



# ACTUAL PROBLEMS OF MODERN SCIENCE, EDUCATION AND TRAINING

**KHOREZMSCIENCE.UZ**





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**ECONOMETRIC MODELING AND FORECASTING DEVELOPMENT  
DIGITAL ECONOMY UZBEKISTAN**

**Gulmanov Maxsud Aminovich,**  
**Docent of “Accounting and Auditing”**  
**department of Urgench state university**  
[maxsudgulman@gmail.com](mailto:maxsudgulman@gmail.com)

**Annotasiya.** Ush makolada raqamli iqtisodietning ijtimoiy-iqtisodiy kwsatkichlarni kuzatishga tasiri elastick koeffitsientlari asosida aniqlangan. Axborot va communication hizmatlarini rivozhlanish tendentsiyalari tadqiq qilingan holda forecast kwsatkichlari va istikbolli yunalishlari ishlab chikarish.

**Kalit suzlar:** axborot va aloqa xizmatlari, kompyuter iqtisodiyot, JIM, regression tahlil, korrelyatsiya tahlili, prognoz, aniqlash koeffitsientlari, elasticclick koeffitsientlari.

**Аннотация.** В данной работе влияние цифровой экономики на формирование социально-экономических показателей определяется на основе коэффициента эластичности. Изучены прогнозные показатели и перспективные пути развития информационно-коммуникационных услуг.

**Ключевые слова:** информационно-коммуникационные услуги, цифровая экономика, ВВП, регрессионный анализ, корреляционный анализ, прогноз, коэффициент детерминации, коэффициент эластичности.

**Abstract.** In this paper, the impact of the digital economy on the formation of socio-economic indicators is determined on the basis of the coefficient of elasticity. Forecast indicators and perspective ways for the development of information and communication services have been studied.

**Keywords:** information and communication services, digital economy, GDP, regression analysis, correlation analysis, forecast, determination coefficient, elasticity coefficient.

**Introduction.** Information technologies permeate our lives, and have tremendous potential when strengthening development. Digital technologies are at the forefront of development and provide a unique opportunity for countries to accelerate economic growth and connect citizens to services and jobs. In times of crisis, from natural disasters to pandemics such as the one the world experienced with COVID-19, digital technologies are what’s keeping people, governments and businesses connected. They can unlock innovative solutions to complex development challenges and help countries skip traditional stages of development from digital banking to block chain and telemedicine [16].

The digital economy is equivalent to 15.5 percent of global GDP, growing two and a half times faster than global GDP over the past 15 years. Research shows that a 10 percent increase in mobile broadband penetration in Africa would result in an increase of 2.5 percent of GDP per capita. In a post COVID-19 environment, digitalization efforts will accelerate across the globe, but most developing countries do not currently possess the right tools and environments for that [16].



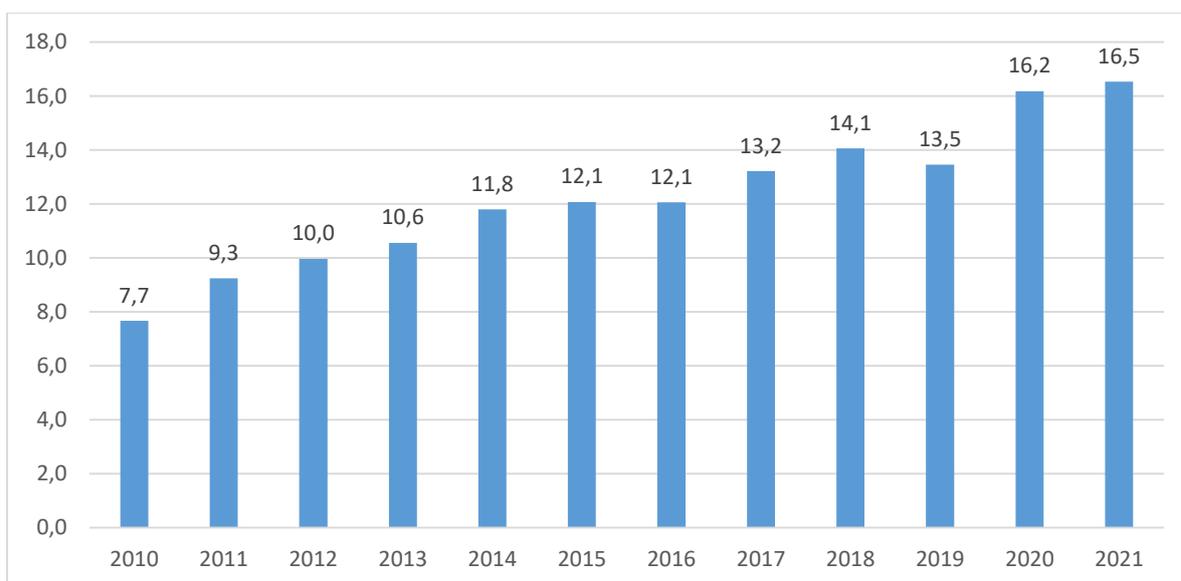
In the formation of a new Uzbekistan, special attention is paid to the issues of effective use of digital technologies and their involvement in the economy, increasing the level of coverage, taking into account their importance in ensuring the socio-economic development of society. In particular, the 25 goals of the "Development Strategy of the New Uzbekistan for 2020-2026" set the task to work to make the digital economy the main "driver" sector and increase its volume by at least 2.5 times. In order to fulfill this task, through the further development of digital infrastructure to cover all settlements and social facilities and highways with broadband networks, increase the level of digitization of production and operational processes in the real sector of the economy and finance and banking to 70 percent by the end of 2026. Special attention is paid to increase the volume of the product industry by 5 times and their exports by 10 times to \$ 500 million [1].

**Literature review:** The conceptual base, definitions and main features, as well as role of digital economy has been studied by several researchers. Such as, definition, Conceptualization and measurement [2], growth of digital economy [3], introduction and understanding the digital economy [4], development of digital economy [5,9], digital economy in developing countries [6], challenges for competition policy in a digitalized economy [7], role of ICT micro-enterprise in developing countries [8], IT and organizational change in digital economies [11], digital globalization [12], impact of the internet on economic growth and prosperity [13], employee engagement in small and medium enterprises in digital economy [14].

**Research methodology.** In the research used secondary data that taken from the State Committee of the Republic of Uzbekistan on statistics and its regional branches. For data analysis used several methods such as comparative analysis, logical analysis, structural analysis, statistical analysis, correlation-regression analysis.

**Analysis and results** In the next period, the formation of a digital economy, i.e. increasing the level of use of ICT in economic processes is considered as one of the important directions in ensuring socio-economic development. However, the results of the analysis conducted in the framework of the research show that the existing opportunities in this area in our country are not fully used. In particular, the impact of ICT production on GDP growth remains low. Therefore, this part of our research aims to identify promising areas for the development of information technology by studying the trends in its development.

Statistics show that information and communication services, which serve as an important basis for the formation of the digital economy, are growing rapidly. In other words, during 2010-2021, the total volume of services provided in the country increased by 3.8 times, while the volume of services in the field of information and communication increased by 8.3 times. As a result, the share of this type of services in total services has increased (graph 1).



**Graph 1. Dynamics of the share of information and communication services in the total market services <sup>1</sup>**

According to the calculations, the share of information and communication services increased from 7.7 percent in 2010 to 16.5 percent by 2021. If we look at the overall dynamics, there was a steady growth trend. Only in 2016 did the share remain unchanged from the previous year, while in 2019 it decreased from 14.1 percent to 13.5 percent from the previous year. In this regard, the method of regression analysis was used to assess the impact of information and communication services on the development of the country’s economy and industries.

Data for 2010-2021 were obtained for the analysis, and all indicators were converted to real values, assuming 2010 as a basis. An elasticity coefficient was used to assess the effect, and level models were developed to determine this (table 1).

We used two criteria to substantiate the adequacy of the models developed on the basis of regression analysis, i.e., we used the Student criterion to substantiate the adequacy of the determined coefficients, and cited the determination criteria to verify the overall compatibility and model validity. From the data in table 1 we can see that all the developed models are adequate to the existing criteria and scientific conclusions can be drawn using them.

**Table 1**

**Results of regression analysis <sup>2</sup>**

№	Model	Student criteria	Determination coefficient	Elasticity coefficient
1	$Y_1 = 6611,9 * X^{0,32}$	b <sub>0</sub> =120,8 b <sub>1</sub> =38,9	0,99	0,32
2	$Y_2 = 3490,9 * X^{0,24}$	b <sub>0</sub> =75,3 b <sub>1</sub> =19,3	0,97	0,24
3	$Y_3 = 760,7 * X^{0,40}$	b <sub>0</sub> =44,8 b <sub>1</sub> =23,6	0,98	0,40
4	$Y_4 = 1147,2 * X^{0,31}$	b <sub>0</sub> =52,0 b <sub>1</sub> =20,2	0,98	0,31

<sup>1</sup> Source: developed by author

<sup>2</sup> Source: developed by author



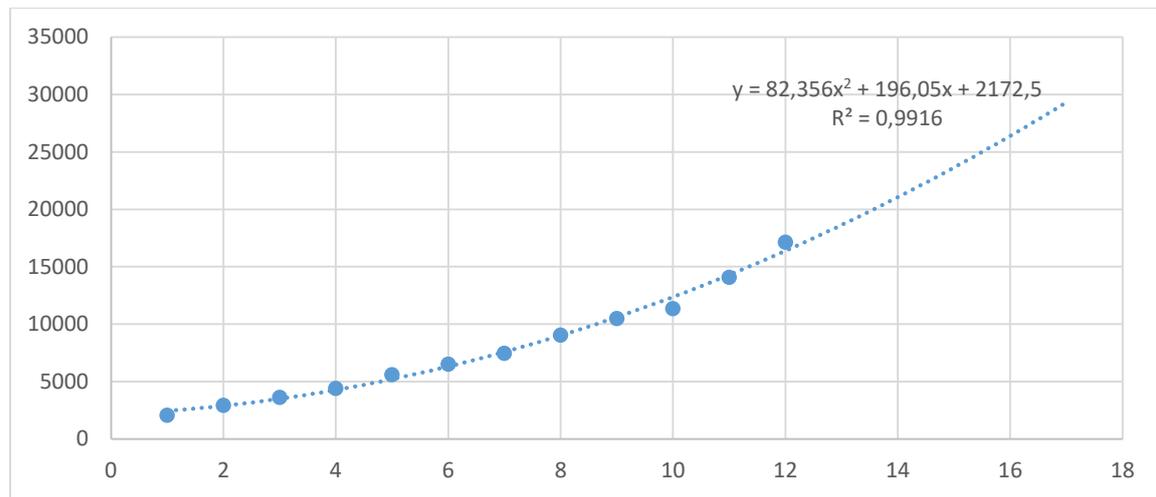
5	$Y_5 = 15,9 * X^{0,70}$	$b_0=10,1$ $b_1=22,3$	0,98	0,70
6	$Y_6 = 2286,5 * X^{0,34}$	$b_0=104,7$ $b_1=40,7$	0,99	0,34

**Here:**  $X$  - information and communication service in billion soums;  $Y_1$  – total GDP in billion soums;  $Y_2$  - agriculture, forestry and fishing in billion soums;  $Y_3$  - Industry (including construction) in billion soums;  $Y_4$  - industry in billion soums;  $Y_5$  – construction in billion soums;  $Y_6$  - services in billion soums;

According to the results, one percent increase in the volume of information and communication services will serve to increase the country's GDP by 0.32 percent. Judging by the identified coefficients of elasticity, the impact of the development of information and communication services in agriculture remains low compared to other sectors. That is, the coefficient of elasticity was found to be 0.24. Given the fact that the development of agriculture in our country and the increase in food exports is considered one of the most important and promising areas, this result is controversial. In other words, the level of use of information technology in agriculture is not at the level of demand.

The correlation between the value added created in the industry and information and communication services is much higher, with an elasticity coefficient of 0.4 between the two indicators. Only in this case is construction considered as an industrial component. In order to clarify, the assessment of the role of information and communication services in ensuring the development of industry and construction was carried out separately. According to the results, the coefficients of elasticity were 0.31 and 0.70, respectively, and it was found that information and communication services are effectively used in the development of the construction industry.

In this regard, a study was conducted on the impact of the volume of information and communication services on the total volume of services. According to him, a one percent increase in the volume of information and communication services will serve to increase the total volume of services to 0.34 percent. The results of the regression analysis revealed that the impact of information and communication services on the socio-economic development of the country and the development of industries is much higher. However, the difference in the elasticity values from one to another shows that the use of ICT in some industries is not at the level of demand. In order to increase the level of use of information technology in the economy of our country, first of all, it is necessary to ensure economic growth in the industry itself. Therefore, we have developed forecast indicators of the real value of information and communication services in our country for the next five years. A graphical method was used to select the appropriate model in the development of the forecast, and it was determined that the square-shaped trend model was appropriate.



**Graph 2. Forecast indicators of information and communication services**

The results of the regression analysis performed using Excel to substantiate the adequacy of the model were also presented (Table 2.3.3). As can be seen from the data in the table, the Student Criterion, which represents the adequacy of the determined coefficients, does not justify the adequacy of all the coefficients. In particular, Figure 2.3.2 shows that the coefficient of factor X is not adequate, so we have developed a new model by subtracting this factor, and it has the following appearance.

$$Y = 2672,6 + 96,6 * X$$

$$t = (12,5) \quad (30,0) \quad R^2 = 0,99$$

Here: X - information and communication service in billion soums; X – trend  
 $n=1,2,3...n$

Forecasts for the next five years were developed using this developed model. According to the results of the forecast, by 2026 the volume of information and communication services will reach 30603.8 billion soums, which is 1.78 times more than in 2021. In other words, the average growth rate over the next five years will be 12.3 percent.

### Conclusion

According to the study, the role of information and communication services in ensuring socio-economic development in the country is significant, as well as important in the formation of the digital economy. Therefore, it would be expedient to increase the share of information and communication services in the future. It is also necessary to ensure the sustainable growth of important indicators of the digital economy, in particular, to overcome the problems associated with the organization of ICT trade.

