ рассмотрена в [4, 5].

Методика расчета значений $q_в^{пад.пр}$, $q_в^{пад.р}$ и $q_в^{пад.отр}$ изложены в [6].

$K_{mn}^{co}$ -коэффициент тепловых потерь светопрозрачного ограждения, которая зависит от количества слоев светопрозрачного ограждения и коэффициентов теплообмена между наружной и внутренней поверхностях светопрозрачного ограждения а также коэффициента теплопередачи через воздушную прослойку, между слоями светопрозрачного ограждения. Сколько минимальна значения $K_{mn}^{co}$, столько максимальна значения $\eta_{cc}$. Наша задача установления критического значения толщины воздушной прослойки, между двумя слоями светопрозрачного ограждения ($\delta_{вп,со}$).

Для определения значения $\delta_{вп,со}$ двухслойного светопрозрачного ограждения используется выражение

$$\delta_{вп,со} = 1{,}99\gamma H^{0,25} \left( \frac{T_{ср,в} a_{ср,в} v_{ср,в}}{t_{on} - t_{oc}} \right)^{0,25}, \qquad (3)$$

$H$ - высота ограждения; $t_{on}$ и $t_{oc}$ − температуры отапливаемого помещения и окружающей среды; $T_{ср,в}$ - среднее значение абсолютной температуры воздуха в воздушной прослойке светопрозрачного ограждения; $a_{ср,в}$, $v_{ср,в}$ - коэффициенты температуропроводности и кинематической вязкости воздуха в воздушной прослойке светопрозрачного ограждения; $\gamma$ - коэффициент пропорциональности, который зависит от коэффициентов теплообмена между наружной и внутренней поверхностях светопрозрачного ограждения[7].

В инсоляционных пассивных системах солнечного отопления применение плоских рефлекторов позволяет увеличить плотность потока прямой солнечной

радиации, падающей на поверхность светопрозрачного ограждения [8,9,10]. Экспериментальных объектах плоский рефлектор в дневное время приводится в горизонтальное положение но отсутствует информация о выборе такого расположения рефлектора. Результаты расчетов показывают что экспериментальные измерение, проведенных нами с 5 декабря по 10 января при низком стоянии Солнца, эффект применения плоского рефлектора снижается за счет уменьшения прямой солнечной радиации, а также за счет не полного освещения фронтальной поверхности светопроема отраженной от зеркальной поверхности рефлектора прямой солнечной радиации.

Эффективность применения плоского рефлектора, в инсоляционных пассивных системах солнечного отопления зависит от угла падения прямого солнечного излучения, отраженного от поверхности рефлектора, на поверхность светопроема ($i_{cn}$). В работах предложено выражение для определения значения $i_{cn}$

$$i_{cn} = \arccos в_x, \tag{4}$$

здесь $в_x$ - по оси $x$ составляющий единичного вектора $в$, которая определяется с помощью уравнения зеркального отражения, т.е.

$$в = c - 2n(c \cdot n), \tag{5}$$

где $c$ и $n$ – единичные векторы солнечного луча и нормали рефлектора[11, 12].

Уравнение (4) можно написать следующем виде

$$в_x = -\cos\delta\sin\varphi\cos\omega(\tau_o - \tau) - 2\sin\alpha\cos i^{ncu}_{snp} - \sin\delta\cos\varphi, \tag{6}$$

$\delta$ - склонение Солнца; $\varphi$ - широта местности; $\tau_o$ - истинный полден; $\tau$ - текущее время на сутки; $\omega = 1,5\dfrac{\text{град}}{\text{час}}$ - угловая скорость вращения Земли вокруг своей оси;

$$\cos i^{ncu}_{snp} = \cos\delta\cos(\varphi - \alpha)\cos\omega(\tau_o - \tau) + \sin\delta\sin(\varphi - \alpha) \tag{7}$$

где $\cos i^{ncu}_{snp}$ - угол падения прямого солнечного излучения на поверхность рефлектора; $\alpha$ - угол наклона поверхности плоского рефлектора к горизонту.

При горизонтальном расположении плоского рефлектора ( $\alpha = 0$ ), выражение (6) и (7) принимают вид для расчета угла падения прямого солнечного излучения соответственно на вертикальную и горизонтальную поверхности.

Основная сущность применения краткосрочных аккумуляторов тепла в инсоляционных пассивных системах солнечного отопления заключается в сглаживании суточного хода температуры воздушной среды отапливаемого помещения и, тем самым в устранении теплового дискомфорта в нем в дневное время.

Температурный режим аккумуляторов дневного излишка солнечного тепла, совмещенных с приемниками солнечного излучения и внутрикомнатным отопительным прибором, расположенных внутри помещения около светопроема в инсоляционной пассивной системы солнечного отопления является, как правило, зависит от объема аккумулирующей среды, приведенного к единице площади лучепоглощающей поверхности рассматриваемого аккумулятора.

Наряду с этим, как показывают результаты анализа и обобщения опыта и эксплуатации жилых объектов с солнечными системами отопления, даже незначительное аккумулирование дневного излишка тепла солнечного излучения может существенно повысить коэффициент замещения тепловой нагрузки на отопление рассматриваемых систем. Вместе с тем, неоправданное увеличение емкости аккумулятора тепла не дает заметного роста коэффициента замещения тепловой нагрузки системы. Поэтому одной из центральных задач разработки новых и усовершенствования действующих инсоляционных пассивных систем солнечного отопления являются оптимизация удельной теплоемкости и изучение нестационарных температурных режимов их краткосрочных аккумуляторов тепла.

Сущность применения краткосрочного (суточного) аккумулятора теплоты в инсоляционных пассивных системах солнечного отопления с плоскими рефлекторами как уже констатировано выше, заключается в рациональном

использовании дневного излишка, преобразованного в тепло солнечного излучения в ночные часы.

В работах отсутствует соответствующее обоснование по выбору значения удельного объема аккумулирующей среды $v_в$ воды (которая удельная теплоемкость составляет $c_в$=4,1868кДж/кг·$^0$С) к единице площади приемника (аккумулятора) солнечного излучения, равного 746,9 л/м$^2$.

В таких значениях удельного объема аккумулируещей среди (води), дневное значение потока поглощенной суммарной солнечной радиации $\sum q_{пог}$ лучепоглощающей поверхности рассматриваемого аккумулятора составляет 13600 кДж/м$^2$.

Тогда используя вышеизложенных данных можно определит значение ежедневного приращения температуры аккумулирующей среды, воды (когда неучитываются тепловые потери в нем),

$$\Delta t = \frac{\sum q_{пог}}{v_в \cdot c_в} \cdot \frac{13600 \frac{кДж}{м^2 \cdot день}}{746,9 \frac{кг}{м^2} \cdot 4,1868 \frac{кДж}{кг \cdot °С}} = 4,35 \quad \frac{°С}{день}.$$

Значит, результат показывает что для повышения температуры воды в аккумуляторе к началу отопительного сезона, на 4,35 выше, чем температура воздушной среды отапливаемого помещения, требуется 10 суток. Если учитываем тепловые потери аккумулирующей среды, воды, этот срок может составлять до 30 суток. Видно что, параметры аккумулирующей среды, воды, использованного в [8], фактически ближе показателю сезонных аккумуляторов тепла солнечного излучения. В таком случае такая солнечная система отопления (инсоляционная пассивная система солнечного отопления) покрывает от 75 до 90 % годовой отопительной нагрузки.

## Выводы

В статье приведено расчетно-теоретические и теплотехнические параметры исследования инсоляционных пассивных систем солнечного

отопления в основном направлены на приближенную оценку их тепловой эффективности без учета степени оптимизированности теплотехнических параметров их отдельных элементов.

Анализ и обобщения мирового опыта эксплуатации объектов с инсоляционными пассивными системами солнечного отопления позволяют сделать предположение о возможности применения систем солнечного отопления рассматриваемого типа в климатических условиях центральноазиатских республик при условиях соответствующих (конструктивных) совершенствований и устранения указанных известных недостатков, сохранив при этом все перечисленные их преимущества.

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# MILLATLARARO MUNOSABATLARNING IJTIMOIY-SIYOSIY VA MADANIY-MA'NAVIY OMIL

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*Annotatsiya: Millatlararo munosabatlarning ijtimoiy-siyosiy va madaniy-ma'naviy omillar guruhini yaratishda ochiqlikni namoyish etadi, bu etnik guruhlari o'rtasidagi ijtimoiy masofaning kichikligini ko'rsatadi. Milliylik ijtimoiy taraqqiyotga ta'sir qilishini ta'kidlaydi va ijtimoiy tengsizlikning etnik jihati borligiga ishonmaydi.*

*Kalit so'zlar: millatlararo munosabatlar, ijtimoiy masofa, ijtimoiy targ'ibot, etnik guruhlar, tengsizlikning etnik jihati, ijtimoiy tengsizlik, mehnatning etnik taqsimoti, millatlararo totuvlik, etnik tengsizlik, vatanparvarlik tarbiyasi.*

Mamlakatimiz mustaqillikni qo'lga kiritgan ilk kunlardan boshlab uning rivoji taraqqiyoti yo'lida eng avvalo undagi turli millat va ellatlar orasida hamjihatlik, ertangi kunga shukuronalik xissini shakllantrishdek maqsadni oz oldiga qo'ydi. Mustaqil O'zbekistonni rivojlantirish va uning mustaqilligini mustahkamlash uchun mamlakatdagi turli millat vakillarini jipslashtirish uchun e'tabor qaratila boshladi desak adashmagan bo'lamiz. Bizga ma'lumki, mustaqilligimiz tufayli juda ko'p sohalarda yutuqlarni qo'lga kiritdik. Bugun biz yangi hayot, huquqiy demokratik davlat barpo etayotgan ekanmiz, zamonning o'zi jamiyatimizda hanuz saqlanib kelayotgan, umrini o'tab bo'lgan ba'zi qarashlarni tubdan o'zgartirishga, davr bilan hamnafas bo'lib, yangicha fikrlashga da'vat etayotganini hisobga olish lozim.

Millatlararo munosabatlar haqida ko'plab mahalliy mualliflar millatlararo munosabatlarning ikki tomonlamaligini ta'kidlaydilar. Bir tomondan, globallashuv,

integratsiya, markazlashgan etnik tendentsiyalar, yaxlit, yaxlit dunyoning shakllanishida, ijtimoiy hayotning turli jabhalarining baynalmilallashuvida ifodalanadi va boshqa tomondan – parchalanish

O‘zbekiston Respublikasi Prezidenti SH. Mirziyoyevning tashabbusi bilan O‘zbekiston Respublikasini rivojlantirishning 2017-2021 yillarga mo‘ljallangan Harakatlar strategiyasida millatlararo totuvlik va diniy bag‘rikenglikni taminlashga e‘tibor qaratildi. Harakatlar strategiyasi doirasida fuqarolik, millarlararo va konfessiyalararo tinchlik hamda totuvlikni mustahkamlash borasida ishlar amalga oshirildi.

Millatlararo totuvlikni saqlash zamonaviy o‘zbek jamiyatining asosiy vazifasidir, shuning uchun millatlararo munosabatlar doimiy e’tibor va izlanishni talab qiladi. Millatlararo murosasizlik, etnik va diniy ekstremizm, terrorizmning namoyon bo‘lishi bilan bog‘liq muammolar dolzarbligicha qolmoqda. Strategiyada, shuningdek, millatlararo munosabatlarning rivojlanishiga salbiy omillar ta’sir ko‘rsatishi va ular orasida ijtimoiy va mulkiy tengsizlikning yuqori darajasi, mintaqaviy iqtisodiy tabaqalanish, o‘zbek fuqarolik o‘ziga xosligini shakllantirish, millatlararo muloqot madaniyatini rivojlantirish uchun ta’lim va madaniy tadbirlarning yetarli emasligi qayd etilgan. Shu sababli, Harakatlar strategiyasidan Taraqqiyot strategiyasi sari tamoili asosida yaratilgan 2022-2026-yillarga mo‘ljallangan Taraqqiyot strategiyasida millatlararo munosabatlar sahosida O‘zbekiston Respublikasi davlat siyosati konsepsiyasining izchil amalga oshirishni ta‘minlash va turli millat yoshlari uchun qo‘shimcha qulay shart-sharoitlar yaratish, ularda fuqarolik burchini anglash, vatanparvarlik, bag‘rikenglikka asoslangan millatlararo muomala madaniyatini yuksaltirish kabi masalalarga alohida e‘tibor qaratilgan. Respublikamizda 138 ta milliy madaniy markazlar muvafaqqiyatli faoliyat yuritib kelmoqda.

Millatlararo munosabatlarda mikrodarajadagi shaxslararo o‘zaro munosabatlar muhim rol o‘ynaydi. Etnik jamoalarning saqlanib qolishiga hissa qo‘shadigan etnik chegaralarni o‘rganish nafaqat turli etnik jamoalardan odamlarni nimadan ajratib turadigan va farqlashini, balki ularni birlashtiradigan narsalarni ham aniqlashga

yordam beradi. Biroq, turli etnik guruhlar oʻrtasida ham ijtimoiy, ham etnopsixologik xususiyatga ega boʻlgan masofa muqarrar. Millatlararo munosabatlardagi xurofot darajasi va keskinlikning mavjudligi yoki yoʻqligi uning koʻlamiga bogʻliq. Etnik masofa jismoniy koʻrinish, mentalitet va madaniyatdagi ob'ektiv ravishda mavjud oʻxshashlik yoki farqlarni tavsiflaydi, shuningdek, etnik guruhlar va ularning qiyofasini idrok etish, yoqtirish, yoqtirmaslik va vakillar oʻrtasidagi munosabatlarga ishonch darajasini aks ettiradi. Millatlararo munosabatlarda xalqlarining ijtimoiy-iqtisodiy, ma'naviy-madaniy, ijtimoiy-siyosiy sohalardagi manfaatlari har doim ham mos kelmasligini ta'kidlaydi. Bu manfaatlar oʻrtasidagi obyektiv nomuvofiqlik zamonaviy qarama-qarshiliklarning asosiy sababidir. Ushbu qarama-qarshiliklar orasida aholining etnik tabaqalanishi qayd etilgan, ya'ni milliy guruhlarning jamiyat hayotining iqtisodiy, siyosiy va boshqa sohalarida notekis taqsimlanishi hosil boʻladi.

Oʻzbekiston Respublikasi Konstitutsiyasida jamiyat hayotining, xususan, mafkuraviy jarayonlarning ham huquqiy me'yorlari aniq belgilab qoʻyilgan. Konstitutsiyaning 19-moddasida barcha fuqarolar bir xil huquq va erkinliklarga ega boʻlib, jinsi, irqi, millati, dini, ijtimoiy kelib chiqishi, e'tiqodi, shaxsi va ijtimoiy mavqeidan qat'iy nazar, qonun oldida tengdir deb belgilab qoʻyilgan. Albatta, davlat, jamiyat, siyosiy tizimining oʻzagi, mamlakat barqarorligi va izchil taraqqiyoti uchun mas'ul boʻlgan siyosiy unstitutdir. Shu ma'noda, u jamiyatning mustahkam jipslashuvi, fikrlar xilma - xilligi va qarashlar rang-barangligi asosida hayotdagi jarayonlarning muvofiqlashuvidan manfaatdordir.

Millatning ta'siri muammosini oʻrganish nuqtai nazaridan. shaxsning ijtimoiy mavqei xususiyatlari va ularning oʻzgarishi boʻyicha ular nafaqat etnik jihatdan aniqlangan tengsizlikning real holatlari, balki stereotiplarda mustahkamlangan gʻoyalar ham muhimdir. Yosh avlod oʻrtasida olib borilayotgan tarbiyaviy ishlar kabi millatlararo totuvlikning muhim omili mutaxassislarni tashvishga solmoqda. Yoshlarning boshqa xalqlarga nisbatan tajovuzkor guruhlar safiga qoʻshilish ehtimolini istisno qilish yoʻllarini izlash va izlash zarur. Vatanparvarlik, jumladan, millatlararo totuvlik ruhida tarbiyalash yoʻnalishidagi ishlarni doimiy ravishda olib

borish zarur. Respublikada yetarlicha bag'rikenglik darajasiga qaramay, yuzaga kelishi mumkin bo'lgan nizolarning oldini olish va oldini olish uchun millatlararo munosabatlar holatini doimiy monitoring qilish zarur.

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# THE DESCRIPTION OF TRUTH AND ISSUES IN SHAKESPEARE'S HISTORIES

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*ANNOTATION*

*This article is dedicated to the study of Shakespeare's life and description of truth and issues in William Shakespeare's works and comparing Shakespeare's works with other famous Renaissance writers in the world.*

*Keywords: sonnet, narrative story, William Shakespeare, truth, comedy.*

## Introduction

William Shakespeare, sometimes written Shakespeare, was an English author, dramatist, and actor. He was born in Stratford-upon-Avon, Warwickshire, England, on April 26, 1564, and passed away there on April 23, 1616. Shakespeare is widely considered the greatest dramatist of all time. Shakespeare is a unique figure in world literature. Shakespeare is the most well-known living author; his plays, which were originally written for a small repertory theater in the late 16th and early 17th centuries, are now performed and read more frequently than the works of other poets and novelists like Homer and Dante, as well as poets and novelists like Leo Tolstoy and Charles Dickens. Shakespeare realized the prediction made by the eminent poet and dramatist Ben Jonson, stating that he "was not of a generation, but Explaining his ability to create imaginative images of humor and tragedy that linger in the mind after reading or watching a play is not too difficult. He is a poet of extraordinary poetic

force, perceptiveness, and intellectual agility. Shakespeare had these qualities as well, but his acute mind was focused on people and the whole range of their conflicts and emotions rather than on abstract or remote matters. This is how other brilliant writers have employed their sharp minds, but Shakespeare is incredibly talented with language and imagery, allowing his mental energy to find full and memorable expression in relatable human situations that are both captivating and creatively engaging. Since Shakespeare is supposed to have written history plays in the First Folio, I think there is strong evidence to support the idea that he wrote only those plays and nothing else. As always, evidence should come before description. The evidence is not entirely conclusive, of course; Elizabethan generic vocabulary is notorious for being spongy; modern title pages contain such hybrids as The Tragedy of Richard II, The Tragedy of Richard III, The History of Troilus and Cressida, The Real Chronicle History of King Lear, and A Fun Conceited History called The Taming of a Shrew. However, it appears that the generic divisions in the Folio are specific to one discourse style: F1 is an enterprise. Company edition, and it is definitely the case that the way the plays are arranged into Comedies, Histories, and Tragedies represents the company's understanding of the repertory—and, I suppose, William Shakespeare's as well.

The editor of "Shakespeare for Every Day of the Year," Allie Esiri, examines true moments in all of Shakespeare's works. Her current book, Shakespeare for Every Day of the Year, is the result of her three-year (and lifetime) research, which began with her anthologies A Poem for Every Night of the Year and A Poem for Every Day of the Year. From his plays to his poems, Allie believes that Shakespeare has a lot to teach us about truth, which is this year's National Poetry Day theme.

Shakespeare's truth encompasses a wide range of concepts. Extracting a single stable sense of truth from Shakespeare is as pointless as extracting one from life, which adds the subject of truth to an ever-growing list of topics on which he has elaborated from every angle. There is no side of any point that Shakespeare has not taken and then disrupted with equal brilliance, whether in identity politics, power struggles, passion, history, or war. The case of Macbeth exemplifies Shakespeare's ongoing ambivalence

about reality. Macbeth is spurred on to commit his criminal deeds by the fact of who he is and will become, rather than by lies. However, it is also a fact that is both his undoing and inescapable: he knows he cannot be killed by someone who is born of a woman, and he dies at the hands of just such a man. Truth surges alongside his nefarious rise and follows him to his demise, fulfilling Banquo's wise warning: *'often-times, to win us to our harm, / The instruments of darkness tell us facts, / Win us with honest trifles, to betray's / In deepest consequence'*.

Shakespeare's truth is a whole body of knowledge. Finding a consistent notion of truth in Shakespeare is as fruitless as finding one in life, which merely adds the topic of truth to the long list of subjects he has explored in great detail. Shakespeare has tackled every angle with equal skill and flair, whether it be in identity politics, power battles, emotion, history, or warfare. The instance of Macbeth best illustrates Shakespeare's persistent indecisiveness concerning reality. Rather than being motivated by deception, Macbeth's illegal actions are motivated by the truth about who he is and will become. It is also a fact, though, that is both inevitable and his downfall: he is aware that he cannot be killed.

**CONCLUSION**

It is impossible to dispute William Shakespeare's impact on the globe. Even now, individuals of all ages are still impacted by Shakespeare's works. In his 28-year career, he composed two lengthy narrative poems, 154 sonnets, 37 plays, and a few shorter pieces. Shakespeare mixed classical and medieval literature, which helped to shape contemporary writing—Shakespeare's emphasis on literary methods and genre-merging also influenced theater. Approximately 3,000 new words were added to the English language by him as well. His writings continue to have relevance now. William Shakespeare has left a lasting impact despite his many years of absence.

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# SUVNI KOAGULYATSIYA QILISHNING GIGIYENIK AHAMIYATI

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**Annotatsiya.** Bugungi kunda butun dunyo bo'yicha ichimlik suvi tanqisligi yuzaga kelmoqda. Shu sababdan hozirgi vaqtga kelib suv tanqisligini oldini olish maqsadida suvni qayta ishlash ob'yektlarining ish samaradorligini oshirishga bo'lgan talab ortib bormoqda. Bulardan biri sifatida kogulyatsiya jarayonini misol qilib keltirishimiz mumkin. Koagulyatsiyaning asl ma'nosi suvdagi kolloid moddalarning (gidrozol yoki zollar) reagentlar bilan o'zaro bog'lanib, pag'alar paydo qilishi va cho'kishi (gidrogellar yoki gellar). Koagulyatsiya jarayoni suv tarkibiga birorta kimyoviy reagent- koagulyant ($Al_2(SO_4)_3$) quyilishi natijasida sodir bo'ladi.

**Kalit so'zlar.** Aluminiy sulfat, koagulyant, optimal doza, ichimlik suvi, reagent, koagulyatsiya jarayoni.

### Muammoning dolzarbligi.

Bugungi kunga kelib yildan – yilga aholi sonining ortishi hisobiga ulardan hosil bo'ladigan qattiq va suyuq chiqindilarning ortishi natijasida yer osti suvlariga juda ko'plab zarar yetmoqda ya'ni yer osti suvlari keragidan ortiq miqdorda ifloslanayotganiga guvoh bo'lib turibmiz. Bundan tashqari ichimlik suvidan to'g'ri foydalanmaslik natijasida ko'plab mamlakatlarda isrofgarchilikning ortishi hisobiga toza ichimlik suviga bo'lgan talab ortib bormoqda. Natijada toza ichimlik suvi zaxirasi kundan kunga kamayib bormoqda.

Ushbu oqibatlar hisobiga hozirgi kunga kelib suvni qayta ishlashga bo'lgan talab ortib bormoqda va suv sifatini yaxshilashga qaratilgan bir qancha chora – tadbirlar ishlab chiqilgan. Suv sifatini yaxshilashga qaratilgan bosqichlar: Suvni tindirish → Koagulyatsiya → Filtratsiya → Zararsizlantirishdan iboratdir. Biz bugungi maqolamizda ushbu bosqichlar orasida Koagulyatsiya bosqichiga alohida to'xtalib o'tmoqchimiz.

Koagulyatsiya jarayoni suv sifatini yaxshilar usullaridan biri hisoblanadi. Bu bosqichda koagulyant suvdagi mavjud zarrachalarga qarama-qarshi elektr zaryadiga ega bo'ladi va suvda eriydi. Shundan so'ng esa koagulyant reaksiyasiga kirishadi hamda pag'alar hosil qiladi. Koagulyant ta'sirida suvdagi kolloid zarrachalar neytrallashadi, ularning muvozanati va diffuz holati buziladi. Natijada ular bir-biri bilan qo'shilib (agglomeratsiya) yirik pag'alar hosil qilib cho'ka boshlaydi. Pag'alarning bir-biri bilan qo'shilib suvdagi osilma zarrachalarni o'ziga biriktirib olib yirik pag'alarni hosil qiladi. Bu jarayon esa adgeziya yoki flokkulyatsiya deyiladi.

Koagulyatsiya sifatida hozirgi kunda keng qo'llaniladigan kimyoviy modda bu $Al_2(SO_4)_3*18H_2O$ dir. Bu moddaning tarkibida - 13,5 foiz alyumin oksid $Al_2O_3$ , 40,3 %- alyumin sulfat $Al_2(SO_4)_3$ va $Al_2(SO_4)_3*18H_2O$ - 46,2 % dan tashkil topgan. Suvni koagulyatsiya qilish uchun ishlatiladigan moddalarning tarkibida qo'shimcha zararli moddalar bo'lmasligi kerak. Jumladan: ftor, mis, margumush va shunga o'xshash organizm uchun salbiy ta'sir ko'rsatuvchi moddalar bo'lmasligi kerak.

Koagulyatsiya sifatida bundan tashqari ayrim vaqtlarda ya'ni tekshirish uchun va uncha ko'p bo'lmagan miqdordagi suvlarni koagulyatsiya qilish uchun temir (III) xlorid $FeCl_3$ ishlatiladi. Bu maxsulotning ko'p ishlatilmasligiga sabab suvning oz bo'lsada ishqoriy muhitini oshirganligi va suvning rangini o'zgartirganligi tufayli ishlatilmaydi.

Koagulyantlarning suvga qo'shiladigan miqdori har doim ham bir xil emas. Bunga sabab esa suv tarkibidagi oslima zarrachalar va mikroorganizmlarning yil fasllariga qarab o'zgarib turishidir.

Quyidagi jadvalda koagulyantlarni ruxsat etilgan miqdorlari keltirilgan

| № | 1 l suvdagi osilma moddalar miqdori (gr da) | 1 l suvga qo'shiladigan alyumin sulfat yoki temir(III) xlorid miqdori |
|---|---|---|
| 1 | 0,1 gacha | 25-35 |
| 2 | 0,1-02 | 30-45 |
| 3 | 0,2-0,4 | 40-60 |
| 4 | 0,4-0,6 | 45-70 |
| 5 | 0,6-0,8 | 55-80 |
| 6 | 0,8-1.0 | 60-90 |
| 7 | 1,0-1,4 | 65-105 |
| 8 | 1,4-1,8 | 75-115 |
| 9 | 1,8-2,2 | 80-125 |
| 10 | 2,2-2,5 | 90-130 |

Suvni koagulyatsiya qilishdan oldin koagulyantning optimal dozasini aniqlab olish muhim rol o'ynaydi. Koagulyantning optimal dozasini aniqlash laboratoriya usulida amalga oshiriladi.

Optimal dozani aniqlab olish uchun Alyuminiy sulfatning $(Al_2(SO_4)_3)$ 5% li eritmasi olinadi. Ushbu eritmaning 1 millilitri 50 mg moddani tutadi. Biz bilamizki koagulyantning optimal dozasini aniqlashda nazariy koagulyatsiya jarayonini o'tkazganimizda ishqoriylikning har bir gradusiga 39,6 mg Alyuminiy sulfat $(Al_2(SO_4)_3)$ eritmasi talab qilinadi. Bundan ko'rinib turibdiki suvning ishqoriyligining har bir gradusiga 39,6 mg Alyuminiy sulfat $(Al_2(SO_4)_3)$ eritmasi to'g'ri kelsa, 1 litrga 5 % Alyuminiy sulfat $(Al_2(SO_4)_3)$ eritmasidan 0,8 ml to'g'ri keladi. Bundan ko'rinib turibdiki 50 mg modda 1 ml 5 % Alyuminiy sulfat $(Al_2(SO_4)_3)$ eritmasida 39,6 mg modda tutishini bilgan holda X ml5 % Alyuminiy sulfat $(Al_2(SO_4)_3)$ eritmasi quyidagicha hisoblanadi.

$$X = \frac{36,9}{50} = 0,79 \text{ ml } 5\% \text{ Alyuminiy sulfat } (Al_2(SO_4)_3)$$

Koagulyantning taxminiy dozasini aniqlash quyidagicha o'tkaziladi.

Buning uchun 10 ta kolba olinadi va barchasiga 1 litrdan tekshirilayotgan suv solinadiva so'ngra har bir gradus ishqoriylikka kerakligicha koagulyant qo'shiladi.

| № kolbalar | Koagulyantning % dagi hisob – kitob miqdori |
|---|---|
| 1 | 100 |
| 2 | 90 |
| 3 | 80 |
| 4 | 70 |
| 5 | 60 |
| 6 | 50 |
| 7 | 40 |
| 8 | 30 |
| 9 | 20 |
| 10 | 10 |

Koagulyatsiyaning samaradorligini kuzatish uchun koagulyantning taxminiy dozasini aniqlash quyidagicha olib boriladi.

Ishqoriylikning har bir gradusiga koagulyantdan birinchi kolbaga 100 %, ikkinchi kolbaga 70 %, uchinchi kolbaga 50 % koagulyant quyiladi.

So'ngra suv hamda koagulyant yaxshilab aralashtiriladi. Yarim soat tinch holatda qoldiriladi va koagulyantning optimal miqdori aniqlananadi. Bunda koagulyant kam miqdorda sarflanib tez katta pag'a hosil bo'lib cho'kmaga tushsa, hamda aralash holatda loyqalanmasa bu koagulyantning optimal miqdori deb ataladi.

**Xulosa.** Ushbu jarayondan ko'rinib turibdiki koagulyatsiya suv sifatini yaxshilash usullari orasida muhim rol o'ynaydi. Bu jarayonni olib borishda sinchkovlik va masuliyat talab etiladi. Suvni koagulyatsiya qilishning gigiyenik ahamiyati shundan iboratki suv har tomonlama koagulyatsiya natijasida har mikroorganizmlardan, osilma zarrachalardan tozalanadi. Gigiyenik jihatdan 950:2011 DavST lariga javob berishi kerak.

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# EXISTENCE OF COLLABORATIVE WORK BETWEEN COLLEAGUES AND PUPILS, ITS IMPORTANCE TO SUCCEED IN MANAGING SCHOOL DUTIES AND RESPONSIBILITIES

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## *ABSTRACT*

*This paper sheds some light on the importance of collaborative work in school management success and formation of team work to improve good relations between school leaders, colleagues and learner individuals. And also shows that effective teaching experiences can be more useful when old methods are shared and evaluated with new modern ideas.*

***Key words:*** *Teamwork, innovative practices, professional development, close interaction.*

## I.Introduction

Collaboration between teachers contributes to school improvement and student success. Collaboration between teachers is a powerful professional development activity that can help teachers to improve their subject knowledge, think about teaching strategies in different ways, share experience and learn new ideas from each other to try in the classroom. For first and most beneficial side of collaboration is that teachers have an opportunity of developing teaching skills by using different methods those used by their colleagues and showed effective results. Teachers who work collaboratively tend to use new innovative practices and succed in managing the classroom faster rather than the teacher who prefers not to be involved in teamwork.

Collaboration leads aimed success when it also include close interaction with pupils other than teachers themselves. There can be some learners who need the support of the peers as well as teacher motivation. The result of nice collaboration between them can be seen in the rise of pupils' self-esteem and interest towards the course.

## II.Literature review.

According to the research, teachers' professional skills in their own sphere are effected by external facilitators, such as necessary amount of resources , relationship among colleagues and critical reflection  (Ciampa & Gallagher, 2016; Furtak & Heredia, 2014; Schipper et al., 2017; Wardrip, Gomez & Gomez, 2015). Teacher's successful collaboration is based on the working process that leads colleagues' aimed result of task ( Vangrieken et al. (2015),  Examples of process factors that catalyze teacher collaboration mentioned in previous research include goal clarity (Alles, Seidel & Gröschner, 2018), experimentation and conflict processes that provide engagement in effective learning activities deals with one's beliefs (Achinstein, 2002; Owen, 2016; Schipper, Goei, de Vries & van Veen, 2017; Tam, 2015a)

## Methodology

Research method: Interview.A type of data collecting tool that requires structured conversation between interviewer who provides questions and interviewee to give answers.

When: 20th of October; Where: at school; How: face to face; Data collecting tool: Interview.

### Participants

Shermatova Muxlisa – work place: 16th school in Ferghana region; experience: 1 year;  teaches 7th grade pupils; level: B2;

Olimjonova To'lganoy – work place: 51th school in Ferghana region; experience: 2 year; teaches 1st, 2nd grade pupils; level: B2;

Ahmedova Zarnigor – work place: 9th school in Ferghana region; experience: 2 year; teaches 1st,2nd grade pupils; level: C1 ;

O'ktamova Asila – work place: 29th school in Ferghana region;

experience: 2 year; teaches 1st,2nd,8th,9th grade pupils; level: C1;

Sodiqova Mohlarbegim – work place: 15th in Ferghana region; experience: 1year; teaches 6th grade pupils; level: B2.

**Interview questions:**

1.If your students do not want to be involved in the activity what action will you take?

2.Do you ask your colleagues' help from time to time? If yes in what kind of situations?

3.Can you manage bad- mannered students yourself? What methods do you use to get on well with them in the classroom?

### III.Data analysis and discussion

5 students who both study at the Ferghana State university and have about 1 and 2 year work experience at school were included in the interview.While some of the responses given by interviewees were the same, some of them tried to make additional viewpoint. In the first situation, 60%of the solution was implementing prizes and bonuses to make all of the students active during the lesson. Only one participant claimed to be strict, while changing the activity or the method with another was supported by one other interviewee. For the next two questions those were about asking colleagues help in terms of classroom management, all interviewees mentioned that they all feel necessaty for colleagues help and advice.

As far as, bad-mannered pupils in the classroom, showing strictness is only solution for 4 participants, with the exception of M. who uses the method of giving disruptive students important responsibilities among other pupils.

Surely, I satisfied all the given responses and I consider professional teacher should learn to rule the class by balancing strictness and supportive interaction as well as provide pupils with enough high motivation.

### Conclusion

As considering the essence of collaborative work in terms of school improvement, close relations are requered to be established among school individuals. Teachers will be able to handle classroom duties effectively when they are given the opportunity of using colleagues' help or advice at least. Exchanging learnt practices

and variety of theoretical solutions for classroom issues may help teachers to overcome daily school stress and in most cases teamwork can make great professionals from young teachers who are struggling in new job in the long term.

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# МЕТОД КОНЕЧНЫХ ЭЛЕМЕНТОВ ДЛЯ РАСЧЕТА СТЕРЖЕНОВЫХ КОНСТРУКЦИИ

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*В статье приводится вычислительный алгоритм определения напряженного состояния двумерных стержневых металлоконструкций методом конечных элементов (МКЭ). На основе разработанного вычислительного алгоритма и программного обеспечения исследовано влияние конфигурации стержневой конструкции, находящего под действием заданных нагрузок. Приведены значения смещений и напряжений для различных значений высоты крайнего стержня конструкции. Установлено, что наилучшей конфигурацией является конструкция, в которой высота крайнего стержня соответствует половине высоты конструкции.*

***Ключевые слова:*** *конструкция, стержень, узел, матрица жёсткости, перемещение, напряжение, нагрузка.*

Процедура расчёта МКЭ в форме перемещений заключается в следующем. Конструкция, с учетом её геометрии, разбивается на некоторое количество КЭ, которые связаны между собой узловыми точками (узлами), расположенными на их границах. Расчётная схема задачи, смоделированная таким образом совокупностью КЭ, рассматривается как дискретная, нагруженная узловыми

силами, которые статически эквивалентны действующим на элемент распределенным нагрузкам и граничным напряжениям.

При расчёте МКЭ кинематический неопределимых систем наибольшее распространение получила следующая матричная зависимость определения вектора внутренних узловых сил конструкции в общей системе координат $X^0 Y^0 Z^0$:

$$\left\{ S_{kons}^0 \right\} = \left[ K_{kons}^0 \right] [A] \left( [A]^T \left[ K_{kons}^0 \right] [A] \right)^{-1} \left\{ P^0 \right\} = \left[ K_{kons}^0 \right] [A] \left\{ Z^0 \right\} \quad (1)$$

где $\left\{ S_k^0 \right\}$ - вектор внутренних узловых сил конструкции, состоящий из блоков (клеток) векторов внутренних узловых сил КЭ $\left\{ S_r^0 \right\}$ ;

$\left[ K_k^0 \right]$ - квазидиагональная матрица жёсткости конструкции, состоящая из блоков матриц жёсткости КЭ $[K_r^0]$ в общей системе координат;

$[A]$ - матрица соответствий (связи узлов) конструкции, состоящая из блоков матриц соответствий КЭ $[A_r]$;

$\left\{ P^0 \right\}$ - вектор узловой нагрузки конструкции;

$\left\{ Z^0 \right\}$ - вектор узловых перемещений конструкции;

Вектор узловой нагрузки в общей системе координат $\left\{ P^0 \right\}$ формируется из сосредоточенных сил и моментов, приложенных к узлам сопряжения КЭ расчётной схемы конструкции, а также из узловых сил и моментов, которые статически эквивалентны действующим на КЭ распределенным нагрузкам.

Квазидиагональная матрица жёсткости конструкции $\left[ K_к^0 \right]$ представляет собой следующую матрицу:

$$
\left[ K_{kons}^0 \right] = 
\begin{bmatrix}
K_1^0 & 0 & . & 0 & 0 \\
0 & K_2^0 & . & 0 & 0 \\
. & . & . & . & . \\
0 & 0 & . & K_{n-1}^0 & 0 \\
0 & 0 & . & 0 & K_n^0
\end{bmatrix},
$$

где $n$ - число КЭ в расчётной схеме конструкции;

$\left[ K_r^0 \right]$ - матрица жёсткости $r$-го ($1 < r < n$) КЭ в общей системе координат.

Как отмечалось, матрица $\left[ K_r^0 \right]$ вычисляется с помощью конгруэнтного преобразования:

$$
\left[ K_r^0 \right] = [T_r]^T [K_r][T_r] ,
$$

где

где $[ K_r ]$ - матрица жёсткости $r$ -го КЭ в местной системе координат $XYZ\backslash$

$[ Tr ]$ - матрица ортогонального преобразования координат $r$ -го КЭ.

Матрица ортогонального преобразования координат КЭ $[Tr]$ состоит из матриц направляющих косинусов, т. е. из значений косинусов углов между осями местной и общей систем координат.

Матрица $[T_r]$ связывает вектор узловых перемещений КЭ в местной системе координат $\{Z_r\}$ с вектором узловых перемещений КЭ в общей системе координат $\{Z_r^0\}$ следующим образом:

$$
\{Z_r\} = [T_r]\{Z_r^0\}
$$

Матрица соответствий конструкции $[A]$ содержит топологическую информацию, указывающую адрес, по которому должны быть распределены

элементы матриц жёсткости $\left[ K_r^0 \right]$ всех КЭ на поле матрицы $\left[ K^0 \right]$ жёсткости конструкции:

$$[A] = \begin{bmatrix} A_1 \\ A_2 \\ \vdots \\ A_n \end{bmatrix}$$

где $\left[ A_r \right]$ - матрица соответствий КЭ, число строк которой равно числу степеней свободы узлов КЭ, а число столбцов равно числу степеней свободы узлов расчётной схемы конструкции.

Матрица соответствий $r$-го элемента $\left[ A_r \right]$ - булева матрица (целочисленная, т. е. элементы матрицы принимают только два значения: 0 и 1), которой задается топологическая информация степеней свободы узлов $r$-го КЭ на поле матрицы жёсткости конструкции. Как отмечалось, строки матрицы - это номера степеней свободы узлов КЭ, а столбцы - это номера степеней свободы узлов конструкции. На пересечении соответствующих номеров строк и столбцов матрицы соответствий КЭ (конструкции) ставится единица, а остальные элементы матрицы нулевые.

Матрица жёсткости конструкции вычисляется по формуле:

$$[K^0] = [A]^T [K^0] [A].$$

Матрица жёсткости конструкции $\left[ K^0 \right]$ содержит зависимые уравнения, определяющие зависимость нагрузки и реакций опор, что не позволяет выполнить решение системы уравнений равновесия задачи, т. е. обращение матрицы жёсткости конструкции. Чтобы обеспечить возможность решения системы уравнений, необходимо в матрице жёсткости $\left[ K^0 \right]$ исключить зависимые уравнения или реализовать условия кинематического закрепления задачи: в виде связей, накладываемых на узловые перемещения и ограничивающих свободу перемещений задачи в пространстве (опоры), и

получить, тем самым, матрицу коэффициентов системы уравнений равновесия $\left[ K_*^0 \right]$. Различные способы реализации условий кинематического закрепления задачи подробно рассмотрены в § 4.2.3.

Таким образом, система разрешающих уравнений равновесия (линейных алгебраических уравнений) задачи может быть представлена в следующем виде:

$$\left\{ Z^0 \right\} = \left[ K_*^0 \right]^{-1} \left\{ P^0 \right\}, \tag{2}$$

что позволяет определить и вектор $\left\{ S_k^0 \right\}$ внутренних узловых сил конструкции в общей системе координат (1.28).

Согласно положительным направлениям продольных сил $N$ и моментов $M$ нормальные напряжения в балочном пространственном КЭ вычисляются по формуле:

$$\sigma = \mp \frac{N}{F}$$

где $F$ - площадь сечения;

$W_y$ - момент сопротивления сечения относительно оси $Y$;

$W_z$ - момент сопротивления сечения относительно оси $Z$.

Следует отметить, что в МКЭ имеют место следующие преобразования векторов узловых перемещений и узловых сил из местной системы координат $XYZ$ в общую систему $X^0Y^0Z^0$ соответственно (1.33) и наоборот:

$$\begin{aligned} \left\{ Z_r^0 \right\} &= \left[ T_r \right]^T \left\{ Z_r \right\}, \\ \left\{ S_r^0 \right\} &= \left[ T_r \right]^T \left\{ S_r \right\}, \end{aligned} \tag{3}$$

Тестовая задача

Для тестирования алгоритма решения рассматривается тестовая задача статики произвольной плоской стержневой системы, которая приведена в работе [1]. В ней рассматривается конечно-элементная модель фермы, которая содержит пять узлов и образована семью КЭ плоской фермы. На рис.1

представлена графическая постановка задачи. В узлах 2 и 4 приложены нагрузки $P_1$ и $P_2$. Узел 1 закреплён по обоим направлениям оси координат, а узлы 3 и 5 - только по оси OY.

Исходные данные:

$$P_1 = 70 \text{кН}, P_2 = 2 \text{кН}, F_{гор} = 64 \text{см}^2, F_{верт} = 40 \text{см}^2,$$

$$F_{накл} = 60 \text{см}^2, E = 2 \cdot 10^7 \ \text{Н}/\text{см}^2$$

Характеристика модели: число узлов- 5 и конечных элементов фермы- 7.



Рис. 1. Графическое представление задачи (а)  и результатов (б)
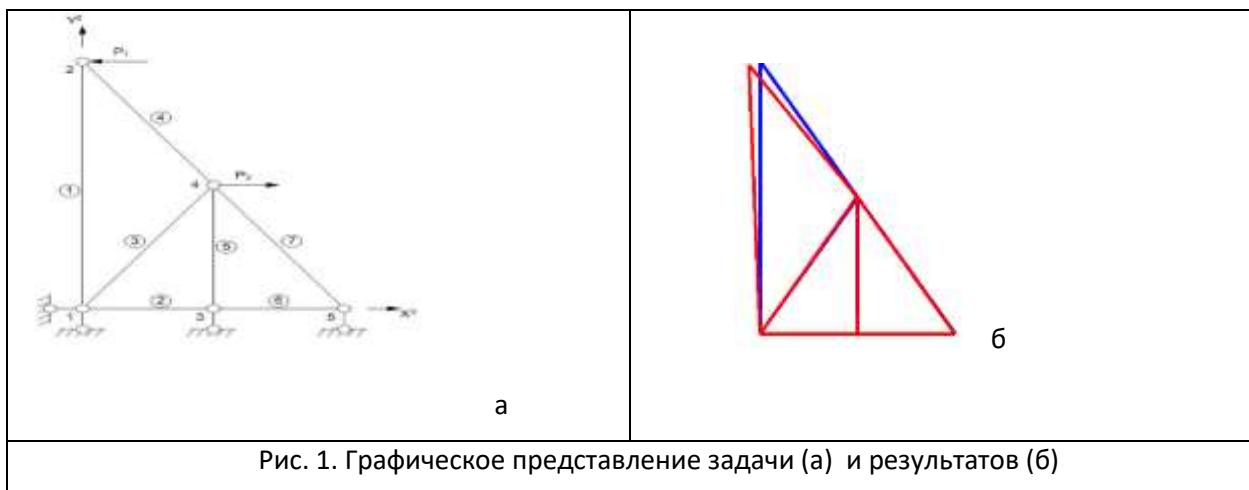
Результаты, полученные в данной статье, соответствуют решениям вышеописанной задачи.

**Заключение**

На основе разработанного вычислительного алгоритма и программного обеспечения исследовано влияние конфигурации стержневой конструкции, находящего под действием заданных нагрузок. Приведены значения смещений и напряжений для различных значений высоты крайнего стержня конструкции. Установлено, что наилучшей конфигурацией является конструкция, в которой высота крайнего стержня соответствует половине высоты конструкции.

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# АЛГОРИТМ РЕШЕНИЯ ЗАДАЧИ РАСЧЕТА СТЕРЖНЕВЫХ КОНСТРУКЦИЙ

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*В статье приводится вычислительный алгоритм определения напряженного состояния двумерных стержневых металлоконструкций методом конечных элементов (МКЭ). На основе разработанного вычислительного алгоритма и программного обеспечения исследовано влияние конфигурации стержневой конструкции, находящего под действием заданных нагрузок. Приведены значения смещений и напряжений для различных значений высоты крайнего стержня конструкции. Установлено, что наилучшей конфигурацией является конструкция, в которой высота крайнего стержня соответствует половине высоты конструкции.*

***Ключевые слова:*** *конструкция, стержень, узел, матрица жёсткости, напряжение, нагрузка.*

Процедура расчёта метода конечных элементов (МКЭ) в форме перемещений заключается в следующем. Конструкция, с учетом её геометрии, разбивается на некоторое количество конечных элементов (КЭ), которые связаны между собой узлами, расположенными на их границах. Расчётная схема задачи, смоделированная таким образом совокупностью КЭ, рассматривается как дискретная и нагруженная узловыми силами, которые статически

эквивалентны действующим на элемент распределенным нагрузкам и граничным напряжениям.

Алгоритм решения задачи: состоит из следующих этапов [1,2].

1. Образование расчётной схемы.

2. Вычисление матриц $[K_r]$ жёсткости конечного элемента в местной системе координат $XYZ$.

3. Вычисление матриц $[T_r]$ ортогонального преобразования КЭ.

4. Вычисление матриц $\left[K_r^0\right]$ жёсткости КЭ в общей системе координат $X^0 Y^0 Z^0$:

$$\left[K_r^0\right] = \left[T_r\right]^T \left[K_r\right]\left[T_r\right]$$

5. Формирование матрицы жёсткости конструкции:

$$\left[K^0\right] = \left[A\right]^T \left[K_к^0\right]\left[A\right]$$

6. Формирование разрешающей системы уравнений равновесия:

$$\left[K_*^0\right]\{Z^0\} = \{P^0\}$$

7. Решение системы уравнений, позволяющее определить вектор узловых перемещений конструкции в общей системе координат:

$$\{Z^0\} = \left[K_*^0\right]^{-1}\{P^0\}$$

8. Вычисление вектора внутренних узловых сил конструкции в общей системе координат:

$$\{S_к^0\} = \left[K_к^0\right]\left[A\right]\{Z^0\},$$

где

$$\{S_к^0\} = \begin{Bmatrix} S_1^0 \\ S_2^0 \\ \vdots \\ S_n^0 \end{Bmatrix}$$

9. Вычисление векторов внутренних узловых сил КЭ в местной системе координат:

$$\{S_r\} = [T_r]\{S_r^0\} \qquad (1.33)$$

10.Вычисление компонентов напряжений в узлах КЭ в местной системе координат.

Вычисление нормальных напряжений в сечениях КЭ, выполняется в начале и конце КЭ (начало - первый номер узла в матрице индексов, конец - второй номер узла в матрице индексов).

Приведенная последовательность расчёта и матричный аппарат МКЭ носят стандартный характер для КЭ различного типа и предусматривают применение ЭВМ на всех этапах расчёта, т. е. от ввода в компьютер информации о геометрии конструкции, её физических свойствах и нагрузке до получения окончательных результатов напряжённо-деформированного состояния конструкции [3].

Если к данной ферме приложены силы $P_1 \div P_5$, найти перемещение узловых точек, векторы продольных сил и составляющие напряжений стержня. Здесь физическими параметрами фермы являются модуль упругости E=200 ГПа, площадь поперечного сечения F=10$^{-3}$ м$^2$, приложенные силы $P_1 \div P_5$= 1 кН. Геометрические параметры: a=10 м , h=12 м.

**Вычислительный эксперимент**

Геометрическая постановки задачи приставлена на рис. 1.



Рис. 1. Графическое представление задачи

В табл. 1 приведены значения смещений и напряжений в центре и конце основания фермы для различных значений высоты крайнего стержня

конструкции. Так как по направлению оси ОХ перемещение точки В свободны, то в табл. 1 приведены значения смещения и напряжения, которые зависят от высоты крайние стержня. Анализ результатов расчетов показывает, что наилучшее значения смещений и напряжений наблюдаются при h/2, где $l_b$ =0,342*$10^{-3}$м. и $\sigma_b$ =2.5*$10^4$ $H/cм^2$ (табл. 1).

Табл. 1

| высота | $l_a$ [м] | $\sigma_a$ [$H/cм^2$] | $l_b$ [м] | $\sigma_b$ [$H/cм^2$] |
|---|---|---|---|---|
| h | 0,1547*$10^{-2}$ | 16000,983 | 0,2600*$10^{-3}$ | 25005,875 |
| 3h/4 | 0,1152*$10^{-2}$ | 17454,545 | 0,2945*$10^{-3}$ | 25002,972 |
| h/2 | 0,9723*$10^{-3}$ | 18200,023 | 0,3420*$10^{-3}$ | 25000,042 |
| 3h/8 | 0,9865*$10^{-3}$ | 20210,526 | 0,3735*$10^{-3}$ | 24999,999 |
| h/4 | 0,1096*$10^{-2}$ | 21333,333 | 0,4133*$10^{-3}$ | 24999,999 |
| 0 | 0,1879*$10^{-2}$ | 24000,067 | 0,8400*$10^{-3}$ | 39051,248 |

На рис.2 приведены графическое представление решения задачи для различных конфигураций стержневых систем при h/2, где можно наблюдать смещения конструкции под действием заданных внешних нагрузок.