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**MODERN PROBLEMS OF PEDAGOGY AND PSYCHOLOGY****UDC: 37.012: 372****STAGES OF DEVELOPMENT OF PHYSICAL CULTURE WITH  
ECOLOGICAL CULTURE IN PEDAGOGICAL ACTIVITY**

**Nurishov Darmenbay Yesnazarovich**  
**PhD, Faculty of Physical Culture**  
**Head of the Department of Physical Education**  
**Nukus State Pedagogical Institute**  
**named after Ajiniyaz**  
[\*\*darmenbay.nuryshov@mail.ru\*\*](mailto:darmenbay.nuryshov@mail.ru)

**Annotatsiya:** O'spirinni fikrlash, his qilish va ekologik haraqat qilishga o'rgatish uchun boshqacha, o'quv, darsdan va sinfdan tashqari o'zaro bog'lik faoliyatlarining har xil shakllarini o'zida mujassamlashtirgan kompleks tadbirlar kerak. O'quvchilar o'spirinlik yoshi xususiyatlariga tayangan holda faolining har xil turlariga maksimal jalb qilingan bo'lishlari kerak. Ekologik madaniyatni tarbiyalash jarayonida tabiiy ilmiy yo'nalish o'quv predmetlari katta ulush qo'shishlari mumkin. Aynan shu predmetlarga ekologik mazmunga ega materiallarni tanglab olishda, o'quv dasturlarini tuzishda darsdan tashqari va sinfdan tashqari darslarni tanlab olishda yetakchilik roli taalluqli. Ekologik etika-zamonaviy pedagogikaga oid yunalish insonning atrof-muhit bilan o'zaro munosabatlarining axloqiy va me'yorlarini ishlab chiqish, ularning birgalikda evolyutsiyasi: shuningdek, axloqiy normalar tizimi va insonning o'z atrofidagi dunyo bilan munosabatini uyg'unlashtiruvchi qoidalar. Ahloqiy nima bu yashash tamoyili asosida yerda hayotni saqlab qolishga ko'maklashadi.

**Kalit so'zlar:** Ta'lim muhiti, ekologik etika, ekologik madaniyat, sport, ta'lim fazosi, demografik, ekologik, ijtimoiy talablar.

**Аннотация:** В статье речь идет о разном, межпредметном, внеучебном, взаимозависимом взаимодействии, чтобы научить подростка мыслить, чувствовать и действовать необходимы экологически комплексные мероприятия, сочетающие разные формы деятельности. Рекомендуется учащимся максимально вовлекаться в разные виды деятельности, исходя из особенностей подросткового возраста. Значительный вклад в процесс воспитания экологической культуры могут внести естественнонаучные предметы. Именно эти дисциплины играют ведущую роль в подборе экологически значимых материалов, в разработке учебных программ, в выборе внеаудиторных и внеаудиторных мероприятий. Направлением современной педагогики экологической этики является разработка этики и норм взаимодействия человека с окружающей средой, их совместной эволюции, а также системы нравственных норм и правил, гармонизирующих отношения человека с окружающим миром. Нравственность – это то, что помогает сохранить жизнь на земле, основанную на этом принципе жизни.

**Ключевые слова:** Образовательная среда, экологическая этика, экологическая культура, спорт, образовательное пространство, демографические, экологические, социальные требования.



**Abstract:** The article deals with a different, interdisciplinary, extracurricular, interdependent interaction to teach a teenager to think, feel, and act ecologically. Complex measures are needed, combining different forms of activity. It is advised to students to be maximally involved in different types of activities, based on the characteristics of adolescence. Natural science subjects can make a significant contribution to the process of cultivating an ecological culture. It is these disciplines that play a leading role in the selection of environmentally relevant materials, in the development of curricula, and in the selection of extracurricular and extracurricular activities. The direction of modern pedagogy of ecological ethics is the development of ethics and norms of human interaction with the environment, their joint evolution: as well as the system of moral norms and rules that harmonize human relations with the world around them. Morality is what helps to keep life on earth based on this principle of living.

**Key words:** Educational environment, ecological ethics, ecological culture, sports, educational space, demographic, ecological, social requirements.

**Introduction.** Personal essence of the educational environment is to create the conditions for the development of “all living forces” and the creative potential of the adolescent, and at the same time to create a basis for the success of the process of ecological culture. The social meaning of such an environment is to prepare the ecologically minded student to have a positive dynamics of the level of formation of ecological culture. In order to display these qualities, a child needs a space of freedom, where he or she has the opportunity to autonomy, choose, evaluate, express his or her actions, defend his or her opinion, express himself or herself, and so on. This might be the reason of why he thinks like that. V.I. Juravlev states that the conditions of modern upbringing place very high demands on human health, mental stability and physical development. The effectiveness of creative professionalism and sports is fully determined by human health [1]. Within the framework of deliberately structured educational systems, a section is presented, where everything is pre-defined and regulated, and it seeks for itself a form of humanistic adequate ideas that can be designed and modeled according to the interests of the student.

It is clear that the effectiveness of environmental education in adolescents depends on the organization of the educational space, in which a whole environmentally oriented educational activity is carried out. Let's look at the definition of the term “educational space”. Like many other pedagogical terms (upbringing, education), “educational space” is not defined in the same way in science. After Russia's accession to the Bologna Process, the terms “*world*” or “*European educational space*” began to be used interchangeably, referring to the general tendency in the development of education. A number of scientific and pedagogical researches are aimed at creating an educational space, and this problem is considered only within one educational institution.

**Literature review.** According to Ye.A. Yamburg's opinion, the only educational space is the “space” of the region. Its structure includes medical and psychological services for the diagnosis of children; Social and pedagogical service of rehabilitation of “problematic” children; services for working with gifted children; cultural and information services; additional education and more.



S.G. Alekseev in his research defines: “Educational space” means a spatial-subjective space in which the education system operates and develops as an open and active social sphere, in which the social and natural, which determines the development of the individual. The relationship between factors is based on the rules of dialectical materialism, modern philosophical socio-pedagogical concepts that define the essence, content and organizational forms of the process of forming a culture of healthy lifestyle as a socio-pedagogical and psychological category. Taking into account the external environmental conditions (natural-climatic, demographic, environmental, socio-economic, political), the requirements of social customers (including the individual), the ideology of the formation of the individual operates, the complex of educational services is carried out by the institution, as well as by other structures, which have the potential to develop “educational, pedagogical”. R.E. Ponomarev defines the educational space of man as follows: “it consists of the type of space occupied by man and the process of their interaction, the result of which is the growth of the individual culture of the learner”. Team of authors: A.A.Vakhrushev Yu.Yu.Galkin B.S.Alyakrinsky, M.N.Aliev V.P.Borisenkov, O.V. Gukalenko, B.Sh. Aliyeva writes that the educational space creates conditions for the continuous development of the individual [3], in which the person is only a private educational space, formed as a result of their joint educational activities, consisting of a single form of human beings says Bagov. At the heart of such targeted activity processes are the harmonized requirements of the participants, in which the goals and means of achieving them are formed and invented by the subjects themselves through the mechanisms of assimilation of culture. The educational space is separated from the solid space, where the process of transmitting culture to the new generation takes place. Furthermore, I.L. Becker believes that the educational space creates a unique environment for itself in the process of implementation. The educational space is subjectively perceived by the individual as an environment. It is created by the educational space, the educational activity is subjectively perceived by all participants and creates a certain attitude to the educational space itself, to pedagogical activity and to everything that surrounds a person in this space. The impact of the learning environment on each individual is individual, sometimes unpredictable [1].

Structuring the views of modern scholars on the educational environment mentioned above, we note that these definitions clearly focus on the position that applies to space both as a place and as a process. We will consider the need for pedagogical conditions for the formation of an educational environment with the goal of an effective process of educating environmental culture in adolescents.

**Research methodology.** Applying to the problem of the process of educating ecological culture, the educational environment can be considered as a set of internal and external features and situations, purposefully created in the educational institution to ensure the transition to a sufficiently high level of formation of ecological culture in adolescents.

A comprehensive analysis of the literature helps us to identify: insufficiently developed pedagogical models for the formation of a culture of healthy lifestyles in school-age children, the problem of forming an ecological culture in physical education classes, new approaches to the organization and content of physical activity (openness



to life, world culture, nature, the field of social movements, communication with other people of different faiths, interpersonal and intergroup communication), as well as a fundamental focus today on creating an educational environment that creates a single educational space full of ecological content. It can be created by integrating learning, extracurricular and extracurricular environmental activities. When we say integration, we mean the integration of previously differentiated elements into a whole, which leads to new qualitative and potential possibilities of this wholeness, changes in the properties of similar elements.

**Analysis and Results.** The learning environment, which is the integrative beginning for many educational subjects, a set of events, plays a huge role in this realization. They will be able to get to know each other's capabilities and needs through a common learning environment, suggesting or finding a source of connections and tools to implement it. According to L.S. Vygotsky, the creative potential is located in each person, and through its development and formation, it is possible to obtain a developed personality. The creators of the space offer it an area that can be explored. The rich, diverse structure of the space provides a high probability of realizing the child's subjective position. The opposite is also true: the subjective position of the student creates the conditions for his self-expression. A child by being a subject of space, he or she might struct it, thereby, creating space for himself/herself.

This situation is interesting because it is connected with the educator's desire to develop the individuality of students, to show their subjective qualities. Teaching is understood as a collaborative activity of the student and the teacher, as a dialogue environment, which is aimed at the individual expression of the student and the development of his personal qualities during the study of the studied subjects, defines the exchange of ideas.

According to A.V. Khutorsky, in personal-oriented education, the primary focus of the pedagogue is the student's own activities, his internal educational aspirations and development. The new personal variations of the student take on the function of the internal content of education. The content of environmental education in schools should be determined taking into account national and regional programs, regional materials, the age characteristics of adolescents in the country [4]. There is a wide range of opportunities for the implementation of this direction in the field of interaction of basic and additional education.

In this context, special attention should be paid to the additional education of adolescents, which is one of the factors determining the development of their skills, abilities, interests, personal and social expression in their environmentally oriented activities. Extracurricular educational activities of ecological quality are carried out in the system of additional education, team work. It is an important element in creating an additional learning environment for adolescents. In the process of additional education, conditions are created for the individual to realize his creative and intellectual potential. The principles of self-government and cooperation of children and adults will be implemented. There is a strong link between educational and developmental processes, focusing on learning materials in extracurricular and extracurricular activities. It is carried out in a single and continuous ecological-oriented educational process aimed at achieving in ecological culture. On the effectiveness of



environmental education of students in additional educational institutions and youth associations S.S. Kashlev S.N. Glazachev, E.A. Kogay, G.A. Pirsaidova, R.V. Kelbas, N.A. Ivanova, D.S. Korobkov, A.Yu. Solovyev, A.V. Stromova, Ye.V. Ekzertseva, Y.V. Yakovleva [5, 6] and other scientific researches testify.

Further education creates the conditions for the practical study of the environment, as well as for the education of a person with a new type of thinking, ecologically sound behavior. In their free time, clubs, club leaders, educators help students to achieve their goals: to cultivate civic feelings, patriotism, responsibility, independence, to develop curiosity, interest in work, to establish an active life position, with a positive moral experience, in its turn, this will have a great opportunity to engage in enrichment, which will increase the level of environmental culture of adolescents. Extracurricular, extracurricular and extracurricular activities with adolescents are one of the most important elements of cultivating an ecological culture. The variety of extracurricular activities allows the child to take an individual approach. Modern pedagogy has many innovative forms, such as environmental festivals, rallies, camps, to achieve the goal of environmental education. According to researchers V.A. Yasvin, A.G. Ozerov, A.A. Ostapets-Sveshnikov, I.A. Samarina: it is these forms that make the greatest contribution to the formation of ecological culture of adolescents [3, 5].

Their integration with learning activities provides adolescents with a deeper understanding of environmental knowledge, with the ability to form a system of environmental skills and abilities along with cognitive, emotional, and activity components of the relationship area. Adolescence is characterized by the independence of thinking, the development of environmentally oriented actions, personal aspirations, participation in various environmental activities, and active participation in the organization, and valuable practical experience, as well as provides attraction in the integration process.

**Conclusion.** Collaboration in a single style and tone of school, family, extracurricular relations, harmonious combination of educational methods, tools and techniques reflects the stable quality of views, beliefs and ideals in adolescents, which is naturally reflected in the level of formation of ecological culture. The construction of technology in educational activities is a matter of time, and the modern school and society have a great interest in its students, and then its graduates to act independently, actively, make decisions, adapt flexibly to changing living conditions.

In conclusion, we note that the learning environment is manifested as a qualitative characteristic of the educational organization, which is determined by the strategic goals of educating young people in environmental culture. It is a functional whole for the adolescent, as it performs a single educational function - his personal development. The use of pedagogical technologies organizes the learning process, not teaching, to such an extent that it allows learners to become a true central figure in educational activity, which significantly increases the creativity and social activism of adolescents.

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## **THE ROLE OF A FOREIGN LANGUAGE IN ACQUIRING LINGUOCULTURAL AND METAPROFESSIONAL COMPETENCE**

**Sarsenbaeva Zoya Jangabay qizi**  
**PhD student, Department of Pedagogy,**  
**Nukus state pedagogical institute**  
**named after Ajiniyaz**  
[\*\*zoe.sarsenbaeva@list.ru\*\*](mailto:zoe.sarsenbaeva@list.ru)

**Annotatsiya:** Maqolada til madaniyati, lingvomadaniy va metaprofessional kompetensiyaning ahamiyati tasvirlangan. Ushbu maqolada ta'lim jarayonini insonparvarlashtirish jarayonida chet tillarining o'rni yoritilgan, shuningdek, lingvomadaniy birliklar tahlil qilingan. Shuningdek, maqolada chet tilini yuqori darajada bilish asosiy kompetensiyalardan biri sifatida tavsiflanadi, chunki bu mutaxassisga doimiy ravishda rivojlanish va o'z kasbiy maqsadlariga erishish imkonini beradi. Muallifning xulosasiga ko'ra, chet tilini bilish professional muhitda turli xil ma'lumot manbalari va ilmiy bilimlarga kirish imkoniyatini ochib beradi.

**Kalit so'zlar:** lingvomadaniy kompetensiya, chet tili, madaniyat, kasbiy rivojlanish, lingvomadaniy birliklar, metaprofessional kompetensiya.