Рис. 2. Визуализация смещений
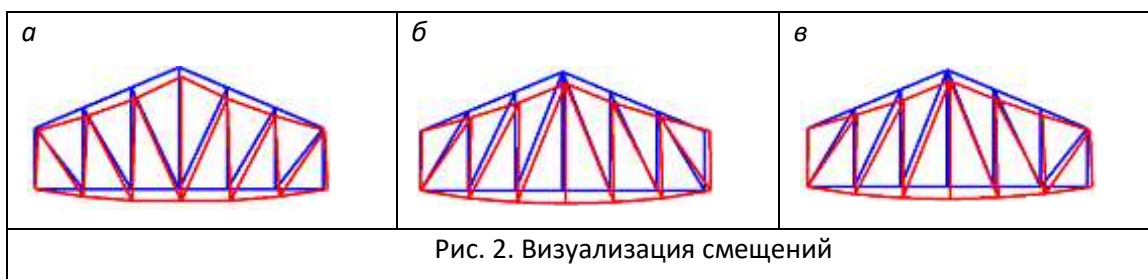
Анализ результатов расчёта показывает, что минимальное смещение соответствует конструкции на рис. 2.*а*, максимальное смещение соответствует конструкции на рис. 2.*б*.

Сравнивая результаты вычислительного эксперимента (табл. 2), исследуется влияние конфигурации на смещения и напряжения центральной и крайней точек фермы, которые расположены оси ОХ. Наилучшей конфигурацией конструкции

является система стержней, которая соответствует высоте крайнего стержня равной h/2, так как в этом случае $l_a = 0.9723*10^{-3}$ м, $\sigma_a = 1.82*10^4$ $H/см^2$ , $l_b = 0{,}3420*10^{-3}$ и $\sigma_b = 2.50*10^4$ $H/см^2$ .

Табл. 2

| высота | $l_a$ [м] | $\sigma_a$ [$H/см^2$] | $l_b$ [м] | $\sigma_b$ [$H/см^2$] |
|---|---|---|---|---|
| h/2 (*а*) | 0,9723*10⁻³ | 18200,023 | 0,3420*10⁻³ | 25000,042 |
| h/2 (*б*) | 0,1131*10⁻² | 19202,999 | 0,5219*10⁻³ | 29154,759 |
| h/2 (*в*) | 0,1086*10⁻² | 19059,567 | 0,4470*10⁻³ | 27876,842 |

**Заключение**

На основе разработанного вычислительного алгоритма и программного обеспечения исследовано влияние конфигурации стержневой конструкции, находящего под действием заданных нагрузок. Приведены значения смещений и напряжений для различных значений высоты крайнего стержня конструкции. Установлено, что наилучшей конфигурацией является конструкция, в которой высота крайнего стержня соответствует половине высоты конструкции.

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# O'ZBEK VA NEMIS ADABIYOTIDAGI ERTAKLARNING MAZMUN-MOHIYATI

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### *ANNOTATSIYA*

*Mazkur maqolada ikki xalqning bolalar uchun yaratilgan noyob san'at durdonalari va ularda ilgari surilgan g'oyalar haqida hamda ularning uslublari haqida fikr yuritilgan.*

***Kalit so'zlar:*** *Bolalar adabiyoti, o'zbek ertaklari, nemis ertaklari, ilgari surilgan g'oyalar, maqsad va vazifalar.*

### *ANNOTATION*

*This article discusses the unique art masterpieces of the two nations created for children, the ideas presented in them, and their styles.*

***Key words:*** *Children's literature, Uzbek fairy tales, German fairy tales, proposed ideas, goals and tasks.*

Adabiyot-millat ko'zgusi hisoblanadi. Adabiyotda millatning hayoti, urf-odatlari, uning uzoq tarixi aks ettirilgan. Adabiyot o'ziga katta-yu kichiklarni jalb qila oladi. Buning sababi so'z san'atidir. So'z shunday qudratga ega-ki, insonlarni kuldiradi, yig'latadi, baxtli qiladi, vaqti kelsa g'amgin qiladi. Xullas, adabiyot barcha katta-yu kichiklarga birdek yoquvchi san'at asaridir. Yosh doirasi bo'yicha aytadigan bo'lsak, adabiyot o'z ichiga: bolalar adabiyotini ham qamrab oladi. Shunday qilib har bir xalqning jajji bolajonlar uchun yaratilgan asarlari mavjud. Axir bolalar millatning kelajagi hisoblanadi. Bolalarni yoshliklaridanoq ularni kitobxonlikka o'rgatish

ularning ota-onalarini, ularni kitobga jalb qilish esa, kitob muallifining vazifasidir. Bolalar qancha yoshligidan kitob o'qishga o'rgansa, kitobxon bo'lib voyaga yetsa, kelajakda ham kitobsevar bo'lib yetishishining extimoli yuqoridir. Jamiyat bolalari qanchalar bilimli, salohiyatli, zukko bo'lishsa, ana shu davlatning kelajagi buyukdir. Sababi jamiyat aholisi qanchalar bilimdon bo'lsa, ana shu davlatda o'sish-rivojlanish bo'ladi.

Onajonlarimiz kichkinaligimizdanoq bizga ertaklar so'zlab berishardi. Aslida ana shundan boshlangan, adabiyotga tashnaligimiz, adabiyot bilab birga yashashimiz. Xaqiqatdan ham, bizning birinchi ustozlarimiz bo'lgan onalarimiz, adabiyotga qiziqishimizni uyg'otgan inson hamdir.

Har bir xalqning adabiyot xazinasida bolalar uchun ham maxsus san'at durdonalari mavjud. Bolalar uchun eng qiziqarli asarlar bu – ertaklar hisoblanadi. Ertaklarda hayotdagi yaxshi-yomon fazilatlar, har doim to'g'rilik va egrilik o'rtasidagi kurash, xullas, qisqacha aytadigan bo'lsak, ularni to'g'ri yo'lga chorlaydigan g'oyalar ilgari suriladi. Bular bilan bolalar, yoshliklaridanoq har doim ezgu amallar qiladigan, komil inson bo'lib yetishuvchi avlodlar ulg'ayadi. Shunday ekan, har bir millatning qalamkashlari bolalar uchun mohir san'at asarlarini yaratishadi. Ularda har xil g'oyalar ilgari suriladi.

Nemis va o'zbek adabiyotidagi ertaklariga to'xtaladigan bo'lsak, nemis adabiyoti durdonalarida o'zbek adabiyoti san'atidagi bilan deyarli bir xil bolalarni ezgulikka yetaklovchi g'oyalar ilgari suriladi.

O'zbek ertaklari xalq tomonidan yaratiladi. O'zbek ertaklariga: "Urto'qmoq", "Zumrad va Qimmat", "Uchar gilam", "Echki bolalari", "Qilich-botir" va boshqalarni misol qilib keltirishimiz mumkin. Boshlanishi "Bir bor ekan, bir yo'q ekan. Bir chol-u kampir bo'lgan ekan."*1* deb boshlanishi menga juda yoqadi. Qolaversa, voqealar

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*1* https://ertak.uz

rivojida yaxshilikni yomonlikdan ustun qo'yilishi, har doim yaxshilik g'alaba qozonish maqsadlari ilgari suriladi.  Masalan, "Zumrad va Qimmat" ertagi misolida mazmunini tahlil qiladigan bo'lsak,   ikki opa-singilning bir-biridan tubdan farq qiluvchi xarakterlaridagi tomonlar ko'rsatib berilgan. Masalan, Zumradning mehnatsevarligi, zukkoligi, sabrliligi bilan hamisha hayotda har tomonlama yetuk inson bo'lish zarurligi uqtirilsa, Qimmat obrazi orqali bir dangasa, ishyoqmas, ayyor, onasining erkatoy qizi ta'riflangani orqali yosh avlod ulardan yaxshi xulosa chiqarishlari uchun ajoyib bir namuna sifatida olishimiz mumkin. Zumradning aytilgan ishlarni so'zsiz bajarishi, uning zukkoligi, mehnatkashligi hamisha e'zozlanib kelgan va Qimmatdan farqlovchi tomonlari sezilarli darajadadir. Albatta, bu ertak ham xalq tomonidan yozilgan, bundan shuni anglash mumkin-ki, xalq real hayotdagi  voqealar asosida yaratilgan desak, mubolag'a bo'lmaydi. Aslini olganda, mana shunday ertaklarda bolarlarga yoshliklaridanoq haqiqiy o'zbek yurtiga munosib farzand bo'lishlari kerakligi aks etadi. Ertakdagi voqealar rivoji qanchalar yomonlik bilan  davom etsada, so'ngida doimo yaxshilik bilan tugashini e'tibordan chetda qoldirmasligimiz zarur. Bejizga: "Ertaklar- yaxshilikka yetaklar"-deb bejizga aytilmagan. Hayot yo'llarimizda ham  ana  shunday, qanchalar qiyinchiliklar bo'lmasin, yakunida albatta kutganimizdanda a'lo bo'lishi  mana shu ertaklarda ham e'tirof etiladi. Ertakning so'ngida "Ular baxtli va farovon hayot kechirishibti"*1* jumlasi bilan yakun topadi.

Nemis adabiyotining yetuk namoyondalaridan bo'lgan, o'zining xalq hayotidan real voqealarni badiiylashtirib qalam tebratgan yozuvchilardan biri bo'lgan aka-uka Yakob Grimm va uning ukasi bo'lmish Vilyam Grimm nemis bolalar adabiyotida yetuk san'at asarlarining mualliflari hisoblanishadi. *2* Ularning asarlari dunyoning barcha mamlakatlarida ma'lum va mashxurdir. "Mushuk va sichqon", "Rapunsel",

*1* https://tafakkur.net

*2* https://www.grimms.de

"Oq ilon", "7 qarg'a" "Bilimdon Elsa", "Botir tikuvchi" va boshqa ertaklarni misol qilib keltirishimiz mumkin.

Masalan, "Botir tikuvchi" ertagida bir insonning qanchalar aqlliligi, fikrlash doirasi kengligi, har qanday vaziyatda o'zini tuta bilishi va tayyorligini ko'rishimiz mumkin. Hayotda  insonlar turfa xil bo'lishlari, ba'zilari aldoqchi yoki ayyor bo'lishi, lekin shu bilan birgalikda  aqlli mehnatkash insonlar ham  ko'rsatib beradi. Barcha ertaklar singari, aka-uka Grimmlarning ertaklaridagi bosh g'oya bu- hamisha yaxshilikni g'alaba qozonishidir.

Mana ko'rib chiqqanimizdek, ertakdagi g'oyalarning barchasi, yaxshi va yomonnni farqlashga, doim ezgu ishlar qilishga, hech qachon yomonlik qilmaslikka undaydi. Adabiyotimizdagi bolalar uchun yaratilgan noyob san'at durdonalarini butun jahon bo'ylab targ'ib qilsak, uni ko'klarga ko'tarsak, nafaqat ona tilimizga, balki butun dunyo bolalari ma'naviyatiga chuqur ta'sir o'tkisgan bo'lamiz. Birinchidan, o'zbek tilimizni dunyoga tanitib, qolaversa, uning adabiyotida shunday asarlar borligini butun dunyo bilishi zarur. Ikkinchidan, o'zbek adabiyotidagidek noyob durdonalarini yosh avlod o'qib, ulardan to'g'ri xulosa chiqarishlariga ishonchim komil.  Axir o'zbek xalqidek, aqlli, mehnatkash insonlar bormi bu dunyoda? Zero, mana shunday ulug' davlatni kelajakda yana ham yuksaltirish hozirgi kunning mitti yulduzlari qo'lidadir. Shu sabablar tufayli, har bir xalq adabiyotida bolalar o'rnak olishlari uchun ertaklar muhim bir o'rin egallashi kerak deb hisoblayman.

**Foydalanilgan adabiyotlar:**

1. https://ertak.uz

2. https://www.grimmstories.com

3. https://maerchen.com

4. https://tafakkur.net

5. https://www.grimms.de

# SIRTQI TA'LIMDA MASOFAVIY TA'LIMNI SHAKLLANTIRISHDA ZAMONAVIY TEXNOLOGIYALARDAN FOYDALANISH

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## ANNOTATSIYA

*Maqolada sirtqi ta'limda masofaviy ta'limni shakllantirishda foydalanish mumkin bo'lgan metodlar haqida ma'lumotlar yoritilgan. Mazkur maqola masofaviy o'qitishning turlari,tizimi va pedagogik texnologiyalari haqida ma'lumot beradi.*

*Kalit so'zlar: o'qitish, ta'lim, masofaviy o'qitish, moslashuvchanlik, modullilik, parallellik, iqtisodiy tejamkorlik audiokonferentsiya, videokonferentsiya, kompyuter konferentsiyalari, telekonferentsiya.*

## ABSTRACT

*The article covers information about the methods that can be used in the formation of distance learning in correspondence education. This article provides information about the types,systems and pedagogical technologies of distance learning.*

*Keywords: teaching, education, distance learning, flexibility, modularity, parallelism, economic austerity audioconference, videoconference, computer conferences, teleconference.*

## KIRISH. (INTRODUCTION)

Hozirgi zamon ta'lim jarayoniga ananaviy tushunchalar qatorida yangi-yangi tushunchalar kirib kelmoqda. Mustaqil o'qish insonning mustaqil fikrlash, holatni baholash, xulosa va bashorat qilish qobiliyatlarini rivojlantiradi. Masofadan o'qitishning yana bir afzalligi shundaki, unda o'quvchi o'ziga qulay vaqtda va hattoki

ishdan ajralmagan holda oʻqishi mumkin. Aynan shu afzalliklari tufayli bu uslub dunyoda hozirgi kunda keng tarqalgan. Quyida shu tushunchalardan asosiylari keltirilib, ularga taʼriflar berib oʻtilgan.

Oʻqitish – bu maʼlum bir maqsadga yoʻnaltirilgan tizimli bilim va koʻnikmalar bilan qurollangan jarayondir.

Taʼlim – bu oʻqitishning natijasi boʻlib, shaxsiyatni tarbiyalash va rivojlantirishdir.

Masofaviy oʻqitish – eng yaxshi anʼanaviy va innovatsion metodlar, oʻqitish vositalari va formalarini oʻz ichiga olgan sirtqi va kunduzgi taʼlim singari axborot va telekommunikatsiya texnologiyalariga asoslangan taʼlim formasidir.

**ADABIYOTLAR TAHLILI VA METODOLOGIYA.(Methods)**

Masofaviy taʼlim anʼanaviy taʼlim turidan quyidagi xarakterli xususiyatlari bilan farqlanadi.

Moslashuvchanlik – taʼlim oluvchiga oʻziga qulay vaqt, joy va tezlikda taʼlim olish imkoniyati mavjudligi.

Modullilik – bir biriga bogʻliq boʻlmagan mustaqil oʻquv kurslari toʻplamidan - modullardan individual yoki guruh talabiga mos oʻquv rejasini tuzish imkoniyati mavjudligi.

Parallellik – oʻquv faoliyatini ish faoliyati bilan birga parellel ravishda, yaʼni ishlab chiqarishdan ajralmagan holda olib borish imkoniyati mavjudligi.

Keng qamrovlilik – koʻp sonli oʻquvchilarning bir vaqtning oʻzida katta oʻquv (elektron kutubxona, maʼlumotlar va bilimlar bazasi va boshqalar) zahiralariga murojaat qila olishi. Bu koʻp sonli oʻquvchilarning kommunikatsiya vositalari yordamida oʻzaro va oʻqituvchi bilan muloqotda boʻlish imkoniyati.

Iqtisodiy tejamkorlik –oʻquv maydonlari, texnika vositalari, transport vositalari va oʻquv materiallaridan samarali foydalanish, oʻquv materiallarini bir joyga yigʻish, ularni tartiblangan koʻrinishga keltirish va bu maʼlumotlarga koʻp sonli murojaatni tashkil qilib bera olish mutaxassislarni tayyorlash uchun ketadigan xarajatlarni kamaytiradi.

Ijtimoiy teng huquqlilik – Ta'lim oluvchining yashash joyi, sog'lig'i va moddiy ta'minlanish darajasidan qat'iy nazar hamma qatori teng huquqli ta'lim olish imkoniyati.

Internatsionallilik – Ta'lim sohasida erishilgan jahon standartlariga javob beradigan yutuqlarni import va eksport qilish imkoniyati. [1]

O'qituvchining yangi roli – masofaviy o'qitish o'qituvchining o'qitish jarayonidagi rolini yanada kengaytiradi va yangilaydi. Endi o'qituvchi o'zlashtirish jarayonini muvofiqlashtirishi, yangiliklar va innovatsiyalarga mos ravishda berayotgan fanini muntazam mukammallashtirishi, saviya va ijodiy faoliyatini yanada chuqurlashtirishi talab etiladi. Sifat – masofaviy o'qitish usuli ta'lim berish sifati bo'yicha kunduzgi ta'lim turidan qolishmaydi. Balki, mahalliy va chet ellik dars beruvchi kadrlarni jalb qilib, eng yaxshi o'quv-metodik darsliklar va nazorat qiluvchi testlardan foydalangan holda o'quv jarayonini tashkil etish sifatini oshirishi mumkin. Yuqoridagilarni hisobga olinganda masofaviy ta'lim kompleksi ancha qulayliklarga ega ekan. Lekin, nima uchun masofaviy ta'lim kerak bo'lib qoldi? – degan savol tug'ilishi tabiiy. Bu savolga javob tariqasida quyidagilarni sanab o'tish mumkin:

 - Ta'lim olishda yangi imkoniyatlar (ta'lim olishning arzonligi, vaqt va joyga bog'liqmasligi va boshqalar).

Masofaviy o'qitish – o'zaro ma'lum bir masofada internet texnologiya yoki boshqa interaktiv usullar va barcha o'quv jarayonlari komponentlari – maqsad, mazmun, metod, tashkiliy shakllar va o'qitish usullariga asoslangan talaba va o'qituvchi o'rtasidagi munosabat. Masofaviy o'qitish tizimi – masofaviy o'qitish shartlari asosida tashkil etiladigan o'qitish tizimi. Barcha ta'lim tizimlari singari masofaviy o'qitish tizimi o'zining tarkibiy maqsadi, mazmuni, usullari, vositalari va tashkiliy shakllariga ega. Masofaviy o'qitishning pedagogik texnologiyalari – tanlangan o'qitish konsepsiyasiga asoslangan masofaviy ta'limning o'quv-tarbiyaviy jarayonini ta'minlovchi o'qitish metodi va uslublar majmuasi. Keys-texnologiya – masofaviy o'qitishni tashkil qilishning shunday uslubiki, masofaviy ta'limda matnli,

audiovizual va multimediali (keys) o'quv uslubiy materiallar majmuasi qo'llanishga asoslanadi.

Bulardan tashqari masofaviy ta'limda:

- masofaviy ta'lim natijalarini baholash faoliyati mezonlarining axborot oldidagi ustuvorli tamoyili – o'quvchining faoliyatiga oid natijalarga qarab belgilanadi;

- o'quvchi tomonidan masofaviy ta'limda o'rganiladigan fan bo'yicha ta'limiy mahsulotlarning yaratilish tamoyili. Bunda ijodiy turdagi masofaviy ta'lim asosini o'quvchi tomonidan yaratiladigan ta'limiy mahsuloti nazarda tutiladi;

- interfaol tamoyil – masofaviy ta'limning yetakchi talablari mohiyatini ko'rsatadi. Bu asosda o'qituvchi interfaol metod asosida o'quvchi faoliyatini butun o'quv kursi davomida nazorat qilish va unga tuzatishlar kiritish imkoniyatiga ega bo'ladi.

Telekonferentsiya (teleconferencing) – ikki va undan ortiq guruh qatnashchilarining o'zaro muloqotini tashkil etish uchun elektron aloqa kanallaridan foydalanish jarayonidir. Mavzuli fikr almashishlar moderator tomonidan boshqariladi. Telekonferentsiya jarayonida ovoz, tasvir yoki kompyuter ma'lumotlari uzatiladi. Telekonferentsiyaga jo'natilgan xabar uning barcha qatnashchilariga yetkaziladi, ya'ni muloqot bir stol atrofidagi muloqot jarayoniga o'xshaydi. Telekonferentsiya quyidagicha turlari mavjud:

-audiokonferentsiya (audioconferencing)

-videokonferentsiya (videoconferencing)

-kompyuter konferentsiyalari (computerconferencing) kabi texnologiyalarni mujassamlashtiradi. Hozirda kompyuter texnologiyalarining taraqqiyoti interfaol telekommunikatsiya texnologiyalarining yangi texnik imkoniyatlari videokonferentsiya va audiokonferentsiya kabi texnologiyalarning rivojlanishiga olib keldi. Interfaol masofaviy o'qitish tizimining joriy etilishi videokonferentsiya texnologiyalari bilan hamohang ravishda istalgan masofada sinxron axborotlar almashinuvini ta'minlaydi. [2]

## MUHOKAMA.(DISCUSSION)

Sirtqi (maxsus sirtqi) ta'limda masofadan turib o'qitish talabalarning asosi y ish joyidan ajralmagan holda o'quv rejasidagi barcha fan dasturlarida belgilangan bilimlarni mustaqil masofadan turib o'zlashtirish asosida amalga oshirilishi mumkin. Masofadan turib o'qitish on-layn (masofadan turib real vaqt rejimida videoma'ruzalar, konsultatsiyalar, nazorat turlarini o'tkazish) va off-layn (masofadan turib o'qitish tizimidagi tegishli o'quv-metodik resurslarni mustaqil ravishda o'zlashtirish) rejimlarida tashkil etiladi. Masofadan turib o'qitish jadvali sirtqi (maxsus sirtqi) bo'lim boshlig'i tomonidan belgilanadi. Sirtqi (maxsus sirtqi) ta'limda masofadan turib o'qitish elementlaridan foydalanganda o'quv kurslarining sifati va samaradorligining doimiy nazorati O'zbekiston Respublikasi Oliy va o'rta maxsus ta'lim vazirligi tomonidan amalga oshiriladi. Masofadan turib o'qitishning texnik ta'minoti oliy ta'lim muassasasi tomonidan amalga oshiriladi. Sirtqi (maxsus sirtqi) ta'limda masofadan turib o'qitish elementlarini joriy etish dasturiy platformasi, reglamenti va tartiblari O'zbekiston Respublikasi Oliy va o'rta maxsus ta'lim vazirligi bilan kelishgan holda belgilanadi. Sirtqi (maxsus sirtqi) ta'limda ta'lim faoliyatini amalga oshiruvchi kafedralar professor-o'qituvchilari masofadan turib o'qitishda o'quv materiallari, topshiriqlar va maslahat-konsultativ ishlarni oliy ta'lim muassasasi saytidagi "Sirtqi (maxsus sirtqi) ta'lim" sahifasiga joylashtiradi va ularning bajarilishini nazorat qilib boradi. [3]

## XULOSA. CONCLUSION.

Masofaviy o'qish–bu yangi axborot texnologiyalari, telekommunikatsiya texnologiyalari va texnik vositalariga asoslangan ta'lim tizimidir. U ta'lim oluvchiga ma'lum standartlar va ta'lim qonun-qoidalari asosida o'quv shartsharoitlari va o'qituvchi bilan muloqotni ta'minlab berib, o'quvchidan ko'proq mustaqil ravishda shug'ullanishni talab qiluvchi tizimdir. Bunda o'qish jarayoni ta'lim oluvchini qaysi vaqtda va qaysi joyda bo'lishiga bog'liq emas. Masofaviy ta'lim – masofadan turib o'quv axborotlarini almashuvchi vositalarga asoslangan, o'qituvchi maxsus axborot muhit yordamida, aholining barcha qatlamlari va chet ellik ta'lim oluvchilarga ta'lim

xizmatlarini ko'rsatuvchi ta'lim kompleksidir. Demak, masofaviy o'qitish masofaviy ta'lim kompleksidagi jarayon ekan. Masofaviy o'qitishning va masofaviy ta'limning o'ziga xos xususiyatlari, pedagogik tizimi, zarurligi va maqsadi mavjud.

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# O'ZBEK SHE'RIYATIDA SINONIMLARNING LINGVOPOETIK XUSUSIYATLARI

**G'aybulloyeva Umida Ahmatovna**

Ona tili va adabiyot fani o'qituvchisi

*Annotatsiya: Til vositalarining lingvopoetik imkoniyatlarini aniqlash badiiy matnlarga tayanishni, qator yozuvchi va shoirlar asarlarini tahlil doirasiga tortishni taqozo etadi. So'nggi davr ijodkorlari asarlari xususidagi ilmiy tadqiqotlar xarakteri, asosan, adabiy tahlil doirasida ekanligi va bu jihatdan badiiy asar tilini lingvopoetik nuqtayi nazaridan o'rganishda ehtiyoj ortganligi masalaning dolzarbligini belgilaydi.*

*Lingvopoetika atamasi badiiy asar tilini o'rganishda nisbatan keng qamrovli tushunchani o'z ichiga olib,asarning badiiyligini ta'minlovchi unsurlarni tilning barcha sathlari doirasida o'rganadi. Shu o'rinda "poetika"atamasiga ham shunday ta'rif berishimiz mumkin:"Badiiy asar tuzilishi, uning turli qismlari orasidagi munosabat,badiiy nutq stilistikasi, ya'ni badiiy nutq va uning xarakteri, turli badiiy tasvir vositalaridan foydalanish mahorati masalalarini qamrab oluvchi obyektga nisbatan poetika tamasi qo'llaniladi". "Poetika" atamasiga sinonim sifatida "Badiiyat"so'zini ham qo'llashimiz mumkin.*

*Badiiy asarning lingvopoetik tahlili tilning nazariy tomonlari, ijtimoiy funksiyalari, va inson ma'naviyatining in'ikosi ekanini bir butun holda tasavvur etishimizga imkon yaratadi. Chunki lingvopoetika o'z mazmun mohiyatiga ko'ra filologiya sohasi tarmoqlarini o'z ichida mujassamlashtirishga, uning bir butunligini ta'minlashga qaratilgandir. Lingvopoetik tahlil jarayoni faqat yozuvchining tili va uslubi haqida ma'lumot berish bilan chegaralanmaydi, balki asar yaratilgan davr tilining o'ziga xosligi, yozuvchining so'z boyligi,til vositalarining ifodalanish usulullari, badiiy tasvir vositalarining til faktlari asosida aks ettirilishi, umuman tilni uning barcha sathlari yuzasidan tahlil qilishdan iborat bo'ladi. Badiiy asar tilini*

*tadqiqiga bag'ishlangan ishlarda tilning ayni "ekspessiv vazifasi" atamasi bilan bir qatorda "tilning poetik vazifasi", "tilning badiiy vazifasi", "tilning estetik vazifasi" kabi jumlalar tez-tez qo'llaniladi. Ammo shuni ham alohida aytish joizki, "tilning estetik vazifasi" atamasi filologik adabiyotlarda nisbatan keng qo'llaniladi. Agarda biz biron badiiy asarni tahlil qilishga tortishimiz avvalida u qanday matnlardan tashkil topganini va undagi so'zlar ifoda maqsadiga ko'ra qanday turlarga bo'lingani haqida ma'lumotga ega bo'lishimiz zarur. Xususan, barcha badiiy asarlar badiiy matnlardan tashkil topgan, badiiy matnlar esa o'zida "estetik vosita" ni jamlagan gaplardan iboratdir. Shu jarayonda yana bir narsani unutib qo'ymaslik maqsadga muvofiqdir. "Estetik vosita" faqat badiiy adabiyotda yozma manbalarda emas, balki so'zlashuv uslubida ham keng qo'llanishi mumkin. Shundan kelib chiqib fikr qilsak "estetik vosita" o'z ko'lamini ekspressivlik, badiiylik va poetiklik atamalari bilan kengaytirib oladi.*

*Sinonimlar esa o'zbek tilining lug'aviy jihatdan boylik darajasini ko'rsatib, tilda bu kabi so'zlarning ko'pligi,tilning estetik vazifasini yanada yorqinroq yuzaga chiqarishga yordam beradi.Matnlarda sinonimlarni qo'llashdan ikki maqsad ko'zda tutiladi:qaytariqlarni oldini olish va emotsional ekspressivlikni oshirish.*

***Kalit so'zlar:*** *poetika, madaniyat, sinonimlar, emotsionallik, ekspressivlik.*

Ijodkorning individual ijodini o'rganish murakkab jarayon bo'lib, u ham adabiy, ham lingvistik tahlil imkoniyatlarini o'zida mujassamlashtiradi. Va shu tarzda shoira ijodiy tafakkurining o'ziga xos jihatlarini qay tarzda yuzaga chiqishini tekshiradi.

Ijodkorlar o'z asarlarida tilimizdagi sinonimlardan tasvir maqsadi va ruhiga muvofiq keladigan aniq so'zni topib qo'llashga harakat qiladilar, buning uchun sinonimlarning qo'shimcha ma'no ottenkasi, uslubiy bo'yog'i, qo'llanishdagi xususiyatiga e'tibor qaratadilar. Sinonimlarning amaliy ahamiyati shundaki, tilga olingan xususiyatlar, ular ifodalashi zarur bo'lgan mazmun uchun eng maqbulini tanlash imkoniyatini beradi.

Halima Xudoyberdiyeva she'riyati lingvopoetikasi haqida fikr yuritadigan bo'lsak, uning she'rlarida ritm, ohangdorlik eng muhim  omillardan biri hisoblanadi. Shoiraning o'ziga xos ifoda usuli, xalq og'zaki ijodiga xos ko'p ma'nolilik, xalq

qo'shiqlariga yaqin ohangdorlik, sinonimlardan o'z o'rnida, to'g'ri va unumli foydalanish mavjud bo'lib, uning she'rlariga o'zgacha ruh, ritm mahorat bilan singdirib yuborilgan, natijada adabiy til bilan jonli tilning qorishiq holda kelishi, shoira ijodining jozibaliligi, soddaliligi va tushunarliligini ta'minlagan.

Shoira she'rlarida emotsional-ekspressiv leksikaning manbasi hisoblangan sinonimlardan qanchalik ustalik bilan keng foydalanganligini uning she'rlari tahlilida yaqqol ko'rishimiz mumkin:

> Toza yurak tovonlarda toptalgan mahal,
> Azal ko'z yosh **qayg'u g'amga** yem bo'lib kelgan.
> **Makr-u hiyla** bijg'igan bu dunyoda azal,
> Qo'zichoqlar bo'rilarga yem bo'lib kelgan.
>
> ("Bo'rilar esshigida" 21-bet)

Ushbu she'rda qo'llangan qayg'u –g'am,makr-u hiyla so'zlari o'zaro sinonimlikni hosil qilgan bo'lib,sinonimlarning bu holatda ishlatilishi lirik qahramon tuyg'ularining asl holatini ochib berishga xizmat qiladi."Qayg'u –boshga tushgan ruhiy azob,g'am,musibat"(O'TIL.I,223-bet),"G'am-so'zi esa arabcha so'zdan olingan bo'lib,qayg'u,hasrat,g;am alam degan ma'nolarni bildiradi.(O'TIL.I,434-bet).Keyingi misralarda qo'llanilgan makr-so'zi arabchadan olingan bo'lib hiyla,nayrang,aldov ma'nolarini ifodalasa,unga sinonim bo'lib kelgan makr so'zi ham arabcha so'z hisoblanib,makkorlik,ayyorlik ma'nolarida keladi.Shoira ushbu sinonimlarni yonma yon qo'llash bilan she'rning jozibadorligini yanada oshirgan.O'z davrida haqiqat deb kurashgan qahramon makr-u hiyla to'la dunyoda qayg'u g'amga yem bo'layotgani va bu kurashga otlangan qahramon doimo bo'rilarga yem bo'lib kelayotgani o'z ifodasini topgan.

> Ota dunyo, bu o'ylarni o'zing hal qil yech,
> Bolalaring ehtiyot qil har **cho'pdan ,xasdan**.
> Loqayd bo'lmay sharsharaning toza suvin ich,
> Bilib-bilmay kimdir uni loyqalatmasdan.
>
> ("Xayollarim parday to'zg'ir",48-bet)

Misralarda qo'llanilgan: "Cho'p-forscha darxt,yog'och,xoda,novda,shox bo'lagi…"(O'TIL,525-bet)ma'nosini ifodalasa,"Xas-xashak,shox-shabba,quruq shoxcha,quruq o'simlik poyasi"(O'TIL,387-bet)ma'nolarini anglatadi.Ketma-ket keltirilgan bu ma'nodosh so'zlar she'rning ifoda mazmunini ochib berish bilan birga unga emotsional-ekspressivlik ham bag'ishlashga xizmat qilgan.

Ko'rinadiki, Halima Xudoyberdiyeva she'rlarida emotsional ekspressiv leksikaning birlamchi manbasi bo'lgan sinonimlardan keng foydalanilgan.Shoira she'rlarining lug'aviy tarkibi juda boy va rang-barang bo'lib,ularda so'zlarning o'rinsiz takrori uchramaydi.Bunga esa shoira aynan sinonim so'zlardan mohirona foydalanganligi tufayli erishgan.She'riyatda sinonimlarning bu kabi to'g'ri va o'rinli ishlatilishi asar qimmati va qiymatini oshirishga xizmat qilgan. Shoiraning sinonimlarni o'rinli qo'llashda quyidagi maqsadlar ham to'laqonli yuzaga chiqqan:

- Badiiy ifodaning ta'sirchanligini oshirish;
- So'zlarni takror ishlatishdan qochish;
- Uslubning ravonligi;
- Fikrni aniq,lo'nda,ixcham ifodalash;
- O'zbek tilining lug'at tarkibi boy ekanini namoyish etish;
- Misralarni vaznga solish,qofiya hosil qilish,turli badiiy san'atlarni yuzaga keltirish va h.o.

Sinonimlar tilning lug'at tarkibini boyitishga xizmat qiladi,badiiy adabiyot namunlarida tasvirlanayotgan lavha, timsol, voqea-hodisalarning ta'sirchan, jozibali, ohangdor bo'lishiga olib keladi. Shoira Halima Xudoyberdiyeva ayni bir ma'noni bildiruvchi birdan ortiq til birlilarini muayyan maqsadni ko'zlab qo'llagan va o'z maqsadiga to'laqonli erishgan desak mubolag'a bo'lmaydi.

Badiiy adabiyot insonning olamini boyitadi, ruhiyatini tarbiyalaydi, qalbimiz va ongimizda odamiylik hislarini parvarishlaydi. Xuddi shunday tilning boyligi va nutqning jozibadorligi, ta'sirchanligini ta'minlashda sinonimlarning ahamiyati katta. Sinonimlar muhim tasviroy vosita sifatida badiiy manzaralar yaratishga, lirik qahramon holatini, ichki kechinmalarini yoritishga xizmat qiladi.

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### *ANNOTATSIYA*

*Ushbu maqolada andragogika nima: pedagogikadan farqlari, kattalar uchun ta'lim usullari: nazariyani amaliyot bilan qanday almashtirish kerak? kabi savollar oʻrganib chiqiladi. Devid Kolb modeli , andragogik yondashuv asosida kattalar ta'limining adaptiv tizimini takomillashtirish texnologiyalari, andragogik ta'limda chet tillarni oʻqitishning ayrim metodologik masalalari oʻrganib chiqiladi.*

### *ABSTRACT*

*In this article, the following queations- What is andragogy: its differences from pedagogy?, Adult education methods: how to replace theory with practice? are studied. David Kolb's model, technologies for improving the adaptive system of adult education based on the andragogic approach, some methodological issues of teaching foreign languages in andragogic education are studied.*

*__Kalit soʻzlar__: andragogika , Devid Kolb modeli, metodologik masalalar, adaptiv tizim, pedagogika.*

## KIRISH

Inson butun umri davomida oʻrganadi. Ammo kattalar ta'limi bolalar ta'limidan juda farq qiladi. Sakkiz yoshli bolani oʻqitish uchun ishlaydigan texnikalar metallurgiya zavodi muhandisi uchun samarali boʻlmaydi. Kattalarni qanday tarbiyalash kerak?

Odamlarga ta'lim berish haqida gapirganda, ko'pchilik "pedagogika" tushunchasidan foydalanadi. Darhaqiqat, pedagogika faqat bolalar va o'smirlarga tegishli. Kattalar uchun esa alohida fan sohasi - andragogika yoki andragogiya ta'lim modeli mavjud. Yunon tilidan tarjima qilingan " andros " "kattalar" va " agogane " - "qo'rg'oshin" degan ma'noni anglatadi. Bu kattalarni o'rganish fanidir.     Kattalar ta'limi psixologiyasi bolalar ta'limidan qanday farq qiladi? Kattalar o'rganish uchun ichki motivatsiyaga ega, ko'pincha u ijtimoiy va kasbiy maqsadlarga erishishga qaratilgan. Va boladan farqli o'laroq, kattalar boy hayotiy tajribaga ega va buni qanday qilib to'g'ri qilish va qanday qilmaslik haqida g'oyaga ega. Bu o'rganishga yordam berishi yoki to'sqinlik qilishi mumkin. Ko'pincha qayta o'rganishdan ko'ra noldan o'rganish osonroq.

## ADABIYOTLAR TAHLILI VA METODOLOGIYA

Bugungi kunda yurtimizda kattalar ta'limini rivojlantirish, kattalar uchun qo'shimcha ta'limning mavjud tashkiliy shakllarini tushunish, tartibga solish, uslubiy asoslar va ilmiy-metodik vositalarni ishlab chiqish eng dolzarb masalalardan biri bo'lib turibdi. Ushbu maqolada O'zbekistonda kattalar ta'limini takomillashtirish borasida rivojlangan Sharq va G'arb tajribasini o'rganish, qiyosiy tahlil qilish hamda milliy xususiyatlarga moslash kabi ishlarni amalga oshirish ko'zda tutilgan.

Jamiyat rivojining hozirgi bosqichida kreativ, nostandart fikrlaydigan, o'z sohasida yangi usullarni taklif qila oladigan professional mutaxassislarga ehtiyoj tobora ortmoqda. Har bir soha uchun kadrlarni tayyorlash ta'lim beruvchining zimmasiga yuklatilgan vazifadir. Chunonchi, malaka oshirish va qayta tayyorlash muassasalarida katta yoshli ta'lim oluvchi rahbar hamda pedagoglarning malakasini oshirish va qayta tayyorlash mobaynida ta'lim jarayonini samarali tashkil etish omillaridan biri andragogik tamoyilllarga tayanish hisoblanadi. "Andragogika" atamasi nemis pedagogika tarixshunosi A. Kapp tomonidan kiritilgan. Mazkur atama grek tilidan andros – erkak, odam; agogeyn – olib borish, yetaklash ma'nosini anglatadi. So'zma-so'z tarjima qilinganda andragogika –

"katta odamni boshqarish, yetaklash" ma'nosini bildiradi. Bu atama pedagogik voqe'likdan vujudga kelgan ekan, unda so'z katta yoshdagi odamni ta'lim orqali boshqarish, yetaklash to'g'risida boradi. Aynan kattalarga ta'lim beruvchi pedagog andragog hisoblanadi

O'qitish jarayonida qo'llaniladigan didaktik metodlar qandaydir maqsadga erishish, aniq vazifani yechish usuli sifatida tushunishdan kelib chiqib, S.I.Zmeyov unga quyidagicha tarif beradi: "o'qitish metodi – bu o'quv jarayonining faol ishtirokchilarining (ta'lim beruvchi va ta'lim oluvchi) bilim, malaka, ko'nikma, sifatlar va axloqiy qadriyatlarni egallash bo'yicha faoliyatini tashkil etish usulidir" . O'qitishning adragogik modeli bo'yicha ta'lim jarayonni tashkil etishda asosiy rol ta'lim oluvchiga qaratiladi. Katta yoshdagi ta'lim oluvchi ta'lim jarayonining teng huquqli ishtirokchisi, faol elementi hisoblanadi . Shunday ekan kattalar ta'limini samarali tashkil etishda turli xil ta'lim metodilaridan foydalaniladi.

Dunyoda andragogik ta'limni tashkil etishning ustuvor yo'nalishlarini aniqlashtirish, malaka oshirish jarayonida tinglovchilarning kasbiy malakasini rivojlantirishga doir qator ilmiy izlanishlar olib borilmoqda. Ayniqsa, zamonaviy sharoitda kasbiy faoliyatni amalga oshirish uchun muhim hisoblangan kattalar ta'limida o'qitishning intensiv usullarini ishlab chiqish, tinglovchilarning axborot-kommunikativ kompetentligini rivojlantirish mexanizmlarini takomillashtirish tobora ustuvor ahamiyat kasb etmoqda. . Biroq bu boradagi ishlar ko'p bo'lishiga qaramay, xorijiy tajribani o'rganish zarurati to'liq qondirilmayapti. Xorijiy tajriba tahlilining ahamiyati N.E. Vorobyov, B.L. Vulfson, A.N. Dzjurinskiy, A.M. Mitina, M.V. Klarin kabi MDH mamlakatlari tadqiqotchilari tomonidan qayd etilgan

Andragogiya asoschisi Malkolm Nouls kattalar ta'limining xususiyatlarini ajratib ko'rsatdi. O'quv dasturini ishlab chiqishda ularni hisobga olish muhimdir.

Ko'pgina hollarda, bolalarda ichki motivatsiya yo'q va o'rganish kerak. Ta'lim tizimi tashqi motivatsiyaga - ota-onalar va o'qituvchilarning bosimiga asoslangan ("Sen maktabni tugatmasang, farrosh bo'lasan"). Kattalar o'rganishga ko'proq

ongliroq yondashadilar - ular kasbiy yoki ijtimoiy sohada ma'lum bir natijaga erishish uchun o'qishni boshlaydilar, ular hozirgi bilim darajasi bilan erisha olmaydilar. Misol uchun, menejer bo'lim boshlig'i bo'lishni xohlaydi, shuning uchun u bo'limda savdo rekordlarini yangilash va lavozimga ko'tarilish uchun ekspert savdo usullarini o'rgatadi. Biror kishini kursni o'rganishga qiziqtirish uchun uni nima undayotganini bilishingiz kerak. Masalan, menejer ish haqining o'sishidan manfaatdor bo'lishi mumkin, buxgalter esa ko'tarilishdan manfaatdor bo'lishi mumkin. Inson uchun qanday motivlar va omillar hal qiluvchi ekanligini aniqlang va unga o'quv dasturi ularni olishga qanday yordam berishini tushuntiring.

Kursning nomi - bu odam ko'rgan birinchi narsa, shuning uchun siz nima uchun odam kursni o'rganishi kerakligini etkazishingiz kerak.

Kattalar hayotiy tajribaga ega bo'lib, ular orqali yangi ma'lumotlarni olib boradilar:

- Agar yangi ma'lumot mavjud tajriba bilan kesishsa, u holda assotsiativ aloqalar tezroq shakllanadi, inson o'z bilimini chuqurlashtiradi va malakasini oshiradi.

- Agar yangi ma'lumotlar o'tmish tajribasiga zid bo'lsa, talaba o'z xatti-harakatlarini o'zgartirish zarurligiga ishonch hosil qilishi kerak. Kurs muallifi uni yangi metodologiya haqiqatan ham u bilganidan yaxshiroq ekanligiga ishontirishi kerak. Talabaning shubhalarini yo'qotish uchun materiallarda "Nima uchun aynan?" Degan savolga javob berish muhimdir.

Kattalar bilim olish uchun emas, balki muayyan muammolarni, masalan, ishda tezda hal qilishga yordam beradigan ko'nikmalarni rivojlantirish uchun o'rganadilar. Shuning uchun kurs bilimlarni oddiy yodlashga emas, balki ushbu vazifalarga qaratilishi kerak. Masalan, kattalar maktabdagi bola kabi algebrani maqsadsiz siqib qo'ymaydi, lekin u moliyaviy muammosini hal qilishga yordam beradigan ma'lum bir tenglamani qo'llashni qiziqish bilan o'rganadi

An'anaviy ta'lim qanday ketmoqda? Shaxs nazariy materialni o'rganib chiqdi, so'ngra test savollariga javob berdi. Kurslarning 90 foizi shunday tashkil etilgan - nazariya, keyin esa amaliyot. Darhaqiqat, bunday trening samarali bo'lishi mumkin - masalan, bolalar uchun. Va kattalarni o'qitish usullari ularning tajribasiga asoslanishi

va muayyan hayotiy muammolarni hal qilishga olib kelishi kerak, shuning uchun amerikalik psixolog Devid Kolb kattalarni o'qitishning yanada samarali modelini taklif qildi.

J.Rachal androgogikani kattalarga ta'lim berish vositasi sifatida o'rganib, oliy ta'limda talabalar o'z motivatsiyalariga o'zlari mas'ul bo'lishlari kerakligini ta'kidlaydi. Androgogika talabalarni nazorat qilishga, egallanayotgan bilimlarni mavjud standartlarga asoslanib baholab borishga va talabalarni o'rganishga ixtiyoriy jalb etishga chorlaydi. Lekin bu shartlarning aksariyati oliy ta'limda qo'llanmaydi.

**NATIJALAR**

Tadqiqotlar shuni ko'rsatadiki, muvaffaqiyatli o'qishga bo'lgan motivatsiya omili ko'pincha intellekt omilidan kuchliroqdir. O'rganish jarayonini yoqimli qilishda o'rganuvchilar motivatsiyasini qo'llab-quvvatlash muhimdir. Birinchidan, taqdim etilayotgan matnlar, audiovizual materiallar, vazifalar va dars mashg'ulotlari talabaning qiziqishlariga mos bo'lishi lozim.

Ikkinchidan, o'qituvchi talabalarga vazifalarni bajarilishini baholash imkonini berishi va ularning ehtiyojlari boshlang'ich rolni o'ynashi talab etiladi.

Uchinchi muhim narsa – mashg'ulotlardagi yumor, musiqa singari dars mavzusidan tashqari, qo'shimcha mashg'ulotlar komponentlari talabalarning o'qishga bo'lgan ishtiyoqini oshirish xususiyatlari hisoblanadi. Qo'shimcha mashg'ulotlar sifatida nafaqat yumor yoki ko'ngilochar mashg'ulotlar, balki talabalarning orasida kurs maqsadiga mos bellashuvlar uyushtirish, misol uchun, poster taqdimotlar, video taqdimotlar, loyiha ishlari, guruhlarda loyiha ishlarini tashkillashtirish va boshqalarni kiritishimiz mumkin.

| Xususiyatlari | Pedagogika | Andragogiya |
|---|---|---|
| **O'qituvchining roli** | O'qituvchi o'quv jarayonini nazorat qiladi, talabalar unga to'liq bog'liqdirlar | Talabalar mustaqil, o'rganish formati va tamoyilini o'zlari tanlaydilar, o'qituvchi ularga yordam beradi va ularga rahbarlik qiladi |
| **O'rganishga e'tibor** | Diqqat mavzuning o'ziga va uning mazmuniga qaratiladi, maqsad materialni eslab qolishdir | Diqqat kurs hal qilishga yordam beradigan vazifa yoki muammoga qaratiladi |
| **O'quv motivatsiyasi** | Rivojlanishning keyingi bosqichiga o'ting, tashqi motivatsiya | Muayyan maqsadga erishish uchun mahoratga ega bo'ling, ichki motivatsiya |
| **Oldingi tajriba** | Oldingi tajriba kam, bu o'rganishga ta'sir qilmaydi | Oldin kattalar ta'limida ishtirok etgan tajribaga ega |
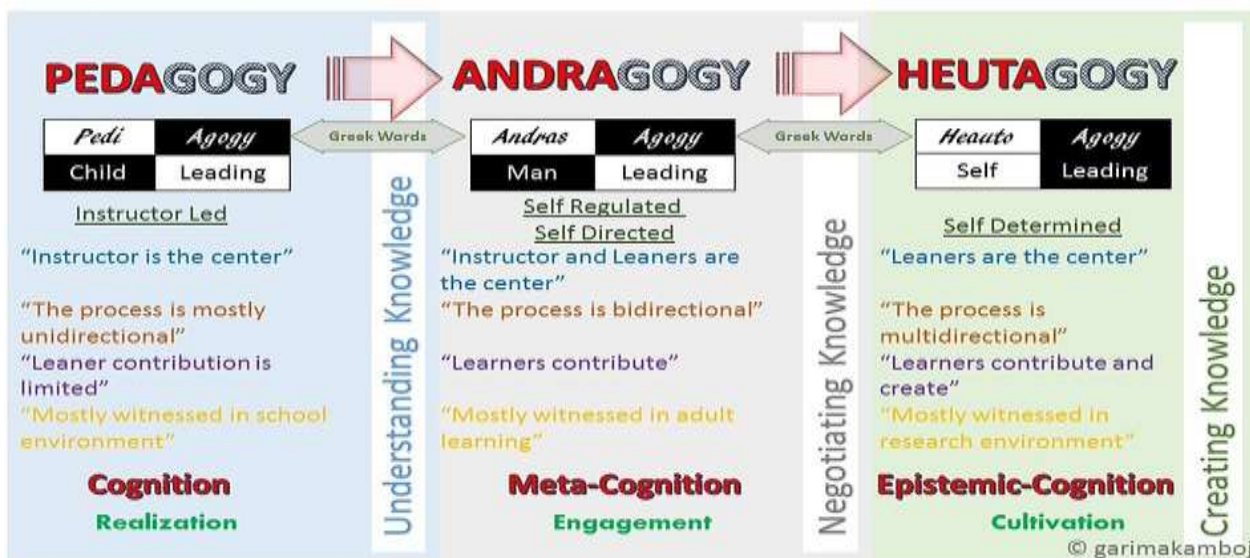


## MUHOKAMA

Har qanday o'rganishning boshlang'ich nuqtasi yangi tajribani o'zlashtirish yoki eskisini amalga oshirishdir. Tajribaga murojaat qilish talabaning mavzuga qiziqishini uyg'otadi va uning ahamiyatini ko'rsatadi.Yuzma-yuz formatda siz ishtirokchilar

vaziyatlarda turli xatti-harakatlarni namoyish etadigan rolli o'yinlar orqali tajribaga murojaat qilishingiz mumkin. Yoki ma'lum bir mavzu bo'yicha bilim etishmasligini ko'rsatuvchi va o'quvchilarni yangi bilim olishga undaydigan munozaralar yoki mashqlardan foydalaning.