**Аннотация:** В статье описывается значение языковой культуры, лингвокультурной и метапрофессиональной компетентности. В данной статье описывается роль иностранных языков в процессе гуманизации образовательного процесса, а также анализируются лингвокультурные единицы. В статье высокий уровень владения иностранным языком охарактеризован как одна из основных компетенций, поскольку позволяет специалисту постоянно развиваться и достигать поставленных профессиональных целей. Автор делает вывод о том, что владение иностранным языком открывает доступ к различным источникам информации и научным знаниям в профессиональной среде.

**Ключевые слова:** лингвокультурная компетентность, иностранный язык, культура, профессиональное развитие, лингвокультурные единицы, метапрофессиональная компетентность.

**Abstract:** The article deals with the importance of language culture, linguocultural and metaprofessional competence. This article describes the role of foreign languages in the process of humanization of the educational process, as well as



the linguocultural units have been analyzed. In the paper, a high level of foreign language proficiency is described as one of the main competencies as it allows a specialist to constantly develop and achieve their professional goals. The author concludes that proficiency in a foreign language opens up access to various sources of information and the scientific knowledge in a professional environment.

**Key words:** linguocultural competence, foreign language, culture, professional development, linguocultural units, metaprofessional competence.

**Introduction.** Currently, the humanities are attracting more attention as they implement a special direction in the education system. This approach is to provide students with the opportunity to learn a set of disciplines that will help young people live and work in a globalized world: learn how to maintain a balance of power in the world, overcome racial and gender prejudice, avoid global crises, and live in interaction with the outside world [6]. The goal of modern education is to create humanitarian knowledge, not only as a sum of knowledge, but as an integral open structure of knowledge, which is part of the system of universal scientific and cultural values. In addition to this, the possibility of combining knowledge from various fields taking into account their professional and humanitarian values, as well as from the point of view of the axiological essence, contributes to the formation of a holistic professional personality and individual's continuous professional development.

The formation of linguocultural competence requires its participants to understand what, when, to whom and how he can and should say or do. For the successful implementation of these attitudes, they need: sociocultural (contextual) knowledge, communication skills, language knowledge, as well as psychological skills [7, p. 164]. Linguocultural competence is considered by us as the possession of basic characteristics, including and reflecting knowledge, and the possession of valuable knowledge of the language and culture, which reflect the mentality, spirituality and national specifics of a given society.

**Literature review.** The humanitarian component of any scientific and educational direction could become a necessity for a specialist, both in the field of the humanities and in other fields, to ensure professional growth in terms of an interdisciplinary approach in order to find a solution to various problems and adapt to the variability of the modern world. In the context of social integration processes, and for the purposes of sustainable development, knowledge of foreign languages for a specialist is considered as one of the basic professional competencies [2]. The possibility of exchanging professionally significant information not only in the native language, but also in a foreign language is necessary professional for use in professional activities and continuous professional growth. There are several groups of motives for mastering a foreign language by a specialist/student: communicative, cognitive, value-oriented, self-affirmation, the prospect of professional growth. These motives are interrelated and complement each other. Linguocultural competence takes into account the role of non-verbal means of communication and the specifics of the three aspects of communication: communicative, interactive and perceptual. The linguistic component of this competence corresponds to communication, the social component corresponds to interaction, and the cultural component corresponds to perception [1, p. 114].



As we analyze from a culturological point of view, language is not only a tool of culture, inheritance, accumulation of knowledge, exchange of knowledge and experience, but also a way of understanding culture by a native speaker. To grasp the culture of a native speaker, certain “manipulations”, methods, approaches, means that affect the language are necessary. On the part of the listener, it is necessary to master competencies, certain basic knowledge, in order to successfully adapt in society, preserve this culture and pass it on to future generations. This is significant due to the fact that the language preserves and conveys the cultural and linguistic specificity of the mentality of a native speaker, captures and displays the culture of society at a certain stage of its development, and might also make an influence on human behavior.

And from the linguistics point, this is knowledge of the language system which includes words, phrases, phraseological units that affect the consciousness and mentality of a native speaker. But this is not a simple enumeration of words and phrases in a language, but a certain accumulation of knowledge of a native speaker, reflecting his culture. For example, phraseological units: “*fell out over a loan – ala jipti kesisiv*”, “*to be down - salisi suwga ketiw*”, “*to the last drop of blood – bir tamshu qani qalgansha*”, “*playing with words - gapti aylandiriv*”, “*to blow one’s top – tobe shashi tikke boliv*”, precedent texts “*better to see once – min ret esitkennen, bir ret korigen abzalraq*”, “*it’s good where we don’t exist – biz joq jerde bari jaqsi*”, “*everything secret becomes clear – haqiqat baribir juzege shigadi*”, can be determined as basic linguocultural units, since they reflect not only the fundamental knowledge necessary for any member of our society, but also its national-cultural specifics.

**Research methodology.** At the same time, the level of foreign language proficiency among students/specialists is not the same, which leads to different priorities of motives for learning foreign languages. Basically, students as future specialists need to master a foreign language in order to read and obtain information from Internet sources (95%). Approximately half of professionals/students (65%) have conversational skills, but this fact stimulates many of them to develop and improve their speaking skills and broaden their professional horizons through communication with colleagues belonging to a different culture. A high level of foreign language proficiency allows you to achieve several goals: increase the competitiveness of the graduate in the labor market; satisfy personal professional ambitions; develop critical and creative thinking, which stimulates continuous self-education and self-development. The role of a foreign language in education is due to such a concept as metaprofessional competence. Understanding the value and originality of the language and culture of each nation contributes to the recognition of the diversity, multiculturalism of the world. Tolerant attitude towards the “other”, interest in its features and differences from “one’s own”, habitual might help to get rid of many stereotypes that interfere with intercultural communication.

It is vital to consider language and culture as the basis for the formation of the worldview and mentality of a native speaker. The priorities of one or another aspect of this direction are different depending on their “feed” and assimilation. Acquiring certain basic competencies in non-specialized areas of knowledge and the ability to understand other native speakers at an adequate level such as the possession of linguocultural competence at this stage of development of our society is a priority for



linguoculturology, as the demand for an educated person with a high level of culture is increasing, which is impossible without linguocultural competence.

**Analysis and results.** Currently, a form of education based on the memorization of accumulated and scientifically meaningful knowledge by students is considered ineffective, as it may not meet modern requirements. Therefore, a modern specialist will need to develop creative and analytical skills and abilities, which might contribute to continuous professional growth and self-development in the future. These requirements are due to the fact that the volume of information within one specialty almost doubles as the time goes on. Thus, along with professional training, a modern graduate of a higher educational institution should master the tools for searching, selecting, analyzing and using professional information. This requires the formation of linguocultural and metacompetencies in a specialist [4].

As the basic units of linguocultural competence we consider the main components of the language system (key words, proverbs, phrases, phraseological units and precedent texts) that reflect the national and cultural specifics of society, determined by the society's value system and allowing the individual to ensure the development of abilities, the formation of a worldview and spirituality in society. For example: *Despite all the difficulties, she managed to pull off the deal;* in Karakalpak: *Ol barliq qiyinshılıqlarğa qaramastan, jumıstı pitirdi.* From the example with a *phraseological unit*, we can see that the meaning is differently expressed in the context considering the cultural difference. Thematically, basic linguocultural units can be similar to the linguistic units of other nations and cultures, but often they will differ in essence and content since each culture and nation has its own mentality, its own worldview, its own foundations, mores, customs and traditions. This is due to various reasons: historical development, the influence of political, social, cultural and social factors. Basic linguocultural units should reflect cultural, political, social, economic, educational, historical and other aspects of life, as well as national consciousness, mentality, the national idea of modern society.

It can be presumed that an important part of our life is not the accumulation of knowledge, but the development of certain skills and competencies that will help people find the right solutions, adequately respond to various life situations, and communicate with other people. Thus, it is necessary to prepare a person to acquire such skills that will allow him to socialize and adapt to any realities of our time. In this regard, one more function of a foreign language in the educational process can be distinguished - motivating. A high level of foreign language proficiency and good professional communication skills create an opportunity for professional mobility of a specialist. Professional mobility implies both the ability to move from one region to another, and the ability to make quick decisions, quickly navigate the situation and apply flexibility in its assessment, quickly search for missing information to complete tasks, change and find new forms of activity depending on the proposed conditions. The demand for specialists who are able to adapt and work effectively in any environment transforms the interest in professional communication in foreign languages into the need to study them [5].

**Conclusion.** After analyzing these two concepts, we assume that without understanding and mastering the language culture, linguocultural competence cannot



be formed, and without the formation of linguocultural competence it would be impossible to master the language culture. Also, foreign languages perform special functions in the learning process especially educational, motivating, humanitarian and educational. The development of metacompetencies and meta-thinking, as well as knowledge management, are implemented when teaching a foreign language, which involves the active use of meta-thinking, since the study of a foreign language is not limited only to the study of aspects of the language, but requires reflection of the material on the basis of which the study of a foreign language is based language, and also involves such mental processes as analysis, synthesis. Thus, while learning a foreign language, the student receives, processes and assimilates information of a different nature, while forming and ordering new knowledge [3]. In this regard, we presume that teaching foreign languages is both a means and a goal of training a modern professional specialist.

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## ASPECTS OF COMMUNICATION CULTURE AND SPEECH ETIQUETTE

**Uteshova Zernegul Xurmetullaevna**  
**PhD, Head of the department of**  
**English language and Literature**  
**Karakalpak state university**  
**named after Berdakh**  
[uteshovazernegul@gmail.com](mailto:uteshovazernegul@gmail.com)

**Annotatsiya:** Maqolada muvaffaqiyatli muloqot qilish uchun og'zaki va og'zaki bo'lmagan vositalar to'plami ko'rib chiqiladi. Shuningdek, maqolada nutq odobi kommunikativ xulq-atvor madaniyatining ajralmas qismi sifatida tavsiflanadi. Muallif tilni bilish ijtimoiy-madaniy intellektual faoliyat toifasiga kiradi va muloqot madaniyati bilan bevosita bog'liq deb hisoblaydi.

**Kalit so'zlar:** kommunikativ xulq-atvor, muloqot madaniyati, kommunikativ-pragmatik me'yorlar, muloqot normalari va an'analari, nutq odobi.

**Аннотация:** В статье рассматривается комплекс вербальных и невербальных средств успешного общения. Также в статье описывается речевой этикет как неотъемлемая составляющая культуры коммуникативного поведения. Автор выдвигает гипотезу, что владение языком относится к разряду социокультурной интеллектуальной деятельности и имеет прямое отношение к культуре общения.

**Ключевые слова:** коммуникативное поведение, культура общения, коммуникативно-прагматические нормы, нормы и традиции общения, речевой этикет.

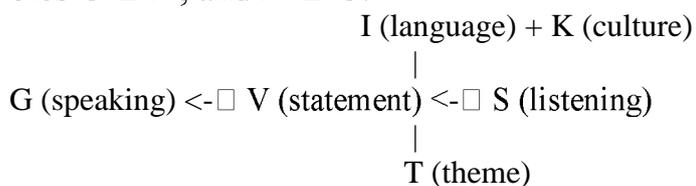
**Abstract:** The article deals with a set of verbal and non-verbal means for successful communication. Also, in the article, speech etiquette is described as an integral component of the culture of communicative behavior. The author assumes that believe that language proficiency belongs to the category of socio-cultural intellectual activity and is directly related to the culture of communication.

**Key words:** communicative behavior, culture of communication, communicative-pragmatic norms, norms and traditions of communication, speech etiquette.

**Introduction:** The cultural plan is closely intertwined with the instrumental one, which is a set of verbal and non-verbal means for communication that communicants have at their disposal. It is known that a set of verbal and non-verbal means also has its culturally determined specific features. Many researchers have proven that there is a certain culturally determined difference in the interpretation of many concepts, where some of the information overlaps even in words that have a similar concept. The works of Ter-Minasova, Vorobyov, Maslova, Elizarova [1]. Based on these works, we can argue that in addition to the main logical picture of the world that arises on the basis of social production practice in the unity of the two stages of thinking, some secondary linguistic picture of the world is formed, which does not always correspond to the first one. This phenomenon is explained by Vereshchagin and Kostomarov as follows: "the



picture of the world as a whole is created by cognition, not by language, and the verbal image of an object or relationship acts as a form of logical reflection of being, as an additional national background, above which the universal human logical image rises” [11, p.6]. Therefore, in addition to the realities of culture, for successful communication it is necessary to know the features of the language picture of the world, characteristic of the language being studied. Analyzing the problems of the culture of communication, we come to the conclusion that it involves the knowledge of nationally determined scenarios of behavior and the ability to use all language means that are optimal for a given speech situation in various functional styles of speech. This work proceeds from the fact that any national language is a peculiar, original style of national expression: “... each language reflects the culture of the people who speak it” [12]. For the validity of all our statements, let us schematically represent communication as a process, where G is the one transmitting information, i.e. speaking; C - perceiving information, listening. In communication, the subject of speech is important, let's designate it as T. In order to communicate, it is necessary that the communicants know the language and, accordingly, the culture in which communication takes place, therefore, one more dominant is needed - I (language) + K (culture). In the process of communication, a statement is born - B (formalized by verbal and non-verbal means). By an utterance, we mean a text that contains everything that D and S are talking about. Communication is a two-way process, because The participants in communication change roles C  $\square$  D, and D  $\square$  C:



For the implementation of communication, it is necessary to create certain conditions, situations of communication, where the use of language means is specific to each individual culture. Communication is a solution to various communicative tasks, including the purpose of communication, a communication partner, subject of communication, time and place of communication. Communication takes place at certain levels. According to Gorodilova, first, actions are included, aimed at attracting attention, establishing psychological contact and engaging in communication. If psychological contact is established, the way is open to the second level—interaction that provides social contact (began to listen and understand the purpose of communication) and then to influence, and then the last level follows—communication itself. The presented scheme once again proves that communication has a social and cultural character. It is a part of human social activity, and any activity is impossible without communication. In the process of communication, elements of the culture of community and the culture of communication find their vivid expression. Culture is an essential characteristic of the subject, it is associated with its ability to purposefully transform the surrounding world, during which an artificial world of things, symbols, as well as connections and relationships between people is created. In turn, the cultural characteristic of a person is expressed through language in speech, and hence in communication.