Onlayn kursda siz amaliyotga yo'naltirilgan savol berishingiz, ishni hal qilishni taklif qilishingiz yoki hayotingizdagi vaziyatni eslashingiz mumkin.Tajriba tahlil va mulohaza yuritish uchun material beradi. Talabaning olgan bilimlarini umumlashtirish va olingan tajribani tizimlashtirish muhim ahamiyatga ega.Yuzma-yuz treningda ochiq savollar orqali ishtirokchilarni oldingi bosqichda olingan natijalar qanchalik samarali ekanligi haqida fikr yuritishga undash mumkin. Misol uchun, agar siz rolli o'yin o'ynayotgan bo'lsangiz, har bir ishtirokchining xatti-harakati va bu xatti-harakatlarning samaradorligini muhokama qilishingiz mumkin.

Onlayn kursda odam bilan muloqot qilishning imkoni yo'q, shuning uchun uni simulyatsiya qilish mumkin. Masalan, insonning ma'lum bir harakati haqida fikr bildirish, u o'z tajribasini tahlil qilishi uchun. Masalan, talabaning javobidan keyin vaziyatni ishlab chiqing.Biror kishi o'z tajribasini tahlil qilganda, u yangi mavzu bo'yicha nazariy taqdimotni shakllantirish va bilimlarni asoslash uchun yangi materialni o'rganadi. Ushbu bosqichda yangi bilim va tajriba o'rtasidagi assotsiativ aloqalar mustahkamlanadi.Nazariy material o'quvchiga yangi bilimlarni tushunishi va eslab qolishi osonroq bo'lishi uchun interaktiv formatda taqdim etilishi kerak. Agar bu yuzma-yuz dars bo'lsa, siz taqdimotdan, hikoyadan foydalanishingiz va ko'plab misollar keltirishingiz mumkin. Agar bu onlayn kurs bo'lsa, ma'lumotni qisqa bloklarga bo'lish, video va tasvirlarni qo'shish, misollar keltirish va mikro o'rganish elementlaridan foydalanish tavsiya etiladi .Ushbu bosqichning maqsadi nazariy tushunchalarni amaliyotda sinab ko'rishdir. Yakuniy bosqich yangi tajribani shakllantiradi, shuning uchun tsikl takrorlanadi, ideal holda yangi mahorat shakllanmaguncha.Talabalar bilimlarini qo'llashlari uchun amaliy mashg'ulotlardan foydalaning. Kurs oxirida barcha amaliyotni yakuniy imtihonga qisqartirishdan ko'ra,

har bir kichik nazariy blokdan keyin mashqlarni qo'shishni tavsiya qilamiz. Keyin bilimlar qabul qilinganda dozalarda o'rnatiladi.

Bunday Kolb sikliga ko'ra, siz butun kursni yoki kurs doirasida alohida mavzularni qurishingiz mumkin.

### XULOSA

Kattalar va bolalar boshqacha o'rganadilar. Kattalar ta'limining asosiy tamoyillari:

- O'rganishga ongli ravishda yondashing va aniq maqsadlar qo'ying
- O'quv jarayonini mustaqil boshqarishni afzal ko'ring
- O'rganish bilan bog'liq o'z tajribasiga ega bo'ling
- Yangi bilimlarni amaliyotda tezda qo'llashga e'tibor qaratiladi

Kolb sikli - bu o'rganishning xususiyatlari va qiyinchiliklarini hisobga oladigan kattalar uchun mashhur o'rganish usuli. U to'rt bosqichdan iborat:

1. Tajribangizni yangilang
2. Fikr-mulohaza oling va tajribani tushuning
3. Yangi mavzu bo'yicha nazariy tushunchani shakllantirish
4. Yangi bilimlarni amaliyotda qo'llash

Samarali kurs yaratish uchun ushbu algoritmdan foydalaning va kattalarning xususiyatlarini hisobga oling.

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# FRANSUZ MAQOLLARINING O'ZBEK TILIGA TARJIMASI

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*"Agar mendan: tilda ham mo'jizalar bo'ladimi?— deb so'rasalar, men: agar bo'lsa, tilning "mo'jizasi", undagi maqol, matal va idiomalardir deb javob qilgan bo'lar edim. Chindan ham gapning qaymog'i, shirini, olam-olam ma'no beradigani va, shu bilan birga, tilning lo'ndasi maqol, matallardir"[1]*
*(G'.Salomov)*

## *ANNOTATSIYA*

*Ushbu maqolada maqollarning fransuz va o'zbek tilida tutgan o'rni, ahamiyati, ularning qay darajada o'xshashligi haqida so'z borgan. Shuningdek bir millat maqollarining boshqa bir millat maqoli bilan qanchalik o'xshashligi, ularning tarjima qilinishi, millatlar o'rtasidagi milliy madaniy aloqalarni mustahkamlashda qay darajada ahamiyat kasb yuritishi haqida fikr yuritilgan.*

*Kalit so'zlar: maqol, ekvivalent, muqobillik, umumiylik*

## *АННОТАЦИЯ*

*В этой статье говорится о роли и значении пословиц на французском и узбекском языках, и о том, насколько они похожи. Также обсуждалось, чем пословицы одного народа похожи на пословицы другого народа, их перевод и какое значение они имеют в укреплении национально-культурных связей между народами.*

*Ключевые слова: пословица, эквивалент, альтернатива, общность.*

## ABSTRACT

*This article talks about the role and importance of proverbs in French and Uzbek, and how similar they are.  It was also discussed how the proverbs of one nation are similar to the proverbs of another nation, their translation, and how important they are in strengthening national cultural ties between nations.*

**Key words:** *proverb, equivalent, alternative, generality.*

Maqol—xalq og'zaki ijodi namunasi, muayyan shaklga ega bo'lib, ularda insoniyatning hayotiy tajribalari, atrofdagilarga munosabati, o'tmishi, ichki dunyosi, ichki kechinmalari, ijobiy fazilatlari mujassamlashgan.  Maqollardan insonlar yillar davomida foydalanib kelishgan. Tilda maqol matallardan foydalanish har bir til leksikasining naqadar boyligining yaqqol isboti sifatida ko'rinadi. Tilimizda paydo bo'ladigan har bir maqol yoki matal yillar va asrlar mobaynida insonning sharoitidan, odatiy vaziyatlaridan orttirilgan bo'ladi. Bundan ma'lum bo'ladiki, har bir maqolning paydo bo'lishi, rivojlanishi, bundan tashqari ularni omma tomonidan jonli muloqot muhitiga olib kirish, uni ommalashtirish uzoq davr talab qiladi. Maqollarning dialoglar, asarlar yoki she'riyatda qo'llanilishi berilayotgan fikrga ta'sirchanlik va hissiylik beradi. Maqol bir necha so'z bilan ifodalangan axloqiy haqiqatni bildiradigan "Bir necha so'z bilan tasvirlangan rang-barang ifoda" (M. Maloux, 2009: V), J.Bekon aytganidek :"Xalqning dahosi, ruhi va xarakteri uning maqollarida namoyon bo'ladi", deydi (Jorj Bekon). Mashhur tilshunos olim V.Mayder o'z asarida maqolga quyidagicha ta'rif beradi: «Maqol – bu xalqning hikmat, haqiqat, axloq va ananaviy qarashlarini metafora, sobit va esda qolarli shaklda o'z ichiga olgan qisqa, umuman ma'lum jumla avloddan avlodga o'tib kelmoqda"

Maqollardan foydalanishning afzalligi shundaki, ular yordamida ma'nolarni yanada aniqroq tushunish va ta'kidlash oson.  Qolaversa, maqol va matallarni o'rganish orqali o'quvchilarning o'rganilayotgan til va adabiyotni o'rganish jarayoni takomillashtiriladi.  Ulardan tez-tez foydalanish tilning kuchli va keng tarqalishiga yordam beradi.  Ma'lum bo'lishicha, bu maqol va matallar asrlar davomida

qo'llanilgan bo'lib, bu ularning uzoq umr ko'rishiga sabab bo'lib, bugungi kungacha o'ziga xosligi va xususiyatlarini saqlab qolgan. Turli jamiyatlardagi odamlarning xatti-harakatlari va kundalik faoliyati majoziy nutqlarda yoqimli va kulgili tarzda tasvirlanadi. Ular nafaqat adabiyotda, balki til muloqotida ham foydalidir. Xalq maqollariga keladigan bo'lsak, bizga ajdodlarimizdan meros bo'lib kelayotgan milliy madaniy merosimizdir. Har bir tilning o'ziga xos idiomalari, maqollari, topishmoqlari, matallari bor. Frantsuz tilida, xuddi o'zbek tilida bo'lgani kabi, maqollar suhbatlarda keng qo'llaniladi.

Jamiyatlar ichidagi ochiq madaniy farqlarga qaramay, tillardagi barcha maqollar, hatto o'zbek va frantsuz kabi bir-biridan juda farq qiladigan maqollar ham umumiy mazmunga ega. Shuning uchun ham ularning gaplari mazmun jihatidan umumlashtiriladi: masalan, frantsuz tilida *Qui craint le danger ne doit pas aller en mer.* Bu maqolni so'zma-so'z tarjima qiladigan bo'lsak *Xavfdan qo'rqqan dengizga bormas* manosini beradi. O'zbek tilida esa o'zbek millatiga xos ekvivalentidan foydalanamiz ya'ni *Chumchuqdan qo'rqqan tariq ekmas.* Bu yerda maqoldagi so'zlar bir biridan tubdan farq qilsada lekin mano bir butun bog'liqlikni tashkil etadi. Yani bu maqollardan anglashilgan holat shuki, inson tavakkal qilmasa hech narsa bo'lmaydi. Yoki bo'lmasa *Le chat parti,les souris dansent* maqolini oladigan bo'lsak *mushuk yo'q bo'lsa , sichqonlar raqsga tushadi.* Yani mushuk bo'lmaganda sichqonlar uchun bayram degani. Bu maqolga o'zbekcha muqobil variant keltiradigan bo'lsak men bunga *Sulaymon o'ldi —devlar qutuldi* maqolini keltirgan bo'lardim. Chunki bu maqolni etimologiyasiga qaraydigan bo'lsak, Sulaymon alayhissalom Qur'onda nomi keltirilgan payg'ambarlardan biri bo'lib, rivoyatlarga ko'ra butun insu jins, hayvonot, parranda, jamiki mavjudot tilini biladigan, ular ustidan hukmronlik qiladigan podshoh bo'lgan. Barcha jinlar, devlar u zotdan qo'rqishgan. Rivoyatlarda keltirilishicha, Sulaymon alayhissalom hassaga suyangan holda jon taslim qilgan, toki ularning hassasini yog'och qurti kemirib hassa sinib ketmagunga qadar, devlar Sulaymon alayhissalomni tirik deb o'ylab o'z ishlarini qilishda davom etishgan. Shunday qilib Sulaymon o'lib, devlar mehnatdan qutulgan ekan.

Yuqorida berib o'tilgan maqollar, shakl jihatdan bir biridan farq qilsada mano mazmun jihatidan umumiylikka ega. Yana shunday maqollar borki ular fransuz va o'zbek tilida ham shakl, ham ma'no mazmun jihatidan bir biriga o'xshash. Ularga misol qilib quyidagi maqollarni keltirish mumkin: *les chiens aboient, la caravane passe — It hurar, karvon o'tar*

*Il n'y a que les montagnes qui ne se rencontrent jamais— Tog' tog' bilan uchrashmaydi, odam odam bilan uchrashar*

*Il n'y a pas de fumée sans feu —Tutunsiz olov bo'lmas*

Deyarli ko'pchilik maqollar umumbashariy maqollar hisoblanadi ya'ni ular fransuz, o'zbek va boshqa tillar bilan bir biriga ma'no jihatidan mos. Ba'zan qaysidir xalq maqoli ta'sirida boshqa bir xalq tilida maqol paydo bo'lishi mumkin. Jumladan *Qui a langue, va à Rome — Til bilgan Rimga boradi.* O'zbek tilida esa *So'rab so'rab Makkani topibdi* maqoli bilan bir xil holatda qo'llasak maqsadga muvofiq. Chunki barchamizga ma'lumki qadimda Rim Yevropadagi eng mashhur ilm maskanidan biri bo'lgan. Makka shahri esa musulmonlar uchun eng muqaddas joy hisoblanadi. Bu ikki maqolni solishtiradigan bo'lsak, har ikkalsi ma'lum bir xalqning milliyligidan uning dunyoqarashidan kelib chiqqan. Biri ta'sirida boshqasi yuzaga kelgan.

Lekin shunday maqollar borki, bunday maqollar faqat aynan bir millatga, maqolning kelib chiqqan davriga, vaziyatiga, uning qadriyatlariga tegishlidir, uning muqobili chet tilida bo'lmaydi, uni faqatgina mano mazmunidan kelib chiqqan holda tasviriy-tavsiflash yo'li orqali tushuntirish mumkin, uni o'zbek tiliga tarjima qilish, yoki fransuz tiliga tarjima qilish nihoyatda mushkul jarayon.

Shunday qilib, maqol kirib bormagan, o'z tilida maqol yartailgan biron bir millat biron bir xalq yo'q. Insoniyat yaralibdiki, ularning dunyoqarashi, tilning leksik boyligi oshib bormoqda. Dunyodagi har bir tilning o'ziga xos maqol va matallari bo'lib, ularni bilish , nutqda va yozishda qo'llash juda muhim.

Ular, asosan asar mazmunni qisqa va ta'sirli ifodalamoqchi bo'lganda foydalaniladi. Shuning uchun ulardan kundalik hayotda foydalanish muhim rol o'ynaydi.

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# COVERING THE NEEDS OF MIXED-ABILITY CLASS

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## *ANNOTATION*

*Mixed-ability classrooms have been identified as one of the most significant detriments to students studying at schools. There is rising worry about the effects of mixed-ability courses, prompting the need for a research to identify alternatives. This study includes five female EFL teachers who work at schools, and their responses were acquired through interview. The questionnaires addressed this issue on several levels, including teaching and learning, materials, motivation, and class management procedures.*

***Keywords:*** *Mixed-ability classes, strategies, English first language (EFL), classroom.*

## 1. Introduction

The mixed-ability class is one of the many issues that teachers face nowadays. A mixed-ability classroom, according to Chapman and King (2003), is made up of students with varying degrees of learning abilities, interests, and talents. EFL teachers have come to recognize this as one of the most important factors that defines the degree of instruction and knowledge of what the students go through in the long run. While each learner has their own unique way of learning English, as well as distinct linguistic knowledge and learning pace, there appears to be an overarching necessity for the instructor to use approaches that engage all pupils in the same measure. This is especially true when the instructor is unsure about which students to focus on. Should they focus on the advanced students while ignoring the lesser ones? The converse

would be detrimental to advanced learners, since they would not be able to participate to their full ability. Following this scenario, this study seeks to investigate the obstacles of mixed-ability courses as well as the techniques used by EFL teachers to solve these issues.

## 2. Literature review

Mixed-ability classes are those in which students have a wide variety of achievement and learning levels. Students in these classrooms have distinct skills and weaknesses, as well as varied methods to learning. Scholars have described this topic in a variety of ways, drawing on distinct insights garnered from various learning situations. Ansari (2013), for example, defines a mixed-ability class as one that includes not only learners of varying abilities, but also individuals with a diverse set of preferences and learning styles. They can also be referred to as a subset of students based on their grammatical knowledge, fluency and accuracy, vocabulary size, receptive and productive capabilities (Valentic, 2005).

Notably, several elements, such as attitude, motivation, and self-discipline, might differ from one student to the next (Lightbown & Spada, 2006). This makes it difficult for teachers to successfully arrange their lessons in order to ensure that all of their students benefit from the session. This is especially difficult for language instructors who lack the necessary skills and teaching approaches to deal with mixed-ability classes (Ansari, 2013). Most educational institutions have addressed this issue by splitting courses based on age. However, these classifications are still multileveled because individual abilities are still considered random.

However, there are benefits to teaching in mixed-ability courses that are typically obscured by the problems. These classrooms provide engaging learning environments since they are made up of a broad set of talents, attitudes, and perspectives. Most significantly, the interactions in these programs allow students to be more creative and imaginative by learning from one another's unique strengths. The problems faced by language teachers in mixed-ability classrooms, on the other hand,

are frequently numerous and usually lead to frustration on their side since they are unable to create a fruitful learning and teaching environment for their pupils.

Teachers are also confronted with a scarcity of training programs and practices to prepare them for such workplace conditions. These tactics have been proposed as critical and helpful in ensuring student success in their learning experiences. The truth is that most instructors lack professional development, preparation time, and the ability to regularly use differentiation (Loiacono & Allen, 2008). Continuous training for instructors in mixed-ability classrooms is required to effectively manage the challenges of their varied pupils (Butterworth, 2010).

Most classrooms have a high number of students, and it is the teacher's obligation to keep the pupils under control and to deliver the lesson successfully. Because the burden for meeting the particular needs of each student falls solely on the shoulders of a single teacher, it has become a time-consuming process. Because each student has a distinct degree of knowledge, it has become tough to implement their lesson plans in a mixed-ability class (Northcote 2006).

### 3. Methodology.

The aim of this article is analyzing of mixed ability classes and teachers' different methods to cover their needs . For doing this, interview method is used and five teachers are selected and participated.

Participants.

| N | Participants | Work place | Experience | What classes they teach | Level of the teacher |
|---|---|---|---|---|---|
| 1. | O'ktamova Asila | 29th Fergana region | 2 year | 1st, 2nd, 9th, 11th | C1 |
| 2. | Muqimxo'jayeva Xushnoza | 16th Fergana region | 2 year | 7th | C1 |
| 3. | Olimjonova To'lganoy | 51st Fergana region | 2 year | 1st, 2nd | B2 |
| 4. | Axmedova Zarnigor | 9th Fergana region | 2 year | 1st, 2nd | C1 |
| 5. | Shahnoza Fozilova | 18th Fergana region | 2 year | 1st | C1 |

**Research method:** Interview. An interview is an organized conversation in which one person asks questions and the other responds. The term "interview" is commonly used to refer to a one-on-one talk between an interviewer and an interviewee.

**When:** 19th of October     **Where:** At university     **How:** Face to face

**Data collecting tool:** Interview.

**Interview questions:**

1. Describe your approach to teaching vocabulary to learners with different proficiency levels.
2. Share an example of how you give instruction to meet the needs of diverse learners in your classroom.
3. Tell me about how you adapt your teaching style or materials to meet the needs of a specific student.

### 4. Data analysis and discussion.

Almost all of my interviewees had similar responses. Four of my respondents answered to my first question by saying that they utilize visuals and have pupils repeat after them while teaching vocabulary. They think that it is the best way both to teach vocabulary and cover all the needs of students of mixed ability classes. However, X.M preferred the collaborative approach, believing that if we force pupils to work in groups or with peers, they will learn new language more quickly. Also she added that working collaboratively not only helps to learn vocabulary better but also it can improve students' social skills and they can easily integrate with each other.

In response to the second question, A.O' , Sh.F , X.M  like to provide a variety of resources and assignments while providing directions in order to meet the requirements of varied learners in the classroom. They claimed that they take their level, interest, learning style and age into account while choosing materials. Z.A , T.O conduct new topics by describing them broadly, and if passive students do not understand the concept, they deal with them personally. As they teach 2 grade students they work with students' parents because young students cannot understand the

pressure and in this situation co-working of teacher and parents will be the best solution.

They gave varied answers to the third interview question. M.X employs exercises for  tectile learners and realias. She mentioned that if teacher do not fulfill the needs of students, students will not be engaged in lesson.  And A.Z. and F.SH employ visual aids based on the pupils' learning styles as they have more visual learners in their class.. However, O'.A and O.T make supplementary activities more difficult for greater levels, but the goal is the same; the only difference is the level. In that case, both upper and lower level of students will not get bored during the lesson and they will get immersed in class.

## 5. Conclusion.

According to the findings of this study, the mixed-ability kids found in nearly all schools and classes face their teachers with significant challenges in teaching effectively. When students publish unfavorable unanticipated findings, teachers are said to feel out of touch with them or out of control. These issues necessitate the use of efficient management approaches by the teachers in order to handle them. This can be accomplished by employing various ways in order to test various strategies and choose the most effective ones.

Aside from implementing these management strategies, instructors must emphasize the good features of the classes. Due to the intricacies involved, teaching these classes can be difficult, yet mixed-ability classes are noted for their unique capabilities. Following that, the instructors should concentrate more on these strengths. A good way to achieve this is to create specialized assignments for each level in order to keep pupils involved and so boost their learning ability.

Furthermore, teachers who have a positive attitude toward student ability diversity are more successful when teaching mixed-ability classes. Planning particular tasks for the students' various levels of ability will guarantee that all learners are involved in the learning process and at personal levels, ensuring efficiency and success in the teaching of mixed-ability classrooms.

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# CHAKILKALYAN TOG'LARI AKATA MAYDONI APOKARBONAT OLTIN MA'DANLARING MINERAL TARKIBI

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### *ANNOTATSIYA*

*Bugungi kunda dunyoning rivojlangan mamlakatlarida foydali qazilmalarning kompleks konlarini topishga yo'naltirilgan ko'plab ilmiy izlanishlar olib borilmoqda, jumladan, terrigen-karbonat formatsiyalardagi oltin ma'danli konlarni aniqlashga katta e'tibor qaratilmoqda. Zamonaviy tadqiqot va yuqori aniqlikka ega tahliliy usullardan foydalanib olib borilgan geologik-mineralogik tadqiqotlar mazkur karbonat formatsiyalardagi oltin ma'danlarini aniqlash usullarini va bashoratlash-izlash kompleksini ilmiy asoslashga imkon yaratadi.*

*Kalit so'zlar: Chakilkalyan, Akata, terrigen, karbonat, mineral, apokarbonat, oltin, ma'dan, gematit, pirit, kinovar, antimonit, kvars, qalay.*

# MINERAL COMPOSITION OF APOCARBONATE GOLD MINES OF AKATA AREA OF CHAKILKALYAN MOUNTAINS

### *ABSTRACT*

*Currently, in developed countries of the world, a lot of scientific research is being carried out aimed at identifying complex mineral deposits, in particular, much attention is paid to identifying gold deposits in terrigenous carbonate formations.*

*Geological and mineralogical studies, carried out using modern research and analytical methods with high accuracy, make it possible to scientifically substantiate methods for identifying and predicting and searching for gold mineralization in these carbonate formations.*

*Keywords: Chakilkalyan, Akata, terrigen, carbonate, mineral, apocarbonate, gold, ore, hematite, pyrite, cinnabar, antimonite, quartz, tin.*

KIRISH.

Apokarbonat oltin ma'danlashuvining *Akata turi* oddiy moddiy tarkibi bilan xarakterlanadi. Asosiy ma'dan minerallarga tabiiy oltin va gematit kiradi, ikkinchi darajalilariga – pirit kinovar va tabiiy latun.

Tabiiy oltin asosan endogen gidrotermal faoliyat mahsulotlari bilan to'yingan, gidrotermokarst brekchiyalar zonasining uchastkalarida joylashgan kamdan-kam uchraydigan, ammo yetarli darajada teng taqsimlangan tarqoqlikni yuzaga keltiradi.

Anshliflarda o'rganish ma'lumotlariga ko'ra tabiiy oltinning shakli odatda yumaloq, ajralmalarning o'lchami 1-20 mkm. Nisbatan dispers oltin tasmasimon gidroslyudali hosilalar bilan bog'liq (1mkm va kichik), gidroslyudalarning o'zida va ularning atrofida rivojlangan gematitlashish chegaralarida joylashgan.

ADABIYOTLAR TAHLILI VA METODOLOGIYA.

Tarkibi bo'yicha tabiiy oltin juda yuqori probali, odatda oltinning miqdori 95-98%, gohida deyarli 100%. Aralashmalardan asosan mis ishtirok etadi (5,0-12,3% gacha) va ayrim hollarda temir. Misning miqdori 0,6 dan 5,0% gacha o'zgaradi, uning tarqalishi odatda bir xil, garchi ba'zida ularning markaziy qismiga misning nisbatan yuqori miqdori joylashganligi bilan bog'liq, aralashmalarning chetlarida probasi muvofiq ravishda oshib boradigan oltin zarralarining noaniq zonal tuzilishi qayd qilinadi.

Misning anchagina yuqori miqdori (12,3%) och-kulrang pelitomorf ohaktoshning metasomatik gematitlashgan uchastkasida uchragan tabiiy oltinning aralashmasida qayd qilingan.

Aralashma yumaloq shaklda 7 mkm o'lchami bilan xuddi shunday yumaloq shakldagi 5 mkm o'lchamli pirit aralashmasi bilan birlashgan o'simtani hosil qiladi.

Oltinning ajralishi – mayda donali temirlashmagan yoki kuchsiz temirlashgan kalsitda va gohida oq nisbatan yirik donali kalsitda joylashgan, izolyatsiyalangan oltin donalarining yakka nuqtasimon tarqoq (mikrotarqoq) zarralari. Ba'zan uning ajralishi mayda donali va yirik donali kalsitning chegarasidan uzoq bo'lmagan joyda yoki gohida Fe gidrooksidlari rivojlangan darzliklarning atrofida joylashgan.

Oltin zarralarining shakli – yumaloq, oval mayda yonlama oʻsimtalar bilan yoki burchaklari yumaloq koʻp qirrali mayda kristallar bilan. Oltin zarralarining oʻlchamlari koʻndalangiga asosan 1-2 mkm va kichikroq.

**NATIJALAR.**

Akata oltin maʼdanlashuvining koʻrinarli tabiiy oltinini morfologik xususiyatlarini oʻrganish quyidagilarni ajratish imkonini berdi:

- oltinli brekchiyalar va kataklazitlardagi koʻrinarli tabiiy oltinning kattaligiga koʻra quyidagi sinflari aniqlandi: yupqa dispersli (0,001-0,01 mm), changsimon (0,01-0,05 mm), juda maydi (0,05-0,1 mm), mayda (0,1-0,25 mm), yupqa dispersli va changsimon sinflar ahamiyatli darajada koʻp;

- namunalardan ajratib olingan oltinda belgilarining miqdoriga koʻra hamma joyda changsimon sinf ustun turadi (kataklazitlarda 65% dan brekchiyalarda 87% gacha);

- tabiiy oltinning ikkita asosiy morfogenetik turi ajratildi: a) metalsimon yaltiroq asosan gidrotermal kelib chiqqan, monokristallar va ularning oʻsimtalari (oktaedrlar, kubooktaedrla, murakkab monokristallar, qoʻshaloq, uchqoʻshaloq, beshqoʻshaloq) koʻrinishidagi tarqoq joylashishni yuzaga keltiradi hamda kataklazitlar orasida kalsitli tomirchalarning donalarida dumaloq, yassilangan-dumaloq, yassilangan-ksenomorf ajralmalar, brekchiyalar va kataklazitlarda interstitsial va darzli shakllar; b) yarim metal yaltiroq qayta choʻkkan gipergen oltin, birlamchi oltin donalarida mikrokristal oʻsimtalarni, yuzaning gʻovak strukturali plenkalari, toraklari, plastinkalarini va 0,01 mm dan kichik oʻlchamli mikrokristallarni hosil qiladi (qayta choʻkkan temir gidrooksidlari bilan assotsiatsiyalanadi).

Tabiiy oltin pirit boʻylab kinovar, getit bilan va kataklazitlar orasida uya koʻrinishida uchraydigan kalsit bilan assotsiatsiyalanadi.

Oltin kinovar bilan assotsiatsiyada shimoli-gʻarbiy yoʻnalishdagi ikkita kalsit tomirlarida ham aniqlandi. Bu yerda oltin kalsitning orasida mm ning yuzdan va mingdan ulushlari oʻlchamidagi ajralmalarni hosil qiladi, unda mm ning oʻndan ulushi oʻlchamlaridagi kristal kinovarning qipiqlari ham joylashgan.

Akata oltin ma'danlashuvi ma'danlaridan olingan ikkita namunani fazaviy tahlili natijasida oltinning joylashuv shakli va uning ma'danli substratning turli komponentlari bilan aloqasining xarakteri o'rganildi. Oltinning asosiy massasi ma'danli komponentlar bilan o'simtalar ko'rinishida aniqlandi (sianlangan oltin) – 70,0-71,2%; keyingisi erkin metalsimon zarralar ko'rinishidagi oltin (amalgamir oltin) – 20,0-24,2%. Oltinning qolgan qismi piritda hamda kvars va alyumosilikatlarda yupqa qipiq turlari ko'rinishida taxminan teng ulushda.

Gematit gidroslyudali agregatda hamda kalsitning donalarichi sohasida gidrotermokarst brekchilarning sementi sifatida, shuningdek kalsit va gidroslyudalar tomirchalarining atrofida metasomatik chegaralarda teng bir tekis tarqoqlikni hosil qiladi, bu uning endogen tabiatini xarakterlaydi. Gematitning tarqoligi 0,002-0,01 mm o'lchamli bodroqsimon va attolsimon ajralmalar ko'rinishida tabiiy oltin yoki pirit bilan qandaydir quyqalar yoki o'simtalarni hosil qilmaydi. Ba'zida o'xshash ajralma shakllariga qaramasdan, piritning gematit bilan aralash holatlari qayd qilinmadi, bu gematitning gipogen tabiatidan dalolat berishi mumkin.

Pirit ham gidrotermokarst brekchiyalar markazida, metasomatik gematitlashish zonachalarida, kalsit-getit-gidroslyuda hosilalarida, ba'zan limonit bilan to'lgan suturo-stilolit choklarida 0,005-0,05 mm o'lchamli yetarli darajada teng taqsimlangan kamdan-kam tarqoqlikni hosil qiladi.

Nisbatan yirik qipiqlar kub shakliga ega va limonitlashish uchastkalarida jadal oksidlangan (uning hisobiga brekchiya alohida uchastkalarda jigarrangga ega). Piritning nisbatan yupqa qipiqligi (5 mkm va kichik) noto'g'ri yoki sharsimon shaklga ega va odatda kalsit donalarining ichida joylashgan. Yirik kristalli kalsitda pirit darzliklarda 0,01 mm atrofidagi o'lchamli qipiqlikni hosil qiladi. Mikrorentgenspektral tahlili ma'lumotlariga ko'ra pirit nazariyga yaqin kimyoviy tarkibga (48,62% Fe va 52,93% S) va nazariyga (0,87) nisbatan yuqori Fe/S = 0,92 nisbatga ega. Bu nisbatan yuqori haroratda oltingugurtning ahamiyatli yetishmasligidan dalolat berishi mumkin (pirrotin hosil bo'lishi uchun yetarli bo'lmagan). Bu haqda piritning gematit bilan assotsiatsiyasi ham dalolat berishi mumkin.

Temir gidrooksidlari tomirchalari bo'ylab va jinslarning boshqa uchastkalarida piritning idiomorf kubik kristallari va ksenomorf zarralarini mayda nuqtasimon tarqoq dog'lari kuzatiladi. Piritning kamdan-kam zonal ichki tuzilishga ega bo'lgan yakka nuqtasimon mikrokristallari va yakka sharsimon hamda fromboidal piritning ajralishining eslatadigan, dumaloq-cho'ziq nuqtali kristallari kuzatiladi. Ba'zan piritning mayda kristallarini chegaralari bo'ylab uning nuqtachasimon juda mayda zarrachalarini (piritli "sochma") rivojlanganligi kuzatiladi. Piritning eng yirik ajralmasi 10-12 mkm o'lchamda.

Kinovar faqat kalsitli hosilalar orasida getit bilan uchraydi, u yerda noto'g'ri va tomchisimon shakldagi 1-8 mkm o'lchamda juda kamdan-kam qipiqlarni, ba'zida 0,1 mkm gacha dolomitning rombik donalari bilan o'simtalarni hosil qiladi. Tabiiy oltin va boshqa ma'dan minerallari bilan o'simtalar hosil qilmaydi.

Kinovar oq va ba'zan kuchsiz temirlashgan sarg'ish-jigarrang kalsitda aniqlangan. Odatda bu kalsitning donalari va kristallari oralig'idagi tekislik bo'ylab nuqtasimon qipiqlar. Ularning o'lchami 20-30 mkm, asosan kichikroq.

Yakka kamdan-kam qipiqlar va tarqoq zarrachalarning katta bo'lmagan guruhlari darzlik yuzalari yoki kalsitning zarralari oralig'ida joylashgan. Zarralarning shakli noto'g'ri, gohida izometrik, zarralarning o'lchami 1-5x3-5 mkm, 25-45 mkm gacha.

Tabiiy latun kalsit tomirlarida siyrak juda mayda (1-5 mkm) dumaloq shaklga yaqin aralashmalar ko'rinishida uchraydi, kalsit kristallarini darzlik yuzalari atrofida rivojlangan. Uning tarkibi mikrorentgenspektral tahlil ma'lumotlariga ko'ra quyidagicha: Cu 67,8%, Zn 32,13%.

Antimonit (kinovar bilan birga) kalsitda to'g'ri burchakli yoki rombik va ko'pburchak ko'ndalang kesimli siyrak yakka mikroqipiqlarni hosil qiladi, ba'zan prizmatik kristallarning o'simtalari bilan namoyon bo'lgan. Qipiqlarning o'lchami 1-3 mkm, o'simtalar – 7x10 mkm.

Ma'danli minerallashish asosan ksenomorf va plastinkasimon zarralarning mayda notekis tarqalgan ham siyrak, ham quyuq tarqoqligini hosil qiladigan, Fe

gidrooksidlari bilan namoyon bo'lgan. Gohida izometrik, deyarli to'g'ri burchakli yoki dumaloq, chetlari notekis koroziyalangan zarralari uchraydi. Jins va kalsitda darzliklar tekisliklari bo'ylab Fe gidrooksidlarining mayda cho'ziq va shaklsiz ksenomorf qipiqlarning to'plamlari uchraydi, ular ba'zi joylarda birlashib, notekis uzuq-uzuq tomirchalar ko'rinishidagi cho'ziq g'ovak agregatlarga o'tadi. Ko'pincha bu to'plamlar juda mayda, tomirchalar yupqa va ko'proq plenkani eslatadi. Kvadrat yoki to'g'ri burchakli kesimili Fe gidrooksidlarining yakka qipiqlari zonal struktura elementlari bilan korrozion strukturaga ega (ehtimol, mineralning erishi o'sish zonalari bo'ylab bo'lib o'tgan). Fe gidrooksidlari ajralishlarining o'lchamlari 0,1-10 mkm, tomirchalarning kengligi 0,1-3 mkm. Eng katta zarra 10-70 mkm o'lchamga ega.

Fe gidrooksidlarining ayrim qipiqlarida juda mayda pirit zarralarining (0,1-2 mkm va kichik) qoldiqlari kuzatiladi.

Oq kalsitda darzlik yuzalari bo'ylab, sinish tekisligi bo'ylab yoki yakka zarralarning chegaralari bo'ylab Fe gidrooksidlarining radial-nursimon yoki zonal strukturaga ega, getit bilan namoyon bo'lgan mayda yakka qipiqlari va kurtaksimon mayda to'plamlari kuzatiladi. Getit kurtaklarining o'lchami 5-15 mkm dan katta emas.

Fe gidrooksidlari ikkita guruh bilan namoyon bo'lgan: getit-gidrogetit va lepidokrokit-gidrogematit. Birinchi guruh gidrooksidlari plastinkasimon va ksenomorf zarralarning mayda qipiqligini, ularning tartibsiz va chetlari notekis, ba'zan radial-nursimon ichki tuzilishga va sarg'ish-jigarrang ichki refleksga ega kurtaksimon (dumaloq) o'simtalarini hosil qiladi. Ikkinchi guruh gidrooksidlari qizg'ish-jigarrang ichki refleksga ega bo'lgan qipiqlarni va nuqtali ajralmalar to'plamlarini hosil qiladi.

Mn oksidlari mayda donali agregatlarning juda mayda tomirchasimon to'plamlari ko'rinishida kuzatiladi, ularning orasida yakka plastinkasimon (yoki tangachasimon) zarralarni va ularning tartibsiz o'simtalarini ajratish mumkin. Mn oksidlari uyalarining o'lchamlari 0,1x0,08 mm. Mn oksidlari bilan birga noma'dan massada taxminan tabiiy latunning nuqtasimon zarralari yoki ularning to'plamlari kuzatiladi.

Oltin tarkibli kalsitlarning tabiatini va ularning hosil bo'lish haroratini aniqlash uchun ma'danli zonalarda jinslarni dekreptometrik tadqiqot qilish, fazaviy tarkibini va oltinli brekchiyalardan hamda oltinli va kinovarli kalsit tomirlaridan olingan kalsitlardagi gaz-suyuqlik aralashmalarining gomonizatsiyalanish haroratini o'z ichiga olgan kompleks termobarogeokimyoviy tadqiqotlar bajarilgan. Kalsitlarning ikkita namunasida qo'shimcha gaz-suyuqlik aralashmalarining tuz va gaz tarkibini o'rganish amalga oshirilgan.

**MUHOKAMA.**

Yuqoridagi tadqiqotlar Akata ma'dan namoyon bo'lishida birlamchi ma'danlarning gidrotermal yo'l bilan hosil bo'lganligini tasdiqladi. Bu xulosa quyidagi ma'lumotlar bilan asoslanadi:

- tadqiqot qilingan kalsitlarning barcha turlarida gaz-suyuqlik aralashmasi ishtirok etadi, ularda ikkita faza aniqlangan: suyuq va gazsimon (kalsitlarning kelib chiqishi ularning sovuqsuv eritmalarida bo'lgan vaziyatda ulardagi aralashmalar faqatgina bir fazali suyuq bo'lar edi);

- barcha gaz-suyuq aralashmalar suyuq fazaga gomogenlashadi;

- gaz-suyuq aralashmalarning gomogenlashish ma'lumotlariga ko'ra kalsitlarda gidrotermal jarayonning haroratiy bosqichliyligining umumiy sxemasi aniqlandi: karbonat tarkibli oltinga boyigan brekchiyalarning hosil bo'lishida ishtirok etgan gidrotermal eritmalar 212°-126°C haroratga ega bo'lgan, oltin va kinovarli kalsit tomirlarining hosil bo'lishi esa 142-113°C haroratga ega bo'lgan gidrotermal eritmalardan yuzaga kelgan.

**XULOSA.**

Tadqiqotlar Akata ma'dan namoyon bo'lishida birlamchi ma'danlarning gidrotermal yo'l bilan hosil bo'lganligini tasdiqladi. Bu xulosa quyidagi ma'lumotlar bilan asoslanadi: tadqiqot qilingan kalsitlarning barcha turlarida gaz-suyuqlik aralashmasi ishtirok etadi, ularda ikkita faza aniqlangan: suyuq va gazsimon (kalsitlarning kelib chiqishi ularning sovuqsuv eritmalarida bo'lgan vaziyatda ulardagi aralashmalar faqatgina bir fazali suyuq bo'lar edi); barcha gaz-suyuq aralashmalar

suyuq fazaga gomogenlashadi; gaz-suyuq aralashmalarning gomogenlashish ma'lumotlariga ko'ra kalsitlarda gidrotermal jarayonning haroratiy bosqichliyligining umumiy sxemasi aniqlandi: karbonat tarkibli oltinga boyigan brekchiyalarning hosil bo'lishida ishtirok etgan gidrotermal eritmalar 212-126°C haroratga ega bo'lgan, oltin va kinovarli kalsit tomirlarining hosil bo'lishi esa 142-113°C haroratga ega bo'lgan gidrotermal eritmalardan yuzaga kelgan.

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# PARABOLIK TENGLAMALAR UCHUN CHEGARAVIY MASALA

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### *ANNOTATSIYA*

*Maqola parabolik tenglamalar uchun chegaraviy bir masala haqida bo'lib matematik fizikaning tayanch nostatsionar tenglamasi sifatida bir o'lchovli ikkinchi tartibli parabolik tenglama ishtrok etgan. Masala to'rtburchak sohada ko'riladi.*

*Biz bu masalada yechimning yagonaligi va uning kirish ma'lumotlari uzluksiz bog'likligi bilan cheklanuvchi yechimning mavjudligi masalasini qaraymiz va yechimni olamiz.*

*__Kalit so'zlar:__ Evalyutsion tenglama, Gronuollya lemmasi, Koshi masalasi, aprior baho, turg'unlik, chegaraviy va boshlang'ich shartlar, klassik yechim.*

## KIRISH

Differensial tenglamalar fizik jarayonlarning matematik modelidan iborat bo'lib, uning koeffisientlari ob'ektning xossalarini anglatadi. Fizik ob'ektning xossalarini aniqlash (tenglama koeffisientlarini yoki o'ng tomonini topish) differensial tenglamalar uchun teskari masalalar nomi bilan yuritiladi va matematikaning zamonaviy yo'nalishlaridan hisoblanadi. Differensial tenglamalar uchun teskari

masalalar fizika va geofizikaning asosiy masalalaridan hisoblanadi. Masalan seysmik jarayonlar teskari masalasi, tarqalish (rasseyanie) jarayonining teskari masalasi, gravimetriya teskari masalasi va boshqalar. Shuni qayd qilib o'tamizki, 1979 yilda bir guruh AQSh olimlariga medisinaning tomografiya uslubini yaratganligi uchun Nobel mukofoti berildi. Tomografiya uslubining asosiy qismi teskari masalalardan va integral geometriya masalalaridan iborat. Integral geometriya masalasi yechimining yagonaligi va turg'unligini aniqlashda A.X.Begmatov muhim natijalarga erishgan .

Shturm - Liuvill tenglamasi uchun teskari masalalar operator bilan bog'liq. Bunda spektral xarakteristikalar yordamida Shturm - Liuvill operatorining koefisentini va chegaraviy shartlarini topish talab qilinadi. Bunda olingan natijalar B.M. Levitan, A.B. Xasanov  monografiyalarida [1] chop etilgan.

Ushbu maqolaning maqsadi zamonaviy matematikaning intensiv ravishta rivojlanayotgan nokorrekt va teskari masalalari bilan yuqori kurs matematika va fizika yo'nalishi talabalarini xabardor qilishdan iborat.

## ADABIYOTLAR TAXLILI VA METODOLOGIYASI

Parabolik tipdagi tenglamalarning klassik vakili issiqlik o'tkazuvchanlik tenglamasi. Ushbu tengalamaga qo'yilgan Koshi masalasi va aralash masalalarni, ya'ni to'g'ri masalalarni analitik yechish usullari [8-9] "Xususiy hosilali differensial tenglamalar" kursida o'qitiladi. Shuningdek hozirgi kunda xususiy hosilalarga qo'yiladigan teskari masalalar ham o'rganib kelinmoqda [4-7]. Dastlab qisqacha analitik usullarga to'xtalamiz, so'ng taqribiy yechish usullarini bayon qilamiz

### Natijalar

Matematik fizikaning tayanch nostatsionar tenglamasi sifatida bir o'lchovli ikkinchi tartibli parabolik tenglamani qaraymiz.

**Masala**. Ushbu

$$\overline{Q_T} = \overline{\Omega} * [0,T], \overline{\Omega} = \left\{ x \big| 0 \le x \le l, \right\}, 0 \le t \le T$$

to'rtburchak sohada

$$\frac{\partial u}{\partial t} = \frac{\partial}{\partial t}(k(x)\frac{\partial u}{\partial x}) + f(x,t), \tag{1}$$

tenglamaning

$$u(0,t) = 0, u(l,t) = 0, 0 \le t \le T \tag{2}$$

chegaraviy(birinchi tur) va

$$u(x,0) = u_0(x), 0 \le x \le l \tag{3}$$

boshlang'ich shartlarni qanoatlantiruvchi yechimi topilsin.

Matematik fizikaning ba'zi masalalarini (1)-(3) ko'rinishdagi bir o'lchovli parabolik tenglamalar uchun sodda chegaraviy masala misolida namoyish etamiz. Biz bu yerda yechimning yagonaligi va uning kirish ma'lumotlari uzluksiz bog'likligi bilan cheklanuvchi yechimning mavjudligi masalasini qaraymiz. (1)-(3)    tenglama u(x,t) klassik yechimga(masalan x bo'yicha ikki marta uzluksiz

Differrensialanuvchi, t bo'yicha uzluksiz differrensialanuvchiga ega deb hisoblaymiz.

(1) - (3) tenglamani birinchi martibli differensial – operator tenglama uchun Koshi masalasi sifatida yozamiz.

$\Omega = (0,1)$ sohada bo'lgan va chegaraviy nuqtalarda($\delta\Omega$da) nolga aylanuvchi funksiyalar uchun skalyar ko'paytma quyidagi tartibda aniqlanadi.

$$(\nu,\omega) = \int_{\Omega} \nu(x)\omega(x)dx$$

$H = L_2(\Omega)$ gilbert fazosiga ega bo'lamiz.

H da norma uchun quyidagi belgilash ishlatiladi.

$$\|\nu\| = (\nu,\nu)^{\frac{1}{2}} = (\int_{\Omega} \nu^2(x)dx)^{\frac{1}{2}}$$

(2) chegaraviy shartni qanoatlantiruvchi funksiya uchun quydagi operatorni aniqlaymiz.

$$Au = [Au](x) = -\frac{\partial}{\partial x}(k(x)\frac{\partial u}{\partial x}), 0 < x < l.$$

Kiritilgan boshlang'ich shartni e'tiborga olib (1) tenglamani, chegaradagi

qo'shimcha shart (2) ni $u(t) \in H$ ni topish uchun differensial-operator tenglama sifatida yozami:

$$\frac{du}{dt} + Au = f(t), 0 < t < T \tag{5}$$

Boshlang'ich shart (3) quydagi ko'rinishda yoziladi

$$u(0) = u_0. \tag{6}$$

Shuni qayd etish kerakki, A operator xususiyatlari (4) ga muvofiq aniqlanadi. A operator H da o'zaroqo'shma va manfiy emaslik

$$A^* = A \geq 0 \tag{7}$$

O'zaro qo'shmalik sharti quydagi tenglikdan kelib chiqadi

$$(Av, \omega) = \int_0^1 Av(x)\omega(x)dx = \int_0^1 k(x)\frac{\partial v}{\partial x}\frac{\partial \omega}{\partial x}dx = (v, A^*\omega)$$

Bu $v(x), \omega(x)$ funksiya $x \in \partial\Omega$ da nolga aylanishini e'tiborga olgan holda hosil qilingan.

$x \in \partial\Omega$ da $v(x) = 0$ funksiya uchun

$$(Av, \omega) = \int_0^1 k(x)(\frac{\partial v}{\partial x})^2 dx \geq 0$$

ga ega bo'lamiz va shuning uchun $A \geq 0$ bo'ladi.

(1), (6) tenglamaning yechimlari oddiy aprior bahoga ega bo'lamiz. Evalyutsion tenglamalar uchun masalalarni qarashda Gronuollya lemmasi katta ahamiyatga ega. Sodda variantda uning formulirovkasi bilan cheklanamiz.

**Lemma 1.** Quydagi tengsizlik qanoatlantiruvchi g(t) funksiya uchun

$$\frac{dg}{dt} \leq ag(t) + b(t), t > 0,$$

(bu yerda $a = const, b(t) \geq 0,$) quydagi baho to'g'ri

$$g(t) \leq \exp\{at\}\left( g(0) + \int_0^t \exp\{-a\theta\}b(\theta) \right), t > 0.$$

**Teorema 1.** (5), (6) masalani yechish uchun quydagi aprior to'g'ri

$$\|u(t)\| \le \|u_0\| + \int_0^t \|f(0)\| d\theta, 0 \le t \le T. \qquad (8)$$

**Isbot.** (5) tenglamani u(t) ga skalyar ko'paytirib, quydagi tenglamaga ega bo'lamiz

$$(\frac{du}{dt}, u) + (Au, u) = (f, u).$$

00 etiborga olib

$$(\frac{du}{dt}, u) = \frac{1}{2}\frac{d}{dt}\|u\|^2 = \|u\|\frac{d}{dt}\|u\|, (f, u) \le \|f\| * \|u\|,$$

ga ega bo'lamiz.

Bundan esa A operator manfiy emasligini e'tiborga olib quydagi kelib chiqadi

$$\frac{d}{dt}\|u\| \le \|f\|$$

Bu tengsizlikdan esa (8) baho kelib chiqadi.

**Natija 1.** (5) va (6) masalalar yechimi yagona.

Aytaylik ikkita, ya'ni $u_1(t)$ va $u_2(t)$ yechimlar mavjud bo'lsin. Ularning ayirmasidan tashkil topgan $u(t) = u_1(t) - u_2(t)$ funksiya $f(t) = 0, 0 < t \le O$ shartdan (5) tenglamani va birjinsli boshlang'ich shartni ($u_0 = 0$) qanoatlantiradi.

(8) aprior bahodan barcha $0 < t \le O$ lar uchun $u(t) = 0$ kelib chiqadi.

Qaralayotgan masalada kirish ma'lumotlari sifatida eng avvalo boshlang'ich shartni qarash zarur. Bunday holda biz boshlang'ich shartni turg'unligi haqida gapiramiz.

Xususan masala yechimini tenglamaning o'ng tomoniga bog'liqligini, o'ng qism bo'yicha turg'unlikni tekshirish ma'noga ega.

Endi (8) aprior baho boshlang'ich shart va o'ng qism bo'yicha turg'unlikni ta'minlanganligi ko'rsatamiz.

(5), (6) masalani qo'zg'aluvchi boshlang'ich shart va o'ng qismi bilan qaraymiz.

$$\frac{du}{dt} + Au = f(t), 0 < t \le T. \tag{9}$$

(3) boshlang'ich shartda quydagi ko'rinishda qayta yoziladi

$$u(0) = u_0. \tag{10}$$

**Natija 2.** Aytaylik

$$\left\| u_0 - u_0 \right\| \le \varepsilon, \qquad \left\| f(t) - f(t) \right\| \le \varepsilon, \qquad 0 < t \le T$$

bo'lsin. Bu yerda $\varepsilon > 0$. U holda

$$\left\| u_0 - u_0 \right\| \le M\varepsilon, \qquad 0 < t \le T$$

bo'ladi. Bu yerda m=1+T.

Bu (5)-(6) masala yechish o'ng tomonga va boshlang'ich shartga uzluksiz bog'liqligini ko'rsatadi. $\delta u(t) = u(t) - u(t)$ uchun (5), (6) va (9), (10) lardan quydagicha hosil qilinadi.

$$\frac{d\partial u}{dt} + A\partial u = \partial f(t), \qquad 0 < t \le T \tag{11}$$

$$\partial u(0) = \partial u_0 \tag{12}$$

$$\partial u_0 = u_0 - u_0, \qquad \partial f(t) = f(t) - f(t)$$

(11)-(12) masala yechish uchun quydagi aprior baho to'g'ri

$$\left\| \partial u(t) \right\| \le \left\| \partial u_0 \right\| + \int_0^t \left\| \partial f(\theta) \right\| d\theta, \qquad 0 \le t \le T$$

va

$$\left\| \partial u(t) \right\| \le (1+T)\varepsilon, \qquad 0 \le t \le T$$

bo'ladi.

## Xulosa

Xulosa qilib maqolada matematik fizikaning tayanch nostatsionar tenglamasi sifatida bir o'lchovli ikkinchi tartibli parabolik tenglama ishtrok etgan. Masala to'rtburchak sohada ko'riladi. Berilgan masalaga chegaraviy va boshlang'ich shartlar

qo'yiladi. Differrensialanuvchi, t bo'yicha uzluksiz differrensialanuvchiga ega deb hisoblaymiz. Qaralayotgan masalada kirish ma'lumotlari sifatida eng avvalo boshlang'ich shartni qarash zarur. Bunday holda biz boshlang'ich shartni turg'unligi haqida gapiramiz.

Biz bu masalada yechimning yagonaligi va uning kirish ma'lumotlari uzluksiz bog'likligi bilan cheklanuvchi yechimning mavjudligi masalasini qaraymiz va yechimni olamiz. Bu masalani yechimini topishda bir qancha adabiyotlardan foydalanildi va ular quyida berib o'tilgan.

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# QISHLOQ XO'JALIGI MAXSULOTLARI MA'LUMOTLARINI TAHLIL QILISHDA LOGISTIK XIZMATLARDAN FOYDALANISH IMKONIYATLARI

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***Annotatsiya.*** *Ushbu maqolada qishloq xo'jaligida logistik xizmatlarni shakllantirishning nazariy, huquqiy asoslari va uning istiqbollari tahlil qilinadi. Agrosanoat majmuasida logistika majmuasi tizimini shakllantirish va uning qishloq xo'jaligi mahsulotlarini samarali etkazib berish zanjirlarini ta'minlash imkoniyatlari to'g'risida ma'lumotlar keltiriladi. Agrosanoat majmuasida logistik xizmatlarni shakllantirishni amalga oshiriladigan bir nechta amallar va dolzarb masalalar haqida tahlil qilingan. Bunga qo'chimcha qishloq xo'jaligi maxsulotlari xaridi uchun ma'lumotlarni tahlil qilishning logistik xizmatlarini yordamchi axborot vositalari va ularning imkoniyatlari keltiriladi.*

***Kalit so'zlar.*** *logistika, qishloq xo'jaligini rivojlantirish, logistika infratuzilmasi.*

## KIRISH

Bugungi kunda jaxon agrosanoat majmuasida yuk tashishni rivojlantirishga logistik xizmat ko'rsatish uchun tizimli, kompleks yondoshuv, shu jumladan davlatning iqtisodiy, ijtimoiy, ekologik, ilmiy-texnik yondashishni talab kilmoqda. Shundan kelib chiqib qishloq xo'jaligini rivojlantirishning ananaviy vositalari va usullari bilan bir qatorda milliy iqtisodiyotni boshqarishning yangi vositalari, jumladan, logistikaning o'rni oshib bormoqda. Moddiy mahsulotlarni xarid qilish, tashish, saqlash va taqsimlash samaradorligini oshirishda logistikaning imkoniyatlari butun dunyoda tan olingan va inson faoliyatining barcha sohalarida, shu jumladan

qishloq xo'jaligida ham qo'llaniladi. Logistika resurslardan oqilona foydalanish, mahsulotni iste'molchilarga etkazish uchun sarflangan vaqt va mablag'larni qisqartirishga olib kelishda asosiy vosita sifatida qaralib, unga tizimli yondashishni talab qiladi.

## ADABIYOTLAR TAHLILI VA METODOLOGIYA

Jahonda logistik xizmatlar olib borishda moddiy oqimlarni sotib olish, tashish, saqlash va tarqatish samaradorligini oshirishda logistika imkoniyatlari butun dunyoda tan olingan va inson faoliyatining barcha sohalarida, shu jumladan qishloq xo'jaligida qo'llaniladi [1].

Transport-logistika xizmatlarini ko'rsatish, transport-logistika markazlarini yaratish va logistika jarayonlarini optimallashtirish bo'yicha xizmat ko'rsatish, erkin iqtisodiy va kichik sanoat zonalarini rivojlantirish kabi yo'nalishlar faoliyat yuritayotgan korxonalar samarali faoliyati uchun eng jozibali va ustuvor yo'nalishlar sifatida qaralmoqda.

Umuman logistikani, xususan, transport logistikasini rivojlantirishdagi kamchiliklar logistika zanjirlarining oqilona faoliyat yuritishini ancha murakkablashtiradi, bu esa mamlakat iqtisodiyotiga katta zarar etkazadi. Shuni esda tutish kerakki, rivojlangan mamlakatlarda logistika yalpi ichki mahsulotning 10-15% ta'minlaydi [2].

Qishloq xo'jaligi mahsulotlarini etkazib berishda qo'shimcha xarajatlar, hisob-kitoblarga ko'ra, ko'pincha 40% dan oshadi. Evropa mamlakatlari bo'yicha o'rtacha logistika xarajatlari 15% ni tashkil qiladi. Shunday qilib, logistika xarajatlarni ularni uch baravar kamaytirishi mumkin [3].

O'zbekistonda Markaziy Osiyo mintaqasidagi birinchi va yagona transport axborot logistika internet portali yaratildi [4]. Ushbu axborot resursi tadbirkorlar va transport kompaniyalari, shuningdek, yuk tashish v.h. xizmatlar majmuasini ko'rsatuvchi kompaniya va tadbirkorlikni rivojlantirish uchun xizmat qiladi.

O'zbekiston respublikasi transport vazirligi huzuridagi transport va logistikani rivojlantirish muammolarini o'rganish markazi faoliyatini tashkil etish chora-tadbirlari

to'g'risidagi qarori ishlab chiqilgan [5]. Agrosanoat majmuasida logistik xizmatlarni shakllantirish va belgilangan maqsadlarga erishish uchun davlat dasturi asosiy dasturlarda, kichik dasturlarda va tadbirlarda amalga oshiriladigan quyidagi vazifalarni hal qilishni nazarda tutiladi:

- qishloq xo'jaligi mahsulotlarining asosiy turlarini ishlab chiqarishni o'sishini rag'batlantirish;

- tuproq unumdorligini saqlash va tiklash uchun sharoit yaratish, qishloq xo'jalik erlarining meliorativ holatini rivojlantirish;

- qishloq xo'jaligi mahsulotlari, xom ashyo va oziq-ovqat mahsulotlarining ichki va tashqi bozorlarini tartibga solish samaradorligini oshirish;

- kichik biznes shakllarini qo'llab-quvvatlash;

- texnik va texnologik modernizatsiya qilish, investitsiya faoliyatini rag'batlantirish va agrosanoat majmuasini innovatsion rivojlantirish;

- qishloq xo'jaligi ishlab chiqaruvchilarining rentabelligini o'sishi, kengaytirilgan takror ishlab chiqarish uchun tashkiliy va iqtisodiy sharoitlarni yaratish;

- qishloq xo'jaligi sohasida axborot ta'minoti tizimini takomillashtirish;

- agrosanoat ishlab chiqarishni rivojlantirish va qishloq xo'jaligi mahsulotlari, xom ashyo va oziq-ovqat bozorlarini tartibga solish bo'yicha chora-tadbirlarni amalga oshirishni ilmiy qo'llab-quvvatlash;

- agrosanoat majmuasi sohasida boshqaruvni takomillashtirish;

- qishloq aholisining bandligi, hayot darajasi va sifatini oshirish.

Tahlillarga ko'ra hozirgi vaqtda qishloq xo'jaligi mahsulotlari va oziq-ovqat mahsulotlarining 50% ga yaqini xorijga eksport qilinmoqda [6].
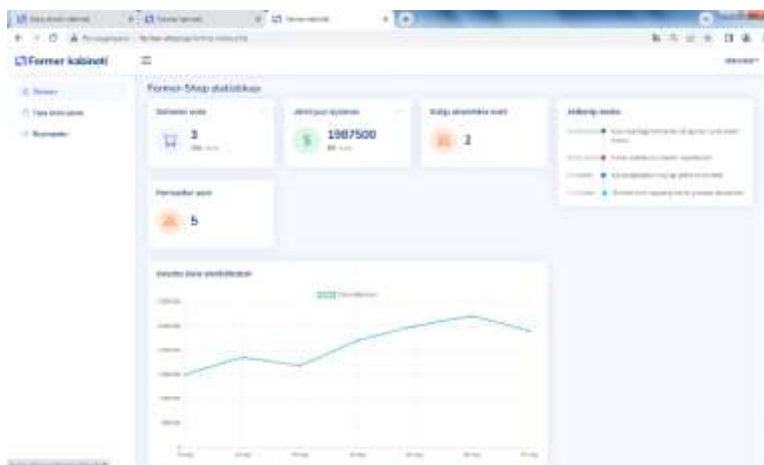
## NATIJALAR

Yuqorida keltirilib o'tilgan davlat dasturlarini amalga oshirishning asosiy tadbirlaridan birini amalga oshirishda qishloq xo'jaligi sohasida axborot ta'minoti tizimini takomillashtirishga ko'plab  yordamchi dasturiy vositalar yaratilishi kerak. Mintaqada fermer xo'jaliklari qishloq xo'jalik mahsulotlarini sotish va etkazib berishga logistik xizmatlar kursatish uchun «Fermer shop» web tizimi ishlab chiqilgan. Bu

tizimda beshta asosiy ilovalar asosida ishlash mumkun [7]. 1-rasmda qishloq xo'jalik maxsulotlar haqida ma'lumotlar olish sotib olish va sotish ishlarini yuritish mumkun.



1-rasm. Qishloq xo'jalik mahsulotlar haqida ma'lumotlar ilovasi

Jismoniy va yuridik shaxslar «Fermer shop» web tizimi asosida fermerlar tomonidan qo'yilgan qishloq xo'jaligi mahsulotlarini sotib olish imkoniyatiga ega. Tizimga ruyxatdan o'tish orqali buyurtmalar berishlari mumkun va transport logistik xizmatlar olishlari mumkun bo'ladi. Ma'lumotlarni tahlil qilish asosida qaror qabul qilishga logistik xizmat ko'rsatishning grafik ko'rinishlari keltiriladi (2-rasm).



2-rasm. Qaror qabul qilishga yordamchi umumiy ma'lumotlar grafigi

**MUHOKAMA**

Umuman olganda, tadqiqot natijalari zamonaviy agrosanoat majmui qishloq xo'jaligi va oziq-ovqat mahsulotlari ishlab chiqarishda va ularni xarid qilish jarayonlarini yanada samaraliroq yuritish imkonini beruvchi yangi yondashuvlarini joriy etishni ko'paytirish zarurligini tasdiqlaydi.

Keltirilgan natijalar asosida qishloq xo'jaligi mahsulotlari haqidagi ma'lumotlar tahlili jismoniy va yuridik shaxslarning maxsulotlarni xarid qilish uchun qaror qabul qilishda samarali natijalar beradi.

## XULOSA

Xulosa qilib shuni aytish mumkinki, logistika qishloq xo'jaligiga yordam berish, uning samaradorligini oshirish va mahsulotlarini iste'molchilarga etkazish uchun barcha imkoniyatlar yaratiladi. Bu esa mazkur muammoni echishda, samarali echimlarni ishlab chiqishga va qishloq xo'jaligi logistikasi sohasini rivojlantirishga yordam berish imkonini yaratadi.

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# TA'LIM JARAYONIDA IJTIMOIY TARMOQLARNING TUTGAN O'RNI

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*Annotatsiya. Ushbu maqolada ta'lim jarayonini olib borishda ijtimoiy tarmoqlardan samarali foydalanish mexanizmlari hamda metodologiyasi muhokama etiladi.*

*Kalit so'zlar: Ijtimoiy tarmoqlar, ta'lim, texnologiya, metod, o'qitish, AKT.*

## KIRISH

Ijtimoiy rivojlanishning zamonaviy tendensiyalari axborot resurslaridan foydalanishda yangi iste'mol odatlarining keng tarqalishi, o'zaro ta'sirning kommunikativ amaliyotini o'zgartirish bilan tavsiflanadi. Bunday sharoitda ijtimoiy tarmoqlar ijtimoiy munosabatlarni o'rnatish va qo'llab-quvvatlash uchun dominant platformaga aylandi. Ijtimoiy tarmoqlarning uyushgan iste'molchilar jamiyati sifatida jadal rivojlanishi va beqiyos imkoniyatlari ularni zamonaviy odamlar uchun qulay va jozibador minbar, hamjamiyat va fikrlarini bemalol izoh qilish makoniga aylantirdi. Kerakli maqom va mavqega taqlid qilish, hamfikrlar guruhlari, jamoalariga kirish imkoniyati tufayli ijtimoiy tarmoqlar juda ommabop bo'lib ketdi.

## ADABIYOTLAR SHARHI

O'zbekiston Respublikasi Prezidenti huzuridagi Statistika agentligi ma'lumotlariga ko'ra, 2023 yil 1- yanvar holatiga O'zbekistonda 36,02 million kishi istiqomat qiladi. 10 yoshdan 19 yoshgacha bo'lgan o'smirlarning soni 5,88 millionni, ya'ni umumiy aholi sonidagi ulushi 16 % ni tashkil qiladi. Bu ko'rsatkich yildan -yilga o'sib bormoqda. Raqamli texnologiyalar vazirligi ma'lumotlariga ko'ra, 2022 yil 15 dekabr xolatiga Internet foydalanuvchilar soni 31 millionni tashkil etdi, bu yil

davomida 14 foizga oʻsishni koʻrsatadi. Buumumiy sonda oʻsmirlar 16 foizni, yaʼni sal kam 5 millionni tashkil qiladi.

## TADQIQOT METODOLOGIYASI VA EMPIRIK TAHLIL

Ijtimoiy tarmoqlarning psixologik va ijtimoiy farovonlikka taʼsiri masalalari turli mamlakatlar olimlarining diqqat markazida turibdi. Osiyo mintaqasi olimlari tadqiqotlarining asosiy yoʻnalishi koʻproq yoshlarning Internetda zamonaviy shaxsni namoyish etish zaruratidan kelib chiqqan holda axborotning haddan tashqari yuklanishiga moslashish qobiliyatini oʻrganishga qaratilgan. Media makonining kengayishi, uning jamiyatning barcha jabhalariga: taʼlim, dam olish, kundalik hayot va hokazolarga kirib borishi zamonaviy oʻsmirni ijtimoiy tarmoqlarning faol foydalanuvchisiga aylantirmoqda.

Taʼkidlanishicha, endilikda oʻsmirlar qadriyatlarini va turmush qoidalarini shakllantirishni oflayn va onlayn maydonlarda amalga oshirilmoqda. Bundan tashqari, zamonaviy dunyoda ular orasidagi chegara yoʻqolib borayotgandek va telefoni boʻlgan odam doimiy ravishda gadjetni qoʻlida ushlab turmasa va boshqa narsalar bilan band boʻlsa ham, doimo "onlayn" boʻladi, degan fikr bor, chunki u doimiy ravishda messenjerlardan, ijtimoiy tarmoqlardan foydalanadi va kerak boʻlganda yordam uchun Internetga murojaat qilmoqda.

Taʼlim jarayoni raqamli texnologiya bilan taʼminlanmoqda va ushbu jarayon foydalanuvchilari uchun katta qulayliklar joriy qilinmoqda. Muloqot jarayonlari raqamli texnologiya vositasida oʻzgarmoqda, mobil aloqa, video aloqa, yuzma-yuz aloqa shakliga oʻtmoqda. Til oʻrganish, oʻrgatish jarayonlari raqamli texnologiya yordamida keskin rivojlanmoqda. Uning yordamida til oʻrganishning tabiiy muhiti yaratilmoqda. Bugun bunday oʻzgarishlar odatiydek goʻyo. Uni shu tarzda qabul qilinishi, tarmoq foydalanuvchilarining bilim, koʻnikmasi bilan bogʻliq. Yuqorida qayd etilgan muxim uch omil taʼlim, muloqot va chet tilini oʻrganish jarayonlari bir biriga chambarchas bogʻliq boʻlgan tarmoqga ulangan. Ushbu tarmoq soʻnggi yillarda alohida koʻrinishda shakllandi va takomillashdi. Hozir deyarli barcha shunday tarmoqlar foydalanuvchisiga aylandi. Bunday tarmoqlar ijtimoiy jamiyatni bir biriga bogʻlashga, fikr almashishga,

muxim his tuyg'ularini, holatlarini baham ko'rishga, va masofada turib zarur amallarni bajarishga xizmat qilmoqda. Bu o'z o'rnida kelajak texnologiyasi bo'lishi va insoniyat taraqqiyotiga hissa qo'shadigan muxim vosita bo'lib qolishi mumkin.

Ijtimoiy tarmoqlar inson hayotining shahsiy va kasbiy jarayonda muloqot qilish va ma'lumot almashish uslublarini tubdan o'zgartirib yubordi. U insonlar uchun aloqa o'rnatuvchi qurilma sifatida qo'llanila boshladi. Undan yoshu qari turli maqsadlarda foydalanmoqda. Lekin mohiyatan biz yuqorida qaydetib o'tgan 3 omilga chambarchas bog'liq. Demak ulardan biri ta'lim jarayoni bo'lsa, ushbu jarayon bugun, ijtimoiy tarmoqning eng asosiy foydalanuvchisiga aylandi. Zero ta'lim jarayonining barcha bosqichida ijtimoiy tarmoq vositasidan foydalanishning samarasi ancha yuqori. Ijtimoiy tarmoq vositasidan ta'lim jarayonida foydalanishning dastlabki bosqichida maqsad o'qituvchi va o'quvchilarni o'zaro bog'lash, qo'shimcha darslar, ko'rsatmalar berish, ularning bajarilishi, o'rganilishini nazoratga olish va ta'limiy jihatdan sifatga, samaradorlikga erishish bo'lgan. Ya'ni ustoz- shogird an'analariga sodiq qolgan holda ma'lumot almashinuvi, tez va tushunarli bo'lishini ta'minlagan. Hozirgi ijtimoiy tarmoq vazifasi ham huddi shuni tashkil etadi. Sifatli ta'lim, cheksiz muloqot, cheksiz ma'lumotlar omboridan (kutubxona) foydalanish erkinligi, tezkor ma'lumot almashinuvi, aniq va tezkor tahlil va samaradorlik. Shuningdek, ta'lim jarayonining zamon bilan hamnafas ravishda, tadrijiy uslublarni zamonaviy uslublar bilan bog'lagan holda o'tkazish, jarayonni qiziqarli tashkil etish, ta'lim oluchilarni fanga, sohaga qiziqishlarini orttirish, jarayonning zavqli bo'lishini ta'minlash ham nazarda tutilgan [2].

Ijtimoiy tarmoqning til o'rganishni ta'minlovchi muxim jihati bu ma'lumotlar omboridan erkin foydalanish imkoniyatidir. Ya'ni, dunyo resurslaridan, tez va bepul foydalanish, har xil kutubxonalardan o'zini qiziqtirgan adabiyotini topish va undan erkin foydalanishdir. Bu jarayonning afzalliklari juda ko'p. Qog'oz, pul, vaqt, quvvat, joy tejash mumkin. Demak xohlagan vaqt topgan manbaadan foydalanish, buning uchun pul sarf xarajati qilmaslik, qidiriladigan ma'lumotni tez suratda topish, kerakli

qismini oʻqish, va shu bilan birga koʻz nuri va ong quvvatini tejash, hamda ortiqcha narsalarni har doim olib yurishdan voz kechish mumkin.

### XULOSA VA MUNOZARA

Yuqoridagilarni umumlashtirgan holda shunday xulosaga kelish mumkinki, ijtimoiy tarmoqlardan ta'lim jarayonida foydalanish talabalarning ijodiy qobiliyatlarini, bilim qiziqishlarini rivojlantirishni ragʻbatlantirishi hamda oʻquv faoliyatiga motivatsiyani oshirishi mumkin. Ta'lim jarayoniga ijtimoiy tarmoqlarni joriy etish axborot makonini kengaytirish, talabalar uchun ochiq va qulay ta'lim resurslarini yaratish hamda ta'lim jarayoni ishtirokchilarining yangicha fikrlash madaniyatini shakllantirish kabi imkoniyatlarini beradi

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# TALABALAR BILAN ISHLASHNING SAMARALI USULLARI

**Mamatova Marhabo Halimboy qizi**

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*Annotatsiya: Ushbu maqolada Talabalar bilan ishlashning samarali usullari hamda tyutor va talaba munosabatlari, tyutorning ta'lim muassasalaridagi majburiyatlari va vazifalari, tyutorlik tizimi qanday maqsadlarga yo'naltirilganligi va oliy ta'lim muassasasida tarbiya jarayonini tizimli va samarali amalga oshirishning muhim shakli va vositasi ekanligi va talabalarning shaxsiy rivojlanishiga, ta'lim muassasasi, respublika va xalqaro miqyosdagi tanlov va olimpiadalarda munosib ishtirok etishiga, shuningdek, ularning bo'sh vaqtlarini mazmunli o'tkazishiga ko'maklashuvchi faoliyat ekanligi haqida ma'lumotlar berilgan.*

*Kalit so'zlar: Tyutor, ta'lim muassasalari, talaba, ta'lim, malaka, ko'nikma, ta'lim innovatsiyasi, kasbiy faoliyat.*

Hozirgi globallashuv sharoitida barcha sohalarning tayanchi, fundamenti — ta'limga borib taqaladi. Chunki aynan ta'lim dargohlaridan jamiyat uchun kerakli va uni boshqaradigan yetuk mutaxassislar yetishib chiqmoqda. Shu jihatdan, zamon talablariga mos, irodali, har tomonlama mulohazali, manfaatlari bunyodkorlik g'oyasiga qaratilgan yosh kadrlarni tarbiyalash bugungi kun ta'lim muassasalari oldida turgan dolzarb vazifalardan sanaladi. Tyutorlik tizimi ham ana shu maqsadlarga yo'naltirilgan. U oliy ta'lim muassasasida tarbiya jarayonini tizimli va samarali amalga oshirishning muhim shakli va vositasidir. Tyutor esa talabalarning shaxsiy rivojlanishiga, ta'lim muassasasi, respublika va xalqaro miqyosdagi tanlov va olimpiadalarda munosib ishtirok etishiga, shuningdek, ularning bo'sh vaqtlarini mazmunli o'tkazishiga ko'maklashuvchi pedagog bo'lib, u yigit-qizlarni kasbga

yo'naltirish, Vatanga muhabbat ruhida tarbiyalash, turli ilmiy to'garaklarga jalb etish hamda muammo va kamchiliklarini o'rganib, ularga atroflicha echim topish bilan shug'ullanadi.Har qanday yangilik kabi bu yo'nalishning ham kelib chiqish tarixi bor. Ko'p manbalarda ta'kidlanishicha, dastlabki tyutorlar XII asrda Angliyaning Oksford va Kembrij universitetlarida paydo bo'lgan.
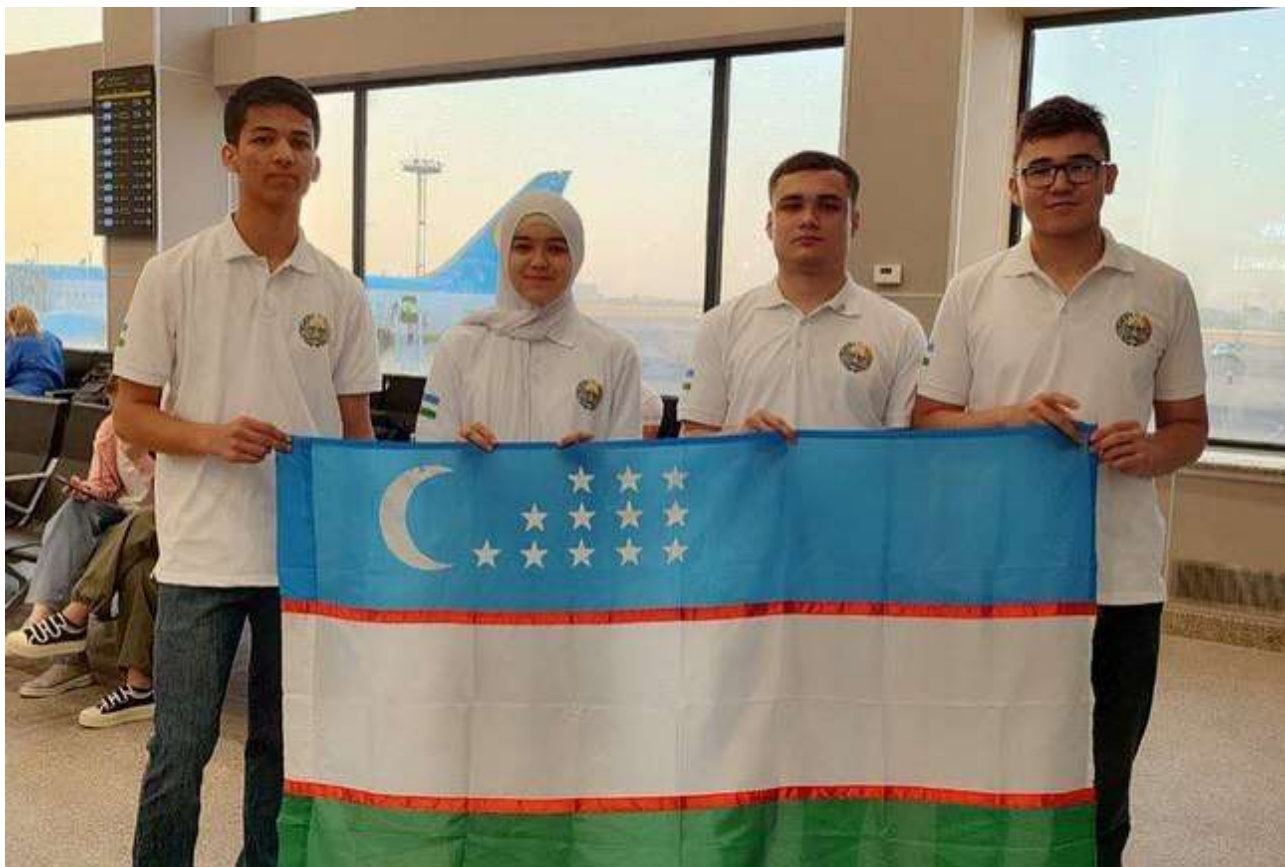


Atama ingliz tilidan olingan va "uy o'qituvchisi, o'qituvchi, murabbiy, vasiy" degan ma'nolarni anglatadi. "Tyutorlik" so'zi insonning shaxsiy ta'limini qo'llab-quvvatlashni anglatadi. Bu juda nozik, "xususiy" ish faoliyatidir. Rus tadqiqotchisi N.V.Ribalkinaning fikriga ko'ra, XVI asr oxiriga kelib tyutor universitet ta'limi tizimida qo'l ostidagi talabalarning tarbiyasiga mas'ul bo'lgan muhim shaxsga aylanadi. XVII asrda tyutor faoliyati ko'lami yanada kengayib, endilikda unga ta'lim berish vazifalari ham yuklanadi. U talabaga qaysi amaliy mashg'ulot va ma'ruzalarga kirishni aniqlab beradi, talabalar darslarni qoldirmay yaxshi o'qishlari va imtihonlarga

tayyor bo'lishlarini nazorat qilib boradi. XVII asrdan boshlab tyutorlik tizimi rasman ingliz oliy ta'limi tizimining ajralmas qismi sifatida tan olina boshlagan. Bugungi kun ma'lumotlariga qaraganda, zamonaviy Oksfordda 90 foiz, Kembrijda esa 75 foiz tyutorlar 1 yoki 2 talaba bilan ish olib boradi. Ular maxsus ma'lumotga ega bo'lmasalarda, talabalarga ham o'qish davomida, ham ta'til paytida rahbarlik qilish, ma'nan ustozlik qilish kabi vazifalarga mas'ul. Aniqrog'i, tyutor ishining asosiy shakli talaba bilan individual va jamoada ishlash yoki unga ta'lim-tarbiya maslahatchisi bo'lishdan iborat. Tyutorga yetakchilik, tashkilotchilik, tashabbuskorlik, intiluvchanlik, notiqlik mahorati, muloqatga kirishish, zamonaviy axborot-kommunikatsiya va innovatsion pedagogik texnologiyalar bilan ishlash bo'yicha malakaga ega bo'lish, ta'lim-tarbiya jarayoniga doir normativ-huquqiy hujjatlarni bilish kabi bir qator umumiy talablar qo'yiladi. Hozirgi vaqtda pedagogik psixologiya olimlari tomonidan o'rganiladigan va hal qilinadigan muammolar doirasi sezilarli darajada kengayib bormoqda. Bugungi kunda nafaqat umuminsoniy bilim, ko'nikma va malakalarning yaxlit tizimini shakllantirish, balki kasbiy faoliyatni malakali va mohirona amalga oshirishga tayyor va qodir mutaxassisni shakllantirish ham ustuvor vazifalardan hisoblanadi. Bu, birinchi navbatda, zamonaviy ijtimoiy o'zgarishlarning dinamikligi va ta'limning innovatsiya va o'zgaruvchanlik yo'nalishida rivojlanishi bilan bog'liq. Davlat buyurtmasi aniq belgilashga qaratilgan ta'lim mazmunidagi ustuvor vazifalarni har bir shaxsdan zamonaviy davlatda talab qilinadigan fazilatlar va ta'lim salohiyatini anglashi lozim. Natijada, ta'lim muassasalarining shtat ro'yxatiga talabalarning shaxsiy ehtiyojlari bo'yicha ishlarni o'z ichiga olgan mutaxassislarni kiritish zarurati paydo bo'ldi. Aynan Shu sababli, zamonaviy ta'limni isloh qilishning sezilarli tendentsiyalaridan biri yangi ta'lim kasblarining paydo bo'lishi bilan bog'liq. Shunday qilib, ta'lim muassasalari xodimlarida yangi lavozim - tyutor joriy etildi.

Tyutor — talabalarning shaxsiy rivojlanishiga, universitet, respublika va xalqaro miqyosdagi tanlov va olimpiadalarda munosib ishtirok etishiga, shuningdek, ularning bo'sh vaqtlarini mazmunli o'tkazishiga ko'maklashuvchi inson bo'lib, u yigit-qizlarni kasbga yo'naltirish, Vatanga muhabbat ruhida tarbiyalash, turli ilmiy to'garaklarga jalb etish hamda muammo va kamchiliklarini o'rganib, ularga atroflicha yechim topish bilan shug'ullanadi. TDYUda rektorining buyrug'i bilan tasdiqlangan "Toshkent davlat yuridik universitetida tyutorlik faoliyatini tashkil etish tartibi to'g'risida"gi nizomda tyutorlar asosiy faoliyat yo'nalishlari, huquq va majburiyatlari, maqsad va vazifalari ko'rsatib o'tilgan.Nizomga ko'ra, tyutorlarning asosiy maqsadi — ta'lim va tarbiya jarayonini samarali tashkil etishda universitet va talabalar o'rtasidagi munosabatlarni mustahkamlash, talabalarning universitet hayoti va ta'lim jarayoniga moslashishiga ko'maklashish, ularga uslubiy, ijtimoiy va psixologik yordam ko'rsatish va talabalarda tanlagan kasbiga muhabbatni oshirishdir. Shu bilan birga ular yigit-qizlarning dars mashg'ulotlarini muntazam tahlil qilib boradi va sifatini oshiradi,

ularning darsdan bo'sh vaqtlarini mazmunli o'tkazishini ta'minlaydi hamda ijtimoiy ahvolidan doimiy xabardor bo'lib turadi.Tyutorlar ma'naviy-ma'rifiy va ahloqiy-tarbiya, o'quv va o'quv-uslubiy hamda ilm-fan, innovatsion va ilmiy-tadqiqot yo'nalishlarida o'z faoliyatini olib boradi.Har bir tyutor o'ziga biriktirilgan guruh talabalarini besh muhim tashabbus doirasida tashkil etilgan klub va to'garaklarga jalb etib boradi hamda ularning ijodiy qobiliyati va iste'dodini namoyon etishi uchun imkon yaratadi. Talabalarning huquq va qonuniy manfaatlarini himoya qiladi, ularning ta'lim olishi, ilm bilan shug'ullanishi, yashashi va dam olishi uchun sharoitlar yaratishga ko'maklashadi va bu boradagi yangiliklardan xabardor qilib boradi.Shuningdek, yigit-qizlarning o'quv intizomini mustahkamlash, ularda ijodiy fikrlash, halollik, to'g'ri so'zlik kabi xislatlarni shakllantirish borasida tizimli ishlarni yo'lga qo'yadi. Iqtidorli va iste'dodli talabalarni aniqlab, ularning turli tanlov va olimpiadalarda munosib ishtirok etishiga hamda talabalarning loyiha va startaplarini amalga oshirishga ko'maklashadi.Bundan tashqari, talabalarning darslarni o'zlashtirish darajasini nazorat qilib boradi, ularning innovatsion ta'lim texnologiyalari va o'quv-uslubiy materiallar, axborot-resurslari bilan ta'minlash va ushbu manbalardan keng va unumli foydalanishi uchun zamin yaratadi.Shu bilan birga tyutorlar talabalarni o'ylantiradigan qator masalalar, xususan, talabalarni turar joy bilan ta'minlash, qoldirilgan darslarni o'zlashtirishiga yordam berib boradi.Har bir tyutor o'ziga biriktilgan akademik guruhlarning darslarini, talaba davomatini va dars sifatining monitoringini olib borish maqsadida kuzatish, talabalarga yuklatilgan majburiyatlarning bajarilishini talab qilish, TTJga joylashishi uchun e'lon berish va bu boradagi komissiya yig'ilishida talabaning ishtirokini ta'minlash,talabaga tavsifnoma va akademik ta'til berish masalasini hal qilishda ishtirok etish, ularni rag'batlantirilishi yoki jazolanishi, turli stipendiyalarga tavsiya qilishda xulosa va fikrnoma berish huquqiga ega.Shuningdek, har bir tyutor talabalarning sha'ni va qadr-qimmatini, obro'sini hurmat qilish, ularning jismoniy, ruhiy va psixologik holatidan muntazam xabardor bo'lish, o'quv, ma'naviy va ilmiy faoliyatini monitoring qilib borish, yigit-qizlarning darslarda ishtirokini nazorat qilish, yoshlarning ota-onalari va o'zi bilan doimiy muloqot qilib borishga majburdir.Tyutor

bilan talaba hamkorligida ularning bir birlarini munosabat sub'ekti sifatida qabul qilishda kommunikatorlik jihatlari yetakchi o'ringa ega. Chunki bugungi kunda pedagoglarning rasmiy-konvensionallik oralig'ini o'zida mujassamlashtirgan, oliy ta'lim muassasa sub'ektlarining muloqot darajalari va bir-biriga yaqinligi individual taktlarga nisbatan guruhiy yaqinlik bir muncha tarqoqdir.Tyutorning talabalarga nisbatan intilishi ham rasmiy darajada bo'lib, tyutor ular bilan individual holatda ham, guruhiy holatda ham hamkorlikda rasmiylik yetakchilik qiladi.



## Xulosa:

"Tyutor-talaba" hamkorligi natijalari rasmiy darajada o'zaro hurmat va ishonch shakliga ko'chib o'tishi yuqori ahamiyatga molik voqelik sifatida e'tirof etiladi. Demak, tyutor bilan talabalar hamkorligining har ikkala sub'ektlari faoliyati maqsadlarining uyg'unlashuvi o'zaro simpatiya va empatiya, o'zaro hurmat va qo'llab quvvatlash tamoyillarini vujudga keltiradi.

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# SUN'IY INTELLEKT TEXNOLOGIYALARINING AQLIY DARAJASINI BAHOLASH

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## *ANNOTATSIYA*

*Maqolaning asosiy mazmuni qariyb 70 yildan beri yechimi topilmay kelayotgan va hozirgi kunning eng dolzarb muammosiga aylangan Turing nazariyasi haqida. Ushbu maqolada Tyuring testi orqali sun'iy intellekt tizimlarining aql darajasini baholash usulining muammolari va taxlil natijalarining muhokamalari keltirilgan.*

***Kalit so'zlar:** Tyuring, sun'iy ong, sun'iy intellekt, neyron tarmoq, idrok, simulyator, metodika.*


## *АННОТАЦИЯ*

*Основное содержание статьи посвящено теории Тьюринга, которая не была решена вот уже почти 70 лет и стала самой актуальной проблемой современности. В данной статье представлены проблемы метода оценки уровня интеллекта систем искусственного интеллекта с помощью теста Тьюринга и обсуждение результатов анализа.*

***Ключевые слова:** Тьюринг, искусственное сознание, искусственный интеллект, нейронная сеть, восприятие, симулятор, методология.*


## *ABSTRACT*

*The main content of the article is devoted to the Turing theory, which has not been solved for almost 70 years and has become the most urgent problem of our time. This article presents the problems of the method of assessing the level of intelligence*

*of artificial intelligence systems using the Turing test and discussion of the analysis results.*

***Key words:*** *Turing, artificial consciousness, artificial intelligence, neural network, perception, simulator, methodology.*

### Kirish

Asosoy masala sun'iy intellekt tizimlarining aqlli ekanligi emas, balki ular qanday darajada aqlga ega bo'lishi mumkinligi. 1950 yilda ingliz olimi Alan Tyuring kompyuterning sun'iy intellektini baholashning eksperimental usulini taklif qildi [1].

### Baholash usulining asosiy g'oyasi

Alan Tyuring fikricha agar inson sun'iy intellekt bilan besh daqiqa muloqot qilganidan so'ng, u o'zining kim bilan gaplashayotganini yani odam yoki mashina ekanligini aniqlay olmasa, bu sun'iy intellektning odamnikiga o'xshash aqli borligini ko'rsatadi.

### Metodlar
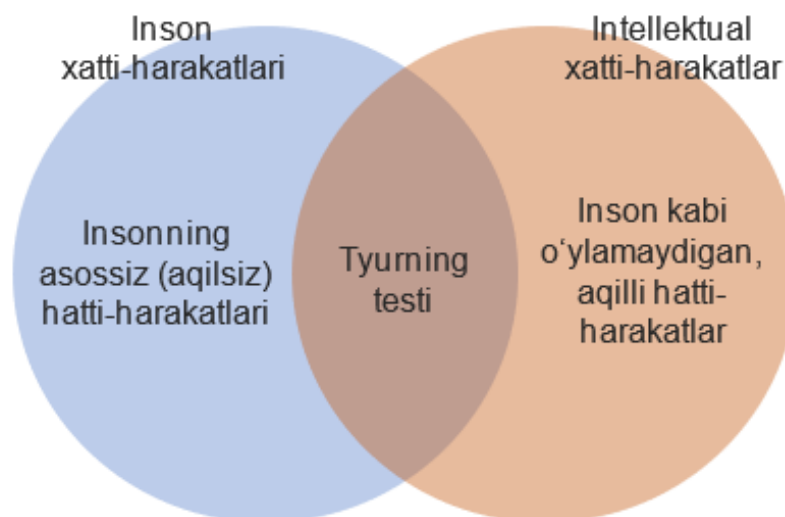


**1-rasim. Inson xatti-harakatlari va intellektual xatti-harakatlar.**
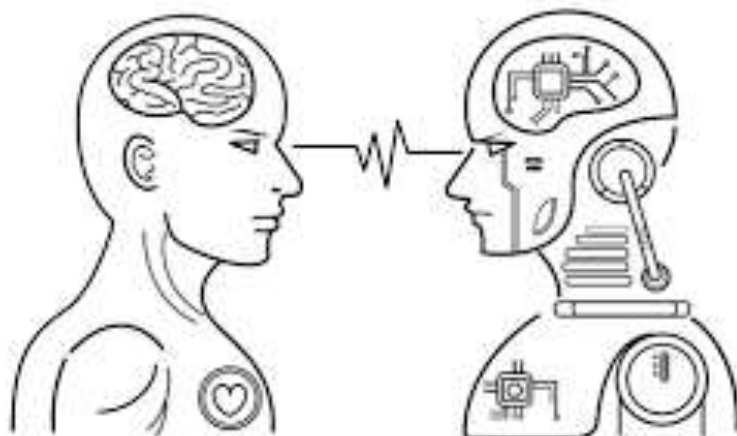
**2-rasm. Tasvir medium saytidan olingan.**

Bunda mashinaning aql-zakovati emas balki mashinaning faqatgina odamga o'xshab fikrlash qobiliyati sinovdan o'tkaziladi. Sinovda ikki sababga ko'ra mashina intellektini baholab bo'lmaydi:

1. Ba'zan inson xatti-harakatlari oqilona talqinda bo'lmaydi, shunga qaramasdan mashina aqli qanchalik darajada bo'lmasin, Tyuring testi insonning barcha turdagi xatti-harakatlarini taqlid qila olishini talab qiladi. Shuningdek uning odamlar oqilona deb hisoblamaydigan haqorat, yolg'on gapirish yoki oddiygina xatolarga yo'l qo'yishi kabi xatti-harakatlariga taqlid qilish orqali munosabat bildirish qobiliyatlarini tekshiradi [1]. Agar mashina inson xatti-harakatlarini to'g'ri taqlid qila olmasa u qanchalik aql-zakovatga ega bo'lmasin sinovdan o'ta olmaydi.

2. Turing testi murakkab muammolarni hal qilish yoki original g'oyalarni ishlab chiqish kabi aqlli xatti-harakatlarni test qilmaydi. Aslida Turing testi mashinadan aldashni talab qiladi, mashina qanchalik aqlli bo'lmasin, sinovdan o'tish uchun u o'zini aqlli emasdek ko'rsatishi kerak bo'ladi. Agar mashina, inson imkoniyati yetmaydigan hisoblash muammolarini tezda hal qila olsa, ta'rifiga ko'ra sinovdan o'ta olmaydi [1].
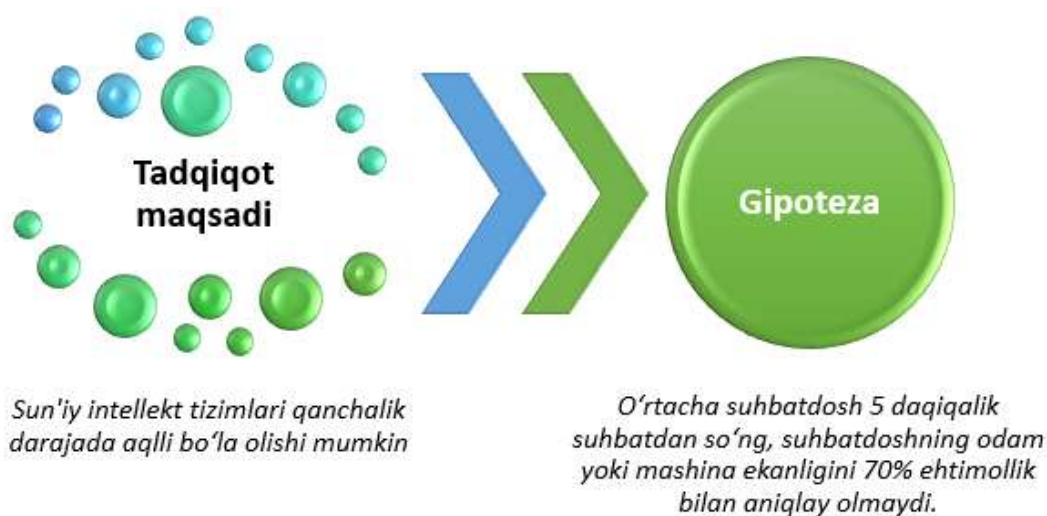
## Muammoning dolzarbligi

Inson tanqidi haqiqatdan ham sun'iy intellekt tizimlar aqlining sinovi uchun qanchalik samara berishi va uning imkoniyatlarini baholash uchun qanday muqobil me'zonlardan foydalanish mumkinligi dolzarb muammolardan biri hisoblanadi.

## Masalaning asosiy maqsadi va vazifasi

Asosiy masala sun'iy intellektning aqlli tizimlari ekanligi emas, balki ular qanday aql darajasiga ega bo'la olishi mumkinligidir. Garchi sun'iy intellekt tizimlarining aql darajasi hozirgi kunga qadar Tyuring testidan o'tishga juda kamlik qilgan bo'lsa-da, u "taxminan ellik yildan so'ng kompyuterlarni inson harakatlarini juda yaxshi taqlid qilish uchun dasturlash mumkin bo'ladi" degan ta'rifni taklif qiladi. Bu fikrga ko'ra oddiy suhbatdosh o'rtacha besh daqiqalik suhbatdan so'ng, 70 foiz ehtimollik bilan uning oldidagi suhbatdoshi odam yoki mashina ekanligini tushinolmaydi.

Bugungi kunda Tyuring o'z g'oyasini ishlab chiqqanidan 70 yildan ko'proq vaqt o'tganiga qaramasdan, hech bir sun'iy intellekt tizimlari u ta'riflagan shartlarni bajarib, sinovdan muvaffaqiyatli o'ta olmadi. Biroq hozirda ba'zi tizimlar bu tarifga juda yaqinlashdi.



Sun'iy intellekt tizimlari qanchalik darajada aqlli bo'la olishi mumkin

O'rtacha suhbatdosh 5 daqiqalik suhbatdan so'ng, suhbatdoshning odam yoki mashina ekanligini 70% ehtimollik bilan aniqlay olmaydi.

**2-rasm. Muammoning yechimini aniqlashning maqsadli gipotezasi.**

## Sun'iy intellekt tizimlarining salohiyati

Eng aqlli tizimlar kengroq muhitda kengroq maqsadlarga erisha oladigan tizimlardir. Shu sababdan umum maqsadli sun'iy intellekt tizimlarini ishlab chiqishdagi taraqqiyligining eng yaxshi usuli bu ularning turli vazifalar bo'yicha ishlashini baholashdir. Mashinani o'qitish yo'nalishi tadqiqotchilari buni amalga oshirishga imkon beradigan bir qator me'zonlarni ishlab chiqdilar.

Misol uchun: GPT-4 multimodel (katta til modeli) ko'p vazifali til o'rganish modeli bir qator fanlar bo'yicha test topshiriqlarini ishlaganida, savollarning 86 foiziga to'g'ri javob bera oldi, bu kollej darajasi ko'rsatkichlari hisoblanadi.
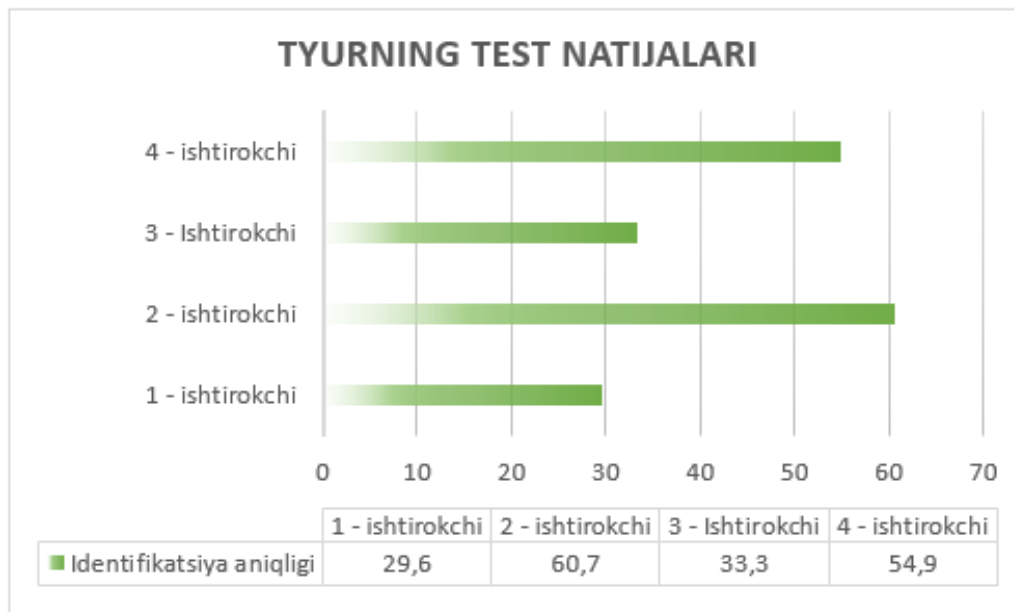
## Natijalar

### Tadqiqot va tekshiruvlar natijalari

Yaqinda o'tkazilgan tajribalardan biri GPT-4 sun'iy intellekt texnologiyasi kabi uchta yirik til modelini sinovdan o'tkazdi. Tajriba ishtirokchilari ikki daqiqa davomida boshqa inson va sun'iy intellekt tizimi bilan muloqot qilishdi. Shu bilan birgalikda, sun'iy intellekt tizimlari bilan suxbat chog'ida, tajriba ishtirokchisi haddan tashqari tajovuzkor bo'lib qolsa, kichik xatoga yo'l qo'yish sifatida qaralishi va muloqotni to'xtatishi belgilangan.
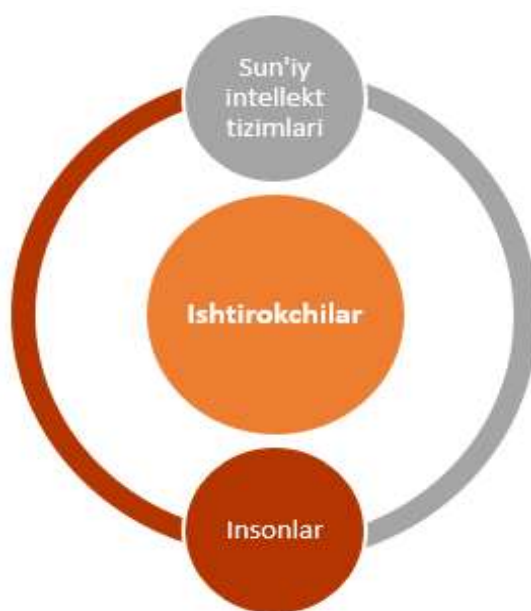


**2-rasm. Tajribaning asosiy obyektlari.**

Ushbu usuldan foydalanib, sun'iy intellekt sinovchilarini muvaffaqiyatli aldashga muvaffaq bo'ldi. Sun'iy intellekt bot bilan muloqot qilishganda esa, ishtirokchilar faqat 60 foiz hollarda sun'iy intellekt tizimi bilan gaplashayotganini to'g'ri aniqlashga muvaffaq bo'lishdi.