**Literature review:** As a number of studies show, ethnically determined features of consciousness and mentality are actualized through the behavior of communication participants, giving it a socio-linguocultural specificity, ignorance of which leads to failure in communication. Here it is appropriate to talk about the communicative-pragmatic norm of behavior, which means “the rules for selecting language means and constructing statements in typical situations of communication with different communicative intentions in a particular society in a given period of its historical development” [7, p.3]. Communicative-pragmatic norms are developed in the process of social interaction between people and receive social recognition in typical situations of communication. Therefore, in the classroom for foreign language, these communicative-pragmatic norms must be learned as cultural and psychological features of communicative behavior, often expressed in speech as speech models.

**Methodology:** According to Aleontiev, he states that: “causing differences in the organization of functions and methods of mediating communication processes characteristic of a given national-cultural community” [5, p.9-10]. In this case, the allocation of the social aspect is caused by the communicative function of the language, while the language acts as a means, an instrument of the general human activity. According to Vishnevsky, this level of language proficiency is considered as communicative behavior, where speech does not have its own autonomous goal, but is aimed at achieving non-speech tasks [12]. In other words, an activity carried out with the help of a language, the structure of which includes not only knowledge of the language material, but also speech skills and abilities. Communicative behavior is also understood as “outwardly manifested patterns and stereotypes of actions, acquired by an individual either on the basis of the experience of his own activity, or as a result of imitation of social patterns and stereotypes of actions by him (unconscious and little conscious skills)”, which allows us to talk about communicative activities [2, p. 25-52]. As an alternative to “communicative behavior”/“communicative activity”, Galskova puts forward the concept of “text activity”, which is a motivated exchange of texts, which is an ongoing process of “purposeful generation and interpretation of integral hierarchically organized semantic-semantic structures” [3, p.54]. Fundamental research in the field of communicative behavior is the work of Prokhorov, Sternin [8], Lemyanskina [4], where communicative behavior is considered as a set of norms and traditions of communication of a certain group of people and should be presented to students in the receptive and productive aspects of learning. Almost all studies prove that during intercultural interaction there are differences in the communicative behavior of representatives of different cultures and, accordingly, this manifests itself in various communicative strategies and categories, in their understanding and interpretation and their corresponding form of use in speech, because this is characterized by a different perception of reality. Verbal communication is always accompanied by various non-verbal means, which must be taken into account when modeling communicative behavior, since non-verbal means reinforce the pragmatic meaning of verbal means. They emphasize and clarify the hidden goals of the statement, additional and indirect meanings, help determine the addressee's attitude to the interlocutor and to what was said, interests, opinions, views, psychological state, character traits, intentions of the speaker and the whole situation. It is known that non-



verbal communicative behavior also has its own nationally colored specificity. Also, other competences such as linguocultural, socio-cultural and non-verbal competences were added to this list. In other works, communicative competence is described as it draws on how students use the language and what they express in different settings, the results would be better [13, 14, 15].

**Results:** Consequently, communicative behavior involves not only the assimilation of cultural facts (cultural knowledge), but also the formation of a readiness to understand the mentality of the native speakers of the language being studied, as well as the features of the semantic content of communicative behavior. At the same time, it is necessary to note speech ethics as the rules of proper speech behavior based on morality, national and cultural traditions. It is not for nothing that researchers note that ethical norms are embodied in special etiquette speech formulas and are expressed in statements by a whole ensemble of multi-level means. The study by Vereshchagin and Kostomarov also proves that with language and speech, students can and should learn the cultural and ethical norms of behavior inherent in the culture of the language [11, p.4], which are manifested in the Speech etiquette of a foreign language culture. And the Speech etiquette, in turn, is an integral component of the culture of communicative behavior as a microsystem of national-specific verbal units accepted and prescribed by society. Therefore, Speech etiquette is associated with the culture of communicative behavior and differs from the culture of speech in that “it is determined by the adequacy of the choice of speech units to the content and conditions of communication, while the culture of speech is associated with choosing an adequate structure for the entire utterance, its com positional-stylistic organization” [10, p.5].

**Discussion:** We will take a closer look at communicative/verbal behavior, it is referred to the subject of a special study within the linguoculturological aspect, and knowledge of this aspect regarding Speech etiquette influences the success of communication between representatives of different linguocultures. In order to learn to understand a new culture, to master the skills of communication, it is necessary to control the set of conditions in which each act of communication takes place. This means that it is necessary to have a certain amount of knowledge that contributes to communication in the target language. In our opinion, the level of adequate language proficiency implies the necessary study of a set of rules for the speech and non-speech behavior of native speakers and special language means to achieve mutual understanding. The culture of speech is closely related to communication and is aimed at improving the communicative competence of students in the target language [9, p.289].

**Conclusion:** Thus, in order to have a clearer idea of speech etiquette, about its role and place in communicative behavior, we will consider its characteristic features in more detail in the next paragraph. We agree with Passov’s opinion that the goals of studying a foreign language at school should be the education of the individual, and the content should be culture [6, p.59], which means spiritual values personally mastered in the activity, the space in which the process takes place socialization of the individual. We believe that language proficiency belongs to the category of socio-cultural intellectual activity and is directly related to the culture of communication.



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## STEAM EDUCATION METHODOLOGY OF PREPARATING PRESCHOOL CHILDREN FOR SCHOOL WITH DIGITAL TECHNOLOGIES

Yunusova Gulshod Nazihovna

PhD .Associate Professor of Informatics,  
Namangan State University,

[yunusova\\_g@gmail.com](mailto:yunusova_g@gmail.com)

**Annotasiya:** Ushbu maqolada zamonaviy o'quv platformalari, saytlar, mualliflar tomonidan yaratilgan saytlar va kompyuter dasturlari maktabgacha yoshdagi bolalarga Steam dasturini o'rgatish orqali STEAM ta'limi va maktabgacha ta'limga tayyorlashga hissa qo'shadi. Bolalarni qiziqtirish, ularning xotirasi va mantiqiy tafakkurini rivojlantirish uchun mo'ljallangan kompyuter dasturlari hamda ularning mantiqiyliigi hamda bolalarga bir necha tillar alifbosini o'rgatish dasturlari, shuningdek, bolaning rivojlanishini hisobga oluvchi saytlar va platformalar haqida ma'lumot beradi. Ushbu maqolada STEAM o'qitish metodologiyasini yaratish va uning uslubiy asoslari nimaga asoslanganligi tushuntiriladi.

**Kalit so'zlar:** Steam, Press-school, raqamli texnologiyalar, metodologiya, usullar, kompyuter dasturlari, platformalar, sayt, pandemiya davri.

**Аннотация:** В данной статье современные обучающие платформы, сайты, авторские сайты и компьютерные программы способствуют STEAM-образованию и подготовке к дошкольному обучению, обучая дошкольников Steam. Предоставляет информацию о компьютерных программах, предназначенных для занятия детей, развития их памяти и логического мышления, а также их логики, и программах для обучения детей алфавиту нескольких языков, а также сайтах и платформах, учитывающих развитие ребенка. В данной статье рассказывается о создании методики преподавания STEAM и о том, на чем основаны ее методологические основы.

**Ключевые слова:** Steam, Пресс-школа, цифровые технологии, методология, методы, компьютерные программы, платформы, сайт, эпоха пандемии.

**Annotation:** In this article, modern learning platforms, sites, author-created sites, and computer programs contribute to STEAM education and preparation for preschool by teaching preschoolers Steam. Provides information about computer programs designed to engage children, develop their memory and logical thinking, as well as their logic, and programs to teach children the alphabet of several languages, as well as sites and platforms that take into account the development of the child. This article explains the creation of the STEAM teaching methodology and what its methodological foundations are based on.

**Key words:** Steam, Press-school, digital technologies, methodology, methods, computer programs, platforms, site, pandemic era.

**Introduction.** The pandemic era has laid the groundwork for the development of distance learning, e-learning and the creation of a variety of applications, making the most of their children and making online work more efficient. Everyone, from the youngest to the oldest, worked and studied online. Preschoolers also tried to access

sites, prepare for school, and gain knowledge. Of course, mobile technology, computer internet, wireless Wi-Fi internet connection played an important role in this. Preschoolers, along with their parents and nurses, Methodists and educators of preschool education organizations, began to study the necessary materials on sites and platforms suitable for their age and mental abilities.

They tried to do digital reading with the environment, with math, and with all the sciences using digital technology. It was advisable to inform the child about geometric figures, the properties of objects, their appearance, using various computer games. Every scholar, every Methodist educator, looked for platforms and sites dedicated to children to prepare their children and grandchildren. One such platform (see:[3, -B.102], [4, -B.22]) is the iQsha.ru platform [7], where everyone who registers can get 10 free lessons for their child. will be possible. By learning these exercises, a child can get 10 assignments a day. It was advisable to inform the child about geometric figures, the properties of objects, their appearance, using various computer games. Every scholar, every Methodist educator, looked for platforms and sites dedicated to children to prepare their children and grandchildren. One such platform is the iQsha.ru platform, where anyone who registers will be able to get 10 free lessons for their child. By learning these exercises, a child can get 10 assignments a day. Users who do not want to wait will be charged for receiving quick assignments. Users who do not want to wait will be charged for receiving quick assignments. Confronted with such tasks, we are looking for platforms in this area, as well as research on the education of preschool and school-age children, the work of scientists and educators, as well as the lessons and methods used by them. and we managed to create our compact methodology and to create 18 computer programs for preschool children in order to strengthen it, to create a site for preparing children for school with the help of information technology, to test it at the Information Test Center of Namangan State University of Uzbekistan, O In the II competition of 100 innovative projects of women of the Republic of Uzbekistan, we took first place in the nomination "The best innovative project in education."



Figure 1. F. Froebel's first "gift" to preschoolers.



Figure 2. F.Fro'belning ikkinchi "sovg'a" siga EHM dasturi.



Figure 3. Computer programs for fragmented bodies. Teach the child to divide an object into parts and make them a single whole when added together.

Before doing this, we got acquainted with the literature and used the famous "gifts" of the pedagogical scientist F. Froebel, who created and left a mark on the first preschool educational institutions for children in pedagogy. Based on the use of the boards of E. Segen and M. Montessori, and the idea that these boards can further develop mentally retarded children if they have developed mentally retarded children, we have continued to advance this hypothesis and engage in scientific research. On the boards of E. Segen and M. Montessori, we created computer programs in the form of games, to place children in the open space to fill geometric shapes, mathematical numbers, as well as animals and fruits on the board, as well as to sort the numbers in 3 languages. and vice versa [8].

Another of our hypotheses was that the use of computer games in preschool children could help them prepare for school and explore their surroundings and move more freely in society.

**Literature review.** F. Froebel offered a set of toys for teaching children and conducted exercises on it, on the floor of which appeared colored balloons made of woolen fabric hanging on a string, and using them, children used these balloons in different directions. had to move. In the next exercise, these colored balls are exchanged for three items, which the children now use a ball, cube, and cylinder hanging from a string. Each set of exercises requires children to make different life figures out of cubes or parallelepipeds, and they are also asked to make "Beautiful Shapes". This process was done by children manually, and in computer games they had to be done on a computer. We reviewed and analyzed a number of materials and literature to create these processes and come up with such ideas [1-8]. We have used the following educational resources ourselves to motivate Methodist educators to engage with children and invite them to apply them as well [1-8]. In the comprehensive preparation of children, we created our site using a variety of textbooks and resources



[2], [3], [4], [5], [6],[8] using the domain and hosting of the site Namangan State University, and created there by installing computer programs, we organized one-time training for preschool children using these programs. In doing so, we organized lessons based on individual and group teaching methods [1]. [2], [3], [4], [5], [6], [7]. Our website includes several programs: "Memory sharpening program", "3 languages alphabet teaching program", "Inventor child" computer programs, with the help of which it is expedient to teach children [ 8, -b.8], [8, -b.9].

**Analysis And Results.** As a result of this research and efforts, a single site and the computer programs embedded in it have been created. That is:

A computer program called "Computer + Attention + Memory + Logical Thinking" was created to sharpen memory (see [8 p.8], [8, p. 10]);

To teach 3 language alphabets: Uzbek, Russian and English "Computer program in 3 languages: Uzbek, Russian, English" (8, - p. 11), [8, -p. 12] see);

14 computer programs were created for F. Froebel's pre-school activities, i.e. the "gifts" he called [2], [3],[4],[6];

Computer programs have been developed for teaching methods, including mathematics, promoted by E. Segen and M. Montessori, and we propose to implement them through STEAM educational programs. In the comprehensive preparation of children, we created our site using a variety of textbooks and resources [1]. [2], [3], [4], [5], [6], using the domain and hosting of the site NamSU, and created there by installing computer programs, we organized one-time training for preschool children using these programs . In doing so, we organized lessons based on individual and group teaching methods [1]. [2], [3], [4], [5], [6], [7]. Our website includes several programs: "Memory sharpening program", "3 languages alphabet teaching program", "Inventor child" computer programs, with the help of which it is expedient to teach children [5, -b.8], [ 5, -b.9].

Experiments were carried out and the results were calculated by the methods of mathematical statistics Chi-square [1].

Consider the data obtained after conducting experiments on our study, use the methods of mathematical statistics Chi-square, view the table of experiment data, and then apply the calculation formula and draw a diagram for processing experimental data.

The level of knowledge of children when teaching children according to the traditional method according to the program "Ilk Kadam" - "Initial Step".

**Table№1**

Groups	Number of pupils with preschool education	Groups Number of pupils with preschool education Level of mastering knowledge on the integration of several subjects		
		Low	Medium	High
<b>Experimental</b>	100	35	30	35
<b>Control</b>	100	47	26	27

Let's look at the following diagram, which clearly shows the dependence of children's knowledge on the criteria in the samples of the control and experimental groups.

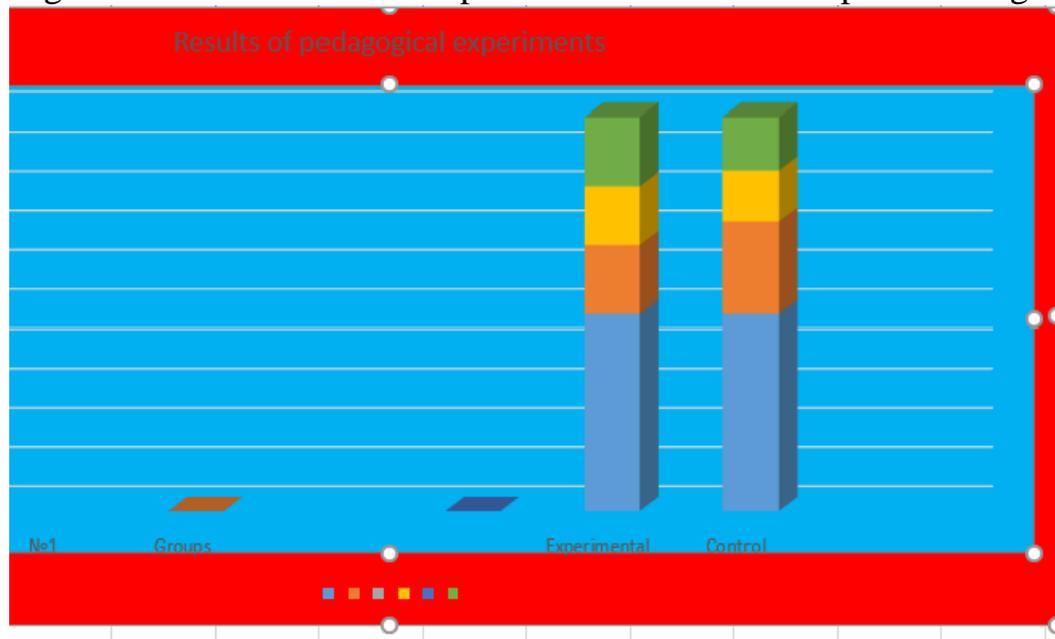


Diagram №1. Results of STEAM teaching.

**Calculations are performed according to the following formula:**

$$Tobs = 1 / n1 * n2 * \sum_{i=1}^c \frac{(n_{1i} * Q_{2i} - n_{2i} * Q_{1i})^2}{Q_{1i} + Q_{2i}} = 0,5, , \text{ where } Tobs \text{ is the observed value.}$$

**Acknowledgments.** We conducted many training seminars, master classes in children's educational institutions of the city of Namangan under an agreement with them. We have gratitude from Children's Educational Institutions, letters of commendation.

**Discussion.** It is advisable to teach F. Froebel exercises for preschool children on the basis of STEAM education, ie his gifts through e-learning, which means that we use computer programs that we have created. In addition, it is advisable to develop children's mental abilities, mathematical thinking with the help of Segen boards. At the same time, at this stage of education, it is advisable to implement mathematical imagination, comprehension and thinking with the help of F. Froebel, E. Segen boards, ie computer games on them. With the help of games, children find geometric shapes “windows”, “fruits?”, “Vegetables”, “letters”, “vegetables”, letters of the alphabet and numbers and place them on the board. The game consists of several parts.

**Conclusion.** Thus, with the help of computer programs and existing platforms and the created site in preschool educational institutions, it will be possible to prepare children for school by developing their mental abilities in the direction of STEAM. Pupils can use the Koos method in extracurricular activities and circle classes, or in other activities, depending on the age and mental abilities of the children. To this end, it is advisable to open a department of pre-school and school informatics in higher



education. It is still difficult to suggest sites that include such programs in the teaching of "Information Technology in Preschool and Primary Education" at the stage of higher education, as well as the creation and use of sites for teaching this field. 'lib remains. Therefore, the period itself requires not only to show students such programs, but also to create such programs for them.

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## **WITHIN THE REQUIREMENTS OF THE PROGRAM LINGUODIDACTIC TYPOLOGY OF GERMAN TERMINOLOGY**

**Rakhmonkulova Dilshoda Murodkozievna,  
Teacher of the Chirchik Higher  
Tank Command and Engineering School  
[Dilshodrahmonkulov@gmail.com](mailto:Dilshodrahmonkulov@gmail.com)**

**Annotasiya:** Maqolada harbiy sohadagi nemis tili terminologiyasining lingvodidaktik tipologiyasiga kontseptual yondashuv ko'rib chiqiladi. Harbiy lug'at va terminologiya kursant ongida tushunchalar shaklida mavjud bo'lsa, nutqda yaxshiroq esda qolishi va takrorlanishi ta'kidlanadi. Kursantlar sohasining harbiy kontseptsiyasini shakllantirish texnikasi taklif etiladi.

**Kalit so'zlar:** harbiy lug'at va terminologiya, tushuncha, yuqori, harbiy tushuncha sohasi.

**Аннотация:** В статье рассматривается концептуальный подход к лингводидактической типологии немецкой терминологии в военной сфере. При наличии в сознании курсанта военной лексики и терминологии в виде понятий подчеркивается, что речь лучше запоминается и повторяется. Предлагается методика формирования военной концепции кадетского поля.

**Ключевые слова:** военный словарь и терминология, понятие, высшее, военное понятийное поле.

**Annotation:** The article discusses a conceptual approach to the lingvodidactic typology of German terminology in the military field. When military vocabulary and terminology are present in the cadet's mind in the form of concepts, it is emphasized that speech is better remembered and repeated. The technique of forming a military concept of the cadet field is proposed.

**Keywords:** military dictionary and terminology, concept, higher, military concept field.

**Introduction:** The effectiveness of the process of formation of military-professional speech of cadets of military universities largely depends on the students' mastery of military vocabulary and terminology. The ability to speak the "military language" determines the reduction of the time for adaptation to the conditions of military service of first-year cadets, facilitates the study of disciplines of the military cycle and contributes to the success of military speech communication, especially in communication with commanders and chiefs and teaching staff in universities. However, to date, there are no specialized subjects in the programs of military educational institutions involved in the development of military professional speech. "German language" to begin the study of this discipline with a section on teaching military vocabulary and terminology.

**Literature review:** The concept of a concept, widely discussed in modern philology, cultural studies, cognitive psychology, linguistic and regional studies, was first defined as "a mental formation that replaces an indefinite set of objects of the same kind in the process of thought" [1], was clarified by D.S.Likhachev: "The concept is the result of correlating the dictionary meaning of the word with the personal and social



experience of a person”[3]. In other words, the concept is a trace of the reflection of reality (experience) or culturally mediated knowledge in the human mind. The concept is an element of the worldview, it is always individual and emotionally colored, and it is always wider than the words-concepts embedded in it. The inclusion of a figurative component in the concept is just what distinguishes it favorably from a definition that is devoid of visibility. The individuality of the perception and generation of the concept does not depend on and is not determined by the ambiguity of the words of the language, this is its difference from linguistic signs (word, sentence), but is determined by the individuality of the associations it generates in the minds of the participants in communication.

**Research Methodology:** Sets of concepts form concept spheres-the sum of the potentialities of perception of the meaning of the meanings of words, discovered in the vocabulary of an individual, a professional dialect and the language as a whole.

The concept is relatively unstable, unlike the vocabulary, so there is a need for a purposeful process of forming the student's concept sphere in the process of obtaining an education. The actual educational process at a higher education institution should differ from the learning process by focusing not so much on communicating the amount of knowledge, expanding vocabulary, but on the formation of concept spheres:

- military-professional, corresponding to the chosen specialty;
- personal, formed by each student in the process of studying a specialty.

In this sense, education is inseparable from upbringing. It can be assumed that the effectiveness of teaching military vocabulary and terminology depends on the degree of formation in the minds of students of the military-professional concept sphere.

The difficulties in mastering military-professional speech by cadets of military educational institutions are primarily related to the separation of special military vocabulary and terminology from the students' previous activity and cultural experience. The study of special military vocabulary and terminology comes down at best to memorizing the definitions of terms, which, therefore, do not acquire the nature of concepts in the minds of students[6].

The speech practice of daily service activities, which consists in the reproduction of simple statutory reports and commands in speech, is aimed at developing memory and the simplest reproductive function of speech and does not contribute to the development of skills for effective military speech activity in situations slightly different from standard ones.

Since the process of formation of the military concept sphere, especially among first-year cadets, has little to do with professional experience, the “immersion” of students in the study of the cultural and historical language experience of previous generations is of particular importance. However, polls conducted among cadets show that today practically no one is familiar with the works of Soviet writers about the Great Patriotic War. As a result, students are not familiar with good examples of the organization of military speech in various situations of professional communication. Communication with unit commanders, who themselves have not undergone thorough speech training, can give little.[10]

**Analysis and results:** In this sense, the process of learning to master the military



language can be compared with the study of Russian as a foreign language due to the fact that students are almost completely unfamiliar with it. Modern methods for the development of professional military speech among foreign cadets involve the study of the language in specific situations of service communication, as close as possible to real ones, the development of speech behavior skills in a professional subject area [2].

It is possible to propose the use of the following methodology for the formation of the military concept sphere of cadets in the educational process of higher education institutions.

The concept is based on precedent texts (fiction, song lyrics, office documents), so the texts of dictations and lexical and grammatical exercises should be taken from literary works on military topics.

Practical tasks and exercises for studying the normative-stylistic structure of language and speech should use military vocabulary and terminology and, if possible, illustrate the most common situations of military speech communication.

The process of comprehending and consolidating concepts in the minds of students should be carried out by selecting, as educational tasks, topics of public speaking and discussions that are relevant to military professional activity, for example: write a speech that convinces listeners of the fairness and relevance of the main thesis presented by the slaying of prominent military figures.

Students should be relatively isolated from the flow of information that forms an alien concept sphere. In the National Army, this was achieved by restricting access to television viewing with weekly mandatory viewing by all personnel of the television program "I serve my country!"

**Conclusion:** The influence of the video sequence on the process of formation of the concept sphere of the personality is enormous and not fully understood. The military vocabulary of the cadets is largely formed under the influence of the military jargon of the heroes of Hollywood video production and modern films, as a rule, of low artistic merit.

1. The speech of the mass media has a high efficiency of influencing speech behavior: the mass replication of verbal samples leads to their perception in speech as reference ones. A serious rhetorical problem arises: the perceiving party, brought up in military jargon, is unable to use terminological vocabulary.

2. "Students of secondary and higher educational institutions do not understand up to a third of the content of the recommended teaching aids".

3. The process of formation of the concept sphere should be accompanied by a video sequence (from military films of domestic production).

In this regard, it is possible to recommend a demonstration at lectures and practical classes as examples of speech behavior of fragments from popular domestic films. The use of video clips in the process of teaching the discipline "German Language and Culture of Speech" at the Chirchik Higher Tank Command and Engineering School proved their effectiveness in the formation of military speech of cadets.

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## **THE ROLE OF PROGRAMMING LANGUAGES IN TEACHING INFORMATICS AND INFORMATION TECHNOLOGIES**

**Zaripov Nozimbek Nayimovich  
(PhD). Lecturer of  
Information Technology department  
Bukhara State University  
[nozimbekzaripov@gmail.com](mailto:nozimbekzaripov@gmail.com)**

**Annotatsiya:** Hozirgi zamonaviy axborot texnologiyalari keng taraqqiy etgan bir davrda umumta’lim maktab o’quvchilariga dasturlash tillarini o’qitishda alohida uslub bilan yondashish, soddalashtirilgan usullarni ishlab chiqish, o’quvchilarni yoshini inobatga olgan holda vazifalar tayinlash dolzarb masalalardan biri hisoblanadi. Umumiy o’rta ta’lim maktablarida o’quvchi yoshlarda mustaqil dastur tuzish ko’nikmalarini shakllantirish, dasturlash tillariga qiziqtirish, ularni kelajakda o’z o’rinini topishiga va mamlakat rivoji uchun mukammal dasturlar yaratishiga turtki bo’ladi.



**Tayanch soʻzlar:** maʼlumotlar bazasi, dastur, dasturlash muhiti, Delphi, maydon, IOS, komponent, ilova.

**Аннотация:** В настоящее время, когда современные информационные технологии широко развиваются, одна из наиболее актуальных проблем заключается в том, чтобы предложить особый подход к обучению языкам программирования для учащихся средних школ и обратить внимание на разработку упрощенных методов распределения заданий с учетом возраста учащихся. Эта статья развивает навыки самостоятельного программирования у учащихся средних школ, поможет развивать интерес к программированию и помочь им найти свое место в будущем, а также создавать лучшие программы для развития страны.

**Ключевые слова:** база данных, программное обеспечение, среда программирования, Delphi, поле, IOS, компонент, приложение.

**Abstract** – Nowadays when modern information technologies are widely developed, one of the most actual problems is to issue a special approach for teaching programming languages to secondary school students and to pay attention to the development of simplified methods assigning tasks based on the age of students. This article develops self-programming skills among high school students, helps to develop an interest in programming and help them find their place in the future, as well as create better programs for the development of the country.

**Key words:** database, software, programming environment, Delphi, field, IOS, component, application.

**Introduction.** Today, all areas of human activity are covered by informatization, and this phenomenon requires a high information culture from everyone. Therefore, the school's science curriculum should be supplemented with subjects that ensure the development of students' knowledge, skills, and abilities. At present, all spheres of society in our country are rapidly entering the process of working with digital technologies. The use of digital technologies reduces the human factor in the work performed, saves time and costs, and increases work efficiency. Decree of the President of the Republic of Uzbekistan dated April 29, 2019 No PF-5712 "On approval of the Concept of development of the public education system of the Republic of Uzbekistan until 2030", November 26, 2019 "Measures for the organization of modern schools" The main idea of the Resolution No. PQ-4537 of September 5, 2018 "On measures to introduce new principles of governance in the public education system" No. PQ-3931 It involves the development of secondary schools at the level of modern requirements, the renewal of textbooks and the use of digital technologies [9].

**Literature review.** The Action Strategy for the five priority areas of development of the Republic of Uzbekistan for 2017-2021 includes further improvement of the system of continuing education based on the development of education and science, capacity building of quality educational services, training of qualified personnel, higher and general education. It is planned to radically improve the quality of textbooks in secondary schools. In addition, the importance of the use of digital technologies in the radical improvement of the quality of education, as well as the integration of science, education and industry [9].



The textbook "Technology of working with components in the Delphi programming environment" contains information about programming languages, digital technologies, criteria for studying the programming environment. The textbook can be used by teachers and students of general secondary schools, students of vocational colleges and technical schools, students and masters of higher educational institutions [7].