**TYURNING TEST NATIJALARI**

| | 1 - ishtirokchi | 2 - ishtirokchi | 3 - Ishtirokchi | 4 - ishtirokchi |
|---|---|---|---|---|
| Identifikatsiya aniqligi | 29,6 | 60,7 | 33,3 | 54,9 |

**2-rasm. Tyuring testi bo'yicha ishtirokchilar bilan olib borilgan tajriba. Suhbatdoshning mashina yoki inson ekanligini aniqlash ko'ratkichlari Chat GPT til modeli misolida.**

Tabiiy tillarni qayta ishlash tizimlarini yaratishda taraqqiyotining jadal rivojlanayotganini hisobga olsak "yaqin bir necha yil ichida sun'iy intellekt Tyuringning dastlabki sinovidan o'tadi" deb taxmin qilish mumkin.

**Mulohazalar**

**Tyuring testining muammolari va cheklovlari**

Garchi Tyuring testidan o'tgan tizim "aql-idrokka" ega ekanligini ko'rsatgan bo'lsa-da, bu test aqlni baholash bu bilan yakunlanmaydi.

Zamonaviy Katta Til Modellarini (LLM) ko'pincha tuzilishiga ko'ra inson emasligini darhol anglash mumkin [3, 5, 6, 8]. Misol uchun agar siz ChatGPT-ga savol bersangiz, u ko'pincha sun'iy intellekt til model shablonlari asosida javob qaytaradi.

Bundan tashqari Tyuring testi birinchi navbatda inson bilimlariga qaratilgan. Agar taqlid o'yinini samarali o'ynaydigan mashina yaratilsa, o'shandagina o'zaro qarama-qarshilik bo'lmasligi mumkin. Boshqacha qilib aytganda, tizimning Tyuring testidan o'tishi uning aqlli ekanligining dalili bo'lsa, unda bu testdan o'ta olmasligi tizimning aqlli emasligini anglatmaydi.

Bundan tashqari Tyuring testda sun'iy intellektning ongli ekanligini yani uning og'riq va zavqni his qila olishi yoki axloqiy qadriyatlarni tushunishga qodirligini aniqlay olmaydi.

Ko'pgina olimlarning fikriga ko'ra **"Ong ma'lum bir aqliy qobiliyatlar to'plami shu jumladan ishchi xotira, fikrlar tartibi, atrof-muhitni idrok etish va bu muhitda o'z tanasining harakatlarini modellashtirish qobiliyatlarini o'z ichiga oladi".** Turing testi sun'iy intellekt tizimlarida bu qobiliyatlar bor yoki yo'qligini hisobga olmaydi.

## Xulosa

Xulosa qilib shuni aytish mumkinki, tajribalar natijasida inson va sun'iy intellektning texnologiyasi ChatGPT-4 katta til modeli bilan suhbat jarayonida insonlarning 70% uning mashina ekanligini aniqlay olishmaganini ko'rdik bundan tashqari sun'iy intellekt texnologiyalari bo'lgan botlar orqali suhbatlashganlarida esa insonlarning 60% uning mashina ekanligini aniqlashdi. Yuqorida olib borilgan tajriba natijalarining Tyuring testi uchun qoniqarli natijalar bermaganligiga qaramay, hozirgi kundagi imkoniyatlarimizni hisobga olgan holda superkompyuterlar yordamida buni amalga oshirish mumkin. Yakuniy xulosa sifatida shuni aytish mumkinki, zamonaviy sun'iy intellekt texnologiyalari aql idrokka ega va yaqin bir necha yil ichida sun'iy intellekt texnologiyalari Tyuring testining dastlabki sinovidan o'tishi mumkin.

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# ADABIY TANQID TARIXI XUSUSIDA AYRIM MULOHAZALAR

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*Annotatsiya: Maqolada o'zbek adabiy tanqidchiligining rivojlanish bosqichlari Alisher Navoiy hamda Ozod Sharafiddinov faoliyati va tanqidiy qarashlari, shuningdek tanqidchiligimiz rivojida tutgan o'rni tahlillar jarayonida tadqiq qilingan.*

*Kalit so'zlar: Badiiy ijod, adabiy tanqid, so'z san'ati, adabiyot, adabiyotshunoslik, darslik.*


*Abstract: In the article, the stages of development of Uzbek literary criticism are studied in the process of analysis of the activities and critical views of Alisher Navoi and Azod Sharafiddinov, as well as their role in the development of our criticism.*

*Key words: Artistic creativity, literary criticism, word art, literature, literary studies, textbook.*


*Аннотация: В статье изучаются этапы развития узбекского литературоведения в процессе анализа деятельности и критических взглядов Алишера Навои и Азода Шарафиддинова, а также их роль в развитии нашей критики.*

*Ключевые слова: Художественное творчество, литературоведение, искусство слова, литература, литературоведение, учебник.*

## KIRISH

Badiiy ijod va tanqid-adabiyotshunoslik hamisha so'z san'ati bilan uzviy bog'liqlikda rivojlanib kelgan. Ko'p asrlik so'z san'ati singari tanqid va adabiyotshunoslik ham uzoq tarixiy tadrijiy yo'lni bosib o'tgan. Jahon adabiyoti va

tanqidchiligi tarixiga nazar tashlaydigan bo'lsak, bu sohaga taalluqli bo'lgan ko'plab ilmiy-adabiy manbalar mavjuligiga guvoh bo'lamiz. Masalan, adabiy tanqidchilikka doir bir qator o'zbekcha va ruscha entsiklopedik va adabiyotshunoslik terminlari lug'atlarida "Adabiy tanqid"ga qisqacha shunday ta'rif berilgan: Kritika - (grekcha kritike) so'z bo'lib, ma'nosi: muhokama qilmoq) "Adabiyotshunoslikning tarkibiy qismi, mustaqil sohasi bo'lib, u adabiy jarayonni, shu jarayonda yaratilayotgan badiiy asarlarning g'oyaviy-estetik qimmati, umumxalq adabiyotidagi o'rnini, yutuqlari va muammolarini, adabiy jarayondagi yo'nalishlarni aniqlab, baholab beruvchi ijod turidir. Adabiy tanqid adabiyotshunoslikning ham nazariy, ham amaliy sohasi bo'lib sanaladi. Jahon adabiy tanqidchilari ichida Lessing, Didro, Belinskiy, Chernishevskiy, Dobrolyubov, Mering, Plexanov, Lunacharskiylarning nomlari mashhurdir.*1*

### ADABIYOTLAR TAHLILI VA METODLAR

"O'zbek sovet adabiyoti tarixi" darsliklarida shu fikr takrorlanib kelindi: "eng ilmiy, eng izchil ta'limot bo'lgan marksizm-leninizm sovet adabiyoti, tanqid va adabiyotshunosligi uchun taraqqiyot yo'lini ko'rsatuvchi yo'lchi yulduz hisoblanadi"*2*.

Sobiq sho'ro davridagi nufuzli adabiy manbalar va darsliklarimizdagi mana shunday biryoqlama e'tiroflardan ayon bo'ladiki, Alisher Navoiy va Bobur singari buyuk mutafakkirlarimizning ilmiy-tanqidiy faoliyati va bu sohadagi nodir asarlari bepisandlik bilan unutilib kelingan. Qayta-qayta nashr etilgan darsliklar va lug'atlarimizda ham negadir tanqid va adabiyotshunoslikning Sharq va xususan, ko'p asrlik o'zbek adabiyoti va adabiy-estetik tafakkuri tarixidagi o'rni va bu sohada "ilmi naqd", "ilmi bade'a", "ilmi g'ariba", "ilmi aruz" va "ilmi qofiya" kabi termin-istilohlarning keng qo'llanilib kelingani haqida deyarli fikr bildirilmagan. Taajjublanarli joyi yana shundaki, yuqoridagi manbalarda bir necha asrlar davomida tanqid va adabiyotshunoslik sohasida ham samarali ijod namunalarini yaratgan mutafakkir-ijodkorlarimizdan birortasining ham nomi yoxud asarlari tilga olinmagan.

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*1* N.Hotamov, B. Sarimsoqov. Adabiyotshunoslik terminlarining ruscha-o'zbekcha izohli lug'ati. –T: O'qituvchi, 1983, 167-b.

*2* Qosimov U. O'zbek dabiyoti va tanqidchiligi tarixidan lavhalar. –T: Iqtisod-moliya. 2006. 12-b.

Xolbuki, yuqorida nomlari zikr etilgan mashhur rus va evropalik tanqidchilardan necha yuz yillar oldin, ya'ni IX-XI asrlarda yashab ijod etgan buyuk ajdodlarimiz - Beruniy, Forobiy va Ibn Sinolar qomusiy bilim sohiblari bo'lib, ular she'riyat va adabiyotshunoslik masalalari bilan ham shug'ullanib, "She'r san'ati" (Forobiy) kabi asarlar ham yaratganlar. Ayniqsa, XV-XVI asrlarda Navoiy va Boburlar hamda ularning shogirdlari va izdoshlari ilm-fan va san'atning ko'plab turlari va badiiy ijod olamida durdona asarlar yaratish bilan birga, ayni vaqtda, tanqid va adabiyotshunoslik sohasida ham barakali ijod qilishgan va o'zlaridan kelgusi avlodlar uchun ham boy adabiy-tanqidiy va ilmiy-estetik meros qoldirishgan.

## NATIJALAR

Afsuski, sobiq sho'ro davrida mumtoz adabiyotimizga va hatto Alisher Navoiy ijodiga nisbatan ham biryoqlama munosabatda bo'ldik va ulug' shoir va mutafakkir asarlari va adabiy-tanqidchilik faoliyati yetarli darajada o'rganilmagan. Masalan, qator ilmiy manbalar va hatto Adabiy tanqid bo'yicha darslik-qo'llanmalarda shunday biryoqlamalik ko'zga tashlanadi. Chunonchi, Mustaqillik arafasida nashr qilingan "O'zbek sovet adabiy tanqidchiligi" darsligida quyidagi fikrlarni o'qiymiz: "Alisher Navoiy o'zbek milliy tili va adabiyotiga asos solgan buyuk ijodkorgina emas, balki tanqidchilikni boshlab bergan buyuk allomalardan biri deb bejiz aytmaymiz. Ammo ulug' bobomiz o'zining daholik qudratini badiiy ijodda, she'riyatda namoyish qildi, tanqidchilikni faqat boshlab berdi, u boshlab bergan ish keng ko'lamda rivojlantirilmadi. Buning uchun shart-sharoit yo'q edi. Sotsialistik inqilobdan so'ng ana shunday shart-sharoit yaratildi..."*1*.

Mana oliy o'quv yurtlarining O'zbek tili va adabiyoti mutaxassisligi talabalari uchun mo'ljallangan va ayni Mustaqilligimiz arafasida - 1990 yili nashr etilgan salobatli darslikda Navoiy ijodiga berilgan ta'rif. Uning anchayin umumiyligidan tashqari buyuk shoir va mutafakkirimizning Xamsanavislikdagi beqiyos xizmatlari ham loaqal tilga ham olinmaganini qanday izohlash mumkin? Ikkinchidan esa,

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*1* Xudoyberganov N, Rasulov A. O'zbek sovet adabiy tanqidchiligi. Universitetlar va pedagogika institutlari studentlari uchun darslik. –T: O'qituvchi. 1990 yil, 13-14-bb.

Navoiyning tanqid va adabiyotshunoslik sohasidagi ulkan faoliyati va bu sohada yaratgan tizimli ta'limoti va bebaho asarlari bilan "tanqidchilikni boshlab beribgina" qolmasdan, balki o'zbek tanqidchiligi va adabiyotshunosligini yangi va yuqori bir bosqichga ko'tarishga muvaffaq bo'lganligining yaqqol isboti bo'la oladi.

Ozod Sharafiddinov mansub bo'lgan munaqqidlar avlodining serqirra faoliyatini o'rganishda  O'zbek adabiy tanqidchiligi tarixi va rivoji hamda uning ildiz-manbalari va omillari to'g'risida ham mas'uliyat bilan fikr yuritish joizdir. Ayniqsa, bu borada Navoiy davri tanqid-adabiyotshunosligi an'analariga murojaat qilinganda, albatta, mumtoz adabiyot va adabiy-tanqidiy tafakkur tarixiga  xolisona munosabatda bo'lish talab etiladi. Bu davrga tiyraklik bilan nazar tashlay olsak, muhim tarixiy haqiqatga guvoh bo'lamiz va bu holatdan hayrtga tushamiz. Zabardast munaqqid hamda adabiyotshunos sifatida ham badiiy ijod va adabiy-estetik tafakkur rivojiga ulkan hissa qo'shgan hazrat Navoiyning serqirra faoliyati va ilmiy, adabiy-tanqidiy merosi shu qadar sermahsul va ko'lamdorki, bu, hech bir mubolag'asiz, butun bir millatning faxru g'ururi bo'la oladi. Chunki o'nlab yetuk munaqqid va adabiyotshunoslar hamkorlikdagina  eplashi mumkin bo'lgan g'oyat katta miqyosli mas'uliyatli vazifani Navoiyning  bir o'zlari a'lo darajada ado etib kelgani jahon adabiy-estetik tafakkuri tarixida istisno bir hodisa deyish mumkin. "Falak ko'rmagan nodir" siymo Navoiy o'zining ilohiy bir dahosi va tengsiz ijodiy salohiyati bilan she'riyat, xamsanavislik va dostonnavislikda eng yuksak cho'qqiga ko'tarilish bilan birga, ayni vaqtda, ilmi naqd, ilmi g'ariba, ilmi badea, ilmi aruz kabi sohalardagi betakror asarlari bilan hamda butun Xuroson mamlakatidagi ilmiy, adabiy-tanqidiy yo'nalishdagi jarayonlarga rahnamolik va homiylik qilganligi ko'plab tarixiy va adabiy manbalarda to'la aks etgan. Atoqli adib va olimlarimiz: Oybek, Ayniy, Shayxzoda, A.Hayitmetov, B.Valixo'jaev, H.Sulaymonov, S.G'aniyevalar e'tirof etganidek, bu tarixiy haqiqatdan har bir vatandoshimiz faxrlansak arziydi. Bunga dalil tariqasida Navoiy davrida yashab ijod etgan va unga zamondosh yo shogird va izdosh bo'lgan ko'plab ilm-fazl ahlining tarixiy hamda ilmiy-adabiy asarlari, tazkira va yodnomalarini esga olish mumkin. Lekin bu o'rinda birgina misol - Navoiy hazratning o'zlari yozib qoldirgan tarixiy va

adabiy-estetik bitik - ma'lumot va e'tiroflarini keltirish bilan kifoyalanamiz. Shu maqsadda Navoiyning tanqid va adabiyotshunoslik sohasidagi faoliyati qanchalar keng qamrovli va samarali bo'lganligini tasavvur etish uchun o'sha davrda Navoiy boshqargan ijodiy jarayonni va adabiy an'ana-tamoyillarni tushuncha va saviyamiz darajasida bo'lsa ham ko'z oldimizga keltirishga urinaylik: "Qirq yilga yaqindirki, olam mamlakatlari fozillari va komillarining ulug' shahri va ilmiy markazi Xuroson yurtining barcha nazm ahli, shirinkalom shoirlari va muhtaram fasohat ahli qog'oz yuziga qanday ma'no bilan oroyish va qaysi so'zlar bilan daftarlar yuzlarini bezab, namoyish qilmoqchi bo'lsalar, men faqir suhbatiga yetkazdilar va bu zaifga ma'qullatib, o'z asarlari nuqsu qusurlari islohini so'radilar. Ular yuzasidan xotiramga kelgan mulohazalarimni aytganimda, insof yuzasidan qabul va minnatdorchiliklar izhor qildilar; shubha va e'tiroz bildirganlarga dalillar keltirib tushuntirishga harakat qildim, shundan so'ngra ular qabul qilib, o'zlari shukr qilib, mamnuniyat bildirdilar"

## MUHOKAMA

Ba'zilar ta'riflaganlaridek, faqat ikki til qiyosiga bag'ishlangan asar deb o'rganiladigan "Muhokamat ul-lug'atayn"dan olingan shu birgina muxtasar e'tirof zamirida g'oyat keng mazmun va chuqur tarixiy va ilmiy haqiqat mujassam desak yanglishmagan bo'lamiz. Navoiyga xos samimiyat va kamtarinlik bilan aytilgan ushbu xotira-e'tirofnomada, eng avvalo, buyuk Navoiyga xos fidoiylik, iste'dodi turfa xil yuzlab yosh ijodkorlarga e'tibor va xayrixohlik fazilatlari bilan birga o'sha davrdagi badiiy ijod va tanqidchilik rivoji haqidagi beqiyos jonkuyarlik va millatparvarlik faoliyati qanchalar ko'lamdor va serqirra bo'lganligini tasavvur qilish uchun, albatta, yetuk mutaxassis bo'lmasa ham, aqalli ziyrak kitobxon va adabiyot muxlisi bo'lishi lozim. Bunday fidoiylik va jonkuyarlik adabiyotni tengsiz birinchi mo'jiza deb bilgan va "Adabiyot yashasa - millat yashar" degan yuksak maslak-e'tiqod bilan yashagan va butun talanti va umrini shu ezgu maqsad yo'liga bag'ishlab, Navoiydek buyuk yalovbardorlarimizdan ulgu olgan zamonamiz Qahramoni Ozod Sharafiddinovdek yorqin va betakror shaxsni aslo befarq qoldirishi mumkin emas edi. Bir intervyusida ta'kidlaganidek, Navoiy fenomenini chuqur anglash va uni dunyo ahliga tanita olish -

Ozod Sharafiddinovning ham yuksak orzularidan edi. Shunga ko'ra biz Ozod Sharafiddinovni ham buyuk Navoiyning sadoqatli izdoshi va munosib bir vorisi deb ta'riflashga to'la asos bor deb o'ylaymiz. Xususan, so'z san'atiga ehtiromli munosabatda va ijod namunalarini nekbinlik bilan baholashda Navoiy va Ozod Sharafiddinovga xos bir mushtaraklikka e'tibor qaratishni lozim topamiz. Navoiy hazratlari o'zining 1491 yili yaratgan va 1498 yili qayta ishlab, mukammallashtirgan "Majolis un-nafois" tazkirasida 460 dan ortiq ijod ahliga ta'rif - tavsif berib, ularning yutuqlari va kamchiliklarini xolisona tahlil etganlari adabiy jamoatchilikka yaxshi ma'lum. Jumladan, Sug'diy taxallusi bilan she'rlar bitgan o'rtamiyona bir shoirning ko'p asarlari bo'sh-sayozligini aytgani holda, uning birgina bayti:

"O'xshatdi qomatingga sanobarni bog'bon,

Bechora bilmas ermish alifdin tayog'ni"

misralarni yaxshi bog'lagani uchun unga Ollohdan rahmat tilaydi.

Endi Ozod Sharafiddinovning shoir va adiblar iste'dodi va ijodiga baho berishida hamisha amal qilgan va sinovlardan o'tgan asosiy bir mezonini esga olaylik: Olim ta'kidlaganidek, ijod murakkab jarayon. Ba'zan ijodi o'rtacha yoki pastroq bo'lgan adibning ham chinakam iste'dod bilan yaratgan birgina asari nafaqat o'sha adib ijodining ulkan yutug'i, balki butun bir davr adabiyoti yoxud she'riyatining rivojini belgilovchi yuksak bir namuna bo'la olishi mumkin. Ulug' Navoiyning tanqid-adabiyotshunoslikdagi nuktadonlik bilan yo'g'rilgan mezon va an'analari Ozod Sharafiddinovdek bag'rikeng va haqgo'y munaqqidlarimiz uchun ham ibrat bo'lganligi haqiqatga yaqin.

## XULOSA

Tanqid va talqin Ozod Sharafiddinov orzu va amal qilganidek, avvalo, yuksak saviyadagi kitobxonlik bilan bog'liqdir. Badiiy matnni uqish va uning zamiridagi ma'noni anglash uchun shunday yuksak maqomdagi "professional kitobxonlik" zarurligi haqida buyuk jadid ma'rifatchilari ham yozishgan. Zotan, sharq adabiyotshunosligi va Navoiy davri tanqidchiligida ilmi dark (idrok ilmi), urafo (mavjud qarashlar asosidagi talqin) va zurafo (asardagi zarofat-yangilikni his etish)

kabi talqin jarayonining ilmiy-ma'naviy shart - omillari belgilangan (A.Rasulov). Navoiyning "Majolis un-nafois"i bunga yorqin misoldir. Yoxud Navoiy "Xamsatu-l-mutaxayyirin" asarida Abdurahmon Jomiyning adab ilmidagi fazilatlarini ulug'lash bilan birga ilmi g'aribada tengsizligini ta'kidlagan: ...va g'aribdurkim, zohir ulumining takomili vaqtida necha ish alarga muyassar bo'lubturkim, bu ummatda akobir va sohib kamollardan hech qaysig'a voqe bo'lg'oni zohir ermas".

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# O'SMIRLIK DAVRIDA EMOTSIONAL INTELLEKTNING NAMOYON BO'LISHI, O'RGANILISHI

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*Annotatsiya: Ushbu maqolada o'smirlik davrida emotsional holat turlari haqida yozilgan,maqolada emotsional intelekt haqida tushunchalar hamda o'smirlik davri psixologiyasida emotsional intelekt muammolarini, emotsional intellekt tushunchasining tarixi, belgilari,mohiyati ko'rsatib o'tilgan.*

*Kalit so'zlar: o'smir, intelektual, harakter, o'smirlik fiziologik o'zgarish, intelekt, intensive munosabat, emotsional kompitentlik, o'z-o'zini baxolash.*

*Annotation: This article describes the types of emotional states in adolescence, the concept of emotional intelligence and the problems of emotional intelligence in the psychology of adolescence, the history, signs and essence of the concept of emotional intelligence are shown in the article*

*Key words: adolescent, intellectual, character, adolescent physiological change, intellect, intensive relationship, emotional competence, self evaluation.*

**Kirish:**

Hozirgi o'smirlar o'tmishdoshlariga nisbatan jismoniy, aqliy va siyosiy jihatdan birmuncha ustunlikka ega. Ularda jinsiy yetilish, ijtimoiylashuv jarayoni, psixik o'sish oldinroq namoyon bo'lmoqda. SHu sababli bizda o'g'il va qizlarni 10—11 dan 14—15 yoshigacha o'smirlik yoshida deb hisoblanadi.

O'smirlik yoshida, taxminan 13—14 yoshlarda, bolalarni emotsional kechinmalarida katta o'zgarishlar boshlanadi. Shu yoshdagi bolalarda ta'lim ta'siri

ostida abstrakt-mantiqiy va tanqidiy tafakkur ancha o'sadi. O'smirlar dunyoqarashlari bilan bog'liq bo'lgan masalalar bilan qiziqa boshlaydilar, ularning kamalak va yoshlar ittifoqida ishtirok qilishlari bunday qiziqishlaming o'sishiga ko'p jihatdan yordam beradi. Mana shularning hammasi hilma-xil intellektual va axloqiy hislami o'sishi uchun manba bo'lib qoladi. O'smirlarda xayol kuchli ravishda o'sadi. Hislaming o'zi xayolning o'sishiga yordam beradi va xayolning o'zi ham xilma-xil chuqur emotsional kechinmalarning manbai bo'lib qoladi. Kelajak to'g'risidagi orzular, qahramonlik, romantika shularing hammasi emotsional kechinmalarning manbaidir. Bu yoshda o'z-o'ziga baho berish hissi kuchli ravishda o'sadi

Hozirgi davrda emotsional intellektning o'ziga xos xususiyatlari, qonuniyatlari, imkoniyatlari xatti-harakat motivlarining ifodalanishi va vujudga kelishining murakkab mexanizmlari mavjud. Shuni alohida ta'kidlash kerakki, o'smirlarda emotsional intellektning xususiyatlarini to'la hisobga olgan holda ta'limiy-tarbiyaviy tadbirlarni qo'llash shaxslararo munosabatda anglashilmovchilikni vujudga keltirmaydi, jamoa o'rtasida iliq psixologik iqlimni yaratadi.

Emotsional intellekt psixologiyada jadal rivojlanayotgan sohalaridan biridir. Ushbu hodisaga ko'plab olimlar tamonidan taxlil qilingan.

Emotsional intellekt tushunchasini 1990-yilda tadqiqotchilar Dj.Meyer va P.Soloveylar ilk bor fanga kiritdilar. Ularning izdoshlari sifatida D. Goulman tan olinadi. Chunki, D.Goulman o'z davrida matbuot va turli ilmiy kongresslarda "emotsional intellekt" tushunchasi bilan bog'liq ko'plab chiqishlari bilan barchaning e'tiboriga tushgan edi.

1930-yillarning boshlarida L.S.Vigotskiy ham ta'sirlarning o'zi, ham hissiyotlarni yanada murakkab psixologik tizimlar bilsn birlashtiruvchi aloqalar tartibi va aloqalarini o'rganish muammosini aniqladi va u ilmiy psixologiyaning asosiy vazifasi deb belgiladi.

1940-yillarda psixolog Devid Veksler aqlning turli xil samarali komponentlari odamlarning hayotda qanchalik muvaffaqiyatli bo'lishida muhim rol o'ynashi mumkinligini taklif qildi.

Emotsional intellekt haqida tajribali psixolog Jon Gottman, biz to'g'ri deb hisoblagan xatti-harakatlarning sereotiplari bolaning hissiy intellektini (EQ) rivojlantirishga yordam bermasligini aniq ko'rsatgan holda, quidagilarni ta'kidlagan:

-Bolaning his-tuyg'ulariga e'tibor bering;

- Farzandingiz bilan o'rganish va muloqot qilish imkoniyati sifatida hissiy ifodadanfoydalaning;

-Empatiya ko'rsating va bolaning kayfyantini yaxshiroq tushuning;

- Farzandingizga qiyin vaziyatlar va muammolarni yengishga yordam bering

K.S. Kuznetsova, I. N. Meshcheryakova va boshqalar turli yoshdagi odamlarda emotsional intellektning dolzarb muammolarini o'rganadilar, T.I.Solodkova o'qituvchilar ishida emotsional intellektning resurs imkoniyatlarini tahlil qiladi, A.K. Kravtsova hissiy aql va jamoadagi etakchilik masalalarini ko'rib chiqadi

O'smirlarning intellektual faolligini oshirish, ularning narsalarning mohiyatiga kirib borish istagi. Intellektual faoliyat uchun yangi motivlar paydo bo'lishi mumkin. O'qituvchilar va ota-onalar o'smirlar bilan yangi muloqot uslubiga o'tishni boshlaydilar, ular his-tuyg'ulardan ko'ra ko'proq aqli va mantig'iga murojaat qiladilar Kattalar bilan birgalikda o'xshash narsalarni baholash va qayta qurish bilan bog'liq muhim jarayonlar sodir bo'ladi . Mantiqiy xotira faol rivojlana boshlaydi va tez orada shunday darajaga etadi bolaning ushbu turdagi xotiradan imtiyozli foydalanishga o'tishi va ixtiyoriy va vositachi xotirani yuzaga keltiradi. Mantiqiy xotiradan hayotda tez-tez amaliy foydalanilsa reaktsiya sifatida mexanik xotiraning rivojlanishi sekinlashadi. Maktabda ko'plab yangi o'quv fanlarining paydo bo'lishi tufayli o'smir eslashi kerak bo'lgan ma'lumotlar miqdori, shu jumladan mexanik xotirani keltirib chiqaradi.

O'smir qanchalik katta bo'lsa, u shunchalik yaxshi hissiyotlarni tushunadi. O'smirlik davrida "hissiy tushunchalar" paydo bo'la bo'shlaydi. Ularning lug'ati o'sib

borishi bilan his-tuygʻular kengayadi va soni parametrlar ortadi, lekin        his-tuygʻular farq qiladi. Yoʻq faqat kattalar, balki koʻproq va koʻproq tashvish turli, hatto ahamiyatsiz hayot haqida qattiq bolalar bilan solishtirganda hodisalar. Bu amal qilmaydi faqat ijobiy, balki salbiy his-tuygʻularga ham. Hissiyotlar bizning psixologik yoqilgʻimizdir. Emotsional intellekt esa buni qilmaslik qobiliyatidir isrof qil. Ushbu atama muallifi, mashhur psixolog Daniel Goleman oʻz kitobida "Hissiy intellekt" ikkitasini tushuntiradi samarali boʻlishi uchun kompetentsiya turlari zarur bunday qimmatli va murakkab resursni boshqarish hissiyotlar sifatida: shaxsiy va ijtimoiy.

## Xulosa:

Emotsional intellekt hayotimizda muvaffaqiyat kaliti boʻlishi mumkin, ayniqsa kareramizda. Emotsional intellektni qanday yaxshilash mumkin? Emotsional intellektni oʻrganish va rivojlantirish mumkin. Odamlarga qanday munosabatda boʻlishingizni kuzating. Oʻzingizni ularning oʻrniga qoʻyishga harakat qiling va koʻproq ochiq va ularning nuqtai nazari va ehtiyojlarini qabul qiling. Yutuqlaringiz uchun eʼtiborni qidiryapsizmi? Kamtarlik ajoyib fazilat boʻlishi mumkin va bu siz uyatchan yoki oʻzingizga ishonchingiz yoʻq degani emas. Stressli vaziyatlarga qanday munosabatda boʻlishingizni koʻrib chiqing. Har safar kechikish boʻlganda yoki biror narsa siz xohlagan tarzda sodir boʻlmaganda xafa boʻlasizmi? Hissiy intellekt-bu sizning harakatlaringiz va his-tuygʻularingiz va ularning atrofingizdagilarga qanday taʼsir qilishini bilishdir. Bu shuningdek, siz boshqalarni qadrlashingizni, ularning istaklari va ehtiyojlarini tinglashingizni va turli darajalarda ularga hamdard boʻlishingiz yoki ular bilan tanishishingiz mumkinligini anglatadi.

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# THE ROLE OF CONFUCIAN TRADITIONS IN POLITICAL LIFE OF THE PRC

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## ABSTRACT

*The article focuses on one of the most significant events in world politics – the rapid rise of China. It is noted that the influence of the Tianxia Empire on East Asia, including on the international order led by the West, leads political theorists to analyze its causes, trajectory and possible results. Less discussed, however, is the current status of Chinese political thought, which informs, shapes, and formulates the views of Chinese political leaders and the Chinese people. For some theorists, China is an authoritarian regime that adheres to orthodox Marxism-Leninism and has no respect for human rights and the rule of law. For others, China is an economically prosperous country that has benefited greatly from its reform and opening-up policies, but has been consumed by extreme materialism, manifested in greedy consumption and astonishing corruption.*

***Keywords:*** *China, culture, traditions, politics, new confucianism, political confucianism, modern confucianism.*

## INTRODUCTION

The revival of Confucianism in China is certainly a phenomenon worthy of discussion and reflection. It represents the main cultural tradition of Chinese civilization for more than 2,000 years. After the Han Dynasty (206 BC-220 AD), Confucianism also became a mainstream political discourse that provided emperors with ruling legitimacy on the one hand and regulated the behavior of rulers towards their subjects on the other. It would not be an exaggeration to say that before modern China, it was largely a Confucian state, and that the system of Chinese political institutions was essentially Confucian, with Confucian guidelines ranging from governance structure, hiring civil servants, and accountability mechanisms to people's legitimate expectations in daily life.

Confucius (551-479 BC) was a philosopher, teacher, and politician of chinese history. He wanted to restore the order of the past, encouraging reigning emperors to follow the example of the ancient wise emperors. He proclaimed the ideas of benevolence, the rules of virtue and harmonious fellowship in government. Confucius' views were further developed by Mencius (c. 372-289 BC), Xunzi (c. 310-235 BC), and many other scholars and politicians throughout subsequent Chinese history. By the second century BC, during the Han Dynasty, Confucius' political ideas had become the basis of state ideology. Emperor Wu accepted the proposal of Dong Zhongshu (179-104 BC), a Confucian scholar and politician, to make Confucianism the only valuable science. Later, Confucius was officially recognized as the greatest sage and teacher.

It should be noted that the political ideas of Confucius represent a traditional Confucian political theory consisting of five important components: first, the vision of the state (datong), which is the ideal political and social life for Confucianism; Secondly, the principle of benevolent government shows how a benevolent king should govern his country; thirdly, the rule of virtue represents the virtues of a gentleman (jun-zi) and the transition from a well-bred gentleman to an excellent ruler; fourth, the practice of meritocracy allows the most virtuous and competent people to be chosen to serve society; and fifthly, there is a mechanism for the transfer of political power.

**METHODS**

The proclamation of the ideal of political and social life, according to Confucius, is expressed in the fact that the world is everything that is "under heaven", which should be common to all, corresponding to the ideal of commonwealth. It is not the asset or property of any individual monarch or family. Although kings or emperors are chosen by divine will, and the people entrust them with the government of the state, they are not the owners and dictators of the country, but rather public servants who are supposed to contribute to the general welfare. One of the important texts of Confucianism, the Book of Rites (Legge, 1967), describes the ideal of a state under a benevolent king as follows [1].

When the Great Path wins, the world is shared by all. The virtuous and competent are chosen to serve society. Mutual trust is fostered and good-neighborliness is cultivated. Therefore, people do not only consider their own parents as parents, but they do not consider children only as their own children. Provision is made for the elderly until death, employment for adults and development for the young. Therefore, people are not engaged in intrigues, or deceit, or robbery, or theft, or rebellion. This is called the Commonwealth Era.

It is worth noting that the ideal of political and social life (or great harmony) can only be realized at the last stage of human development. In confucian political theory,

there are three periods of human progress: the Turbulent Age, the Age of Prosperity, and the Age of Peace. Confucius believed that he lived in a turbulent time. This will be followed by an era of prosperity in which everyone will be able to enjoy his property, and each king will be able to hand over his power to his successor in peace if the "royal way" (wangdao) of the ancient sage king can be restored. However, the ideal of commonwealth can only be attained in times of peace, when everyone loves everyone else as his own family, and political power always belongs to the virtuous and competent, and not to the heirs of the royal family.

When the world is not yet as perfect as the ideal of the state expects, the second-best option is to have a benevolent monarch and a stable hereditary system. Confucius is the first proponent of the concept of charity and benevolent government in Chinese history. He defines "benevolence" in many ways, but the most famous definition is "a return to observance through self-transcendence" [2]. Ceremonies are important to man because they reflect the natural order of heaven and the right ethical relationship between man and the people around him. In order to cultivate oneself as a benevolent person, one must learn to overcome unnecessary and illegitimate desires with the help of the faculty of reason, an experience very similar to the birth of "positive freedom" [2].

However, benevolence means more than positive freedom. Confucius argues that it is not only a matter of overcoming oneself, but also an attitude of "loving one's neighbor." A benevolent person "will not do to others what he does not want others to do to him," and he will "help others to establish themselves as he wants to establish himself." If a person can realize the sovereign virtue of benevolence in his every behavior, he will be recognized as a true gentleman (jun-zi). If the king can extend the principle of benevolence to his government of the country, he will be glorified as a benevolent king and supported by his people [2].

Throughout Chinese history, benevolent government measures have varied from dynasty to dynasty, but the following policies seem to remain more or less the same. Their responsibilities traditionally include: minimizing penalties and taxation; to make people able to feed their families, especially the elderly; build schools for the education of children; rehabilitate the well system and land demarcation; keep the market as open as possible; stop all invasions, usurpations and unjust wars, etc.

From the point of view of popularizing the quality of "chang", the legitimacy of the Confucian political system was based on the "service concept of power", and the power political relations are marked by a "mutual obligation" of both the ruler and the ruled, namely, the rulers are committed to serving the people, and the ruled are voluntarily subordinate to the rulers. When a benevolent king can win the support of

the people by providing them with the best services, it does not matter whether he is elected by the people in a general election. What matters is whether he rules like a king.

Benevolence is the most important virtue for Confucius, but many other virtues are also necessary to raise a gentleman and a benevolent leader. The basic virtues of a gentleman include filial piety, fraternal duties, loyalty, kindness, righteousness, sincerity, trustworthiness, humility, diligence, gentleness, perseverance, reverence, reverence, etc. Those who wish to serve in government, according to Confucius, should follow such political virtues as: trustworthiness, reverence, generosity, frugality, honesty, determination, generosity, determination, thoughtfulness, forgiveness, etc. With what the Western political tradition recommends for good citizens, one will find that they are by definition different from one another. For example, John Locke valued religious tolerance, John S. Mill advocated individual autonomy. And Confucian political theory doesn't talk as much about individuality and tolerance as it does in modern Western liberalism. In addition, theorists of Western civic republicanism, from Aristotle, Cicero, and Machiavelli to Rousseau, emphasized the importance of political participation for the good citizen. However, traditional Confucians never consider political participation to be so important that it should be placed above personal moral excellence or family duty [3].

Confucianism asserts that a virtuous leader can influence the behavior of his subjects by setting an example for them. A good political leader will automatically be followed by his people, and if people are morally affected by the leader's virtuous deeds, governance becomes a matter of behavior. A leader doesn't have to do anything but demonstrate these virtues. Confucius asserted, "The power of virtue may be compared to the North Star, which commands the worship of a multitude of stars simply by remaining in its place." This relationship between the ruler and the ruler is very similar to exaltation in Taoism (not doing or doing without effort). Confucianism consciously refrains from applying harsh laws and punishments. "If a man is right in himself, there will be obedience without commands" [3].

In the Great Teaching (originally a chapter of the Book of Rites, which later became one of the Four Books of Confucianism), the connection between a person's inner virtues and his devotion to the outer world is established in eight steps: investigate everything, expand knowledge, make your will sincere, correct your mind, cultivate your personal life, establish your family, restore order to the state, and bring peace to the world. A person must nurture and behave by practicing the virtues every day so that he can first become an "inner sage." Then he can have the opportunity to serve society and benefit both his country and the whole world. A person will be well prepared for the transition from an inner sage to an "outer king" if he devotes himself to the study and practice of virtue [4].

The practice of meritocracy was aimed at observing the rules of virtue. If the rule of virtue was not implemented in a political institution, it turned into idle chatter. In ancient China, there were two ways to recruit the virtuous and competent into the management structure. The first method consisted of a system of recommendations established by Emperor Wu in 134 BC and was in effect as early as the Han Dynasty (until 220 AD). Local officials recommended two types of virtuous people: respectful and incorruptible. Those who were recommended to the central government first served as junior officials in the court. Their abilities and merits were carefully tested by the overseers for several years before they were recommended for local government management positions. The second method, the imperial civil service examination, was used from the Sui Dynasty (581-618 AD) until the end of the Qing Dynasty. People who wanted to serve as officials had to pass an exam, which was a very difficult but fair system of competition. The exams focused on Confucian classics, poetry, literature, calligraphy, and political arguments. There were different curricula in different periods, but it was generally believed that people with a good command of the Confucian classics (especially the Four Books) would be virtuous and incorruptible officials [4].

Every political theory must answer the question of how to transfer political power from one ruler to another. With regard to this question, Confucianism has two variants: renunciation as the ideal system and hereditary ascension as the practical system. Confucius himself adhered to the legendary system of abdication during the time of Emperors Yao and Shun. Emperor Yao (c. 2356-2255 BC) is said to have transferred political power to Shun in place of his own son, and Emperor Shun (c. 2294-2184 BC) transferred power to Yu when he grew old. Both Yao and Shun were benevolent kings who worked hard for the people and never considered the kingdom their property, which is why Confucius repeatedly praises them in the Analects. Since the system of abdication had not been applied since the time of Emperor Yao and Shun, Confucius argues that the hereditary system of the dynasty is the most desirable and practical system of transmission of power. The eldest son of a monarch inherits monarchical power regardless of whether he is perfect or not. The advantage of this system is that it provides political stability and respect for elders (two important values in Confucianism), while the disadvantages are the mediocrity of government in most cases and the injustice of having rulers turn out to be tyrants [5].

### RESULTS

The traditional Confucian political theory described above lasted for thousands of years, providing imperial China with a discourse of legitimacy. It came at the end of the collapse of the Qing Empire in 1911, and was almost eliminated during the Cultural

Revolution. In mainland China, the hereditary and imperial examination system disappeared. The ideal of commonwealth was replaced by the classless utopia of communism. The theory of benevolent and virtuous government was supplanted by authoritarian rule and the dictatorship of the proletariat. In Taiwan and Hong Kong, however, the ideal of Confucianism was preserved in the writings of some Neo-Confucian intellectuals.

When the Communists defeated the Nationalists and seized power in 1949, many anti-CCP intellectuals decided to retreat to Taiwan with the Nationalist government, while those who distrusted the Nationalist Party chose to stay in Hong Kong. Among the exiles were some intellectuals who believed that Chinese culture was on the verge of extinction and that special efforts should be made to preserve Confucianism. Their ranks closed around Chiang Kai-shek (1887-1975), the leader of the Nationalist Party, a supporter of Confucianism.

Chang himself sincerely believed in the thought of Wang Yangming (1472-1529), the most famous Confucian scholar-officer of the Ming dynasty (1368-1644). Wang created the theory of the "unity of knowledge and practice," emphasizing that knowledge without practice is not true knowledge. Wang also argued that it is the mind that shapes the world and that benevolence is the intrinsic nature of man. Influenced by Wang's teachings, Chiang sought to revive Confucianism and other Chinese cultural traditions in Taiwan. When Mao Zedong launched the Cultural Revolution in 1966, Chiang opposed it with the Chinese Cultural Revival Movement, which promoted the study of Confucianism, the construction of Chinese cultural facilities, and the daily practice of moral and virtuous behavior [5].

However, what the Confucian intellectuals were trying to do was different from the Chiang political movement. They focused on interpreting traditional Confucianism and finding a real solution to the problems faced by Confucianism in the modern era. In particular, they wanted to understand how Confucianism could save the Chinese people from the moral catastrophe created by communism, how the political theory of Confucianism could adapt to the irresistible trend toward democracy, and how the enduring values of Confucianism could be appreciated by Westerners.

Despite their differences, the New Confucians share three points of view. First, they believe in the eternal values of Confucianism, such as the inner goodness of man, the priority of self-overcoming, benevolent government, the rule of virtue, and a harmonious society. They are confident that the core values of Confucianism will survive the catastrophe of communism and become popular again in the future. Second, they recognize that Western liberal democracy is better than traditional Confucian politics at promoting individual autonomy and protecting the basic rights of ordinary people. Third, they believe that the Western social order is not necessarily preferable

to the Confucian order because it tends to breed extreme individualism and materialism. This, they believe, is what Confucian ethics can help to correct.

Mou Zongsan (1909-1995) is an example of the proponents of the new Confucianism. Mou argues that Confucianism is a "permanent path" in the sense that it is eternal in time and universal in human nature. The development of Chinese Confucianism, according to Mou, can be divided into three main stages. The first period begins with the time of Confucius and ends with the demise of the Han Dynasty; In this formative age of Confucianism, the essence of its philosophical tradition (i.e., metaphysics, ethics, politics, social order) was forged, culminating in Emperor Wu Han's decision to accept Dong Zhongshu's proposal to make Confucianism an official doctrine. The second period lasts from the Song Dynasty to the Ming Dynasty, when Confucianism turned inward and paid more attention to the development of its own mentality and spirituality. The third period is modern times, when Confucianism was devastated by communism in China and suppressed by liberalism by the West. Mou sees the mission of modern Confucianism as creating a new opportunity in which the positive side of Western culture can be absorbed and reconciled with the wisdom of Confucianism [2].

In the third period, Mou argues, the most urgent task is to create a new form of the outer king to replace the traditional figure. Confucian theory calls for a gentleman to first become an "inner sage" and gradually move into the state of an "outer king." The inner sage and the outer king are intimately related and mutually composed; A virtuous gentleman without an external contribution to the world is not sufficient for its human flourishing, and a successful civil servant without a remarkable personality and intelligence is not a true leader. An external king may take the form of an emperor, a duke, a minister, a civil servant, a local official, etc. What is important is the existence of an institution or mechanism that makes possible the pursuit of external achievements, such as the recommendation system of the Han dynasty or the imperial examination after the Sui dynasty. However, when the traditional political system came to an end in 1911, the inner sage and the outer king were separated. It may still be possible to speak of an inner sage in modern times, but the institution of the outer king is no longer applicable, because the political order has completely changed. The only way to revive Confucian political theory, Mou argues, is to create a new form of external king, that is, to develop a new form of political institution so that the inner sage can engage in public service or external achievement [6].

For Mou, science and democracy are the new external king. Science, such as physics and medicine, can help Chinese people gain more useful knowledge to improve their lives, while democracy can provide China with political modernization and solve problems that ancient politics cannot answer, such as the transfer of political power

and the election of civil servants. "Scientific knowledge is the material condition of the new external king, but for its full realization it must be placed under democracy. The key to modernization is not science, but democracy. The essence of modernization is freedom, equality and the movement for human rights, which are inherent in democracy [7] "

Mou believes that ancient China was very good at its "way of governing" but extremely bad at its "way of politics." Neither the monarchy nor the feudal system was the true path of politics, because these systems did not understand that the state belonged to the people and not to any particular family or clan. It is only in democracy that the principle of popular sovereignty is recognized and actualized. Like many other new Confucians, Mou is willing to embrace the institutions of Western democracy, such as elections, party politics, the rule of law, checks and balances, freedom of expression, and the protection of human rights. He does not think that Confucianism is "forced" to embrace democracy, because there is an intrinsic inclination toward democracy within Confucianism. What Confucianism needs is simply to develop this inner inclination and allow democracy to become an essential part of its politics.

Mou's positive attitude toward democracy is shared by another prominent representative of the New Confucianism, Xu Fugan (1904-1982). Like Mou, Xu does not consider Confucianism to be inherently anti-democratic. He argues that Confucianism always puts the good of people first and is therefore a strong advocate of the principle of "people first". In his view, not only Confucius and Mencius, but all the other great Confucian philosophers, recognize the principle that the will of heaven really reflects the will of men. "The people are not placed below the ruler as merely ruled, they are above the ruler as the representative of heaven and deity," Xu says. The problem is that emperors and kings in Chinese history have always denied the "subjectivity" of the people and behaved as if they were the leaders of the people. To correct this distortion, Xu argues "that we have no choice but to embrace Western democracy [8].

For Xu, the advantage of democracy is that it encourages ordinary people to be fully aware of their political subjectivity and to collectively thwart the ruler's intention to become an arbitrary dictator. In order to guarantee the subjective status of the people, periodic elections are necessary, as well as multi-party competition, separation of powers, freedom of speech, freedom of association, the rule of law, etc. Any fantasy of developing Confucianism without accepting the institutions of democracy is doomed.

Although Xu is an unconditional defender of democracy, he is critical of individualism and atomic liberalism. Like many other modern Confucians, Xu believes that democracy is just a set of political institutions that does not necessarily imply what he calls "individualistic liberalism." For him, individualistic liberalism is a "derivative"

form of "genuine liberalism," which values human rationality more than human desires, emphasizes socialized individuality rather than atomic individuality, and emphasizes moral personality instead of materialistic interest. Confucianism is consistent with true liberalism, because charity itself is a process of liberating innate rationality and gaining moral independence. It is also a process of self-awareness and affirmation of identity. At this key point, Xu even believes that Confucianism is much better than individualistic liberalism for supporting democracy because Confucianism promotes the doctrine of virtue rule, which requires everyone to create moral autonomy from within, while individualistic liberalism tries to restrain the arbitrariness of power. a ruler with a theory of the social contract and limited government that comes from the outside. He argues that "democracy can be firmly rooted and function well only after it adopts the philosophy of Confucianism" [8].

**DISCUSSION**

Thus, the proponents of the new Confucianism believe in the superiority of Confucianism over Western moral philosophy, but they are willing to recognize the value of Western democracy as a political institution. They are trying to creatively combine Confucianism and democracy so that the mixed formula can simultaneously preserve Confucian ethics and democratize Chinese politics. The New Confucians represent the first generation of modern Confucianism, which takes democracy seriously and attempts to revise traditional Confucian political theory to fit the democratic era. However, they have not had a chance to test their theory in either Taiwan or Hong Kong, let alone mainland China. The real problems of reconciling Confucianism and democracy only became apparent when Taiwan began its democratization in the mid-1980s. The problems of party struggle, vote buying, demagogue politics, political polarization, capitalist infiltration into the political process, etc., have become realities of democratic life. All these new phenomena pose a huge challenge to Confucianism because they seem inevitable but are in serious contradiction with the spirit of Confucianism. The task of democratization in Confucian society has never been as simple as the new Confucians in the 1950s and 1960s envisioned [9].

Admittedly, Confucianism was destroyed by Mao Zedong in mainland China after the CCP seized power in 1949. It was not until the mid-1980s that Confucian philosophy was reintroduced to China from Taiwan and Hong Kong as a result of China's reform and opening-up policies. This is confirmed by the results of scientific research and ideas in support of the new Confucianism. However, as China's political and economic power grew rapidly in the 1990s, mainland Chinese Confucians became

more and more confident and able to formulate their own views in defense of Chinese culture [4].

However, not all modern Chinese Confucians are so hostile to Western philosophy; many of them turn to Confucianism simply because of interest in the revival of sinology in the last decade. The spread of the "Movement for the Reading of the Classics" (the Confucian classics) in civil society certainly has as a sociological basis a reaction to an era when materialism and corruption were becoming increasingly intolerable to many people. Yet the view that China should go its own way and not follow the West is getting more attention than ever before. It argues that China should be proud of its cultural heritage, especially Confucianism; that Western democracy is in serious trouble; and that, therefore, China does not need to learn from it. Instead, China should develop a new political institution that reflects the spirit of Confucianism. Crucially, this view advocates the promotion of Confucianism to the status of a state or civil religion so that it can be firmly embedded in the consciousness of every Chinese. Jiang Qing and Chen Ming are prime examples of the new school of thought [3].