**Analysis.** The task of education today is to teach students to work independently in a growing information learning environment, the effective use of modern information technology in various fields and the rational use of information flows. To this end, creating opportunities and conditions for students to work independently on an ongoing basis, as well as teaching them to think creatively and make independent decisions, will improve the quality of education. The solution to this problem, of course, depends on the quality of teacher training, which is the main organizer of this process. The following 3 qualities are required of each teacher entering the class:

- knowledge of the teacher, i.e. in-depth knowledge of the subject he teaches;
- pedagogical skills of the teacher, i.e. the ability to convey the topic to students;
- the psychological state of the teacher that is, entering the classroom, forgetting about life and family problems.

The future of any society is determined by the level of development of its education system, which is an integral part of it and a vital necessity. Today, the effective use of innovative technologies that reform and improve the system of continuing education, raise it to a new level of quality, the introduction of advanced pedagogical and information technologies, increase the effectiveness of education, achieve high levels of mastery. The development of methods, in particular, the use of pedagogical innovations in modern information technology, is a pressing issue. The application of innovations in the educational process today requires the following tasks [5]:

- defining the exact purpose of the subject;
- determine the scope and content of science;
- develop and recommend the necessary educational technologies;
- creation of material and technical support of science;
- study the characteristics of students;
- teacher training and lesson planning.

The best way to solve the above tasks is to develop integrated learning technologies in the design of the lesson and look for opportunities to use them effectively at different stages of the lesson. It is advisable to use the following methods of person-centered teaching in the teaching of computer science [5]:

- game technologies;
- problem-based learning;
- programmed learning;
- computerized learning;
- modular training.

These methods include organizing students' activating and accelerating activities, stabilizing their place in life, self-management, realizing their potential, nurturing the will, specific approaches, spiritual, aesthetic, and designed to foster



collaboration, community involvement, and communication skills in shaping worldviews. The use of programming languages in the teaching of computer science and information technology teaches students to think logically, to create algorithms and programs, to implement them with the help of computers, to apply the developed programs in various spheres of society and to analyze the results.

When teaching programming to students, it is best to focus on what programming languages they are interested in, based on their abilities. In addition, the use of game programs, simulators, visual aids, multimedia means that it is easier for the student to remember and visualize the process.

Several programming languages have been developed today, such as Pascal, Delphi, C ++, C #, Python, Java, and others. These programming languages are designed to solve problems in one direction and can be called object-oriented programming languages [6]. The most common programming language is Pascal, a programming language designed to teach programming languages. The main reason for the widespread use of the Pascal programming language is the simplicity of the program and its ease of use. In addition, the Delphi programming environment has been developed, which is based on the Pascal programming language. The Delphi programming environment has the ability to visualize a program that is created using applications and components. When a student uses the Delphi programming environment, he or she will be able to create an application window, place ready-made control objects, and create interactive applications. In short, the student develops his spiritual, mental and intellectual potential has the opportunity to strive for perfection, to continuously improve his cognitive skills independently and to evaluate his own behavior. In the Delphi environment, we will consider the following programs, which will interest the student in programming, encourage logical thinking, and at the same time help him to master mathematics and physics [8].

Conducting lessons using modern teaching methods can be considered as one of the forms of active teaching. Such lessons involve the creative approach of teachers and students, the acquisition of skills by students in the process of active learning, the formation of skills and abilities to use playful technologies in their future pedagogical activities. Organizing and conducting lessons using game technology is an important basis for a perfect understanding and memorization of terms related to the material being studied. As a result of game technologies, students' cognitive activity develops, their interest in learning the material is aroused, and their knowledge is strengthened. One of the most pressing issues today is to teach the younger generation to think independently and freely. [5]

**Discussion.** Today, modern teaching methods are widely used in education. The use of modern teaching methods leads to high efficiency in the teaching process. It is advisable to choose these methods based on the didactic task of each lesson. Today, in a number of developed countries, the methods that form the basis of extensive experience in the use of modern pedagogical technologies that guarantee the effectiveness of the educational process are called interactive methods. Interactive teaching methods are currently the most common and widely used in all types of educational institutions. However, there are many types of interactive teaching methods, and suitable methods are now available to accomplish almost all the tasks of

the educational process. In practice, it is possible to separate them from the appropriate methods for specific purposes and apply them accordingly. This has led to the problem of choosing the right interactive teaching methods to achieve certain goals. To do this, the lesson process should be organized rationally, the teacher should constantly increase the interest of students and encourage their active participation in the learning process, and the teaching material should be divided into small pieces and open to their content; it requires the use of techniques such as attack, small group work, discussion, problem situation, reference text, project, role play, and encourage learners to perform practical exercises independently. An interactive method is to solve an activity or problem in a collaborative way, based on thinking in a dialogue, in a discussion. The advantage of this method is that the whole activity teaches the student to think independently and prepares them for independent living. One of the most popular interactive teaching methods today is the Case Study. The use of cases develops students' thinking skills, connects the learning process with production [4].

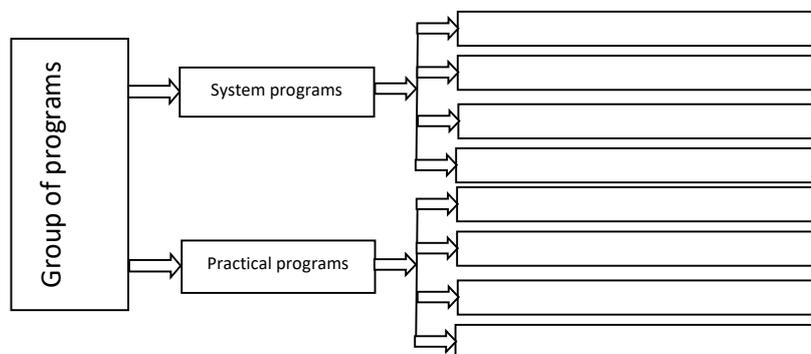
#### Case task1. Moodle Maintenance

**Purpose:** Each user can receive or post access information to his personal account.

**Situation statement:** The user deploys their resources to the moodle system using a computer, modem, or telephone network to connect to the hardware. Resources include: tests, glossaries, lectures, labs, workshops, video, audio files, and more.

**Case issue:** Moodle platform does not accept files larger than 150 MB? Are Internet services expensive? What should the user do to ensure that the requirements are met? How do I upload files to Moodle? How do you find ways to use the Internet?

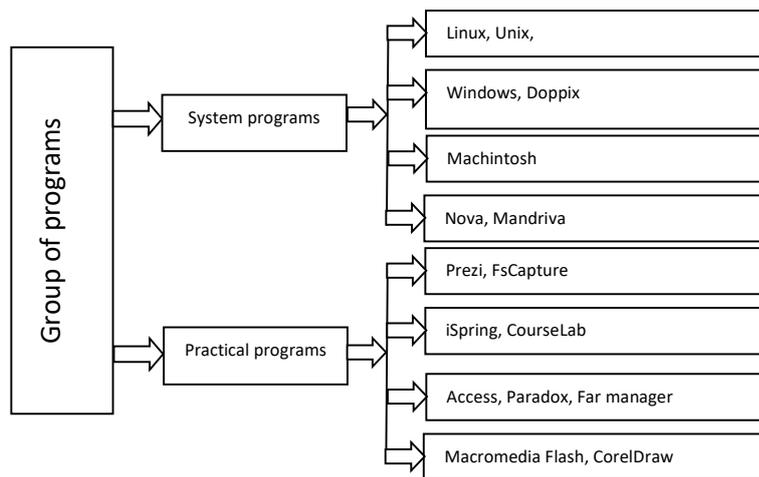
**Case Task 2:** Divide the given software into groups.



Software names:

1. Linux, Unix, Prezi, FsCapture;
2. iSpring, CourseLab, Windows;
3. Doppix, Mandriva, Access;
4. Paradox, Far manager, Machintosh;
5. Mandriva, FoxPro, Chrome, Opera;
6. Macromedia Flash, Nova, CorelDraw;

Teacher answer:



Interactive teaching methods are often used in conjunction with various forms of learning. These technologies can be used differently at different stages of the lesson, depending on the purpose of the topic and the content of the topic. A number of play technologies have been developed that are very effective in teaching science, taking into account the age characteristics of schoolchildren. Usually, the main types of human activity are formed in three ways: work, play and study. They are all interrelated. The laws governing the formation of students' mental activity based on school learning materials are incorporated into play activities. The use of these methods will increase the activity of the participants and improve the effectiveness of education.

**Conclusion.** The use of interactive teaching methods in the classroom prepares students for independent research, self-confidence, ingenuity and responsiveness. Interactive teaching methods help to fully strengthen the subject in the mind of the student, to develop knowledge, skills and abilities in it, to master programming languages, to find their place in life. In short, the teaching of modern programming languages in general secondary school is the basis for students to work in a programming environment and create independent programs, create applications for various sectors of the country, use modern information technology tools and open new horizons in their practice.

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**LINGUISTIC PROPERTIES OF PHRASEOLOGICAL UNITS CONTAINING THE NAMES OF FOOD PRODUCTS IN ENGLISH**

**Djabborova Dilfuza G'ayratovna**  
**Lecturer, Foreign Language department,**  
**Karshi engineering-economic institute,**  
[\*\*djabbarova\\_d@gmail.com\*\*](mailto:djabbarova_d@gmail.com)

**Annotatsiya:** Frazeologiyaga, xususan, frazeologik birliklarga oid muammolarni yoritish maqsadida yozilgan ko'plab ilmiy ishlar mavjud. Ushbu maqola oziq-ovqat mahsulotlari nomlarini o'z ichiga olgan ingliz frazeologik birliklarini o'rganishga bag'ishlangan.

**Tayanch so'zlar:** frazeologik birlik, frazeologik birikmalar, frazeologik birikmalar, ikki cho'qqi yoki ko'p cho'qqi

**Аннотация:** Существует большое количество научных работ, написанных с целью освещения проблем, связанных с фразеологией, и, в частности, фразеологизмами. Данная статья посвящена изучению английских фразеологизмов, содержащих названия пищевых продуктов.

**Ключевые слова:** фразеологизм, фразеологические сращения, фразеологические сочетания, двугоршинность или многовершинность.

**Abstract:** There are a large number of research papers written with the aim of highlighting problems related to phraseology, and, in particular, phraseological units. This article is devoted to the study of English phraseological units containing the names of food products.

**Key words:** phraseological unit, phraseological fusions, phraseological combinations, Two-vertex or multi-vertex

**Introduction.** The relevance of the research topic is due to the importance of using phraseological units in our speech, because it is the properties of phraseological units, such as figurativeness, expressiveness, that make our speech brighter, more emotional, more figurative and expressive, regardless of what language we speak. The purpose of the study is to identify phraseological units containing the names of food products in English, their role in the language, methods and causes of phraseological units. To achieve this goal, the following tasks were set:

- identify the main phraseological units containing the names of food products;
- classify the main phraseological units containing the names of food products in accordance with existing classifications;
- classify the main phraseological units containing the names of food products in accordance with their origin.

Phraseologisms as an object of study: Lexicology as a science: Lexicology (from the Greek *lexikos* - vocabulary, *logos* - teaching). A branch of linguistics that deals with the study of the vocabulary of a language, its vocabulary. The subject of lexicology is the word. Lexicology considers the vocabulary (lexical) composition of the language in different aspects: words and their meanings, systems of word

relationships, the history of the formation of modern vocabulary, the functional and stylistic difference of words in different areas of speech. It is customary to distinguish between general and particular lexicology. The first studies the vocabulary of the language, that which refers to lexical universals: linguistic phenomena found in all languages, characteristic of all languages. Private lexicology deals with the study of issues related to the vocabulary of one language. So, general lexicology can consider, for example, the principles of synonymous or antonymic relations in a language, while private lexicology will deal with the features of a particular language of synonyms or antonyms [1,140-661].

**Research methodology.** Phraseological units appear in the language due to the fact that people need to fill in the gaps. A lacuna is a one-word designation of an object in the lexical system of a language, which cannot fully provide the name of the aspects of reality known to man. And in many cases, phraseological units are the only designations for objects, properties, processes, states, situations, etc. Phraseological units reflect the history of the people, the originality of their culture and way of life. Phraseologisms often have a clearly national character.

In the formation of phraseological units, the human factor plays a huge role, since the vast majority of phraseological units are associated with a person, with a variety of areas of his activity. The addressee factor is the most important element of communication. In addition, a person seeks to endow objects of the external world, including inanimate ones, with human features. All these factors contribute to the emergence and existence of phraseological units in the language. [2,134-137]

Types of phraseological units in terms of the semantic stability of their components. This classification was put forward by V.V. Vinogradov [3, 323-335]. In his concept, he singled out three types of phraseological units:

1. Phraseological fusions are absolutely indivisible stable combinations, a generalized holistic meaning, which is not derived from the meaning of their constituent components, that is, it is not motivated by them from the point of view of the current state of the vocabulary, so. Phraseological fusions are divided into 4 subtypes:

- phraseological fusions, which include uncommon or extinct, that is, words that are absolutely incomprehensible to us. For example: in the middle of nowhere, to get into a mess;
- phraseological fusions, which include grammatical archaisms, which are a syntactically indivisible whole or do not correspond to the norms of modern grammar in their structure. For example: without hesitation, it was - it wasn't, and everything was short-lived;
- phraseological fusions that have undergone expressive individualization and therefore have become indecomposable both lexically and semantically. For example: what good, here you are;

2. Phraseological units are stable combinations, the generalized holistic meaning of which is partly related to the semantics of their constituent components, used in a figurative meaning. For example: the game is not worth the candle, making an elephant out of a fly, dancing to someone else's tune. Such phraseological units may have "external homonyms", i.e. phrases coinciding with them in composition, used in a direct (non-metaphorical) meaning;



3. Phraseological combinations are stable turns, the meaning of which is motivated by the semantics of their constituent components, one of which has a phraseologically related meaning. For example: a bosom friend, open your mouth, cry sobbing, the phraseologically related meaning of the components of such phraseological units is realized only in a strictly defined lexical environment. Phraseological combinations often vary: in them, a word with a non-free meaning allows synonymous substitution and replacement, identification.