Jiang Qing criticizes the new Confucianism for two reasons. First, it is basically "spiritual Confucianism" rather than political, and so it cannot open up a new possibility of an external king; Second, it is too vulnerable to Western philosophy and democracy to represent a new political structure based entirely on the Confucian tradition. Jiang acknowledges Mou and other New Confucians' studies of traditional Confucianism, especially their study of Neo-Confucianism in the Song and Ming dynasties, but he finds their approach "too individualistic," "too metaphysical," "too internalized," and "too internalized." The new Confucianism may be recommended for the development of the human mind or spirit, but it does not create any great political institutions other than an imitation of Western liberal democracy, which is not suitable for China. Commenting on the new Confucianism, Jiang contemptuously asserts that "China is China, the West is the West, Confucianism is Confucianism, democracy is democracy... There is neither the need nor the opportunity to combine the two"[6].

Constitutionally speaking, Jiang argues that China should become a "republic under a symbolic monarchy," in which the monarch should be a direct descendant of Confucius, and the Academy of Scholars should have the right to control the activities of the government. In government, the executive branch must be accountable to the legislature, just as the cabinet is accountable to parliament in the United Kingdom. However, a tricameral legislature is necessary to conform to three forms of legitimacy: the House of Great Confucians, representing the sacred will of heaven, the House of the Nation, representing the history and culture of the country, and the House of Men, representing the people's legitimacy [6].

Jiang's Confucian constitutionalism is often criticized for its conservative nature, but equally controversial is his plan to recruit to the House of Great Confucians and the House of the Nation. He proposes that in the first place, the speaker should be elected by the national Confucian Association, and all members should be well-known Confucian scholars who are tested for knowledge of the Confucian classics and evaluated during the probationary period by the administration at a lower level, like ancient civil servants who were recruited on the basis of the imperial system of examinations or recommendations [6].

Finally, Jiang declares that Confucianism is not only a philosophical school, but also a state religion. He argues that whenever China has been powerful and prosperous in history, Confucianism has naturally become its state religion. In view of China's rapid rise in the 21st century, Confucianism should once again become the country's dominant religion. In particular, it should be recognized as the official religion (ideology) of China and enjoy privileges that no other religion has. The government should resume the worship of Heaven, Earth, the Nation, and the various deities of nature, as well as Confucius and other national heroes. All civil ceremonies, such as weddings and funerals, must be conducted according to Confucian rituals. Other measures of China's "reconfucianization" include the following: the need to resume a national examination of civil servants aimed at the classics of Confucianism; the creation of a new national association of Confucianism in civil society, with the privilege of having its own temples, fields, schools, social welfare institutions, publishing houses, television stations, a state-guaranteed budget and places for meetings; increasing the construction of national Confucian universities and local Confucian academies, and their government sponsorship; further development of the "Movement for the Reading of the Classics", at the expense of the state budget; National Confucian University and local Confucian academies should be built and sponsored by the government, etc.

Many other contemporary Confucians share the view that China should be reconfucianized, such as Chen Ming (2016), Kang Xiaoguang (2016), Yu Donghai (2016), and Qiu Feng (2016), although these may differ depending on the approaches they recommend. Chen, for example, argues that Confucianism should cooperate with the CCP party-state in restoring China's political discourse, and he agrees with Jiang's proposal to reintroduce Confucianism as a religion, but he does not believe that political Confucianism is the best solution. He proposes to understand and reconstruct Confucianism as a civil religion rather than a state religion [2]. A political community, Chen says, must have its own understanding of history and culture that underpins the daily lives of its people. The specific historical and cultural consciousness of a given country forms the basis of its civil religion, in which its people can find the meaning

of their existence. In this way, civil religion consists not only of the ceremonies and rituals that people follow, but also, in a metaphysical and theological system, gives them an idea of who they are and what they can expect in their afterlife. Confucianism is the same civil religion for the Chinese, but not universally adhered to. To be accepted by all 56 ethnic groups in China, it must be a "thin" religion, not a "fat" religion. Chen does not believe that political religion is a good idea for Confucianism, as it would become too authoritarian and repressive for those who do not share his views. Confucianism as a civil religion, on the contrary, will be distinguished by realism and as close to people as possible [7].

Chen argues that Confucianism can help the CCP unify the three different traditions of modern China: the Qing Dynasty, the Republic of China, and the People's Republic of China. In orthodox Marxism-Leninism-Maoism, the relationship between the three historical periods is dialectical and confrontational. They represent the interests of the landlord, the bourgeoisie and the proletariat, respectively, without the possibility of reconciliation. However, from the point of view of Confucianism, these are just different moments of national development.

It is understandable that most modern Confucians in mainland China are enthusiastic about President Xi's dream of a "great rejuvenation of the Chinese nation." They want Xi to revive Confucianism, even though they understand that the CCP will not abandon Marxism-Leninism-Maoism in the foreseeable future. The positive attitude of modern Chinese Confucians towards Xi has been sharply criticized by Chinese liberals, who believe that the CCP is too authoritarian to be trusted. However, it is likely that modern Confucianism in China will resume its affiliation and cooperation with the ruling power, as it did in the past. It is also likely that the CCP will encourage the spread of Confucian values in society as long as its principles and ideals prevail.

The revival of Confucianism in China occurred in the mid-1980s, when student intellectuals were able to resume classical studies after the devastation of the Cultural Revolution, and the general public began to turn to Confucian texts and practices for spiritual comfort and rebalancing. With the collapse of Eastern European communism in 1989, it became more apparent to the Chinese that Marxism-Leninism and Mao Zedong thought had disappeared and could no longer function as a persuasive ideology or belief system. People's interest in traditional cultural heritage grew steadily during the 1980s and 1990s. One of its consequences was the spread of the "Movement for the Reading of the Classics" in the private sector. In addition, the commemorative ceremony for the birthday of Confucius, which has become popular since 1911.

In 2004, the concept of a "harmonious society" as a socio-economic vision was officially proclaimed by then-President Hu Jintao and officially endorsed by the CCP.

Social harmony is a core value of ancient Confucianism and was considered contrary to the communist principle of class struggle, so its revival was immediately suspected as an indication of the CCP's penchant for Confucianism. In the same year, an ambitious program to establish Confucius Institutes around the world was initiated by a non-profit organization with the support of the Chinese government. The mission of Confucius Institutes is to promote and improve the study of the Chinese language and the understanding of Chinese culture. By the end of 2016, there were 512 Confucius Institutes in more than 140 countries [5].

The first academic college of Chinese studies was established at Renmin University of China in 2005 with the specific purpose of promoting sinology, especially Confucian philosophy. This was followed by the establishment of more than 20 colleges and institutes at Wuhan, Beijing, Tsinghua and other leading universities in China. Two years later, a memorial ceremony for Confucius was officially held by the government of Shandong Province, where Confucius was born. Unsurprisingly, the event was covered by CCTV, China's official television station.

Since Xi Jinping came to power, the Chinese government's support for Confucianism has increased significantly. In 2013, the head of state visited Confucius' birthplace in Shandong Province and publicly praised Confucius' teachings, and in 2014, he met with Professor Tang Yijie, a renowned retired scholar and president of the Chinese Confucian Academy. This was followed by Xi Jinping's keynote speech at an international conference dedicated to the 2565th anniversary of Confucius, held at the Great Hall of the People in Beijing, the most prestigious venue for the national ceremony in the country. These and other events are an example of the high reverence, respect and propaganda of Confucianism in China.

In his keynote address, Xi (2014) makes it clear why the CCP recognizes Confucius and how, in his view, the people can learn from Confucian philosophy. He says that Confucianism is an integral part of Chinese culture, which "recorded the spiritual activities of the Chinese nation, rational thinking and cultural achievements in the construction of its homeland, reflected the spiritual aspirations of the Chinese nation, and provided a key source of nourishment for survival and continuous existence." the growth of our nation." He then argues that humanity is currently facing many serious challenges, such as "the widening wealth gap, the endless greed for material pleasures and luxuries, the unbridled extreme individualism, the constant decline of social credit, the ever-degrading ethics, and the growing tension between man and nature" [8].

It is impossible not to assume that the problems mentioned by Xi Jinping in his speech are the problems facing the CCP today. When the Chinese are becoming more and more greedy due to incredible material abundance and are in dire need of spiritual

rebalancing, Confucianism offers useful ideas for "changing the situation, solving state affairs, and improving the morality of society." To make the appeal to Confucianism logical, Xi is even prepared to assert that "Chinese communists have always been the faithful heirs and champions" of Confucian philosophy. He notes, "We have consciously adopted nourishment from the teachings of Confucius to Sun Yat-sen." Mao Zedong would not have believed his ears if he had lived to see Xi's speech [8].

In reality, however, there is a huge discrepancy between Xi's rhetoric and the reality of the communist regime. China is not a country that honors the royal path. A communist government is not a regime that favors political dissidents or Falun Gong believers. In the vast majority of cases, the mechanism for selecting civil servants is guided by the political ideology of candidates and their loyalty to the party, rather than by virtue and knowledge of the Confucian classics or modern social sciences. Neither the ministers of the State Council nor the members of the National People's Congress are democratically elected, nor are they elected or recommended by Confucian scholars or experienced civil servants. Last but not least, China is an authoritarian party state whose constitution guarantees a monopoly of political power in the hands of the CCP.

**CONCLUSION**

Thus, the revival of Confucianism is an important development in Chinese political theory and practice. It should be noted that there are three main schools of modern Confucian political philosophy: the new Confucianism of the 1950s and 1960s in Taiwan and Hong Kong; political Confucianism since the 1980s in mainland China; Modern Confucian Political Meritocracy [4].

The New Confucians argue that the views of this school must accept the institutions of Western liberal democracy, on the one hand, and preserve their own moral and ethical teachings, on the other. This is the approach most appropriate for the development of Confucian political theory at the present time. However, the question of how to reconcile Confucian ethics with liberal democracy remains a huge problem, because the new Confucians did not foresee many problems when democracy did not yet look so realistic in Taiwan.

Political Confucianism, on the other hand, argues that Confucianism should not go the way of the West, since the very practice of Western liberal democracy suffers from serious problems. Instead, it argues that China should develop its own political order, in which Confucianism will play the role of state philosophy and Confucians will govern the country without democratic elections. The view of political Confucianism seems too conservative to be a viable option, but it is quite popular among those who are too keen on China's revival to challenge the idea that China must be completely different from the West.

Confucian political meritocracy represents a third approach to the problem, which is ready to correct the shortcomings of liberal democracy through a meritocratic mechanism for selecting virtuous and competent husbands, through scrutiny and peer review. This is noteworthy, given the fact that many liberal Democrats are mired in populism and do not work. Still, the question of whether a political meritocracy can work without the assumption of popular sovereignty remains controversial for those skeptical of electoral democracy. It is one thing to argue that governance can be greatly improved by introducing meritocratic mechanisms, but quite another to argue that the people will accept the rule of elites whose final mandate does not come from the consent of the people.

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# ERKIN IQTISODIY ZONALARGA XORIJIY INVESTITSIYALARNI JALB QILISHNI FISKAL INSTRUMENTLAR ORQALI RAG'BATLANTIRISH MEXANIZMINI TAKOMILLASHTIRISH

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*Annotatsiya: Ushbu maqolada mamlakatimizda erkin iqtisodiy zonalarga xorijiy investitsiyalarni jalb qilishni fiskal instrumentlar orqali rag'batlantirish mexanizmini takomillashtirish chora-tadbirlari chet el mamlakatlari tajribasi misolida o'rganilgan.*

*Kalit so'zlar: investitsiya, erkin iqtisodiy zona, mehnat taqsimoti, eksport.*

Dunyoning ayrim mamlakatlarida erkin iqtisodiy hududlarning tashkil etilish darajasini tahlil etish natijalari shuni ko'rsatadiki, eng ko'p erkin iqtisodiy hududlar AQSH, Xitoy, Indoneziya mamlakatlarida tashkil etilgan bo'lib, shunga mos ravishda ushbu hududlarda eksport qilingan mahsulotlar va xizmatlar hajmi, aholini bandlik darajasi yuqori hisoblanadi. Tayvan, Pokiston, Koreya Respublikasida erkin iqtisodiy hududlarning tashkil etilish darajasi ancha past bo'lib, oxirgi yillarda ushbu mamlakatlarda olib borilgan iqtisodiy islohotlarni ustuvor yo'nalishlarida erkin iqtisodiy hududlarni rivojlantirish masalasi asosiy vazifalardan biri bo'lib qolmoqda.

Olib borilgan tadqiqot natijalariga ko'ra, industrial rivojlangan mamlakatlardan farqli o'laroq, rivojlanayotgan mamlakatlarda EIZlarni tashkil etishda chet el kapitali, texnologiyalarni jalb qilish, sanoatni modernizatsiyalash va ishchi kuchi malakasini oshirishga alohida e'tibor qaratilganligi o'ziga xos xususiyat sifatida ajratishimiz mumkin. Qoloq hududlar va tarmoqlarni rivojlantirish maqsadida tashkil etilgan erkin iqtisodiy zonalar industrial rivojlangan mamlakatlarda keng tarqalgan (Buyuk

Britaniya, Germaniya, AQSH, Fransiya) bo'lib, bunday EIZlarni boshqarish mexanizmining o'ziga xos xususiyati milliy korxonalar uchun qulay iqtisodiy, ma'muriy va huquqiy shart-sharoitlarni yaratish va ular ishini faollashtirishga yo'naltirilganligida ko'rishimiz mumkindir.

**Xorij tajribasi shuni ko'rasatmoqdaki, ko'pchilik xorijiy mamlakatlarda erkin iqtisodiy zonalarni muvaffaqiyatli ishlashi uchun ularni moliyaviy qo'llab-quvvatlash va turli xil imtiyozlarni belgilash amaliyoti qo'llaniladi. Bu birinchi navbatda, iqtisodiy imtiyozlarga tegishli bo'lib, jumladan:**

➢ import tovarlarni qayta ishlash bilan shug'ullanadigan firmalarga yordam ko'rsatilishi;

➢ erkin savdo zonalari uchun import masalalari bo'yicha maslahatlar beradigan, ko'rgazmalar va biznes-konferensiyalarni o'tkazishni ta'minlaydigan axborot markazlarini tashkil etilganligi;

➢ zona firmalari uchun soliq va bojxona qonunchiligiga maxsus qo'shimchalar kiritish asosida uning soddalashtirilgan tizimini taqdim etilganligi;

➢ kichik biznes sub'yektlariga alohida soliq rejimlarini qo'llanilishi, kreditlarni sug'urtalash bo'yicha maxsus shartlarini amal qilishi va h.k.

Xorijiy mamlakatlar erkin iqtisodiy hududlarida amaldagi soliq rejimlarida asosan soliqqa tortiladigan daromadni kamaytirilishi, korxonalarning eksport operatsiyalariga nisbatan yengilliklarning mavjudligi, daromadning ushbu hududlarga qayta yo'naltirilgan qismi foyda solig'idan ozod etilishi, erkin iqtisodiy hududlarida iste'mol tovarlari importi soliqqa tortilmasligi, import qilingan asbob-uskunalar, butlovchi qismlar, transport vositalari bojxona bojlaridan ozod etilganligi kabi soliq imtiyozlari va preferensiyalari berilganligini ko'rishimiz mumkin.

**O'zbekiston Respublikasi hududida erkin iqtisodiy hududlar faoliyatini soliqlar vositasida rag'batlantirishga yordam beradigan quyidagi ilmiy taklif va amaliy tavsiyalar muhim ahamiyat kasb etadi:**

**1.** Maxsus iqtisodiy zonalarning ishtirokchilariga soliq solish shartlarida maxsus iqtisodiy zonalarning ishtirokchilariga kiritilgan investitsiyalar hajmiga qarab, mol-

mulk solig'idan, yer solig'idan va suv resurslaridan foydalanganlik uchun soliqdan O'zbekiston Respublikasi Prezidentining Qarori bilan belgilangan muddatga ozod qilish tarzida soliq imtiyozlari berilishi lozim.

**2. Maxsus iqtisodiy zonalar ishtirokchilari:**

Respublikada ishlab chiqarilmaydigan va investitsiya bitimiga muvofiq investitsiya loyihasini amalga oshirish uchun qurilish davrida belgilangan tartibda olib kirilgan qurilish materiallari uchun bojxona to'lovlarini (bundan qo'shimcha qiymat solig'i va bojxona rasmiylashtiruvi uchun yig'imlar mustasno);

tasdiqlangan ro'yxat bo'yicha texnologik uskunalarning o'xshashi O'zbekiston Respublikasida ishlab chiqarilmaydiganini olib kirishda bojxona to'lovlarini (bundan bojxona rasmiylashtiruvi uchun yig'imlar mustasno) to'lashdan ozod etilishi maqsadga muvofiqdir.

Maxsus iqtisodiy zona ishtirokchilari tovarlarni import qilganda qo'shilgan qiymat solig'ini 120 kungacha muddatga kechiktirib to'lashi mumkinligi, hisoblangan soliq summasidan hisobga olinadigan qo'shilgan qiymat solig'i summasining oshib ketishi natijasida hosil bo'lgan qo'shilgan qiymat solig'i summasining o'rni maxsus iqtisodiy zona ishtirokchisiga yetti kun davomida soddalashtirilgan tartibda qoplab berilishi lozimdir.

**3.** «Navoiy» EIZ direksiyasi» AJ erkin iqtisodiy zonalar faoliyatining butun davrida soliqlar to'lashdan ozod etilishi bo'yicha bo'yicha berilgan imtiyozini bekor etish.

**4.** O'zbekiston Respublikasi Prezidentining 2016-yil 26-oktabrdagi "Erkin iqtisodiy zonalar faoliyatini faollashtirish va kengaytirishga doir qo'shimcha chora-tadbirlar to'g'risida"gi PF-4853-sonli Farmonining 3-bandi ikkinchi xatboshisi: "Erkin iqtisodiy zonalar ishtirokchilari yer solig'i, daromad solig'i, yuridik shaxslar mulk solig'i, mikrofirmalar va kichik korxonalar uchun yagona soliq to'lovini to'lashdan ozod etilsin",-aks ettirilishi lozim.

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# OLIY TA'LIM O'QITUVCHISINING PEDAGOGIK MAHORATINI RIVOJLANTIRISH

## Xushmurodova Zebiniso Uyg'un qizi
Tadqiqotchi

*Abstract. Ta'lim muassasalarida faoliyat ko'rsatayotgan o'qituvchilar o'qitish shakllarining optimal darajada tashkil etishni, barkamol shaxsni shakllantirish nazariyasini turli yangi g'oyalar bilan boyitishni puxta bilishi lozim. Zero, «Kadrlar tayyorlash milliy dasturi» g'oyalanm amaliyotga tatbiq etish, mamlakatimiz ta'lim tizimida olib borilayotgan islohotlar muvaffaqiyatini ta'minlash ta'lim muassasalarida faoliyat olib borayotgan o'qituvchi va tarbiyachilaming m a'naviy qiyofasi hamda kasbiy mahoratlariga k o 'p jihatdan bog'liq.*
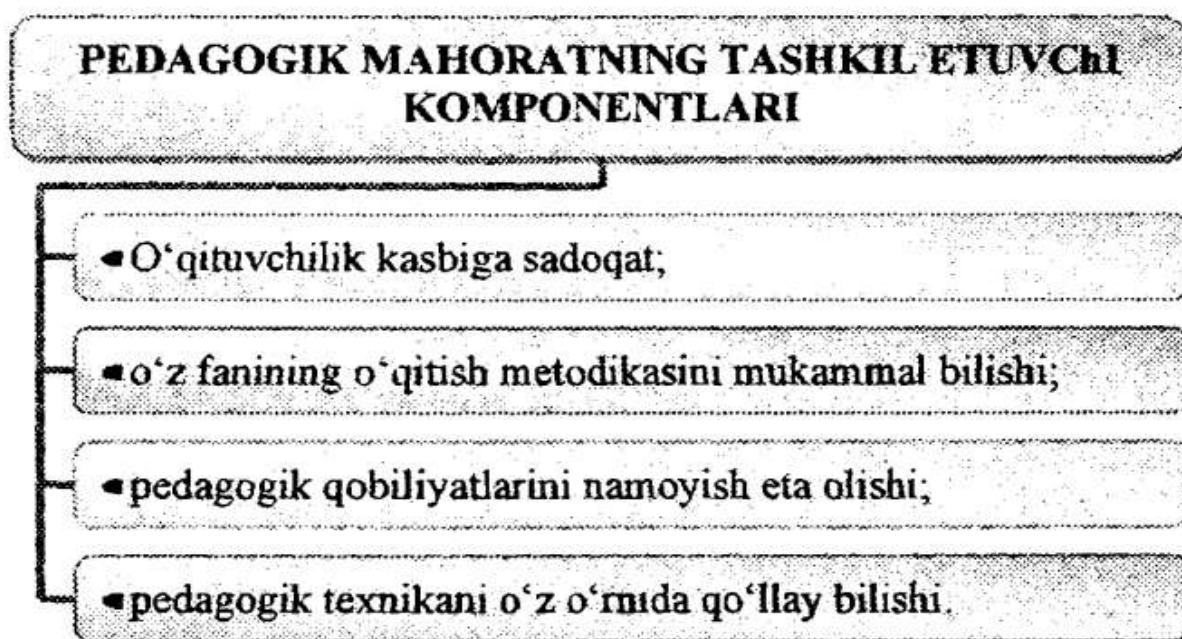
*Kalit so'zlar: Pedagogik mahorat, kompitensiya, talabalar, metodika, texnologiya,*

## I.Kirish

Shaxsni har tomonlama barkamol inson darajasida tarbiyalash nihoyatda murakkab jarayon b o 'lib, juda qadim zamonlardan buyon ushbu faoliyatga jamiyatning yetuk kishilari jalb etilgan. Mazkur holat yosh avlod tarbiyasi, uning tashkil etilishi, mazmuni nafaqat shaxs kamoloti, balki jamiyat taraqqiyotini ham belgilashda muhim ahamiyatga ega ekanligini anglatadi. Ushbu tajribalar o 'qitish shakllarida foydalaniladigan o'qitish qonuniyatlari, prinsiplarini ijodiy qo'llashda, ilmiy bilishiga doir g'oyalar, nazariy alar, qonuniyatlami amaliyotga tatbiq etish muhim ahamiyat kasb etadi.

## II.Adabiyotlar tahlili

I.P. Rachenko pedagogik mahoratni pedagogik san'atning bir qismi sifatida ta'riflab, shunday yozadi: "pedagogik mahorat deganda 0'qituvchining pedagogik-psixologik bilimlarni, kasbi malaka va ko'nikmalami mukammal egallashi, o'z kasbiga qiziqishi rivojlangan pedagogik fikrlashi va intuitsiyaci, hayotga axloqiy-estetili munosabatda bo'lishi, o'z fikr-mulohazasiga ishonchi va qat'iy irodasi tushuniladi". Tadqiqotchilaming fikriga ko'ra, quyidagi to'rtta komponent pedagogik mahoratning asosiy tasbkil etuvchilari hisoblanadi:



**PEDAGOGIK MAHORATNING TASHKIL ETUVChI KOMPONENTLARI**

- O'qituvchilik kasbiga sadoqat;
- o'z fanining o'qitish metodikasini mukammal bilishi;
- pedagogik qobiliyatlarini namoyish eta olishi;
- pedagogik texnikani o'z o'rnida qo'llay bilishi.

O'qituvchilarning shaxsiy fazilatlari sirasiga iymon-e'tiqodi, dunyo qarashining kengligi, faolligi, odob-axloqi, fuqarolik burchini his qilishi manaviyati, dilkashligi, talabchanligi, qat'iyligi va o'z maqsadlariga intilishi, insonparvarligi, huquqiy bilimdonligi mamlakatimizning ijtimoiy-siyosiy talablariga o'z fikr-mulohazasi bilan faol ishtirok etishi kiradi. O'qituvchilarning kasbiy xususiyatlariga: o'z kasbini, bolalarni sevishi, ziyrakligi, hozirjavobligi, vazminligi, pedagogik nazokati, tasawuri qobiliyati, tashkilotchiligi, notiqlik madaniyati, chuqur va keng ilmiy saviyasi, kasbiy layoqatliligi, ma'naviy ehtiyoji va qiziqishi, intellekti,yangilikni anglay va qo'llay olishi, kasbiy ma'lumotni mvintazam oshirishga nisbatan intilishi va boshqa fazilatlari kiradi.

### III.Tahlillar

Yuksak pedagogik mahoratni shakllantirishni ta'minlovchi omillar quyidagilar:

a) ixtisoslik bo'yicha o'quv predmetini, zamon, ilm-fan, texnika taraqqiyoti darajasida mukammal bilishi, uning boshqa o'quv fanlari bilan o'zaro aloqadorligini ta'minlash malakasiga ega bo'lishi;

b) ta'lim oluvchilaming yosh, fiziologik, psixologik hamda shaxsiy xususiyatlarini hisobga olishi, ularning faoliyatini obyektiv nazorat qilishi va baholashi;

v) ta'lim jarayonini demokratlashtirish va insonparvarlashtirish asosida o'z faoliyatini tashkil etishi;

g) o'quv - tarbiyaviy jarayonni zamon talablari darajasida tashkil qilish uchun asosiy pedagogik- psixologik va metodik ma'lumotlarga ega bo'lishi;

d) fanlami o'qitish jarayonida zamonaviy axborot texnologiyalari imkoniyatlaridan keng foydalanishni bilishi;

e) jamoani «ko'ra bilish», o'quvchilarning qiziqishlari, intilishlari, ularning hayot faoliyatlarida uchraydigan qiyinchiliklami tushunish va hamdard bo'la olish, o'z vaqtida ular fikrini anglay bilish, zukkolik bilan har bir bolaning xarakter xususiyati, qobiliyati, irodasini tushunish hamda ularga muvaffaqivatli ta'sir ko'rsatishning shakl, usul, vositalaridan xabardor bo'lishi;

j) o'z shaxsiy sifatlari (nutqining ravonligi, tashkilotchilik qobiliyati, badiiy ehtiyoji, didi va hokazo) ni takomillashtirish malakasiga ega bo'lishi.

### IV.Muhokamalar

O'qituvchi kasbiy mahoratida muhim ahamiyatga ega bo'lgan insoniy fazilat hamda xushmuomalalikni o'zida shakllantirishi uchun muntazam faoliyat olib borishi zarur. o'qituvchi pedagogik faoliyatiga oid shaxsiy o'z-o'zini tarbiyalashning o'zaro fikr almashish va aloqadorlikka doir quyidagi tizimlarini tavsiya etish mumkin.

1. Kasbiy faoliyat jihatidan o 'z-o'zini anglashni, muomalada fikr almashishga doir sifatlami, ijobiy va zaif tomonlarini aniqlashi amalga oshirish va shu asosda o'zaro fikr almashish asosida o'z-o'zini tarbiyalash dasturini ishlab chiqish.

2 .O'z kasbiy faoliyatiga quyidagi yo'nalishlarda baho berish maqsadga muvofiq: kishilar bilan bo'lgan muomaladan so'ng olingan taassrotlarni tahlil qilish, o'quvchilar bilan muomalaning so'nggi holatlari o'rganib, muomala haqida o'zining yutuq va kamchiliklarini tahlil qilish muomaladagi imkoniyatlaringizni atrofdagilar (o'qituvchilar jamoa ota-onalar, o'quvchilar) qanday baholashi haqidagi tasawurlarga ega bo'lish.

3 .0 'zida insonparvarlikning asosiy xususiyatlarini rivojlantirish yuzasidan ixtisoslashtirilgan o'z-o'ziga ta'sir o'tkazuvchi "autogen''mashqlar asosida ishlash.

## V.Xulosa

Oliy ta'lim o'qituvchisining pedagogik mahoratini rivojlantirish uchun unga zamonaviy o'qituvchiga qo'yiladigan talablarni qo'yish, shu bilan birga zamonaviy pedagogga xos xususiyat-fazilatlarni eslatib turish zarur. Shundagina oliy ta'lim o'qituvchisining pedagogik mahorati o'zgacha shakllanib-rivojlanib boradi.

Xulosa qilib aytganda oliy ta'lim o'qituvchisi doimi izlanishda bo'lishi va kreativlikka intilishi maqsadga muvofiqdir.

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# SHAXSLARARO NIZOLARDA OQILONA VA ONGLI TARZDA QADAM TASHLASH – PSIXOLOGIYANING DOLZARB MUAMMOLARIDAN BIRI

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## ZIDDIYATLI VAZIYATLARNI MUROSAGA KELTIRISHDA SAMARALI USULLAR

*Annotatsiya: Ushbu maqolada ziddiyat va uning mohiyati, ziddiyatli vaziyatlarni kelib chiqishi va uni samarali va oqilona bartaraf etish yuzasidan nazariy va amaliy usullari yoritilgan. Bundan tashqari, maqolada ba'zi tadqiqot ma'lumotlariga ko'ra tasnif va tavsiyalar aks ettirilgan.*

*Tayanch so'zlar: tushunmovchilik, ziddiyat, raqobat, qarama-qarshi fikr, ijtimoiy psixologiya, shaxslararo munosabat, shaxs, ijtimoiy keskinlik, mojaro, nizo, ong.*

Har qanday joyda ziddiyat muqarrar, xoh u davlatlararo bo'lsin, xoh shaxslararo bo'lsin, ammo maqsad yagona, u ham bo'lsa murosaga kelish. Ziddiyatli vaziyatlar nafaqat og'irlashish balki o'rganish va o'sish uchun zamin bo'lishi ham mumkin. Biroq ijobiy natijalarga erishmoq uchun nizolarga oqilona va samarali tarzda yechim topa bilishlik dolzarb muammolardan biridir.

Ziddiyatli vaziyatlar asosan kamida ikki tomon o'rtasida paydo bo'ladigan tushunmovchiliklar va qarama-qarshiliklar ortidan vujudga keladi. Har qanday ziddiyatli vaziyatlar insonlar uchun yoqimsiz holatlarni olib keladi. Shunday ekan, ziddiyatli vaziyat namoyon bo'lganida, muloqotda ongli qadamlarni qo'yish orqali, insonlar o'zaro munosabatlarini tezroq va samarali ravishda murosaga keltiradi olish

lozim. Shaxslarni o‘z psixikasi hamda kunlik tajribalardan kelib chiqqan holda qarasak, ziddiyatli vaziyatlarni samarali hal qilish uchun bir qancha usullariga guvoh bo‘lamiz.

Nizolarni hal qilish va uni samarali ravishda boshqarishga faol kirishdan avval ikkinchi tomonning fikriga nazar solish va u nima haqidaligini anglash lozim. Mojarolar odatda bir yoki ikkala tomonning fikrlari bir biriga mos kelmaganligi tufayli yuzaga keladi. Ikkala tomon o‘z fikrini ilgari surar ekan, ikki tomon haqiqati umumiy bo‘lmas ekan, janjallarning davomiyligi nafaqat oshadi balki yomonlashishi ham mumkin.

Inson psixologiyasining hayajonli tomoni shundaki, **“biz o‘zgalarni emas, balki o‘zgalar bizni tushunishini ko‘proq xohlaymiz”**. Tanganing ikkinchi tarafi bor deganidek, ularga eshittirishimizdan ko‘ra ularni eshitishimiz va anglashimiz muammoni samarali ravishda yoki bizning tomonga hal qilishimiz uchun zamin yaratadi.

Nima uchun mojaroni hal qilishda uni tushunish muhim? Biz o‘zimizni ikkinchi tarafning o‘rniga qo‘yganimizda, u ko‘rgan narsalariga, eshitganlariga, mojaroda nimani his qilganiga qisman guvoh bo‘lamiz va uning nuqtai nazaridan kelib chiqqan holda unda hamdardlik ohanggida suhbatni davom ettiramiz.

Eng avval tinglash zarur! Inson ziddiyatga duch kelganida, butun vaziyatni imkon qadar bartaraf etishga va noqulaylikdan xalos bo‘lishga intiladi. Mojarolarni boshqarish va muzokaralarni olib borishda asosiy qoida suhbatdoshda himoyaviy munosabatni qo‘zg‘atmaslikdir! Dalillar va subyektiv fikrlarni qarshi qo‘llanilishi, ikki inson o‘rtasida ko‘rinmas devor paydo bo‘lishiga sabab bo‘ladi. Mojaroda ikki inson o‘z mudofaa mexanizmini ishga tushur ekan, ular bir birini tushunish u yoqda tursin hattoki tinglamaydi ham.

Tushunmovchiliklarni o‘zimiz hal qilishimizga to‘sqinlik qiladigan faktorlar shundaki, biz ko‘pincha taxminlarimizga tayanamiz. Taxmin qilish nizolarni kuchaytirishi mumkin. Asl muammo nimadaligiga amin bo‘lmasdan avval hukm chiqarmaslik lozim. Agarda ziddiyatli vaziyatlarda tajriba kamlik qilsa, albatta uchunchi shaxs ya’ni hakam vazifasini bajaruvchiga murojaat qilish muammoni

murosaga keltirishda qo'l keladi. Tomonlar nizolari rasmiy tarzda hal etish jarayonida hakam hukmdan avval taxminlarsiz yoki shaxsiy fikrlarsiz faktlar, voqealar ketma-ketligi va birinchi navbatda asl sababga e'tibor qaratadi. Vaziyat o'rganilganidan so'ng, muammoga yechim va odilona qaror taklif qiladi. Ziddiyatli vaziyatlarda tomonlarning muvaffaqiyatli kelishuvida ushbu usul eng ko'p qo'llanilgan.

Mojarodagi har ikkala tomon ham gaplarni o'ylab gapirish lozim. Shaxsiy haqorat va kamsitishlardan imkon qadar qochish kerak. Mojaroni hal qilish uchun aniq vaziyatga va mavjud muammoga e'tibor qaratib, murosadan uzoqlashtiradigan haqoratlar va sharhlardan voz kechish o'rinli. Aks holda bu holat vaziyatni yanada chuqurlashtirishga hattoki katta janjallarga olib keladi. Natijada muloqotda tanaffus yoki aloqani uzishgacha borish mumkin.

Masalan, er-xotin o'rtasidagi mojarolar oilani buzilishiga olib keladi. Natijada noto'liq oilada o'sgan farzandlarga psixologik ta'sir qilib, jamiyatda o'z o'rnini topishga qiynaladi. Davlarlararo janjallar keng ko'lamni urushlarga olib keladi. So'ngi paytlarda guvohi bo'lib turganimizdek ikki davlat o'rtasidagi nizolar chegaradosh hattoki ittifoqdosh yurtlarga ham o'z ta'sirini o'tkazmay qo'ymaydi.

His-tuyg'ularga berilib qilingan har qanday ayblov, haqorat va kamsitishlar nizolar ketidan yanada kattaroq muammolarga eshik ochilishiga sabab bo'ladi. Mojarolarda aniq chegaralarni belgilashi va nima maqbul-u nima nomaqbulligini anglashi juda muhimdir. O'z his-tuyg'ularni o'z zimmasiga olish, nizolarni oson hal qilishga yordam beradi. Mojarolarni boshqarish paytidagi eng muhim narsalarni biri hissiyotlarni boshqara olishdir.

**Odamlar — robot emas.** Garchi nizolarda sovuqqonlik va xushmuomalalik bilan yoki neytral tarzda hal qilishga intilgan paytda ham, his-tuyg'ular bunga faol to'sqinlik qiladi. Salbiy hissiyotlarga botganda ham munosabat bildirishga shoshilmaslik darkor. Har qanday nizolardagi faol shaxs bir lahzaga vaziyatga chetdan qarashi kerak. O'z hatti harakatlariga, ikkinchi tomonning holatiga nazar tashlashi va kelajakdagi munosabatlarni oldindan bashorat qilmog'i nizolarda oqilona qadam tashlash va uni ijobiy hal qilishi uchun qo'l keladi.

**Xulosa qilib aytganda,** biz hissiy mavjudodlarmiz, lekin bizda qaror qabul qilishni faollashtirish uchun muhim bo'lgan miyaning ijro etuvchi fuknsiyasi ya'ni ong mavjud. Har qanday ziddiyatli vaziyatlarda ongli ravishda qadam tashlash munosabatlar hattoki shaxslar umrini ijobiy mihoya qiladi.

## Foydalanilgan adabiyotlar:

1. Ijtimoiy tarmoqda faol tadqiqotchilar fikr-mulohazalari va munosabatlari.

# ДОЯХОТИН МАЙДОНИНИНГ ГЕОЛОГИК ТУЗИЛИШИ

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*Аннотация: Мақолада Бухоро-Хива нефтгазли хавзасинидаги Дояхотин майдонининг геологик тузилиши ва чўкинди қатламининг стратиграфик таркиби килтирилган. Дояхотин майдонида бўр даври ётқизиқлар газоконденсатга истиқболли ҳисобланади.*

*Калит сўзлар: Палеозой, мезазой ва кайнозой, Сузма, Аузбой, Кушаб, Янгиқазғон, Дояхотин, бўр, неоком, альб.*

*Abstract: The geological structure and stratigraphic structure of the sedimentary layer of the Doyakhotin field in the Bukhara-Khiva oil and gas basin are presented in the article. Cretaceous deposits in the Doyakhotin area are promising for gas condensate.*

*Key words: Paleozoic, Mesozoic and Cenozoic, Suzma, Auzboy, Kushab, Yangikazgan, Doyakhotin, Cretaceous, Neocomian, Albian.*

**Стратиграфия** Ҳудуднинг геологик жиҳатдан тузилишида палеозой, мезазой ва кайназой даврларига тегишли қатламлар иштирок этади.

Майдон батафсил ўрганилган бўлиб меза – кайназой даврига тегишли бўлиб, асосан юра даври қатламлари ҳисобланади, бунда қазиш қудуқларидан олинган материаллар тахлили батафсил ҳолатда келтирилиб, ҳудуд қатламлари газ заҳираларига бой эканлиги таъкидланади.

**Палеозой гуруҳи** Ҳудудда палеозой даврига тегишли қатламлар Чоржой поғонаси ҳудудида қуйидаги чуқурлик қатламлари бўйича очиб, ўрганилган: 1866 метр (Аузбой майдонида, №1–қазиш қудуғида); 1797–2526 метр (Янгиқазғон майдонида, № 2, 5, 10, 12–қазиш қудуқларида); 2478–2584 метр (Дояхотин майдонида, № 1, 6, 7 – қудуқларда).

Бу қудуқларда очиқ ҳолатга келтирилган палеозой даврига тегишли қатламлар қалинлиги 12 метрдан (Сузма майдонида) 600 метргача (Жанубий Кўлбешкак майдонида) етади ва қатламлар таркиби вулқоноген – чўкинди ва терриген хосилалардан, юпқа донадор қумоқлар, алевролитлар, зич ҳолатдаги тўқ кулранг тусли сланецлар қатламларидан ташкил топганлиги қайд қилинган. Бу қатламлар палеонтологик жиҳатдан тавсифланмаган бўлиб, палеозой даврига тегишли деб тахмин қилинади ва БХНГҲ тоғ жарликлари кесимлари қатламларига ўхшашлиги таъкидлаб ўтилади.

Х.У.Узоқова маълумотларига кўра, юра давригача бўлган қатламлар Бухоро поғонаси ҳудудида таркиби гранитоидлар, нордон эффузив таркибга эга ҳисобланади. Таркибда гранитлар қатлами сланецлар қатламларини кесиб ўтувчи ҳолатда жойлашиб, кембрий давргача бўлган ёшга эга эканлиги тахмин қилинади.

Бухоро поғонаси ҳудудида палеозой даврига тегишли бўлган қатламлар 10 метрдан – 50 метргача (Отбоқар, Қурбонали майдонларида) ва 125 метрдан 162 метргача (Янгиқозҳан майдони, № 6 – қудуқда, Аузбой майдони, № 1 –қудуқда) қалинликда кузатилади.

**Мезазой гуруҳи** Мезазой даврига тегишли бўлган қатламлар палеозой даврига тегишли қатамлар устки қисмида жойлашган бўлиб, бурчак бўйлаб номуофиқликда қайд қилинади. Бунда алоҳида қатламларнинг барқарорлиги ва таркибда метаморфизм кузатилмаслиги билан тавсифланади.

Қатламларнинг қалинлиги ҳудудий кўламда жанубий томондан шимолий йўналишга томон қисқариб боради.

Юра даврига тегишли кесимларнинг қисқаришлари асосан, тузли – гипсли свиталар қатламлари қисқаришлари ҳисобига амалга ошади.

Мезазой гуруҳи юра ва бўр даврига тегишли бўлган тизимларни ўз ичига олади.

**Юра даври** Ўрганилаётган ҳудудларда, юра даврига тегишли бўлган қатламлар барча бурғулаш қудуқларида очилган ҳолатга келтирилиб, қатламлар

терриген ва тузли–ангидридли қатламларга ажратилади. Териген қатламларнинг шаклланиши айниқса, қуйи – ўрта юра даврига тегишли қатламлар комплекси таркибида бир йўналишдаги, бир текисда бўлмаган асос блокларининг силжишлари билан боғлиқ ҳисобланади.

Ҳудудда континентал хосилалар аргиллитлардан ташкил топган бўлиб, юпқа ҳолатда қатламланувчи қумтошлар, алевролитлар ва лойли қатламлар таркибида қайд қилинади. Қуйи юра даврига тегишли бўлган қатламлар Янгиқозған ҳудудида, № 4, 6, 10 – қазиш қудуқларида очилган.

Денгиз қатламлари қуйи қисмлари–гилли қатлам, аргиллитлар ва алевролитлардан, юқориги қисми эса, (қуйи келловей даврига тегишли қатламлар) қатламланувчи гиллар қавати, алевролитлар ва қумтош қатламларидан ташкил топганлиги қайд қилинади. Юра даврига тегишли бўлган терриген қатламлар қалинлиги қисқарган соҳаларда чуқурлик қатлами қиймати 10 метрдан (Отбоқар майдонида жойлашган № 2-қазиш қудуғида) 670 метргача (Хожиқозған ҳудудида, № 8-қазиш қудуғида) етади.

ҚГТ тадқиқотлари натижалари бўйича, юра даврига тегишли терриген қатламлар кесимларида XVII, XVIII, XIX, XX ўтказувчан горизонтлар ажратиб кўрсатилади. Айрим майдонлар қатламларида, (Кўлбешкак, Хожиқазғон, Хаққул) бу горизонтлар таркибида хом ашё тутиши жиҳатидан истиқболли ҳисобланиб, шунингдек терриген қатламларнинг қалинлиги ортишлари XIX, XX ўтказувчан горизонларда хам қайд қилинади.

Бу қатламларда яққол тарзда ифодаланган горизонтлардан бири – $T_6$ горизонти бўлиб, қатламларнинг юқориги соҳаларида жойлашган (келловей – оксфорд қатлами).

Юра даврига тегишли карбонатли қатламлар таркиби асосан. оҳактошлардан ташкил топган бўлиб, унинг таркибида шунингдек оолит, пелитоморф кўринишидаги оҳактошлар ва шунингдек улар орасидаги фарқланувчи ўтиш қатламлари кўзга ташланади. Оҳактошлар қатламлари

кўпинча ҳолатларда таркиби кучли даражада доломитлашганлиги қайд қилинади.

Келловей – оксфорд карбонатли қатламларининг қатлам қалинлиги 10 метр атрофида бўлиб (Тошқудуқ майдонида, № 5-қазиш қудуғида), баъзи ҳудудларда 90 метр (Тошқудуқ майдони, № 2-қазиш қудуғида), 320 метргача (Учбош майдони, № 1-қазиш қудуғида) кузатилади.

Чоржой поғонаси ҳудудида келлевой – оксфорд карбонатли қатламларининг қалинлиги 236 метрдан (Отамурод майдонида) 370 метр – 440 метргача (Шимолий Сузма майдонида, № 1-қазиш қудуғида, Ҳаққул ҳудудида, №1-қазиш қудуғида, Кўлбешкак майдонида, № 6 – қазиш қудуғида) кузатилади.

Келловей – оксфорд карбонатли қатламларида таркиби бўйлаб, кимеридж – титон даврига тегишли бўлган тузли – ангидридли қатламлар хам мавжудлиги қайд қилинади. Бу пачка XV – I горизонтда ($T_6$) газ заҳиралари қатламининг тепа соҳасини қопловчи қатламларни ташкил қилади.

Кимеридж – титон даврига тегишли қатламлар таркиби ангидридлар, ола тусли гиллар, алевролитлар ва қумтошлар қатламларидан ташкил топган бўлиб, бунда қатламлар таркибида доломитлашган оҳактошлар ва мергел линзалари хам учрайди.

**Бўр даври.** Бўр даврига тегишли бўлган қатламларда ювилган юза соҳалар бўйлаб, карбонатлар қатламлари ва қуйи, юқориги қисмлар бўйлаб, эса ангидридлар қатламлари кузатилади.

Қуйи бўр ($K_1$) даврига тегишли қатламлар таркиби неоком ва денгиз кулранг тусли терриген чўкмалари, апт ва альб қатламлари, қизғиш тусли терриген қатламлардан ташкил топган. Ўтказувчан қумтошлар таркибида XII, XIII, XIV горизонтлар ажратиб кўрсатилади. Қуйи бўр даврига тегишли қатламлар қалинлиги Бухоро поғонаси ҳудудида 310 метрдан, 600 метргача етади. Қуйи бўр даврига тегишли қатламлар қалинлиги Чоржой поғонаси ҳудудида эса 450 метрдан, 650 метргача етиши қайд қилинади.

Юқори бўр даврига тегишли қатламлар таркиби сенон, турон яруслари ва сеноман кенжа яруси мураккаб тарздаги кулранг тусли терриген чўкиндилар қатламларидан ташкил топган бўлиб, таркибида оҳактош ва мергел қатламлари хам кўзга ташланади.

Юқори бўр даврига тегишли бўлган қатламларнинг қалинлиги Чоржой поғонасида 1170 метргача етиши аниқланган.

**Кайназой гуруҳи** Кайназой даврига тегишли қатламлар таркиби палеоген, неоген ва антропоген қатламлардан ташкил топган.

Палеоген даври қатламларининг куйи қисмлари таркибида палеоцен даври Бухоро қатламларига тегишли бўлган кулранг оҳактошлар, сарғиш – кулранг тусдаги, зичлашган, баъзи жойларда дарз кетишлар соҳаларига эга бўлган, қумтош таркибли қатламлар кузатилади. Бу қатламлар барча жойларда ривожланган бўлиб, барқарор ҳолатдаги сейсмик репер ҳисобланади. Қатламнинг қалинлиги 8 метрдан, 50 метргача оралиқда ўзгаради.

Палеоген даврига тегишли бўлган оҳактошлар қатлами тўқ тусли яшил ва яшил – кулранг тусли эоцен даври гиллари қатламларидан (40 метр қалинликда) ташкил топган бўлиб, таркибининг органик моддаларга жуда бойлиги билан тавсифланади.

Палеоген даврига тегишли қатламларнинг ювилган юза соҳаларида неоген даврига тегишли бўлган қатламлар, (0 – 110 метргача қалинликда) кузатилиб, унинг таркиби қумтошлар, гиллар ва алевролитлардан ташкил топган.

Тўртламчи қатламлар таркиби гиллар, қумтошлар қатламларидан ташкил топганлиги қайд қилинади. Қатламлар қалинлиги 30 – 40 метрни ташкил қилади.

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# 1917 ЙИЛ ФЕВРАЛЬ-ОКТЯБРЬ ОРАЛИҒИДА ТУРКИСТОН

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### *АННОТАЦИЯ*

*Ушбу мақолада Туркистон минтақасида сиёсий ҳаёт, жумладан бошқарув тизимидаги камчиликлар, халқнинг аҳволи, зиёлиларнинг муносабати, уларнинг маънавий ҳаётга таъсир ўтказишга ҳаракат қилишлари хусусида маълумот берилади.*

*Калит сўзлар: Мулкдор, уламолар, қозилар, акциядорлик жамиятлари, Туркистон генерал–губернаторлиги, «инородец» («бегона зот»), туземец («ерли аҳоли»).*

# ТУРКЕСТАН С ФЕВРАЛЯ ПО ОКТЯБРЯ 1917 ГОДА

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### *АННОТАЦИЯ*

*В данной статье представлена информация о политической жизни Туркестанского края, в том числе о недостатках системы управления, состоянии народа, отношении интеллигенции, ее стремлении влиять на духовную жизнь.*

*Ключевые слова: Владелец, писцы, судьи, акционерные общества, Туркестанское генерал-губернаторство, «инородец» («иностранная порода»), туземец («землевладельческое население»).*

# TURKESTAN FROM FEBRUARY TO OCTOBER 1917

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## *ANNOTATION*

*This article provides information about the political life of the Turkestan region, including the shortcomings of the management system, the state of the people, the attitude of the intelligentsia, its desire to influence the spiritual life.*

***Key words:*** *Owner, scribes, judges, joint-stock companies, Turkestan Governor-Generalship, "foreigner" ("foreign breed"), native ("landowning population").*

## INTRODUCTION (ВЕДЕНИЕ / КИРИШ)

1917 йил феврал-октябрь оралиғида Туркистон муҳим сиёсий ўзгаришлар арафасида турарди. Минтақа халқлари Россиянинг 50 йиллик мустамлакачилик зулмига қарши тинимсиз равишда миллий-озодлик курашини олиб бордилар. Дастлаб маърифатпарварлик ҳаракати сифатида вужудга келган жадидчилик Туркистон тақдири ҳал қилинаётган бу паллада ўзбек халқини ғоявий жиҳатдан бирлаштирувчи куч сифатида майдонга чиқди. Маълумки, XIX асрнинг иккинчи ярмида Туркистон ўлкаси Россиянинг чекка мустамлакасига айлантирилиб, чоризм уни иқтисодий жиҳатдан ҳам тўла ўзига қарам қилиб олган эди. Мустамлакачиликнинг русча моделига кўра, туб ерли халқлар жаҳолат, саводсизлик ва қашшоқликда ушлаб турилиши лозим эди. Бироқ Туркистон ўлкаси капиталистик бозор муносабатларига тортилгани учун бу ерда ўзбек миллий буржуазияси савдо-саноат эгалари ҳам шакллана борди. Чоризм маҳаллий буржуазиянинг пайдо бўлишини асло истамасди. Шунинг учун рус чоризми ва буржуазияси ўсиб келаётган ўзбек миллий буржуазиясининг иқтисодий- сиёсий ҳуқуқларини чеклаб, унинг ривожига тўсиқ қўйган эди. Миллий буржуазия бу камситишдан норози бўлган. Ислом дини арбоблари

ўртасида ҳалқнинг маърифатли бўлишини астойдил истовчи гуруҳ ҳам мавжуд бўлиб, бу тараққийпарвар зиёлилар чоризм ва жоҳил руҳонийларга қарши эдилар. Миллат тараққиётини ўйловчи ушбу тараққийпарвар кучлар ўзбек халқининг ҳунармандлари, деҳқонлари, савдогарлари, йирик мулкдорлари, ислом уламолари—халқнинг деярли барча табақалари орасида мавжуд эди. Зиёлилар чоризмга қарши курашни халқни асрий қолоқликдан уйғотиш ва маърифий жабҳадан бошлашга қарор қилдилар. Жадидчилик ҳаракати ана шундай тарихий бир шароитда Туркистон минтақасида ривожланиш учун ўзига қулай замин топди. Орадан 20 йил ўтгач, 1917 йилга келиб жадидлар Туркистондаги сиёсий жараёнларнинг қоқ марказида туришди.