In a phraseological combination, the meaning of only one of the words that make up the phraseological combination can be described as not free, connected. Phraseological combinations are characterized by the presence of a synonymous parallel turnover associated with the same key word, a consciousness of the separability and substitutability of a non-free word is characteristic. Syntactic links in such combinations correspond to modern standards.

**Analysis and Results.** The type of phraseological units in terms of their structure and functionality. This approach is based on the comparison of a phraseological unit with a certain part of speech [3, 248]. In the traditional structural approach, the following groups of phraseological units are distinguished:

- ✓ verbal: to run for one's life; to get the upper hand; to talk through one's hand;
- ✓ substantive: dog's life cat-and-dog life; calf love; white lie;
- ✓ adjectives: high and mighty; spick and span; brand new. In this group, words express a specific expressiveness, and sometimes surprising, inconsistent and unexpected combinations: as cool as cucumber, as weak as a kitten etc;
- ✓ adverbs: high and low; by hook or by crook; to the bitter end;

Types of phraseological units in terms of semantics and structure. This classification was proposed by Professor A. I. Smirnitsky [4,249]. Phraseological units in the classification system are grouped on the basis of the number and semantic meanings of their components.

1) One-peak - phraseological units that have an unambiguous meaning of the components: give up; to make out; to pull out; to be tired. They are divided into several subgroups:

- ❖ Verb-adverbial. They are equivalent to a verb in which semantic and grammatical meanings are contained in one component to give up;
- ❖ Prepositional substantive. Phraseologisms in which the semantic meaning is contained in the noun, but the grammatical meaning is absent.

2) Two-vertex or multi-vertex - phraseological units that have two or more meanings of components: black art; common sense; fish in trouble waters. They, in turn, are divided into several types:

- ✓ Attributive substantive. Bimodal units that can be matched with a noun: black art;
- ✓ Verb-substantive, equivalent to the verb: to take the floor;
- ✓ Phraseological repetition, which is equivalent to participle: now or never; involved multivertex: every other day.

So polysemy or unambiguity is important factors for the study of phraseological units, and it is given great importance in their consideration.



Structural classification of phraseological units. Another not unimportant classification is structural. This classification is relevant for the English language and was put forward by Arnold I.V. [5,172-174]. She identifies the following categories:

1. phraseological units that function as nouns:
  - ✓ N + N, for example: maiden name - maiden name;
  - ✓ N's + N, for example: cat's paw - a breeze;
  - ✓ Ns' + N, for example: ladies' man - ladies' man;
  - ✓ N + prp + N, for example: skeleton in the cupboard - a skeleton in the closet;
2. Phraseological units that function as verbs:
  - ✓ V + N, for example: take advantage - take advantage;
  - ✓ V + and + V, for example: pick and choose - carefully select;
3. Phraseological units that function as adjectives:
  - ✓ A + and + A, for example: high and mighty - arrogant;
  - ✓ as + A + as + N, for example: as old as the hills - as old as the world;
4. Phraseological units functioning as adverbs:
  - ✓ N + N, for example: tooth and nail - with all your might;
  - ✓ prep + N, for example: by heart - by heart;
5. Phraseological units that function as prepositions:
  - ✓ prep + N + prep, for example: in consequence of - due to;
6. Phraseological units functioning as interjections:
  - ✓ Often constructed as imperative sentences, example: God bless me! - God bless me!

In the course of the study, material related to phraseological units was considered and selected in the amount of ninety-three phraseological units containing the names of food products. [6, 113-125]

Classification of phraseological units containing the names of food products. When classifying the selected phraseological units, it was found that from the point of view of the structural-functional approach, most of 45 out of 93 - 49% are verbal phraseological units: *make cheese, sell like hotcakes, eat one's cake and have it, to lay an egg, walk on eggs, the better an egg today than a hen tomorrow, fish begins to sink at the head, have other fish to fry, be on the bread-line, he that would eat the fruit must climb the tree, etc;*

30 out of 93 - 31% are substantive: *coffee and cakes, hard cheese, cakes and ale, apple of discord, bad egg, neither fish nor fowl, the grapes are sour, the grapes of wrath, bread and butter, bread and circuses, daily bread, forbidden fruit, forbidden fruit is sweetest, Jam tomorrow, the apple of one's eye, red herring, not a bean, a hot potato, a sweet potato, etc.;*

The number of adjectives is the third largest and is approximately 16%: *as cool as a cucumber, good egg, a rotten egg, a tough egg, the curate's egg, nutty as a fruitcake, a cold fish, full of beans, not the clean potato, my cabbage, good as pie, sweetie pie, all to the mustard, keen as a mustard;*

There are only 3 out of 93 adverbial phraseological units - 4%: *eat one's cake and have it, make fish of one and flesh of another.*

From the point of view of the semantic-structural principle, based on this sample, it can be judged that the majority of phraseological units 67 out of 93 or 72% are



unmoral, that is, they have only one lexical meaning: *as cool as a cucumber, coffee and cakes, make cheese, an apple a day keeps a doctor away, apple of discord, have all one's eggs in one basket, a cold fish, fish begins to sink at the head, have other fish to fry, etc;*

Two-vertex or multi-vertex phraseological units - having two or more meanings make up 26 out of 93 - 28%: *hard cheese, bad egg, good egg, a tough egg, to lay an egg, break bread with somebody, full of beans, etc.;*

In turn, prepositional substantive phraseological units make up the largest group of about 60% (56 out of 93): *the salt of youth, below the salt, attic salt, above the salt, pie in the sky, my cabbage, corn in Egypt, not for all the tea in China, husband's tea, soup and fish, in the soup, hand somebody a lemon and others;*

The remaining 2 subgroups are approximately the same in number: *be off one's onion, take somebody with a pinch of salt, all to the mustard, cut a pie, that accounts to the milk in the coco(a)nut, the milk is spilled, not to carry corn, feed somebody on soft corn, a sweet potato, hold one's potato, etc.;*

In the group of multi-vertex phraseological units, the largest number are attributive-substantive phraseological units such as: *hard cheese, bad egg, good egg, a tough egg, full of beans, a hot potato, not the clean potato, the milk of human kindness, sweetie pie;*

The rest function as adjectives: *as cool as a cucumber, nutty as a fruitcake, good as pie, keen as mustard. And as adverbs: the better an egg today than a hen tomorrow, fish begins to sink at the head, honey is not for the ass's mouth, like taking candle from a baby;*

Phraseological units functioning as interjections and prepositions were not found. Thus, we can conclude that most of the phraseological units containing the names of food products in the language act as units that replace verbs and nouns in our speech, and in structure they also include mostly verbs and nouns.

The use of phraseological units containing the names of food products. Based on the data obtained, it can be judged that most phraseological units are commonly used, that is, they can be used both in written and oral speech. But there is also a large number of functionally fixed phraseological units used exclusively in colloquial speech. Among colloquial phraseological units, jargons such as *get beans, not the clean potato, be of one's onion* and other jargons that belong to lower social groups stand out. Also, jargon of pilots *to lay an egg* was found among phraseological units.

It is worth noting that some of the colloquial phraseological units have a special stylistic coloring, for example, *eat one's cake and have it*, for sour apples have a negative connotation, neither fish nor fowl contains a touch of disdain, *husband's tea* is playful.

The origin of phraseological units containing the names of food products. In the process of analyzing and studying various dictionaries of phraseological units, it was revealed that most of the phraseological units are native English. Were found:

- ✓ a proverb *every bean has its black, honey is not for the ass's mouth*, units;
- ✓ phraseological units associated with realities and customs *red herring, sowing your oat*;
- ✓ Shakespearianism *the milk of human kindness, the salt of youth*;



✓ units created by other English writers the grapes of wrath( J. Howe), quarrel with one's bread and butter (J. Swift), jam tomorrow (L. Carroll).

Borrowed phraseological units are also found:

- ❖ bibleisms: apple of discord, break bread with somebody, daily bread;
- ❖ phraseological units of American origin: sell like hot cakes, sweet potato, Australian: not for all the tea in China, borrowed from French: make cheese, Latin: fish begins to sink at the head.

During the study of materials, sources of origin of individual phraseological units containing the names of food products were found:

Apple of my eye - Previously, people represented the human pupil as a solid object, comparing it to an apple. In this sense, Shakespeare used this idiom in his work "A Midsummer Night's Dream": "Flower of this purple dye, Hit with Cupid's archery, Sink in apple of his eye."

The modern word pupil comes from the Latin pupus (boy) and pupa (girl) and was used to refer to the dark center of our eye, since when people look into each other's eyes; a small image of each of them is reflected in the pupils.

Thus, it can be concluded that most of the phraseological units containing the names of food products are originally English, but nevertheless there are borrowings from other languages.

After analyzing and classifying phraseological units containing the names of food products, the following results were obtained: Most of the phraseological units are verbal, as well as the majority are unambiguous in their meaning and act as nouns in the language.

The study also showed that most of the phraseological units are commonly used and are not tied to a particular area of use. Equally important is the fact that many phraseological units are originally English, thereby reflecting the special culture of the British people.[7, 83-98]

**Conclusion:** The study was undertaken with the aim of linguistic study of phraseological units containing the names of food products in the English language. In this study, based on the theoretical base of other linguists, an analysis of phraseological units of the English language with food components was carried out. They were classified based on the existing, best known classifications, as a result of which information was obtained that most phraseological units are verbal and act as nouns in a sentence. It was also noticed that most of the phraseological units are native English, but there are also borrowings from other languages. The prevalence and significance of phraseological units is beyond doubt, it is they that make it possible to most fully understand and realize the culture of the people. Without knowledge and ability to use phraseological units in speech, one cannot speak of complete mastery of the language.

The presence of a special stylistic coloring in phraseological units indicates the possibility of their use in various spheres of life. Phraseologisms containing the names of food products are mainly a layer of common vocabulary, but jargon also takes place.

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**THE ROLE OF FLOWERS IN SILICATE TECHNOLOGY AND MAIN CHARACTERISTICS OF FELDSPAR A SULTAN UVAYSS KHO DEPOSIT**

**Babaev Zabibulla Kamilovich**  
"Light industry technologies  
and equipment" department  
Chair of Professors, D.Sc.  
Urgench State University

**Matchanov Sherzod Kamilovich**  
Associate Professor of "Chemical  
Technology" department  
Urgench State University

**Kudiyarova Kutligul Karamaddinovna**  
assistant teacher  
Karakalpak State University

**Abdullayeva Mehrinisa Narimon qizi**  
Master student of  
Chemical Technology faculty  
Urgench State University

**Matchanov Shahzod Sherzod ogli**  
The Student of the  
Department of Chemical Technology  
Urgench State University  
[mbsh76@mail.ru](mailto:mbsh76@mail.ru)

**Annotasiya:** Мақолада Султон Увайс қони дала шпатининг физик-кимёвий ва минералогик таркиблари тўлиқ ўрганилган бўлиб, ушбу хом ашё силикат саноати маҳсулотлари ишлаб чиқариш учун яроқлийлиги келтирилган.

**Калит сўзлар:** дала шпати, алюмосиликат, кумни бойитиш, бойитилган кварц куми.

**Аннотация:** В статье подробно изучен физико-химический и минералогический состав полевого шпата Султан Увайского месторождения и сделан вывод о пригодности этого сырья для производства продукции силикатной промышленности.

**Ключевые слова:** полевой шпат, алюмосиликат, обогащения песка, обогащенный кварцевый песок.

**Annotation:** The article studied in detail the physicochemical and mineralogical composition of the feldspar of the Sultan Uvayskoye deposit and concluded that this raw material is suitable for the production of silicate industry products.

**Keywords:** feldspar, aluminosilicate, enriched sand, enriched quartz sand.

**Introduction.** The quality of glass and ceramic products depends on the chemical and mineralogical composition of the initial raw materials, the phase



composition and structure of the resulting material, temperature and time, and processing conditions [1]. In the technology of silicate materials, in addition to quality characteristics, the issue of energy and resource saving is considered an important factor. In this regard, the temperature reduction in the production of silicate products is an important factor, which is achieved by using the so-called fluxes. In the technology of silicates, fluxes are usually divided into two large groups: fluxing ones, which have a low melting point, as well as substances that have a high melting point, but when fired with other mass components, they give low-melting compounds. The first group of fluxes includes feldspars, pegmatites, and nepheline syenites, and the second group includes chalk, dolomite, and talc [2]. With an increase in the proportion of fluxes in the composition of the glass and ceramic mass, the content of the vitreous phase increases, but the thermal stability and mechanical strength, especially on impact, decrease. The presence of a glassy phase promotes liquid-phase sintering, i.e. such an interaction of a multicomponent powder body, in which one or more of its components are melted to form a liquid phase. The appearance of a liquid phase due to the melting of the material with the lowest melting point in the mixture contributes to the binding of individual components into a single composite material with subsequent melting, but this is possible only if the particles are well wetted by the liquid phase [3].

Feldspars are minerals often found in nature, which are aluminosilicates of alkali and alkaline earth metals, which include orthoclase ( $K_2O \cdot Al_2O_3 \cdot 6SiO_2$ ), albite ( $Na_2O \cdot Al_2O_3 \cdot 6SiO_2$ ), anorthite ( $CaO \cdot Al_2O_3 \cdot 2SiO_2$ ), spodumene ( $Li_2O \cdot Al_2O_3 \cdot 4SiO_2$ ) and Celsian ( $BaO \cdot Al_2O_3 \cdot 6SiO_2$ ) [4].

The addition of feldspars to the composition of silicate mixtures, in particular ceramics, it is used to obtain a vitreous phase, which significantly affects the properties of the resulting material [4]. In particular, with an increase in the proportion of the glassy phase, the strength of the material during firing increases, and the probability of deformation and cracking of the finished product is significantly reduced. Also, the glassy phase dissolves other components of the ceramic mass and can contribute to the formation of new crystalline phases from the melt.

The reason for the active use of feldspars as fluxes is the relatively low melting point of  $1200^\circ C$ . When melted, feldspar becomes a viscous glassy mass - feldspar glass, which fills the empty space between the components of the ceramic mass, thereby gluing them together and forming a monolithic mass with them upon cooling [5].