## LITERATURE REVIEW (ЛИТЕРАТУРА И МЕТОД / АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДЛАР)

1917 йил бошларида Петроградда бўлиб ўтган воқеалар таъсири остида Туркистонда янги жамият куртакларини шакллантириш учун қизғин ҳаракат бошланиб кетди. Туркистон ижтимоий-сиёсий ҳаётида ўлка муҳторияти масаласи асосий масала бўлиб қолди. Туркистонга муҳторият мақомини бериш нафақат демократик зиёлилар орасида, ҳатто оддий одамлар ўртасида ҳам анча оммалашган эди. 1917 йилнинг март-апрел ойлари ўлканинг сиёсий уйғонишида бурилиш даври булди. Туркистон жадидлари, миллий зиёлилар ва ислом уламоларининг етакчилари бўлган Маҳмудхўжа Беҳбудий (1875 — 1919), Мунаввар Қори Абдурашидхон ўғли (1878—1931), Убайдулла Хўжаев (1882—1938), Абдурауф Фитрат (1886—1938), Файзулла Хўжаев (1896—1938), Садриддин Айний (1878—1954), Мустафо Чўқай (1886—1941), Муҳаммаджон Тинишбоев (1879—1939), Шерали Лапин (1868—1919), Аҳмад Закий Валидий Тўғон (1890—1970), Обиджон Махмудов (1858 — 1936), Тошпўлатбек Норбўтабековлар ўлкада янги ташкил қилинган «Шўройи Исломия» (1917 йил март), «Шўройи Уламо» (1917 йил июнь), "Турон" жамиятлари ва "Турк адами Марказият (федералистлар) фирқаси» (1917 йил июл), «Иттифоқи муслимин»

(1917 йил сентябрь) сиёсий партияларининг ташкил топишида муҳим роль ўйнадилар. Жадидчилик 1917 йили маърифатчилик ҳаракатидан сиёсий ҳаракат даражасига аллақачон кўтарилган эди. Ўша 1917 йилнинг ўзида тўрт марта Бутунтуркистон мусулмонлари қурултойи ўтказилди. 1917 йил 16-23 апрелда Тошкентда бўлган I қурултойда демократик Россия таркибида Туркистон Мухториятини ташкил этиш ғояси олға сурилди. Бу ғоя Туркистон халқларининг ўз миллий демократик давлатчилигини тиклаш йўлидаги дастлабки қадами эди. Бутунтуркистон мусулмонлари I қурултойининг сўнгги мажлисида марказий раҳбар орган—Туркистон ўлка мусулмонлари Шўроси (Краймуссовет) ташкил этилиши ҳакида қарор қабул қилинди. Уни тузишдан асосий мақсад—миллий-озодлик ҳаракатига ташкилий ва марказлаштирилган характер касб этиш учун бир-бири билан тарқоқ, алоқада бўлган жамият, қўмита ва иттифоқларни бирлаштириш эди. Туркистон мусулмонлари Марказий Шўросига Мустафо Чўқай раис, Закий Валидий бош котиб, Мунаввар Қори, Беҳбудий, О. Маҳмудов, У.Хўжаев, Т. Норбўтабеков, Ислом Шоаҳмедов ва бошқалар аъзо қилиб сайланди. Мунаввар Қори ва Садриддинхон Шарифхўжа қози ўғли бошчилигида Тошкент қўмитаси тузилди. Шунингдек, Беҳбудий раҳбарлигида Самарқанд ва Носирхон тўра етакчилигида Фарғона бўлими ҳам ташкил топди. Марказий Шўронинг органи сифатида «Нажот» (муҳаррири Мунаввар Қори ўғли), кейинчалик «Кенгаш» (муҳаррири Валидий) газеталари чиқа бошлади. Шундай қилиб, Туркистоннинг бирлиги ва яхлитлиги томон муҳим қадам қўйилди.

## DISCUSSION (ОБСУЖДЕНИЕ / МУҲОКАМА)

Тарихда илк марта Бутунтуркистон миқёсида мусулмонлар қурултойи чақирилиб, унда туб халқларнинг мухторият томон қатъий интилиши, ўз анъаналари, урф-одатлари ва турмуш тарзини изчил туриб ҳимоя қилиши айтилди. Бу манфаатларнинг ифодачиси булган Миллий марказ — Туркистон мусулмонлари Марказий Шўроси ташкил этилди. Афсуски, бирлашиш жараёнлари ҳар доим ҳам бир текис ривожланмади. Аср бошидан буён давом

этаётган «жадид-қадим» низолари демократик ҳаракат сафида парчаланиш юз боришига олиб келди. Маълумки, 1917 йил 14 мартда Тошкентда «Шуройи Исломия» ташкил топган эди. Аксарияти жадидлардан иборат бу ташкилот аъзолари Туркистон мустақиллиги учун кураш олиб бордилар. 1917 йил июнь ойида Мунаввар Қори бошчилигидаги «Шурой Исломия» ташкилотидан «Шўройи Уламо» ажралиб чиқди. Шерали Лапин унинг Тошкент шўъбасига асос солди. 1917 йил 28 августда Қўқон шаҳридаги Жомеъ мадрасасида «Шўройи Уламо» жамиятининг йиғилиши бўлди. «Шўройи Уламо» ташкилоти аъзоларининг 1917 йил 1 сентябрда қабул қилингаи баённомасига асосан Қўқонда ҳам «Шўройи Уламо» жамияти тузилди (раиси Мулла Муҳиддинхон Мулла Улуғхон Тўраев, котиби Имом Назар Эрназар Мирзаев). «Шўройи Уламо» жамияти ўз дастурида ислом динининг анъанавий асослари буйича иш кўришини маълум қилсада, аслида Шерали Лапин бошчилигидаги Тошкент уламолари аввал рус монархияси, сўнгра большевизм ғоялари билан ўз ҳаракатларини мувофиқлаштиришга беҳуда равишда уриндилар. Ўз мақсадлари тарғиботи учун «Шўройи Уламо» жамияти «Ал-Изоҳ» журналини чиқара бошлади (муҳаррири — Абдумалик ҳожи Набиев).

## RESULTS (РЕЗУЛЬТАТЫ / НАТИЖАЛАР)

Ҳар икки жамият ўртасидаги ғоявий курашни ўша давр воқеаларининг шоҳиди булган Мустафо Чўқай кейинчалик шундай хотирлайди: «Уламо жамияти» ва «Шурой Исломия» ўртасидаги келишмовчилик бизнинг умумий курашимизни заифлаштирмоқда ва ишларимизни чувалаштирмоқда)ди. Иккинчи тарафдан, «Уламо жамияти»нинг сиёсий программаси миллий ҳаракатимизнинг очиқ душманларига бизга қарши қурол бермоқда эди. 1917 йил 10 сентябрда Тошкентда Бутунтуркистон мусулмонларининг II қурултойи очилди. «Шўройи Исломия» ташаббуси билан чақирилган ушбу қурултой ҳокимиятни ишчи, солдат ва крестьян депутатлари Советларига беришга қарши чиқди. Ушбу қурултойда қабул қилинган резолюцияларда миллий демократия

ўзи тутадиган йўлининг принципиал асосларини биринчи марта қатъий қилиб айтди: ҳукумат демократик сиёсат юргизадиган бўлса, ана шундагина мусулмонлар бу ҳукуматда иштирок этадилар. Иккинчи қурултойда фақат Миллий Марказ — Туркистон мусулмонлари Марказий Шўроси минтақадаги мусулмон аҳолиси манфаатларини ифода қилиши мумкин, деган фикр қатъий қилиб қўйилди. 1917 йил 17 — 20 сентябрда Тошкентда бўлиб ўтган Туркистон ва Қозоғистон мусулмонларининг қурултойи "уламочилар" билан "шўрои исломчилар" ўртасидаги узоқ ва қизғин бахсларга қарамай, ниҳоят, келишиш ва муроса йўлини топди. Тарихчи Раъно Ражапова таъкидлаб ўтганидек, қурултойда "Шўрои Исломия", "Шўрои Уламо", "Турон" ва бошқа сиёсий ташкилотларни бирлаштириш йўли билан бутун Туркистон минтақаси учун умумий бўлган "Иттифоқи муслимин" деган сиёсий партия тузишга қарор қилинди. Қурултой ишидаги асосий масала Туркистон ўлкасининг бўлажак сиёсий тузумини белгилаш эди. Ўша пайтда Тошкентда нашр қилинган "Улуғ Туркистон" газетасида ёзилишича, "Қурултой Мулла Муҳаммадхўжа эшон ва Мулла Сиддиқхўжа эшонларнинг бошқарув шакли ҳақидаги нутқларини тинглаб, дуою ижобат ила Туркистон Мухториятини тайин этишга жазм қилди". Қурултой мухториятга «Туркистон Федератив Республикаси» деган номни қўйиб, парламент республикаси асосида тузилажак бўлғуси давлат тузумининг бош тамойил ва меъёрларини белгилаб берди. Туркистон мусулмонларининг биринчи сиёсий партияси — «Турк адами Марказият (федералистлар) фирқаси» ҳам мана шу сиёсий масалаларга ўз муносабатини аллақачон белгилаб олган эди. Миллий демократия етакчилари Мунаввар Қори, Беҳбудий, О. Махмудов, Садриддинхон Маздум Мухаммад Шарифхужа Қози ўғли ҳамда кўплаб уламолар, мударрислар ва фиқх олимлари томонидан 1917 йил июлда тузилган федералистлар фирқасининг маромнома (дастур) ва низомида Россия демократик республикаси таркибида ва мусулмонлар ижтимоий ҳаётининг ўзига хос томонларини ҳисобга олган ҳолда Туркистонда миллий-ҳудудий мухторият тамойиллари асосида демократик республика тузиш чуқур асосланган эди. Шу

тарзда, Туркистонда Мухторият ҳукумати юзага келмасдан анча олдин жамиятнинг кенг қатламлари вакиллари, илғор зиёлилар бу ҳаракатда фаол қатнашиб, унинг пойдеворини яратишга замин ҳозирладилар. 1917 йил октябрь ойига келганда тўрт  йил давом этган империалистик уруш натижасида мамлакатда очарчилик, ишсизлик авж олди, иқтисоднинг таназзули янада чуқурлашди. Бу эса ўз навбатида меҳнаткаш омманинг норозилигини кучайтирди ҳамда Россия маркази ва жойларда ҳокимиятнинг инқирозига олиб келди. Бундай вазиятдан фойдаланган Тошкент Советига кирган большевиклар ҳокимиятни зўравонлик билан эгаллашга чоғландилар. Худди шу пайтда демократик руҳдаги миллий йўлбошчилар бутун мусулмонларнинг бирлашуви шиори билан чиқишди.

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# К ВОПРОСУ О СОЗДАНИЯХ ДИВАНОВ В ВОСТОЧНОЙ ЛИТЕРАТУРЕ

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*Аннотация. В статье рассматриваются о созданиях диванов в восточной литературе. Приведётся примеры из ранних диванов персидской и тюркской классической литературы. Особенное внимание выделяется на диваны созданных Кокандской литературной среде в XIX веке. А также в первые дается классификация диванописание, на этот период.*

*Ключевые слова. Диван, рукопись, стих, классификация, Коканд.*

*Abstract. The article deals with the creation of divans in oriental literature. Examples from early divans of Persian and Turkic classical literature are given. Special attention is paid to the sofas created by Kokand literary environment in the XIX century. And also in the first is given classification of sofa writing, for this period.*

*Keywords. Diwan, manuscript, verse, classification, Kokand.*

Слово ديوان *«диван»* с арабского означает «высший орган власти», «канцелярия, государственное учреждение, ведомство», «собрание высокопоставленных людей». Исходя, из этого на классической литературе Востоке сборник стихов стал называться диваном.

Первые диваны, состоящих только из касыд, даже были созданы доисламских времен в арабской литературе (VI в.). Позже персидской и турецкой литературах. К примеру, в уникальном произведение XI века *«Дивану лугати-т-турк»* (Диван турецких слов) Махмуда Кашгарского автор произносит фразы как

«поэт писал», «поэт сказал». Это доказывает древность истории возникновение стихотворных сборников среди тюркоязычных народов. А, в произведении XV века Давлатшаха Самарканди *«Тазкират-аш-шуаро»* (Воспоминание о поэтах) говориться, что Абу Абдулла Рудаки (X в.) является первым диван создателем персидской литературе.

Но надо сказать что, *диванописание* (составление дивана), которые мы принимаем сейчас в литературоведение, стала формироваться в восточной классической литературе основном в IX-XI веках. И первоначальные диваны по своему объему были относительно небольшие. Например, диваны талантливых поэтов эпохи газневидов Салмона (ум. в 1034 г.) и Фаррухи (ум. в 1038 г.) состоять всего из 15-20 страниц [фонд ИВ АН РУз, №160/I и 160/II].

Со временем стали увеличиваться и число диванов, и их объем. Как мы уже отметили важную деталь: первые диваны, в основном, включали в себя, газелей и касыд. Примером может служить диван Шейха Абдулкадыра Гилани (1077-1166) [№676, 3693, 5646, 7371 и 7498]. Появились настоящие совершенные образцы диванов в XII веке. И первый усовершенствованный образец дивана, где четко и аккуратно сложено несколько лирическо-стихотворных жанров (*газели, касыды, китъа, рубаи, маснави, фард, тарджеъ, муламмаъ*) принадлежит перу Шейх Саъди (1203-1292). Еще, например, самый древний рукописный экземпляр знаменитого дивана Шамсиддин Мухаммад Хафиза Ширази составлен в 1423 году, то есть через 35 лет после смерти автора. В своих заметках по поводу произведения неверно определенного как тахмис Хафиза к газели Саъди ученые С. Айни и А. Болдырев в качестве основного довода подчёркивают, что в эпоху Хафиза мухаммас ещё не успел сформироваться. Из вышесказанного следует учить, что становление жанров, имеющих место в диванах происходило в течение нескольких веков. Таким образом, в персидско-таджикской литературе самые признанные диваны как Джалалиддина Руми, Хусрава Дехлави, Хасана Дехлави, Хафиза Ширази и Абдурахмана Джами.

А, в первых диванах в тюркской литературе, таких как Лютфи, Гадаи, Атаи и Саккаки мы также не видим всех лирических жанров. К примеру, диван Атаи составлен только из газелей. А, диван Саккаи из газелей и касыд. Вот только в сборнике стихов Хафиза Хорезми имеются девять видов лирического жанра Востока. Первый усовершенствованный диван, и на художесвенно-исскуственном, и на смыслово-тематическом, и, конечно же, на формально-традиционном порядке, где присутствуют, 17 лирических жанров, был составлен великим Алишером Навои, который обосновывал своеобразные принципы диванописание. Например, один из основных правил диванописание написать наибольше стихов на все 28 букв арабского алфавита. (Точнее, классической литературе буква считается на окончание стихотворной строки.) А, Навои отмечает, что диванопищущие поэты не придают внимание ещё на четыре буква («пе», «же», «чим» и «гоф»), которые приложено на алфавит, со стороны персам и туркам. Навои считает это недостаток этих диванов и в своем первом диване *«Бадоеъ-ул-бидоя»* он пишет стихи на все 32 букваа алфавита.

И так, в рамках одной статьи невозможно освещать всю историю и значение диванописания и дать классификацию диванов. Поэтому мы хотели бы рассмотреть эту проблему в рамках одного литературного периода. Точнее, на основе анализа диванов, составленных в Кокандском литературной среды.

Нами рассчитана, имена свыше 200 поэтов живших и творивших во второй половине XVIII – первой четверти XX века в этой литературной среде, на основе сведений и материалов, которые отражаются таких источников как *«Маджмуаи шоирони Умархон»*, *«Тазкираи Кайюми», «История и литература Коканда»*, а также более двухсот *баязов, маджмуа* и *сборников,* переписанных того времени. Свыше пятидесяти из этих творцов словесности составили диваны. Основная часть этих диванов составлена в XIX веке и в двух языках (узбекском и персидском). В этих двуязычных диванах преобладают стихи на узбекском. На основе своих наблюдений мы классифицировали диваны поэтов Коканда по принципам составления. Она выглядит следующим образом:

**1)** Диваны, полностью или в некоторой степени отвечающие требованиям традиции классического диванописания;

**2)** Диваны, где традиция не соблюдена;

**3)** Диваны составленные (спустя некоторое время) после смерти автора.

К примеру диваны первой группы тоже можно подразделить на две подгруппы.

*В первой из этой подгруппы* можно отнести диваны с большим объёмом и широким охватом лирических жанров, имеющие традиционное *дебоча* (введение, вступление). Таковыми являются диваны Амир Умархана, Надиры, Фано, Умиди, Мухаййира и Мухсини. Например, общий объём стихов в диване Умархана (1787-1822) составляют свыше 10 тысяч бейтов. В диване имеется тщательно отшлифованная *дебоча*. Сам диван охватывает образцы таких лирических жанров как *газель, мухаммас, мусаддас, мусамман, рубаи* и *туюки*.

*Следующая подгруппа* состоит из диванов, небольших по объёму и не имеющих традиционного вступления (*дебоча*). К ним можно отнести диваны Акмала, Гази, Садаи, Нозил, Махзун, Увайси, Азими, Кари, Мухйи, Ёри, Хакима, Ражи Маргилани, Нихони, Гурбат, Гариби и др., например, общий объём дивана Джаханатын Увайси (1780-1845) около 6.000 полустиший. В него вошли стихи, написанные в таких лирических жанрах как *газель, мустазод, мухаммас, мусаддас, мусамман, маснави, рубаи, туюг, чистан* и *китъа* [№1837]. Хотя в таких диванах *дебоча* отсутствует, но в них имеют место *таърих* (хронограмма) или стихотворные концовки, указывающая дату составления дивана. К примеру, Кари в обоих экземплярах своего дивана-автографа поставил дату, а в одном даже написал своеобразно-прощальную рубаи [№1313].

Диваны, относящиеся ко второй группе, отражают в себя еще одну особенность литературы того периода. Литературовед Я. Исхаков по этому поводу писал так: «Бросаются в глаза определенные изменения в характере дивана, возникшие под влиянием баязов и маджмуа. Поэтому стихотворные сборники некоторых поэтов по своей структуре близки не к дивану, а маджмуа».

Нужно отметить что, с этим мнением можно согласиться только, с одной стороны. То ест, насчет маджмуа. К примеру, единственная рукопись сборника Махмура (последняя четверть XVIII – первая половина XIX вв.) не оформлена в виде дивана [фонд Государственного Музея литературы, №705]. Или сборник стихов Мухаммад Алихана, хотя называется, «*Дивани Хан»* на самом деле не является полноценным диваном. Объём сборника тоже невелик; в него вошли всего 48 газелей и один мухаммас [фонд ИВ, №1808].

В заключении надо отметить, что всестороннее исследование традиций диванописания рассматриваемого периода даёт богатый материал по истории узбекской литературе, помогает внести ясность в некоторые вопросы литературоведения, способствует обогащению наших знаний и представлений о творчестве ряд поэтов.

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# СРАВНИТЕЛЬНАЯ ОЦЕНКА ОСНОВНЫХ КИШЕЧНЫХ ПАРАЗИТОЗОВ СРЕДИ СЕЛЬСКОГО НАСЕЛЕНИЯ

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*Аннатоция: По данным Всемирной организации здравоохранения (ВОЗ), из 50 млн. человек, ежегодно умирающих в мире, более чем у 16 млн. причиной смерти являются инфекционные и паразитарные заболевания [1]. А в структуре инфекционных заболеваний паразитарные заболевания занимают одну четверть [2]. Более чем четверть населения мира заражена как минимум одним гельминтом [3], около 10% населения земного шара поражено протозойными паразитозами [4].*

*Abstract: According to the World Health Organization (WHO), of the 50 million people who die annually in the world, more than 16 million are caused by infectious and parasitic diseases [1]. And in the structure of infectious diseases, parasitic diseases occupy one quarter [2]. More than a quarter of the world's population is infected with at least one helminth [3], about 10% of the world's population is affected by protozoal parasitoses [4].*

## ЛИТЕРАТУРА И МЕТОДОЛОГИЯ

В литературе имеется описание путей передачи более чем 400 паразитов, и 45% из них передаются путем бытового контакта, включая фекально-оральный путь передачи [5]. Окружающая среда и предметы окружающей среды при этом играют опосредованную роль [6]. Паразиты могут передаваться как непосредственно при контакте, так и посредством продуктов питания и

предметов окружающей среды. В любом случае при этом руки играют главную роль [5].

Наличие паразитозов у человека в основном связывают с приемом инфицированных продуктов питания. В литературе имеются описания вспышек диарейных заболеваний, вызванных приемом, пищи, инфицированной лямблиями [7] и аскаридами [8]. Основными причинами всевозрастающего числа «овощных» и «фруктовых» вспышек являются глобализация торговли, мировая тенденция употреблять в пищу сырые овощи и фрукты, увеличивающееся число иммунодефицитных лиц. Особую актуальность простейшие и гельминты приобретают в свете экономически привлекательного повторного использования воды и жидких стоков [9]. Конечный продукт может быть контаминирован при сборе, обработке, транспортировке или хранении. В последние годы актуальность приобретают органические (экологически чистые) фермы [10], на которых существует высокий риск контаминации кишечными паразитами в процессе производства продуктов питания, т.к. отказавшись от химически синтезированных удобрений, эти фермы используют органические, в том числе человеческие экскременты [11]

O. Erdrogul и H. Sener (2005) исследовали сезонные колебания контаминации различных фруктов и овощей кишечными паразитами в Турции. Образцы салата, петрушки, шпината и клубники, а также образцы поливной воды были собраны несколько раз в течение года. Острицы оказались наиболее часто встречаемым паразитом, далее шли аскариды, *E. histolytica,* и лямблии. Среди продуктов питания наиболее обсеменённым оказалась клубника, затем салат-латук, петрушка, шпинат. В целом, обсеменённость острицами была выше в осенний период по сравнению с весенним, и обратная картина отмечалась в отношении аскарид. В зависимости от пика сезонного обсеменения и пиков активности различной деятельности человека, можно отметить сезоны повышенного риска заражения паразитами. Сезоном массового заражения аскаридами взрослых является конец апреля - июнь (работа на огороде) и конец

июля - октябрь (работа на огороде и употребление в пищу овощей); сезоном массового заражения детей - конец апреля - май (почва дворов и частично огородов) и конец июля - октябрь - употребление в пищу овощей и фруктов [12]. В США многие вспышки диареи были связаны с импортом пищевых продуктов из Латинской Америки. Малина, импортируемая из Гватемалы, часто обсеменена циклоспоридиями [13].

Методы исследовании: эпидемиологические, паразитологические, статистические.

Для обнаружения яиц гельминтов и других паразитарных заболеваний исследовали образцы кала макроскопически и микроскопически. Микроскопически исследовали нативные образцы, образцы, окрашенные раствором Люголя, по методике Лефлер-Гоголя, а также в виде толстой капли в физиологическом растворе. Для концентрации яиц и простейших использовали метод Калантарян [14].

Сбор образцов кала производился в специально приготовленные стеклянные контейнеры объемом не менее 12 мл, предварительно обезжиренные и высушенные, с плотно прилегающей пробкой. Сбор кала производился медицинскими сестрами местных сельских врачебных пунктов. Образцы консервировались 10% раствором формалина. Соотношение консерванта и образца составляет 3:1. Для выявления энтеробиоза использовалась аппликаты с перианальной области.

Контейнеры с образцами имели следующую маркировку: на контейнеры был проставлен только номер ребенка указанный в его анкете - данный номер является уникальным. Таким образом, лаборанты не имели представления о том, что они исследовали. Этим достигалась большая точность результатов, т.к. врачи не владели информацией о том, из каких групп были получены образцы, следовательно, влияние человеческого фактора со стороны лабораторных специалистов снижалось до минимума.

Отбор проб анализа детей производили на основе двух метода: соскоб и фекала. В изучаемую популяцию входили дети в возрасте от 2 до 14 лет, проживающие в населенных пунктах Ферганской областях Республики Узбекистан. Из списка проживающих в населенном пункте методом случайного отбора отбирались семьи, где имеются дети в возрасте до 14 лет. Общее количество детей составляло не менее 50 из каждого населенного пункта. В среднем количество домовладений составляло 23-25. Затем, приняв одно домовладение в качестве кластера, из числа детей, проживающих в домовладении, случайным методом отбирался один ребенок в качестве индикаторного. Была взята средняя школа и детский сад в одном из населенных пунктов, из всего списка учащихся было определено количество домовладений, и из каждого домовладения был отобран индикаторный ребенок.

**РЕЗУЛЬТАТЫ**

Для установления начального уровня распространённости кишечных паразитов среди детского населения сельской местности Сухской районе было проведено эпидемиологическое исследование, которое включило в себя 540 детей. Общее количество мальчиков составило 280 (51,85 %), девочек 260 (48,14%). Соотношение полов примерно одинаково и разница статистически незначима. После проведения копрологического исследования на наличие паразитов было установлено следующее показателей: всех обследованных - 120 (22,2%) ребенка были заражены кишечными паразитами.

Среди нозологических форм наиболее распространённым был установлен лямблиоз - 84 (15,5 %). Далее, по распространённости после лямблиоза следует энтероибоз - 22 (3,7 %). Гименолепидоз по распространенности занимает третье место, определяясь у 1,85% (10). В целом аскаридоз был наименее распространён из диагностированных нозологических форм 6 (1,11%).

**ОБСУЖДЕНИЕ**

Результаты анализа данных официальной статистики показывают, что в Республике ведется надзор за 5-ю различными кишечными паразитозами: 4 из

них вызваны гельминтами и один простейшими. Показатель распространённости (заболеваемости) аскаридозом среди детей до 14 лет в среднем по Республике составил 58,6 на 100 000 населения, энтеробиозом 2292,5, а гименолепидозом 491,6. В процентном выражении эти показатели составляют 0,05%, 2,29% и 0,49% соответственно.

При проведении оценки заболеваемости геогельминтозами (аскаридоз и трихоцефалез) в различных возрастных группах было установлено, что наиболее высокий уровень заболеваемости отмечается у детей в возрасте 3-5 лет (59,4 при аскаридозе и 29,7 при трихоцефалезе на 100 000 населения) и в группе 6-14 лет (55,7 при аскаридозе и 26,6 при трихоцефалезе на 100 000 населения). Наименьший показатель как при аскаридозе, так и при трихоцефалезе отмечен у детей до 1 года возраста (7,9 и 13,3 на 100 000 населения соответственно). Схожая эпидемиологическая картина наблюдается при контактных паразитозах (гименолепидозе и энтеробиозе).

Заболеваемость аскаридозом среди сельского населения (25,3 на 100 тыс. населения) в три раза выше, чем у городского (7,5 на 100 тыс. населения). В особенности эта разница видна, у детей в возрасте до 14 лет.

В целом, если оценивать эпидемиологическую картину кишечных паразитозов в Республике Узбекистан на основании данных Республиканского Центра Государственного санитарно-эпидемиологического надзора можно сделать следующее заключение. Общая картина паразитозов в Республике остается стабильной и относительно благополучной. В отношении контактных паразитов и геогельминтов наиболее пораженными являются детский контингент (3-14 лет) сельской местности юго-восточных регионов республики (в особенности Ферганской долины).

**ЗАКЛЮЧЕНИЕ**

В результате проведения когортного исследования мы обнаружили, что среди детей сельской местности превалируют 4 паразитоза: энтеробиоз, гименолепидоз, аскаридоз и лямблиоз. Показатели распространённости всех

выявленных нозологических форм демонстрируют значительное превышение данных официальной статистики. Так, среди нозологических форм наиболее распространёнными были лямблиоз - 84 (15,5±) и энтеробиоз - 20 (3,7%). Гименолепидоз по распространенности занимал третье место, определяясь у 1,85% обследованных.

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# ГЕНЕРАТИВНАЯ МОДЕЛЬ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА

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### *АННОТАЦИЯ*

*Закрытые системы современного искусственного интеллекта, похоже, не приведут к созданию разумных машин в ближайшем будущем. Что необходимо, так это открытые системы с нелинейными свойствами, чтобы создать интересные свойства для каркаса искусственного разума. Это область генеративного искусственного интеллекта, в которой реализуются механизмы и проводятся эксперименты с целью создания открытых систем. Он обходит традиционную аргументацию «сверху вниз» и «снизу вверх», используя оба механизма. Процедуры «снизу вверх» используются для создания пространств возможностей, а методы «сверху вниз» отбирают структуры, которые функционируют хуже всего. Нисходящими механизмами могут быть как окружающая среда, так и люди, управляющие процессами развития.*

***Ключевые слова:*** *генеративный искусственный интеллект, поддержка принятия решений, создание контента, информационные системы.*

### *ANNOTATION*

*Closed systems of modern artificial intelligence, it seems, will not lead to the creation of intelligent machines in the near future. What is needed is open systems with nonlinear properties to create interesting properties for the artificial intelligence framework. This is the field of generative artificial intelligence, in which mechanisms are implemented and experiments are conducted in order to create open systems. It*

*bypasses the traditional "top-down" and "bottom-up" argumentation by using both mechanisms. Bottom-up procedures are used to create spaces of opportunity, and top-down methods select the structures that function the worst. The top-down mechanisms can be both the environment and the people who control the development processes.*

*Keywords: generative artificial intelligence, decision support, content creation, information systems*

## ВВЕДЕНИЕ

Инновация - это взять две существующие вещи и соединить их по-новому. В течение долгого времени в истории преобладало мнение, что художественные, творческие задачи, такие как написание стихов, создание программного обеспечения, дизайн одежды, сочинение песен, могут быть выполнены только человеком. С развитием искусственного интеллекта (ИИ), способного генерировать новый контент таким образом, что его уже невозможно отличить от человеческого мастерства, это представление кардинально изменилось.

Термин "генеративный ИИ" относится к вычислительным технологиям, способным генерировать на основе обучающих данных новый, на первый взгляд, осмысленный контент, такой как текст, изображения или аудио. Широкое распространение этой технологии на примере таких систем, как Dall-E 2, GPT-4 и Copilot, в настоящее время революционизирует наши методы работы и общения друг с другом. Системы генеративного ИИ могут использоваться не только в художественных целях для создания новых текстов, подражая писателям, или новых изображений, подражая иллюстраторам, но они могут и будут помогать человеку в качестве интеллектуальных систем, отвечающих на вопросы.

## МЕТОДОЛОГИЯ

Под генеративной моделью ИИ понимается генеративное моделирование, которое формировано архитектурой машинного обучения, следовательно, может создавать новые образцы данных на основе изученных закономерностей. Кроме

того, система генеративного ИИ включает в себя всю инфраструктуру, в том числе модель, обработку данных и компоненты пользовательского интерфейса. Модель выступает в качестве основного компонента системы, который облегчает взаимодействие и применение в более широком контексте.

Генеративная модель ИИ - это разновидность раскрытого машинного обучения, которая использует алгоритмы ИИ для создания новых экземпляров данных, опираясь на закономерности и взаимосвязи, наблюдаемые в обучающих данных. Генеративная модель ИИ имеет критически важный, но неполный характер, поскольку требует дальнейшей доработки под конкретные задачи с помощью систем и приложений.

Глубокие нейронные сети особенно хорошо подходят для целей генерации данных, тем более что глубокие нейронные сети могут быть разработаны с использованием различных архитектур для моделирования различных типов данных, например, последовательных данных, таких как человеческий язык, или пространственных данных, таких как изображения.

Большие генеративные модели ИИ, способные всесторонне и многогранно моделировать вывод в конкретных доменах или конкретных типах данных, часто называют также фундаментными моделями. В силу своего размера они обладают двумя ключевыми свойствами: эмерджентностью, то есть поведение часто неявно индуцируется, а не явно конструируется (например, модели GPT могут создавать записи календаря в формате, хотя такие модели не были явно обучены этому), и гомогенизацией, когда широкий спектр систем и приложений может теперь работать на основе единой, консолидированной модели (например, Copilot может генерировать исходный код на широком спектре языков программирования).

Можно использовать обе модальности для генерации изображений. В связи с этим генеративные модели ИИ также можно разделить на унимодальные и мультимодальные. Унимодальные модели получают инструкции от того же типа входа, что и их выход (например, текст). С другой стороны,

мультимодальные модели могут получать входные данные из различных источников и генерировать выходные данные в различных формах. Мультимодальные модели существуют для различных модальностей данных, например, для текста, изображений и аудио. Яркими примерами являются Stable Diffusion для генерации текста в изображение, MusicLM для генерации текста в музыку, Codex и AlphaCode для генерации текста в код, и, как уже упоминалось выше, GPT-4 для генерации изображения в текст, а также текста в текст.

Процедуры обучения, лежащие в основе различных генеративных моделей ИИ, существенно различаются. Например, генеративные состязательные сети (GAN) обучаются с помощью двух конкурирующих задач, одна из которых заключается в создании новых синтетических образцов, а другая - в выявлении синтетических образцов из реальных обучающих образцов таким образом, чтобы распределение синтетических образцов в конечном итоге было близко к распределению обучающих образцов. В других системах, таких как ChatGPT, основанных на разговорных моделях, используется обучение с подкреплением на основе обратной связи с человеком (RLHF). RLHF, используемый в ChatGPT, состоит из трех этапов: сначала создаются демонстрационные данные для подсказок, затем пользователи оценивают качество различных результатов для подсказки и, наконец, выучивается политика, которая генерирует желаемый результат с помощью обучения с подкреплением, чтобы этот результат получил хорошие оценки при ранжировании.

## ОБСУЖДЕНИЯ

Далее мы рассмотрим четыре основные границы генеративного ИИ, которые, по нашему мнению, являются важными ограничениями в реальных приложениях. Следующие ограничения носят технический характер, поскольку относятся к тому, как текущие модели генеративного ИИ делают выводы, и, следовательно, ограничения возникают на уровне модели. В связи с этим, вероятно, ограничения сохранятся в долгосрочной перспективе и будут иметь последствия на уровне системы и приложений.

Кроме того, результаты работы генеративного ИИ, особенно LLM, как правило, нелегко поддаются проверке. Корректность моделей генеративного ИИ сильно зависит от качества обучающих данных и соответствующего процесса обучения. Системы и приложения генеративного ИИ могут реализовывать проверку корректности для предотвращения определенных результатов. Однако из-за "черного ящика" современных моделей ИИ использование таких систем в значительной степени зависит от доверия пользователей к достоверным результатам. Закрытый исходный код коммерческих готовых систем генеративного ИИ усугубляет этот факт и не позволяет проводить дальнейшую настройку и переобучение моделей. Одним из решений, позволяющих устранить последствия некорректных результатов, является использование генеративного ИИ для создания пояснений или ссылок, которые затем могут быть проверены пользователями. Однако такие объяснения опять же носят вероятностный характер и, следовательно, подвержены ошибкам; тем не менее, они могут помочь пользователям в принятии решений о том, когда следует принимать результаты работы генеративного ИИ, а когда нет.

Нарушение авторских прав. Генеративные модели, системы и приложения ИИ могут привести к нарушению законов об авторском праве, поскольку они могут создавать результаты, напоминающие или даже копирующие существующие произведения без разрешения или компенсации оригинальным авторам. Здесь можно выделить два потенциальных риска нарушения авторских прав. С одной стороны, генеративный ИИ может создавать нелегальные копии произведений, нарушая тем самым право авторов на воспроизведение. В частности, это может произойти, когда генеративный ИИ обучался на оригинальном контенте, защищенном авторским правом, но при этом он создает копии. Отсюда следует, что обучающие данные для создания систем генеративного ИИ должны быть свободны от авторских прав. Важно отметить, что нарушение авторских прав может происходить даже тогда, когда генеративный ИИ никогда не видел произведения, защищенного авторским

правом. С другой стороны, это открывает широкие возможности для исследований, особенно для исследователей BISE(Business & Information Systems Engineering) благодаря их междисциплинарному опыту.

Несмотря на огромный прогресс, достигнутый в последние годы, ряд аналитических и технических вопросов, связанных с развитием генеративного ИИ, еще не решен. Один из открытых вопросов связан с тем, как генеративный ИИ может быть эффективно адаптирован к конкретным областям применения и таким образом повысить производительность за счет более высокой степени определения контекста. Например, необходимы новые и масштабируемые методы настройки разговорных агентов на основе генеративного ИИ для применения в медицине или финансах. Это будет иметь решающее значение на практике для решения конкретных задач, связанных с BISE, где настройка может дать дополнительный прирост производительности. Новые методы настройки должны быть разработаны таким образом, чтобы обеспечить безопасность служебных данных и предотвратить их разглашение. Кроме того, для оперативного инжиниринга необходимы новые структуры, разработанные с учетом интересов пользователя и, следовательно, способствующие интерпретируемости и удобству использования.

Генеративный ИИ может автоматизировать различные задачи в области маркетинга и СМИ, где требуется создание контента, которые могут быть изучены в будущих исследованиях. Кроме того, генеративный ИИ может быть использован в рекомендательных системах для повышения эффективности распространения информации за счет персонализации, так как контент может быть лучше адаптирован к возможностям получателя.

Помимо разработки реальных систем и приложений, сообщество BISE должно также изучить возможности использования генеративного ИИ для поддержки творческих задач при создании новых дизайн-проектов. В этой связи перспективным направлением может стать включение генеративного ИИ в дизайн-мышление и аналогичные методологии, позволяющие объединить

творческие способности человека с вычислительными способностями. Это может способствовать поддержке различных фаз и этапов инновационных проектов, таких как генерация идей, выявление потребностей пользователей, создание прототипов, оценка дизайна и автоматизация проектирования, в которых различные типы моделей и систем генеративного ИИ могут использоваться и комбинироваться друг с другом для создания приложений для творческих индустрий. Если генеративный ИИ используется для совместного создания инновационных результатов, он также может обеспечить более эффективное повторное изучение различных видов проектной деятельности для обеспечения необходимого обучения.

## ЗАКЛЮЧЕНИЕ

Генеративный ИИ - это направление ИИ, способное создавать новый контент, такой как тексты, изображения или аудио, который все чаще уже невозможно отличить от человеческого мастерства.

По этой причине генеративный ИИ способен изменить сферы и отрасли, которые зависят от творчества, инноваций и обработки знаний. В частности, он позволяет создавать новые приложения, которые ранее были невозможны или нецелесообразны для автоматизации, такие как реалистичные виртуальные помощники, персонализированное образование и обслуживание, цифровое искусство. Таким образом, генеративный ИИ имеет существенное значение для практиков и ученых BISE как междисциплинарного исследовательского сообщества. В нашей статье мы предложили концептуализацию принципов генеративного ИИ на уровне моделей, систем и приложений, а также на социально-техническом уровне и описали ограничения современного генеративного ИИ и мы подчеркнули многообразие возможностей, которые предоставляет генеративный ИИ через призму дисциплины BISE.

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# СТАБИЛИЗАЦИЯ ДВИЖЕНИЯ ТОЧКИ НА УЧАСТКАХ ПРОМЕЖУТОЧНОЙ ТЯГИ В СЛУЧАЕ ОГРАНИЧЕННОЙ ЗАДАЧИ ТРЕХ ТЕЛ

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# STABILIZATION OF POINT MOVEMENT FOR INTERMEDIATE THRUST ARCS IN THE CASE OF THE RESTRICTED THREE-BODY PROBLEM

**Z.Z. Xasanova**

### *ABSTRACT*

*The particular analytical solution of the variation problem about point (spacecraft center of mass) movement in the case of the restricted three-body problem for intermediate thrust arcs were found. The linear regulator providing asymptotic stability of these specified program movements is received.*

# ЧЕГАРАЛАНГАН УЧ ЖИСМ МАСАЛАСИ ҲОЛИДА ОРАЛИҚ ТОРТИШИШ КУЧИ ҚИСМИДА НУҚТА ҲАРАКАТИНИ СТАБИЛЛАШТИРИШ

**Хасанова З.З**

### *АННОТАЦИЯ*

*Чегараланган уч жисм масаласининг ҳаракати ҳолида оралиқ тортиш қисмида ҳаракатланувчи нуқта (космик аппаратнинг массалар маркази) учун вариацион масаласининг хусусий аналитик ечими топилган. Аниқланган дастурий ҳаракатларнинг асимптотик устуворлигини таъминлайдиган чизиқли регулятор қурилган.*

***Калит сўзлар:*** *Космик аппарат, чизиқли регулятор, Лоудон методи, ер, ой.*

# ВВЕДЕНИЯ

Рассматривается задача об оптимизации траекторий точки переменной массы (центр масс космического аппарата (КА)), движущейся с ограниченным секундным расходом массы в рамках ограниченной задачи трёх тел. Точка движется в гравитационном поле двух центров притяжения, массы которых соизмеримы, и для удобства названных Землёй и Луной. Луна движется относительно Земли по известной эллиптической орбите. Минимизируемый функционал - характеристическая скорость, что эквивалентно задаче о минимуме расхода массы. Дифференциальные уравнения вариационной задачи в геоцентрической инерциальной системе координат имеют гамильтонову форму и в случае ограниченной задачи трёх тел имеют два известных интеграла для участков промежуточной тяги. Этих интегралов недостаточно для определения общего решения. В данной работе при помощи метода Докшевича получены инвариантные соотношения, приводящие к различным частным решениям. Найдено следующее частное решение для участков промежуточной тяги.

Тяга радиальная. КА находится на прямой, проходящей через центры притяжения. Участок ПТ принадлежит эллиптической орбите с параметром, зависящим от начальных условий. Траектория КА подобна орбите Луны. Трансверсальная составляющая скорости изменяется обратно пропорционально расстоянию до неподвижного центра. Найдено ограничение на область движения КА. Найден закон изменения массы. Все величины выражены через истинную аномалию орбиты Луны, являющуюся известной функцией времени.

Рассмотрен вопрос об осуществимости найденного программного движения при автоматическом управлении. Найденное частное решение исследовано на устойчивость. Показано, что среди корней характеристического уравнения системы первого приближения имеется хотя бы один положительный. Следовательно, невозмущенное движение неустойчиво по Ляпунову. Показано, что система полностью управляемая, и невозмущенное движение можно стабилизировать по первому приближению. Найдены линейный регулятор

(наиболее простой из возможных) и условия, при которых невозмущенное движение станет асимптотически устойчивым по Ляпунову независимо от нелинейных членов. Показано, что в процессе движения для изменения программы направления силы тяги достаточно учитывать возмущения только трёх фазовых координат из шести: радиальной и нормальной составляющих скорости и расстояния до неподвижного центра притяжения. Полученные траектории могут быть использованы в качестве опорных при численном интегрировании, а также найти применение при осуществлении конкретных маневров в небесной баллистике.

## ОБСУЖДЕНИЕ

Существует проблема оптимизации движения точки переменной массы (центр масс космического аппарата (КА)) в гравитационных полях. Вариационная задача в постановке Лоудена [1] заключается в определении силы тяги и оптимальных траекторий точки, движущейся с ограниченным секундным расходом массы $m$ ($0 \le m(t) \le \tilde{m}$) и с постоянной относительной скоростью истечения продуктов сгорания $c$. Несмотря на актуальность, проблема определения аналитических решений на активных участках в центральных и тем более в нецентральных гравитационных полях до сих пор остается нерешенной. Аналитически полученные результаты имеют ряд преимуществ по сравнению с численно построенными решениями. Они не связаны с вопросами сходимости, содержат важные функциональные зависимости между параметрами, позволяют заранее определить начальные условия при численном моделировании, служат опорными решениями при использовании численных методов.

Метод Лоудена, основанный на введении базис-вектора и функции переключения, позволил нам свести указанную проблему к проблеме интегрирования некоторых замкнутых гамильтоновых систем четырнадцатого порядка по участкам нулевой ($m=0$), промежуточной ($0 < m < \tilde{m}$) и максимальной

( $m = \tilde{m}$ ) тяг [2,3]. Такое обстоятельство дает возможность использовать аппарат аналитической механики, развитый для гамильтоновых систем.

В случае ограниченной задачи трёх тел для участков промежуточной тяги известны только два интеграла. Их недостаточно для определения общего решения дифференциальных уравнений вариационной задачи. Поэтому представляет интерес определение частных интегралов и частных решений.

Одним из методов нахождения частных интегралов является метод Докшевича [4,5], основанный на анализе структуры интегралов, ещё не найденных для данной системы дифференциальных уравнений. Этот метод, не требующий знания интегралов, дал хорошие результаты при определении частных решений для активных участков в различных гравитационных полях. В данной работе для определения новых частных решений используются инвариантные соотношения, полученные нами ранее методом Докшевича [6].
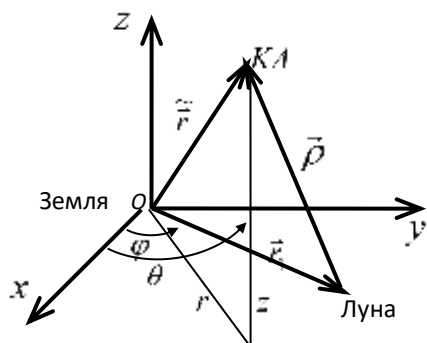


Рис. 1

Точка (центр масс космического аппарата (КА)) переменной массы $M(t)$ движется в гравитационном поле двух центров притяжения, массы которых $M_1$ и $M_2$ соизмеримы ( $M << M_2 < M_1$ ), и для удобства названных Землёй и Луной. Точка с массой $M$ не оказывает воздействия на движение центров притяжения. Предполагается, что Луна движется относительно Земли по известной эллиптической орбите с эксцентриситетом $e$ и параметром $p$

$$r_1 = \frac{p}{1 + e \cos\theta} \ , \qquad \vec{\rho} = \tilde{\vec{r}} - \vec{r_1} \qquad\qquad (1)$$

Введём геоцентрическую инерциальную систему координат [4] $xyz$, начало которой находится в центре Земли, плоскость $xy$ совпадает с плоскостью орбиты Луны, а оси неизменно ориентированы в пространстве.

Здесь $\tilde{\vec{r}}$ - геоцентрический радиус-вектор точки (КА), $\vec{r}_1$ - геоцентрический радиус-вектор Луны. Ось $Ox$ проходит через перицентр орбиты Луны, $\theta$ - её истинная аномалия, отсчитывается от направления на перицентр. Будем считать, что при $t_0 = 0$ Луна находилась на положительной части оси $Ox$ $(\theta = 0)$ в своём перицентре. Угол $\theta$ как функцию времени можно найти, используя уравнение Кеплера [7].

Дифференциальное уравнение движения точки имеет следующий вид [6]

$$\frac{d^2\tilde{\vec{r}}}{dt^2} = \frac{cm}{M}\vec{e} - \frac{\mu_1}{\tilde{r}^3}\tilde{\vec{r}} - \frac{\mu_2}{\rho^3}(\tilde{\vec{r}} - \vec{r}_1) - \frac{\mu_2}{r_1^3}\vec{r}_1, \qquad .$$

Здесь $\vec{e}$ - единичный вектор направления силы тяги, $\mu_1, \mu_2$ - гравитационные параметры Земли и Луны соответственно. Второе и третье слагаемые справа определяют ускорения, которые сообщаются точке при её движении в центральном поле, создаваемым отдельно Землёй и отдельно Луной. Последнее слагаемое учитывает возмущающее действие Луны [7].

Рассмотрим участки промежуточной тяги (ПТ) задачи о минимизации характеристической скорости [1].

$$V = c\ln\frac{M_0}{M_1}.$$

Введём обозначения: $v_1, v_2, v_3$ - составляющие скорости $\vec{v}$ точки в цилиндрической системе координат $r, \varphi, z$ (угол $\varphi$ отсчитывается от направления на перицентр орбиты Луны); $\lambda_i \left(i = \overline{1,7}\right)$- множители, сопряженные координатам $x_i$ : $v_1, v_2, v_3, r, \varphi, z, M$ ; $\vec{\lambda} = \vec{\lambda}(\lambda_1, \lambda_2, \lambda_3)$ - базис-вектор. На участках ПТ $(0 < m < \tilde{m})$, $\vec{e} = \vec{\lambda}$.

Дифференциальные уравнения вариационной задачи имеют гамильтонову форму [2]

$$\dot{v}_i = \frac{\partial H}{\partial \lambda_i} \ (i=1,2,3); \ \dot{r} = \frac{\partial H}{\partial \lambda_4}; \ \dot{\varphi} = \frac{\partial H}{\partial \lambda_5}; \ \dot{z} = \frac{\partial H}{\partial \lambda_6}; \ \dot{M} = \frac{\partial H}{\partial \lambda_7}, \qquad (2)$$

$$\dot{\lambda}_i = -\frac{\partial H}{\partial v_i} \ (i=1,2,3); \ \dot{\lambda}_4 = -\frac{\partial H}{\partial r}; \ \dot{\lambda}_5 = -\frac{\partial H}{\partial \varphi}; \ \dot{\lambda}_6 = -\frac{\partial H}{\partial z}; \ \dot{\lambda}_7 = -\frac{\partial H}{\partial M}$$

с гамильтонианом

$$H = \lambda_1 \left( \frac{cm}{M} \lambda_1 - \frac{\mu_1 r}{\tilde{r}^3} - \frac{\mu_2}{\rho^3}(r - r_1 \cos\alpha) - \frac{\mu_2}{r_1^2}\cos\alpha + \frac{v_2^2}{r} \right) +$$

$$+ \lambda_2 \left( \frac{cm}{M} \lambda_2 + \frac{\mu_2}{\rho^3} r_1 \sin\alpha - \frac{\mu_2}{r_1^2}\sin\alpha - \frac{v_1 v_2}{r} \right) + \lambda_3 \left( \frac{cm}{M} \lambda_3 - \frac{\mu_1 z}{\tilde{r}^3} - \frac{\mu_2 z}{\rho^3} \right) + \quad (3)$$

$$+ \lambda_4 v_1 + \lambda_5 \frac{v_2}{r} + \lambda_6 v_6 - \lambda_7 m$$

где $\quad \tilde{r}^2 = r^2 + z^2$, $\rho^2 = r^2 + z^2 + r_1^2 - 2rr_1\cos\alpha$ $\quad , \quad \alpha = \theta - \varphi$ . $\qquad (4)$

или

$$\dot{v}_1 = \frac{cm}{M} \lambda_1 - \frac{\mu_1 r}{\tilde{r}^3} - \frac{\mu_2}{\rho^3}(r - r_1 a \cos\alpha) - \frac{\mu_2}{r_1^2}\cos\alpha + \frac{v_2^2}{r}, \qquad (5)$$

$$\dot{v}_2 = \frac{cm}{M} \lambda_2 + \frac{\mu_2}{\rho^3} r_1 \sin\alpha - \frac{\mu_2}{r_1^2}\sin\alpha - \frac{v_1 v_2}{r}, \qquad (6)$$

$$\dot{v}_3 = \frac{cm}{M} \lambda_3 - \frac{\mu_1 z}{\tilde{r}^3} - \frac{\mu_2 z}{\rho^3}, \qquad (7)$$

$$\dot{r} = v_1; \ \dot{\varphi} = \frac{v_2}{r}; \ \dot{z} = v_3; \ \dot{M} = -m \qquad (8)$$

$$\dot{\lambda}_1 = \lambda_2 \frac{v_2}{r} - \lambda_4; \qquad \dot{\lambda}_2 = \frac{1}{r}(\lambda_2 v_1 - 2\lambda_1 v_2 - \lambda_5) ; \ \dot{\lambda}_3 = -\lambda_6 \qquad (9)$$

$$\dot{\lambda}_4 = \lambda_1\left(\frac{\mu_1}{\tilde{r}^3} + \frac{\mu_2}{\rho^3} + \frac{v_2^2}{r^2} - \frac{3\mu_1 r^2}{\tilde{r}^5} - \frac{3\mu_2}{\rho^5}(r - r_1\cos\alpha)^2\right) +$$

$$+ \lambda_2\left(\frac{3\mu_2 r_1}{\rho^5}\sin\alpha(r - r_1\cos\alpha) - \frac{v_1 v_2}{r^2}\right) - \lambda_3\left(\frac{3\mu_1 r\, z}{\tilde{r}^5} + \frac{3\mu_2 z}{\rho^5}(r - r_1\cos\alpha)\right) + \lambda_5\frac{v_2}{r^2} \quad (10)$$

$$\dot{\lambda}_5 = \lambda_1\mu_2\sin\alpha\left(\frac{1}{r_1^2} - \frac{r_1}{\rho^3} + \frac{3r_1 r}{\rho^5}(r - r_1\cos\alpha)\right) +$$

$$+ \lambda_2\mu_2\left(\frac{r_1}{\rho^3}\cos\alpha - \frac{\cos\alpha}{r_1^2} - \frac{3r_1^2 r}{\rho^5}\sin^2\alpha\right) - \lambda_3\cdot 3\mu_2\frac{z r_1 r}{\rho^5}\sin\alpha \quad (11)$$

$$\dot{\lambda}_6 = -3\lambda_1 z\left(\frac{\mu_1 r}{r^5} + \frac{\mu_2}{\rho^5}(r - r_1\cos\alpha)\right) + \lambda_2\frac{3\mu_2 r_1 z}{\rho^5}\sin\alpha + \lambda_3\left(\frac{\mu_1}{\tilde{r}^3} + \frac{\mu_2}{\rho^3} - \frac{3\mu_1 z^2}{\tilde{r}^5} - \frac{3\mu_2 z^2}{\rho^5}\right), \quad (12)$$

$$\dot{\lambda}_7 = \frac{c\dot{m}}{M^2}. \quad (13)$$

Система (2) неавтономная. Для неё известны только два интеграла на участках промежуточной тяги [1;6]

$$\lambda_7 M = c; \ \lambda_1^2 + \lambda_2^2 + \lambda_3^2 = 1.$$

Поэтому представляет интерес определение частных интегралов и частных решений. Воспользуемся методом Докшевича. Рассмотрим частный интеграл вида

$$F(v_1, v_2, \lambda_1, \lambda_2, \lambda_4, \lambda_5) = const. \quad (14)$$

Полная производная по времени от функции $F$ в силу дифференциальных уравнений (2), тождественно равна нулю. Получим следующее линейное однородное уравнение в частных производных первого порядка, которому должна удовлетворять функция $F$:

$$\frac{\partial F}{\partial v_1}\left(\frac{cm}{M}\lambda_1 - \frac{\mu_1 r}{\tilde{r}^3} - \frac{\mu_2 b}{\rho^3} - \frac{\mu_2}{r_1^2}\cos\alpha + \frac{v_2^2}{r}\right) +$$

$$+ \frac{\partial F}{\partial v_2}\left(\frac{cm}{M}\lambda_2 + \frac{\mu_2}{\rho^3}r_1\sin\alpha - \frac{\mu_2}{r_1^2}\sin\alpha - \frac{v_1 v_2}{r}\right) + \frac{\partial F}{\partial \lambda_1}\left(\lambda_2\frac{v_2}{r} - \lambda_4\right) +$$

$$+ \frac{\partial F}{\partial \lambda_2}\cdot\frac{1}{r}\left(\lambda_2 v_1 - 2\lambda_1 v_2 - \lambda_5\right) + \frac{\partial F}{\partial \lambda_4}[\lambda_1\left(\frac{\mu_1}{\tilde{r}^3} + \frac{\mu_2}{\rho^3} + \frac{v_2^2}{r^2} - \frac{3\mu_1 r^2}{\tilde{r}^5} - \frac{3\mu_2 b^2}{\rho^5}\right) +$$

$$+ \lambda_2\left(\frac{3\mu_2 r_1 b}{\rho^5}\sin\alpha - \frac{v_1 v_2}{r^2}\right) - 3\lambda_3 z\left(\frac{\mu_1 r}{\tilde{r}^5} + \frac{\mu_2 b}{\rho^5}\right) + \lambda_5\frac{v_2}{r^2}] + \qquad (15)$$

$$+ \frac{\partial F}{\partial \lambda_5}[\lambda_1\mu_2\sin\alpha\left(\frac{1}{r_1^2} - \frac{r_1}{\rho^3} + \frac{3rr_1 b}{\rho^5}\right) + \lambda_2\mu_2\left(\frac{r_1}{\rho^3}\cos\alpha - \frac{\cos\alpha}{r_1^2} - \frac{3rr_1^2}{\rho^5}\sin^2\alpha\right) +$$

$$+ \lambda_3\cdot 3\mu_2 z\frac{rr_1}{\rho^5}\sin\alpha] \equiv 0.$$

Здесь введено обозначение $b = r - r_1\cos\alpha$.

В (15) коэффициенты при величинах, не входящих в интеграл (14), должны быть равны нулю [4]. Получим систему линейных однородных уравнений относительно частных производных

$$\frac{\partial F}{\partial v_1}\lambda_1 + \frac{\partial F}{\partial v_2}\lambda_2 = 0, \qquad \frac{\partial F}{\partial \lambda_4}\left(\frac{\mu_1 z r}{\tilde{r}^5} + \frac{\mu_2 z b}{\rho^5}\right) - \frac{\partial F}{\partial \lambda_5}\frac{\mu_2 z rr_1}{\rho^5}\sin\alpha = 0,$$

$$\frac{\partial F}{\partial v_1}r - \frac{\partial F}{\partial \lambda_4}\lambda_1 = 0,$$

$$\frac{\partial F}{\partial v_1}b - \frac{\partial F}{\partial v_2}r_1\sin\alpha - \frac{\partial F}{\partial \lambda_4}\lambda_1 + \frac{\partial F}{\partial \lambda_5}\left(\lambda_1 r_1\sin\alpha - \lambda_2 r_1\cos\alpha\right) = 0,$$

$$\frac{\partial F}{\partial \lambda_4}\left(\lambda_1 b^2 - \lambda_2 r_1 b\sin\alpha\right) - \frac{\partial F}{\partial \lambda_5}\left(\lambda_1 r_1 rb\sin\alpha - \lambda_2 r_1^2 r\sin^2\alpha\right) = 0$$

$$\frac{\partial F}{\partial v_1}v_2^2 - \frac{\partial F}{\partial v_2}v_1 v_2 + \frac{\partial F}{\partial \lambda_1}\lambda_2 v_2 + \frac{\partial F}{\partial \lambda_2}\left(\lambda_2 v_1 - 2\lambda_1 v_2 - \lambda_5\right) = 0.$$

$$\frac{\partial F}{\partial v_1}\frac{\mu_2}{r_1^2}\cos\alpha + \frac{\partial F}{\partial v_2}\frac{\mu_2}{r_1^2}\sin\alpha + \frac{\partial F}{\partial \lambda_1}\lambda_4 -$$

$$-\frac{\partial F}{\partial \lambda_4}\left(\lambda_1\frac{v_2^2}{r^2} - \lambda_1\frac{3\mu_1 r^2}{\tilde{r}^5} - \lambda_2\frac{v_1 v_2}{r^2} + \lambda_5\frac{v_2}{r^2}\right) -$$

$$-\frac{\partial F}{\partial \lambda_5}\frac{\mu_2}{r_1^2}\left(\lambda_1\sin\alpha - \lambda_2\cos\alpha\right) = 0.$$

Из второго уравнения следует, что возможны два случая: $z = 0$, $z \neq 0$. Рассмотрим случай $z = 0$, то есть, КА движется в плоскости орбиты Луны. Следовательно, $v_3 = 0$, $\lambda_3 = 0$, $\tilde{r} = r$.

Введём операторы $X_i(F) = 0 \left(i = \overline{1,6}\right)$ [4], где через $X_i$ обозначены левые части последней системы. Число операторов $X_i(F)$ оказалось равным числу переменных в интеграле (14). Следуя методу Докшевича, приравняем определитель линейной системы $X_i(F) = 0 \left(i = \overline{1,6}\right)$ нулю. Окончательно получим

$$\lambda_4\left(2\lambda_1 v_2 - \lambda_2 v_1 + \lambda_5\right)\left(\lambda_1 r - \lambda_1 r_1\cos\alpha - \lambda_2 r_1\sin\alpha\right)\left(\lambda_2\cos\alpha - \right.$$
$$\left. - \lambda_1\sin\alpha\right)(\lambda_1 r_1\sin\alpha - \lambda_2 r_1\cos\alpha + \lambda_2 r) = 0. \qquad (16)$$

Приравнивая выражения в каждой скобке нулю, можно получить инвариантные соотношения, приводящие к различным частным решениям.

**1).** Пусть в (16) обращаются в нуль одновременно выражения

$$2\lambda_1 v_2 - \lambda_2 v_1 + \lambda_5 = 0 \qquad\qquad (17)$$

$$\lambda_1 r_1\sin\alpha - \lambda_2 r_1\cos\alpha + \lambda_2 r = 0 \qquad\qquad (18)$$

Тогда из уравнения (9) следует, что $\dot{\lambda}_2 = 0$. Из соотношений для базис-вектора: $\lambda_1^2 + \lambda_2^2 = 1$, $\lambda_1\dot{\lambda}_1 + \lambda_2\dot{\lambda}_2 = 0$ заключаем, что $\lambda_1\dot{\lambda}_1 = 0$. Возможны два случая:

1. $\lambda_2 = 0$, $\lambda_1 = \pm 1$ - тяга радиальная;

2. $\lambda_1 = 0$, $\lambda_2 = \pm 1$. - тяга трансверсальная.

Рассмотрим **первый случай.** Из (18) следует, что $\sin\alpha = 0$. КА находится в области между Землёй и Луной. Уравнение (6) сводится к следующему

$\dot{v}_2 = -\dfrac{v_1 v_2}{r}$ или $v_2 = \dfrac{v_{20}}{r} r_0$ . Следовательно, трансверсальная составляющая

скорости $v_2$ изменяется обратно пропорционально расстоянию $r$ до

неподвижного центра (если $v_{20} > 0$, то $v_2 > 0$). Так как $v_2 = r\dot{\varphi}$, то

$$\dot{\varphi} = \frac{v_{20} r_0}{r^2}.$$

Угловая скорость точки обратно пропорциональна квадрату расстояния до неподвижного центра.

Если угол рассогласования $\alpha$    $\alpha = 0$    $\theta - \varphi = 0$, $\overset{\bullet}{\theta} = \overset{\bullet}{\varphi}$ , то КА находится на радиусе-векторе Луны. Угловые скорости КА и Луны совпадают. $\rho = r_1 - r$
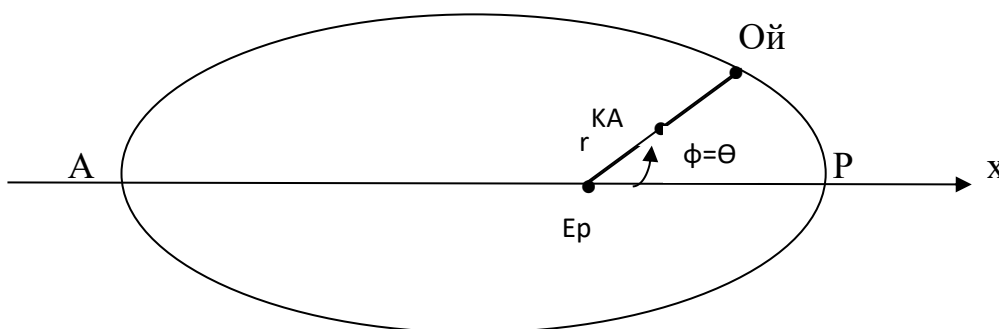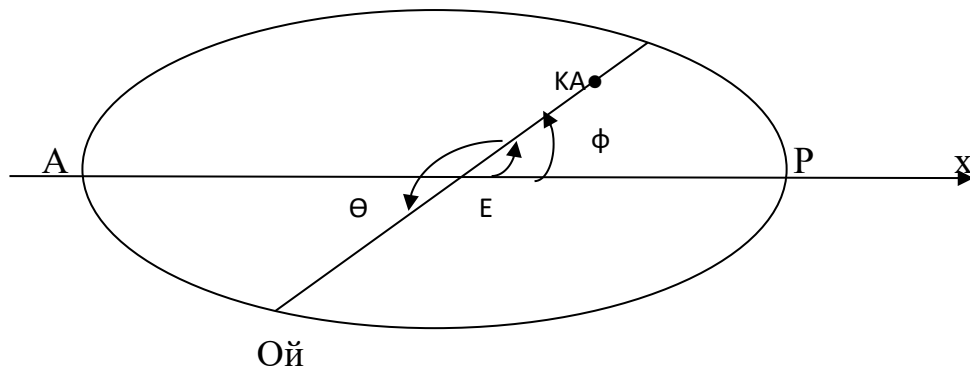


Рис. 2. Случай $\alpha = 0$

Если угол рассогласования $\alpha$    $\alpha = \pi$, $\theta - \varphi = \pi$, то КА отстаёт (или опережает) от Луны на угол $\pi$ и находится на прямой, проходящей через центры Земли и Луны (рис. 3).   $\rho = r_1 + r$ . **Угловые скорости КА и Луны совпадают.**

Рис.3 Случай $\alpha = \pi$.

Найдём траекторию, которой принадлежит найденный участок ПТ.

$$\dot{\theta} = \frac{\sqrt{\mu_1 p}}{r_1^2} = \sqrt{\frac{\mu_1}{p^3}}(1 + e\cos\theta)^2 = \dot{\varphi} \tag{19}$$

$$r^2 = \frac{v_{20}r}{\dot{\theta}} = v_{20}r_0\sqrt{\frac{p^3}{\mu_1}}\frac{1}{(1 + e\cos\theta)^2} \tag{20}$$

Обозначим

$$P = \sqrt{v_{20}r_0 p}\sqrt[4]{\frac{p}{\mu_1}} \tag{21}$$

Тогда

$$r = \frac{P}{1 + e\cos\theta} \tag{22}$$

Таким образом, КА движется по эллиптической орбите (22) с параметром (21), зависящем от начальных условий $v_{20}$, $r_0$ и параметра орбиты Луны. **Траектория КА подобна орбите Луны.**

Радиальная составляющая скорости определяется соотношением.

$$v_1 = \dot{r} = \frac{Pe\cos\theta\,\dot{\theta}}{(1 + e\cos\theta)^2} = P\sqrt{\frac{\mu_1}{p^3}}e\sin\theta = \sqrt{p}\sqrt{v_{20}r_0}\sqrt[4]{\frac{p}{\mu_1}}\frac{\sqrt{\mu_1}}{p\sqrt{p}}e\sin\theta = \sqrt{v_{20}r_0}\sqrt[4]{\frac{\mu_1}{p^3}}e\sin\theta$$

$$\theta = \theta(t)$$

Закон изменения массы можно найти из уравнения (5)

$$\dot{v}_1 = \frac{cm}{M}\lambda_1 - \frac{\mu_1}{r^2} - \frac{\mu_2}{\rho^3}(r - r_1\cos\alpha) - \frac{\mu_2}{r_1^2}\cos\alpha + \frac{v_2^2}{r},$$

где

$$\dot{v}_1 = P\sqrt{\frac{\mu_1}{p^3}}e\cos\theta\frac{\sqrt{\mu_1 p}}{r_1^2} = P\frac{\mu_1}{p}e\frac{\cos\theta}{r_1^2} \qquad (23)$$

При $\quad \lambda_1 = \cos\alpha = 1 \quad \rho = r_1 - r$ имеем

$$\frac{cm}{M} = P\frac{\mu_1}{p}e\frac{\cos\theta}{r_1^2} + \frac{\mu_1}{r^2} - \frac{\mu_2}{\rho^2} + \frac{v_{20}^2 r_0^2}{r^3} \qquad \text{откуда}$$

$$\frac{dM}{M} = f(\theta, \mu_1, \mu_2, e, p, r_0, v_{20})d\theta \qquad (24)$$

Здесь в правой части – известная функция, зависящая от начальных условий и положения Луны. Для убывания массы необходимо, чтобы функция $f(\theta)$ была отрицательной. Масса точки убывает по показательному закону. Таким образом, все величины выражены через истинную аномалию орбиты Луны, являющуюся известной функцией времени.

При малом эксцентриситете можно использовать приближенную формулу

$$t = \sqrt{\frac{a^3}{\mu_1}}(\theta - e\sin\theta) \quad , \qquad (25)$$

выражающую время движения через истинную аномалию Луны $\theta$ .

**Исследуем полученное движение на устойчивость в случае $\alpha = \pi$.**

Невозмущенное движение является следующим

$$v_1 = P\sqrt{\frac{\mu_1}{p^3}}e\sin\theta$$

$$v_2 = \frac{v_{20}}{r}r_0 = \frac{v_{20}r_0}{P}(1 + e\cos\theta) \quad , \qquad v_3 = 0 \qquad (26)$$

$$r = \frac{P}{1 + e\cos\theta}, \qquad \varphi = \theta - \pi , \quad z = 0$$

Реактивное ускорение в невозмущенном движении

$$f^* = \frac{cm}{M} = \tilde{f}(\theta) > 0 \tag{27}$$

В качестве программных управлений возьмём направляющие косинусы реактивной силы и реактивное ускорение

$$e_1^* = \pm 1, \; e_2^* = 0, \; e_3^* = 0, \; f^* = \tilde{f}(\theta) \; . \tag{28}$$

В соотношениях (26) $\theta = \theta(t)$ – известная функция времени. Таким образом, невозмущенное движение (26) содержит явно время. Далее рассмотрим случай малого эксцентриситета $e$. Например, эксцентриситет орбиты Луны $e = 0{,}055$. Все спутники Юпитера движутся по круговым орбитам $e = 0$. Поэтому положим в (26) $e = 0$, чтобы исследовать на устойчивость автономную систему. Тогда невозмущенное движение будет следующим:

$$
\begin{aligned}
v_1 &= 0, \\
v_2 &= v_{20}, \\
v_3 &= 0, \\
r &= r_0, \\
\varphi &= \theta - 0, \\
z &= 0
\end{aligned}
\tag{29}
$$

где $\;v_{20} = r_0 \sqrt{\dfrac{\mu_1}{r_1^3}} \quad r_1 = p\,; \quad r_0 = P = \sqrt{v_{20} r_0} \sqrt[4]{\dfrac{r_1^3}{\mu_1}}\;.$

Из (25) имеем

$$\theta = \sqrt{\frac{\mu_1}{r_1^3}} t = nt$$

Возмущенное движение примет следующий вид:

$$
\begin{aligned}
v_1 &= x_1, & & \\
v_2 &= v_{20} + x_2, & e_1 &= \pm 1 + u_1, \\
v_3 &= x_3, & e_2 &= u_2, \\
r &= r_0 + x_4, & e_3 &= u_4, \\
\varphi &= nt - \pi + x_5, & f^* &= \tilde{f}(\theta) + u_3. \\
z &= x_6 & &
\end{aligned}
\tag{30}
$$

Здесь $x_i \left(i = \overline{1,6}\right)$ - отклонения возмущенного движения от невозмущенного; $u_i \left(i = \overline{1,4}\right)$ - дополнительные отклонения управлений сверх программ для погашения возмущенного движения и приближения действительного движения к программному.

Уравнения возмущенного движения:

$$\begin{cases} \dot{x}_1 = (\tilde{f} + u_3)(u_1 \pm 1) - \dfrac{\mu_1(r_0 + x_4)}{\left[(r_0 + x_4)^2 + x_6{}^2\right]^{3/2}} - \dfrac{\mu_2(r_0 + x_4 + r_1 \cos x_5)}{\rho^3} + \dfrac{\mu_2}{r_1^2}\cos x_5 + \dfrac{(\upsilon_{20} + x_2)^2}{r_0 + x_4} \\[4mm] \dot{x}_2 = (\tilde{f} + u_3)u_2 + \dfrac{\mu_2 r_1 \sin(\pi - x_5)}{\rho^3} - \dfrac{\mu_2}{r_1^2}\sin(\pi - x_5) - \dfrac{x_1(\upsilon_{20} + x_2)}{r_0 + x_4} \\[4mm] \dot{x}_3 = (\tilde{f} + u_3)u_4 - \dfrac{\mu_1 x_6}{\left[(r_0 + x_4)^2 + x_6{}^2\right]^{3/2}} - \dfrac{\mu_2 x_6}{\rho^3} \\[4mm] \dot{x}_4 = x_1 \\[2mm] \dot{x}_5 = -n + \dfrac{\upsilon_{20} + x_2}{r_0 + x_4} \\[4mm] \dot{x}_6 = x_3 \end{cases} \qquad (31)$$

Уравнения первого приближения можно записать следующим образом

$$\begin{aligned} \dot{x}_1 &= 2D\,x_2 + E\,x_4 + \tilde{f}u_1 \pm u_3, \\ \dot{x}_2 &= -D\,x_1 + F\,x_5 + \tilde{f}u_2, \\ \dot{x}_3 &= -\frac{1}{2}(D^2 + E)\,x_6 + \tilde{f}u_4, \\ \dot{x}_4 &= x_1, \\ \dot{x}_5 &= \frac{1}{r_0}x_2 - \frac{D}{r_0}x_4, \\ \dot{x}_6 &= x_3. \end{aligned} \qquad (32)$$

Здесь введены следующие обозначения

$$D = \frac{\upsilon_2}{r_0}, \quad E = \frac{2\mu_1}{r_0^3} + \frac{2\mu_2}{(r_1 + r_0)^3} - D^2; \quad F = \frac{\mu_2 r_1}{(r_0 + r_1)^3} - \frac{\mu_2}{r_1^2} < 0; \qquad (33)$$

Уравнения возмущенного движения в матричной форме примут следующий вид

$$\frac{d\vec{x}}{dt} = A\vec{x} + B\vec{u} + \vec{g}(x,u), \tag{34}$$

где $\vec{g}(x,u)$ - члены порядка выше первого относительно $x,u$.

$$\vec{x} = \begin{Vmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \\ x_6 \end{Vmatrix}; \vec{u} = \begin{Vmatrix} u_1 \\ u_2 \\ u_3 \\ u_4 \end{Vmatrix}; \ B = \begin{Vmatrix} \tilde{f} & 0 & \pm 1 & 0 \\ 0 & \tilde{f} & 0 & 0 \\ 0 & 0 & 0 & \tilde{f} \\ 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 \end{Vmatrix}, \quad A = \begin{Vmatrix} 0 & 2D & 0 & E & 0 & 0 \\ -D & 0 & 0 & 0 & F & 0 \\ 0 & 0 & 0 & 0 & 0 & -\dfrac{D^2+E}{2} \\ 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & \dfrac{1}{r_0} & 0 & -\dfrac{D}{r_0} & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 & 0 \end{Vmatrix}$$

При $\vec{u} = 0$ имеем задачу об устойчивости по Ляпунову невозмущенного движения $x_i = 0$ ($i = \overline{1,6}$)

$$\dot{\vec{x}} = A\vec{x} + \vec{g}(x).$$

Составим характеристическое уравнение системы первого приближения

$$\dot{\vec{x}} = A\vec{x}$$

$$|A - sE| = 0 \tag{35}$$

$$\begin{vmatrix} -s & 2D & 0 & E & 0 & 0 \\ -D & -s & 0 & 0 & F & 0 \\ 0 & 0 & -s & 0 & 0 & -\dfrac{D^2+E}{2} \\ 1 & 0 & 0 & -s & 0 & 0 \\ 0 & \dfrac{1}{r_0} & 0 & -\dfrac{D}{r_0} & -s & 0 \\ 0 & 0 & 1 & 0 & 0 & -s \end{vmatrix} = 0$$

или

$$\left( s^2 + \frac{1}{2}(D^2+E) \right) \left( s^4 + \left( 2D^2 - E - \frac{F}{r_0} \right) s^2 + \frac{F}{r_0}\left( E + 2D^2 \right) \right) = 0. \tag{36}$$

Характеристическое уравнение распалось на два уравнения:

первое

$$s^2 + \frac{1}{2}(D^2 + E) = 0$$

имеет два чисто мнимых корня. Второе уравнение – биквадратное. Его дискриминант

$$(E + \frac{F}{r_0} - 2D^2)^2 - 4\frac{F}{r_0}(E + 2D^2) > 0,$$

в силу (33), положительный ( $F < 0, \quad E + 2D^2 > 0$ ). Следовательно, среди корней характеристического уравнения (35) есть хотя бы один действительный положительный корень.

Известно, что если хотя бы один из корней характеристического уравнения имеет положительную действительную часть, то невозмущенное движение неустойчиво по первому приближению[8].

**РЕЗУЛЬТАТЫ**

Таким образом, рассматриваемое движение (28,29) неустойчиво по Ляпунову по первому приближению. Возникает задача о стабилизации невозмущенного движения (28,29), то есть задача о выборе такого регулятора $\vec{u}(t,x)$, при подстановке которого в уравнения (32) невозмущенное движение стало бы асимптотически устойчивым по Ляпунову [9]. Это возможно, если система (34) управляемая. Воспользуемся следующим критерием управляемости и стабилизации по первому приближению [9].

Система (34) полностью управляема по первому приближению в том и только в том случае, если матрица

$$W = \| B, AB, ..., A^5 B \| \tag{37}$$

**имеет ранг, равный 6 (порядок системы (34).** Нетрудно проверить, что в нашем случае ранг матрицы $W$ равен 6. Поэтому существует линейный регулятор

$$\vec{u} = \mathbf{P}\,\vec{x} \tag{38}$$

и вопрос о стабилизации решается по линейному приближению

$$\frac{d\,\vec{x}}{d\,t} = \left(A + B\mathbf{P}\right)\vec{x}.$$

Постоянная действительная матрица $\mathbf{P}$ должна быть такой, чтобы невозмущенное движение системы

$$\dot{\vec{x}} = \left(A + B\mathbf{P}\right)\vec{x} + \vec{g}\left(x,u\right)$$

было асимптотически устойчиво, то есть чтобы действительные части всех собственных значений матрицы $A + B\mathbf{P}$ были отрицательными. Этому условию будет удовлетворять, например, следующая матрица $\mathbf{P}$

$$P = \left\| \begin{array}{cccccc} p_{11} & 0 & 0 & p_{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & p_{43} & 0 & 0 & 0 \end{array} \right\| \tag{39}$$

Матрица $\mathbf{P}$ выбиралась из условия, чтобы не только действительные части собственных значений матрицы $A + B\mathbf{P}$ были отрицательными, но и чтобы она была по возможности наиболее простой. Если убрать любой из элементов матрицы (39), то среди корней характеристического уравнения системы первого приближения

$$| A + B\mathbf{P} - sE |= 0 \tag{40}$$

появится корень с положительной (или с нулевой) действительной частью. Характеристическое уравнение (40) распадается на два уравнения:

первое

$$s^2 - \tilde{f}p_{43}s + \frac{1}{2}(D^2 + E) = 0 \ ,$$

корни которого при условии

$$p_{43} < 0 \tag{41}$$

имеют отрицательные действительные части, и второе:

$$s^4 - \tilde{f}p_{11}s^3 + (2D^2 - \tilde{f}p_{14} - E - \frac{F}{r_0})s^2 + \frac{F}{r_0}(\tilde{f}p_{11}s + \tilde{f}p_{14} + E + 2D^2) = 0 \tag{42}$$

корни которого будут иметь отрицательные действительные части при выполнении следующих условий:

$$p_{11} < 0 \ ; \quad p_{14} < -\frac{1}{\tilde{f}}(\frac{v_{20}^2}{r_0^2} + \frac{2\mu_1}{r_0^3} + \frac{2\mu_2}{(r_1 + r_0)^3}) \tag{43}$$

Таким образом, стабилизирующее управление (линейный регулятор) построен

$$
\begin{aligned}
u_1 &= p_{11}x_1 + p_{14}x_4 = p_{11}v_1 + p_{14}r, \\
u_2 &= 0, \\
u_3 &= 0, \\
u_4 &= p_{43}x_3 = p_{43}v_3,
\end{aligned}
\tag{44}
$$

где, коэффициенты (элементы матрицы (39)) $p_{11}, p_{14}, p_{43}$ удовлетворяют найденным выше условиям.


## ЗАКЛЮЧЕНИЯ

Таким образом, для стабилизации невозмущенного движения необходимо изменять программу направления силы тяги, а именно изменять программу

направляющих косинусов $e_1, e_3$. В процессе движения достаточно учитывать возмущения только трех фазовых координат $v_1, v_3, r$.

Добавляя к программному управлению (28) регулятор (44), получим систему с обратной связью. Поскольку рассматривается участок промежуточной тяги, где масса изменяется непрерывно, то возможно непрерывное осуществление этой обратной связи. Теперь направление реактивной силы в каждый момент времени формируется с учетом дополнительной информации, поступающей в орган управления в процессе движения. Это обстоятельство создает возможность не допустить отклонения фазовых координат в какой-нибудь отдельный момент времени от программного значения на величину большую допустимой.

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# HISTORICAL PROCESS AND HISTORICAL TRUTH IN THE NOVEL

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*Abstract. The article talks about the fate of Shuhrat's novel" Gold is rustproof "(Oltin zanglamas), created in the sixties of the 20th century, and the prototypes of its characters in life. The work was created based on real events related to repression and war in the former USSR. Particular attention is paid to aspects related to its main character, Sabir, the author himself, that is, the writer Shuhrat.*

*Keywords. Novel, Fame, Gold is rustproof (Oltin zanglamas), History, Repression.*

# ROMANDAGI TARIXIY JARAYON VA TARIXIY HAQIQAT

**Yadgarova Mehriban**

O'zR FA Alisher Navoiy nomidagi
Davlat adabiyot muzeyi ilmiy xodimi, Ph.D.

*Annotatsiya. Maqolada XX asrning oltmishinchi yillarida yaratilgan Shuhratning "Oltin zanglamas" romanining taqdiri va qahramonlarining hayotdagi prototiplari haqida so'z boradi. Asar sobiq SSSRdagi repressiya va urush bilan bog'liq real voqealarga tayangan holda yaratilgan. Uning bosh qahramoni Sobir muallifning o'zi ya'ni, yozuvchi Shuhrat bilan bog'liq jihatlarga alohida e'tibor berilgan.*

*Kalit so'zlar. Roman, Shuhrat, Oltin zanglamas, tarix, repressiya.*

Half a year later the following people were imprisoned: on November 28, 1950, first, Alimuhammedov's brother Nabi Alimuhammedov, on November 29, 1950; Hamid Sulayman, literary critic, on November 30, 1950; Mirzakalon Ismaili, writer, and translator poets: on January 24, 1951; Alimov Gulom (Shuhrat), on November 25, 1951; Yusupov Shukrullo, on February 26, 1951, Murodov Mahmud and Joraev Meli on February 28, 1951. These convicts are imprisoned as an organized criminal gang, but they were accused of creating the "National Faith" organization, which didn't exist.

In Shukhrat's novel "Gold is rustproof" (1965), which we intend to analyze, the materials of file number 726 of the above-mentioned convicts are kept in the State Security Service archive. The dark days the writer and his contemporaries experienced, in general, the period of the autocratic regime, the life, and spirit of the people and society, leading to repression the coming factors are illuminated through the fate of the central characters of the novel.

"Gold is rustproof " is an autobiographical novel, and in the process of working on the work, Shukhrat tries to clarify his attitude to the times, his contemporaries, and the political system. Naturally, it is not difficult to imagine that this process was very complicated for a writer in a new environment. The work was written. Therefore, regardless of the circumstances in which it was written, the demand for literary studies for a work of art remains unchanged. So, how much Shukhrat was able to illuminate his concept through the central characters in the novel? In other words, to what extent was the writer able to fictionalize the scenes of historical reality? In general, who were the people whose political image is illuminated through the central characters?

"In every artistic work, people are depicted in historically specific, concrete conditions" (I. Sultan). So to speak, these conditions together with the psyche of the characters determine the character of the events. In the process of reading " Gold is rustproof", at first, the reader does not understand the time of the events. However, as you get inside, it becomes clear that the events are taking place in the thirties of the last century (gossip in the novel, people's daily life, the image of a modern woman after

throwing off the burqa, sending round letters to a special office). The writer shapes the characters accordingly.

The same can be said about the character of the main character Sadiq. Because Sadiq, due to childlessness, divorces his beloved wife and marries a young man, Mirsalim's services are special, but it is in these episodes that Sadiq gets the impression that Mirsalim has fallen into his care. True, this may be related to the author's creative intention. However, Sadiq's older age, the fact that he is from the intelligentsia, and most importantly, that he has seen a lot, his actions (i.e., when a caring father asks his son, "Should I get you married, my son," and he answers, "You know, father," he relaxes like a teenager looking at the ground) do not match the character logic of the hero.

The writer noticed this flaw in his character and immediately corrected it. Now before the eyes of the reader, as described at the beginning of the novel, a hero with a strong will, perseverance, a broad worldview, and his position appears.

The author's sympathy for this hero is reflected even in the name given to him. Sadiq means faithful, truly, firm in his faith, a true person. He does not betray himself even when he is imprisoned with a black name and when he gets into a difficult situation among different people in the camp. In addition, an accident happens in Sadiq's life, which throws the character, who was suffering mentally in the camp, into the bosom of an exciting life again. This was the beginning of the Second World War.

The writer effectively uses the historical background of the greatest battle in the history of mankind in the work, firstly, he develops the character of the adventurer in the novel, secondly, he throws the hero into a whirlwind of new trials through this war, achieves to reveal the character's character more brightly, and thirdly, he masks the theme of repression, which is the main theme of the work (the novel's Both in the version published in 1965 in Shark Yulduzi (Eastern Star) magazine and in the version published for the first time as a book in 1967, the work was published decorated with pictures related to the war), fourthly, by depicting the author's heroes against the background of the war, the conflict between himself and society, the political situation

of that time reflects his dissatisfaction with the structure of the system, and most importantly, his aesthetic assessment concerning his time.

Sadiq is a true communist character, imbued with an optimistic spirit in line with socialist beliefs. This thing can be evaluated according to the period when the work was created. Nevertheless, his "true communist" is good quality. Regardless of which political system he belongs to, Sadiq is, first of all, a man of faith. This determines his position as a human being. By the way, faith is compared to gold in the novel. It is known that gold is a metal that does not burn in fire and does not sink in water. The writer, who effectively used this property of the chemical substance in a metaphorical sense, uses the word gold three times: "- You are genial! That's what they say, the original does not change, and the gold does not rust. But... although you had no crime before, you have now committed treason.

Dilovarkhoja looked at his interlocutor slyly" (manuscript, p. 518).

"The secretary of the district party committee spoke about the ugly consequences of the era of the cult of personality and finally said:

- Soviet people are golden people. And gold does not rust. (Emphasis is ours. - M.Y.) Even the years of personality worship did not harm him. The fate of the communist Sadiq Kochkarov is a vivid example of this" (manuscript, p. 703).

As you can see, for the first time Sadiq is compared to gold by Dilovarkhoja. Although he said it with sarcasm, Sadiq is admitted to be a man of strong faith.

After that, in the speech of the chairman of the district party committee, the meaning of the word "gold" expanded and was applied to the general victims of the political system of the USSR. Through this simile, the writer emphasizes that it is not easy to break the spirit of the people.

And, finally, the word "gold" is included in the title of the novel. Now, in addition to the previous layers of meaning, the word "gold" expresses the meaning of "unbendable truth."

At the same time, Sadiq is a character who is not without flaws. This brings it closer to real life.

Sadiq did not say anything else. It was useless for him to say anything. But the investigator sometimes let him go astray and signed such protocols" (emphasis ours. - M.Y.) (manuscript, p. 239).

This situation of Sadiq is typical for that time, similar to Alimuhammedov's instructions, the excerpt of which is given above, the prisoners sometimes wanted the investigation to end faster because they were exhausted, and sometimes they were misguided by the promises about better conditions in the camp and signed such groundless protocols to live in better conditions in the camp. Sometimes they were forced to sign.

"Know that what camp you end up in depends on the investigation, on me." Admittedly, this camp could be in the vicinity if you also expose your accessories. Otherwise, you'll be fraternizing with polar bears. Have you ever heard about the place called "Kalima" where twelve months is winter, the rest are summer!" (manuscript, p. 256).

This terrible process, which is characteristic of the times when the policy of repression was working in haste, has not been covered in the scientific research conducted on the subject, nor in the works of art. It can be said that Shukhrat's creative courage reflects the process with such subtle aspects in 1964. Unfortunately, these episodes were omitted from the book at that time. However, in the 1965 magazine version of the novel, the excerpts quoted above from the manuscript were published in a slightly shortened and edited form.

Shukhrat's novel "Gold is rustproof" reflecting the reality of the Uzbek intellectuals of the 30s and 50s of the 20th century, is undoubtedly a novel that was able to draw lines against the detestable image of the authoritarian Soviet system at that time. In particular, the experiences of the main character Sadiq, who is truly loyal to his beliefs and ideals in the work, depicted the true Soviet man of the writer's dream along the lines of the statements and situations that we discussed above. However, the reviewed historical and other archival documents show that Sadiq, a true Soviet man, was considered an enemy in this Soviet country, and the writer Shukhrat tried to emphasize these aspects as much as possible in his novel.

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# RAHBAR VA XODIMLAR O'RTASIDAGI ZIDDIYATLI VAZIYATLAR VA UNING IJTIMOIY-PSIXOLOGIK XUSUSIYATLARI

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*Annotatsiya: Ushbu maqolada bugungi kundagi dolzarb muammolardan biri, kompaniya rahbarlari va xodimlari o'rtasidagi nizolar va ularni kelib chiqish sabablari, munosabatlar yomonlashuvi va kompaniyaning barbod bo'lishiga olib keladigan omillari yoritilgan. Hamda bunday vaziyatlarda to'g'ri qaror qabul qilish, xodimlarni boshqarish va mavjud nizolarni ijobiy hal qilishda konstruktiv yondashuv va samarali usullar keltirib o'tilgan.*

*Tayanch so'zlar: Rahbar va xodimlar, ziddiyatli vaziyatlar, tushunmovchilik, kelishmovchilik, muloqot ko'nikmasi, nizolar, mojaro.*

Bugungi kunda ijtimoiy jamiyatda rahbar va xodimlar o'rtasidagi ziddiyatli vaziyatlar dolzarb muammolar safiga kirib bormoqda. Kompaniya rahbari va xodimlari o'rtasidagi nizolar yangilik emas. Bundan holatlar ikki tomon o'rtasida nafaqat yomon munosabatni namoyon qiladi, balki kompaniyaning samaradorligiga ham salbiy ta'sir ko'rsatadi. Rahbar va xodimlar o'rtasidagi kelishmovchiliklar shaxsning ish unumdorligini sezilarli darajada pasaytirish ehtimoli katta. Nizolarni hal qilishda rahbarning roli eng qiyin va mashaqqatli qismi hisoblanadi. Rahbarlar ko'pincha mojarolarni hal qilishdan qochadi. Ammo rahbar tomonidan ziddiyatli vaziyatlarni murosaga keltirish aslida yetakchilik qobiliyatini o'sishida muhim rol o'ynaydi va tashkiliy rijovlanishlarga eshik ochadi.

Bugungi kunda nafaqat O'zbekistonda balki butun jahonda psixologlarga talab juda kuchli. E'tiborimiz markazida bo'lgan muammo ya'ni "Rahbar-xodim"

o'rtasidagi tushunmovchiliklar, nizolar va mojarolarda har bir roldagi shaxs o'zini tuta bilish, to'g'ri va ongli qadamlar qo'yish ko'nikmalarini rivojlantirmog'i ayni muddao. O'quv qo'llanmalarda, kitoblarda, ijtimoiy tarmoqlarda va seminar treninglarda "Rahbar-xodim" o'rtasidagi munosabatlarni yaxshilash uchun jamiyatshunoslar, psixologlar va ushbu masalaga aloqador soha vakillari samarali nazariy va amaliy usullarni taklif etib kelishmoqda.

Odatda ish joyidagi har qanday muammolar rahbarning yoki xodimlarning shaxsiy adovati tufayli yuzaga kelmaydi yoki malaka tajribaning kamligi ziddiyatli vaziyatlarni keltirib chiqarishga sabab bo'lishi mumkin. Rahbar va xodimlar o'rtasidagi ziddiyat har qanday sabablarga ko'ra kelib chiqishi mumkin, jumladan:

- Xodimni kamsitish va tarafkashliklar;
- Rahbar tomonidan qo'llab-quvvatlanmaslik;
- Nosog'lom muloqot va madaniyat hamda rahbar-xodimning xulq-atvori;
- Xodim mashaqqatli mehnati tan olinmasligi;
- Rahbar yetarlicha ko'rsatma yoki yordam bermasligi;
- Standartlarda ishlamaydigan xodimning xulqi;
- Rahbar-xodim o'rtasidagi ishonchning yo'qligi;
- Boshqaruv va amaliyotlar bilan bog'liq tushunmovchiliklar;
- va shu kabilar…

Yaxshi muloqot ko'nikmasini shakllantirish lozim. Biznesga katta miqdorda sarmoya kiritish yoki shaxsiy mehnatsevarlik xislatlari yaxshi darajada bo'lishi bu qiyinchiliklardan osongina oldinga o'tish uchun kamlik qiladi. Xodimlar bilan yaxshi munosabat va yaxshi muloqotni rivojlantirmay muvaffaqiyatga erishib bo'lmaydi. Xodimlar ishni bajarishda raqobat yo'qligini tushunishlari va barcha bir maqsadga erishish uchun intilishlari kerak. Xodimlar o'z vazifasini nuqsonsiz bajarishi uchun ikki tomon o'rtasida yaxshi va samimiy muloqot bo'lishi kerak. Xodimlar o'rtasida yaxshi muloqotni o'rnatishga ko'plab tadbirlar orqali erishish mumkin. Masalan, rahbar tomonidan seminar va treninglar, yakkama-yakka va guruhdagi muloqot, suhbat, sayohatlar, **"teambuilding"** va shu kabilar.

Muammoni hal qilgandan ko'ra uni oldini olgan afzal. Biroq, muammo chiqqanida edi uni hal qilishni kechiktirmaslik zarur. Vaqtida hal qilinmagan muammolar norozilikka aylanadi va xodimlar o'z rahbariga hurmatni so'ndiradigan salbiy muhitni yaratadi. Ular jamoa bo'lib ishlashda va birga o'sishda qiyinchiliklarni boshdan kechiradi.

**Xulosa.** Rahbar va xodimning shaxsiy va kasbiy rivojlanishining negizida ular o'rtasidagi munosabat va muloqot samimiy va ijobiy bo'lishi juda muhimdir. Nafaqat rahbar va xodim balki xodimlarning o'zaro munosabatining mustahkamligi kompaniyaning kelajagi uchun katta rol o'ynaydi. Doimo o'zgalarga ehtiromli bo'lish lozim, ochiq va samimiy muloqot qilish kerak va qandaydir muammo chiqsa uni janjalgacha olib bormasdan o'zaro fikr-mulohazalarni ochiq so'rab yechim topa bilish kerak. Ko'tarinki va konstruktiv hamkorlik hamma uchun muvaffaqiyatli va sog'lom ish muhitini yaratish mezonidir.

**Foydalanilgan adabiyotlar:**

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# PROBLEMS AND SOLUTIONS OF ARTIFICIAL INTELLIGENCE SYSTEMS IN EDUCATION

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*Abstract: Artificial Intelligence (AI) systems in education have the potential to transform the learning experience. However, they also come with their own set of challenges. This section will discuss some of the key problems associated with AI systems in education and propose potential solutions to address these issues.*

*Keywords: Artificial Intelligence (AI), (AI) systems, Mashine learning, Robust Data Protection Measures, Ethical Data Collection, Data Privacy and Security AI systems.*

**Introduction:** Artificial Intelligence (AI) has revolutionized various industries, and education is no exception. AI systems in education have the potential to enhance learning experiences, personalize instruction, and improve educational outcomes. However, like any emerging technology, AI in education also poses certain challenges. In this article, we will explore the problems associated with AI systems in education and discuss potential solutions to address these issues.

**Artificial Intelligence Systems in Education**

Artificial Intelligence (AI) systems in education have revolutionized the way students learn and teachers educate. These intelligent systems utilize advanced algorithms and machine learning techniques to analyze vast amounts of data, adapt to individual student needs, and enhance the overall educational experience.

One of the key benefits of AI in education is its ability to personalize learning. AI systems can gather data on students' learning styles, preferences, and performance to

create customized learning paths. By analyzing this data, AI algorithms can identify knowledge gaps and suggest appropriate resources or activities to help students fill those gaps.[1]

Additionally, AI systems can provide real-time feedback and assessment. Through natural language processing and machine learning, these systems can evaluate students' written work, provide instant feedback, and even offer suggestions for improvement. This immediate feedback enables students to learn from their mistakes and make progress more efficiently.[3]

Another significant advantage of AI in education is its ability to support teachers in their instructional efforts. AI-powered tools can automate administrative tasks such as grading, lesson planning, and even generating personalized learning materials. [2]This automation allows teachers to focus more on individual student interactions and instructional design, ultimately enhancing the quality of education. Furthermore, AI systems can facilitate adaptive learning experiences. By continuously monitoring and analyzing student progress, these systems can dynamically adjust the difficulty level and pace of learning materials. This adaptive approach ensures that students are appropriately challenged and engaged, maximizing their learning outcomes.[5]

However, it is essential to acknowledge the potential challenges and ethical considerations surrounding AI in education. Privacy concerns, data security, and algorithm bias are some of the critical issues that need to be addressed to ensure the responsible and equitable use of AI systems.

In conclusion, Artificial Intelligence systems in education have the potential to transform the educational landscape by personalizing learning, providing real-time feedback, supporting teachers, and facilitating adaptive learning experiences. As AI technology continues to advance, it is crucial to strike a balance between leveraging its benefits and addressing the ethical implications, ensuring that these systems enhance education for all learners.

**Problem 1:** Lack of Human Interaction One of the primary concerns with AI systems in education is the potential decrease in human interaction. Traditional classroom settings thrive on teacher-student interactions, which foster critical thinking, collaboration, and social skills.[5]Overreliance on AI systems can potentially hinder these important aspects of education. Students may miss out on the emotional connection and personalized guidance that human teachers provide.

**Solution:** Augment, Don't Replace To address this problem, AI systems should be designed to augment rather than replace human teachers. Implementing AI as a supportive tool can free up teachers' time from administrative tasks, allowing them to focus on individualized instruction, mentoring, and fostering social interactions among students. By striking a balance between AI and human interaction, we can create a more effective learning environment.

**Problem 2:** Bias and Lack of Diversity AI systems are only as good as the data they are trained on. If the training data is biased or lacks diversity, the AI algorithms can perpetuate and amplify these biases. This can lead to unfair treatment, discrimination, and limited perspectives in educational settings.

**Solution:** Ethical Data Collection and Algorithmic Transparency To mitigate bias in AI systems, it is crucial to ensure ethical data collection practices. Diverse datasets that accurately represent different demographics should be used to train AI algorithms. Additionally, transparency in algorithmic decision-making is essential. Educators, policymakers, and AI developers must work together to develop frameworks that promote fairness, accountability, and transparency in AI systems used in education.

**Problem 3:** Data Privacy and Security AI systems in education collect and analyze vast amounts of student data, raising concerns about privacy and security. There is a need to protect sensitive student information from unauthorized access and misuse. Data breaches can compromise student privacy and erode trust in AI systems.

**Solution:** Robust Data Protection Measures To address data privacy and security concerns, educational institutions must prioritize robust data protection measures. This includes implementing stringent data encryption protocols, secure storage systems, and

access controls.[6] Transparent data usage policies should be in place, clearly outlining how student data is collected, stored, and used. Regular audits and third-party assessments can help ensure compliance with privacy regulations.

**Conclusion:** Artificial Intelligence systems in education have immense potential to transform learning experiences. However, it is crucial to address the problems and challenges associated with their implementation. By maintaining a balance between human interaction and AI support, mitigating biases, and prioritizing data privacy and security, we can harness the power of AI to create an inclusive and effective educational landscape.

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