The action of feldspars as fluxes in silicate systems starts from  $900^\circ C$ . With a further increase in temperature, metakaolin first dissolves, and then quartz. Along with this, some of the other refractory grains also dissolve in the glassy mass with the formation of low-melting eutectics [6, 7].

The reserves of usable feldspars are relatively small. Pure, uncontaminated feldspars are commonly found in pegmatite veins. Pegmatite veins are quite rare, respectively, and feldspars are more often found not in pure form, but in mixtures with other minerals, such as magnetite.

It is customary to distinguish three different groups of feldspars based on their mineralogical composition. The first group includes orthoclases (sodium-potassium feldspars), the second - plagioclases - albite and anorthite, which are sodium-calcium



feldspars, and the third - hyalophanes (potassium-barium feldspars). There is also, although much less common, spodumene (lithium feldspar  $\text{Li}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 4\text{SiO}_2$ ) and Celsian ( $\text{BaO} \cdot \text{Al}_2\text{O}_3 \cdot 6\text{SiO}_2$ ) [8].

Potassium feldspar  $\text{K}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 6\text{SiO}_2$  exists in nature in two varieties - microcline and orthoclase, which have different crystallographic properties, but the same chemical composition. Accordingly, depending on the variety and impurities, it can have a different color from pure white to burgundy and a density of 2,56–2,58 g /  $\text{cm}^3$ . The melting temperature also varies in the range of 1130–1450 °C. The addition of potassium feldspar imparts a very high viscosity to the melt, which significantly increases the resistance of ceramic products to sudden temperature changes, and glass is obtained with a good luster and a low melting point. Another important representative of the feldspar class is sodium feldspar  $\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 6\text{SiO}_2$  (albite), which is a mineral with a density of 2,62 g/ $\text{cm}^3$ . The color of pure albite is white, but impurities can color it in gray, yellow and other colors. The melting point of albite is in the range of 1120–1250°C [9].

Also, calcium feldspar  $\text{CaO} \cdot \text{Al}_2\text{O}_3 \cdot 6\text{SiO}_2$  is used in silicate technology - anorthite, having a density of 2,76 g /  $\text{cm}^3$  and a variable melting point of 1250 °C and 1550 °C. The color of anorthite is predominantly yellow, but may vary due to the presence of impurities. An increase in the amount of calcium oxide in the composition of the flux worsens the light transmission of the melt. Because of this, it is not recommended to use anorthite in an amount greater than 20% [10].

In nature, a mixture of calcium and sodium feldspars occurs, resulting in plagioclases of various shades of white and pink. It is customary to divide plagioclases into 3 groups: acid (less than 30% anorthite), medium (from 30 to 60% anorthite) and basic (more than 60% anorthite). Plagioclases are used less often as fluxes due to the narrow interval between sintering and melting and the higher melting point compared to orthoclases.

In nature, there are quartz-feldspar ore aggregates, the so-called pegmatites, which are feldspars germinated with quartz. In view of the limited reserves of pure feldspars, pegmatites are used as their replacement in the manufacture of fine ceramics. Pegmatites contain about 60–70% feldspars, 25–30% quartz, as well as mica and impurities of other minerals.

As usual, pegmatites do not have a constant mineralogical composition, however, as well as a constant composition in terms of grain size, which must be taken into account when calculating the charge. Despite this, the melting point fluctuates within a fairly narrow range of 1230–1300°C [11]. Other alkali-containing raw materials include nepheline syenites - an alkaline rock, which consists of nepheline ( $\text{K}_2\text{O} \cdot 3\text{Na}_2\text{O} \cdot 2\text{Al}_2\text{O}_3 \cdot 9\text{SiO}_2$ ), feldspars and mica impurities, iron oxides, etc. It will be used as a replacement pegmatites. However, for use in the composition of silicate materials, nepheline syenite must be enriched, since a significant amount of iron oxides in the composition adversely affects the physicochemical and mechanical properties of the product. Without enrichment, nepheline syenite can be used for the production of stone goods, facade and metlakh tiles [12].

Over the past 5 years, the production of silicate products has been rapidly developing in Uzbekistan. In a short time, more than 10 glass and about 5 ceramic plants were put into operation, and cement production increased by 20 ml.t / year.

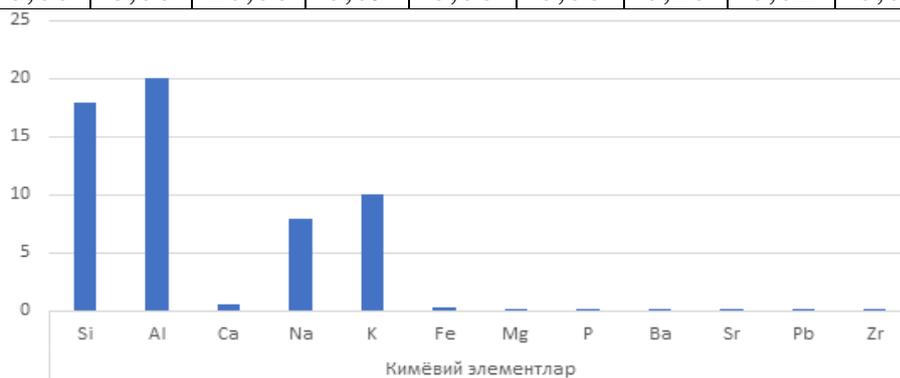
**Results and its discussion.** In this regard, the task was set to find new deposits of silicate raw materials that meet the needs of industrial enterprises and meet existing standards. Our research is aimed at studying new deposits of silicate raw materials, including low-melting compounds.

On the territory of Uzbekistan, according to prospecting exploration works [13], numerous deposits of quartz-feldspar raw materials have been discovered, most of which have not been explored in detail and have not been sufficiently studied. One of these deposits is the Sultan feldspar of the Uvaiskoye deposit. This raw material being mineralogically homogeneous with some content of quartz (5-7%). The habit is tabular and in the form of short prisms with sizes from 10,10 to 50,25 microns, the color of the rock is gray-cream. Refractive indices  $N_p=1,528\pm 0,003$ ;  $N_g = 1,514\pm 0,003$  and  $\Delta N = 0,014$  are typical for minerals of the feldspar group. The mineralogical composition of the feedstock consists of 65-67% microcline, 27-28% albite, 1-2% apatite and 5-6% quartz. The chemical analysis of the initial sample shows that the raw material contains the following ingredients:  $SiO_2$ -68,57;  $TO_2$ -0,01;  $Al_2O_3$ -16,81;  $Fe_2O_3$ -0,07;  $FeO$  -0,12 ;  $MgO$  -0,3;  $MnO$  -0,01;  $CaO$  -0,55;  $Na_2O$  -2,92;  $K_2O$  -9,98;  $P_2O_5$  -0,15;  $ppp$ -0,51. The table below shows the results of a semi-quantitative elemental spectral analysis of the feldspar Sultan Uvaiskoe deposit, as well as a histogram in the form of a figure (see Fig. 1.).

1-table

**Results of a semi-quantitative elemental spectral analysis of the Sultan feldspar of the Uvaiskoye deposit.**

Elements and their amounts , %											
Si	Al	Ca	Na	K	Fe	Mg	P	Ba	Sr	Pb	Zr
18,00	20,00	0,60	8,00	10,00	0,09	0,06	0,06	0,10	0,02	0,06	0,02

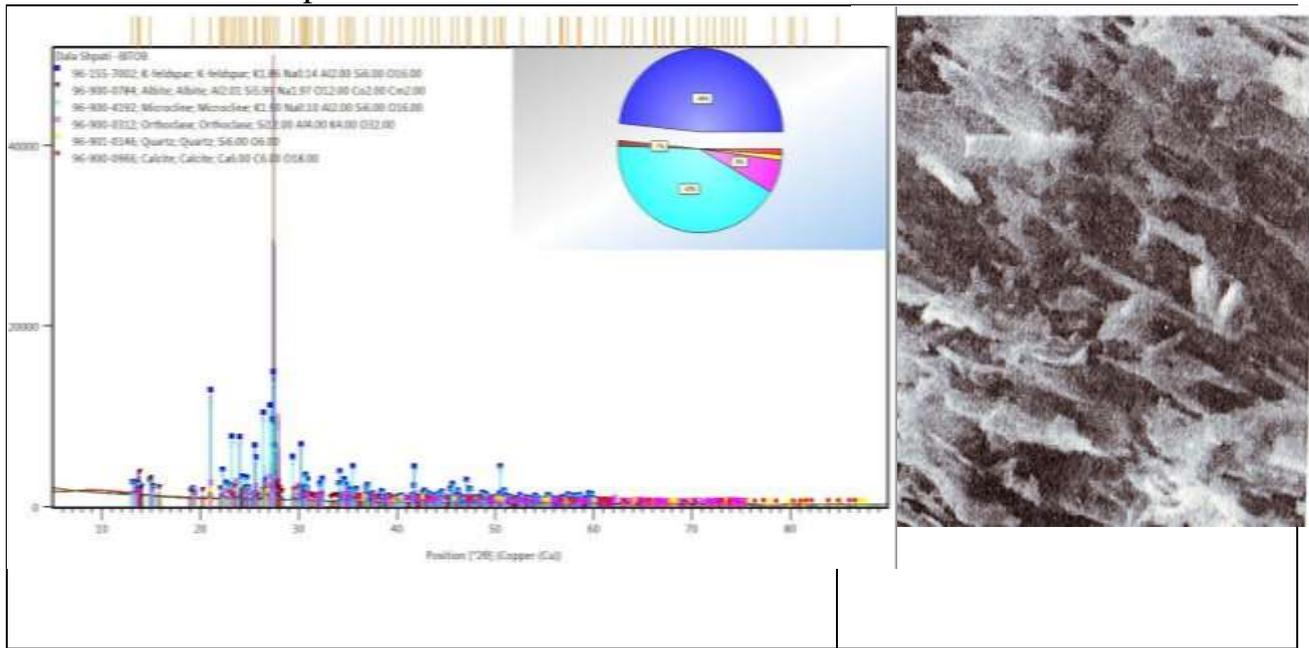


**Figure.1.** Histogram of the elemental composition of the Sultan feldspar of the Uvaiskoye deposit.

As you can see, from the above figure and table 1, the predominant elements in the composition of feldspar is Si, Al, Na and K, and the content of harmful impurities of iron in small quantities (0,09).

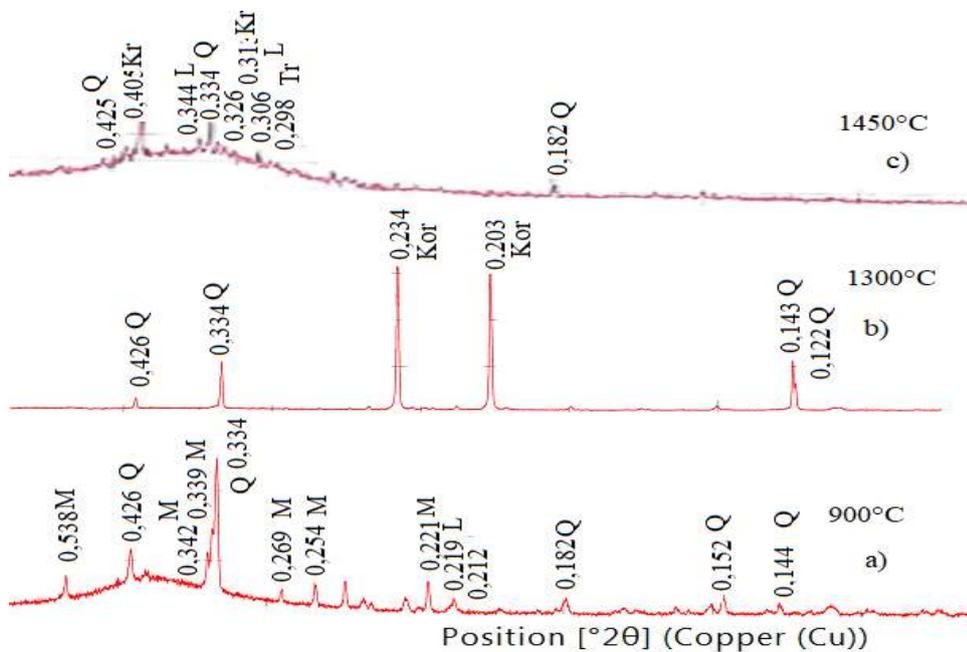
X-ray studies have established that this raw material consists mainly of adularia (0,42: 0,40: 0,38: 0,36: 0,35: 0,33: 0,32: 0,30: 0,295: 0,275: 0,253 and 0,241). The ratio in feldspar  $K_2O:Na_2O = 3,5$ . During heat treatment in the range of 1250-1300 <sup>about</sup> With

formed viscous glass. Figure 1 shows the X-ray phase analysis of the Sultan feldspar of the Uvaiskoe deposit.



**Figure. 3 .** X-ray phase analysis and electron microscopic image (magnification x 1800) of Sultan Uvaysky feldspar location.

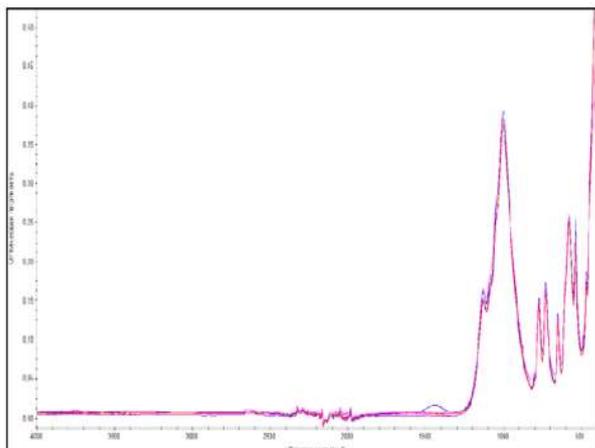
On fig. Figure 4 shows the results of X ray phase analysis of fired specimens at different temperatures. As can be seen from the figure, the samples fired at 900 °C contain minerals of quartz and mullite with low intensity frequencies. A feature of the results obtained is that they lack diffraction maxima characteristic of feldspar minerals.



**Figure. 4.** X-ray phase analysis of samples fired at different temperatures

In the infrared spectra of samples in the wavelength range of 700-800  $\text{cm}^{-1}$ , two diffuse absorption bands of medium intensity are noted (Fig. 2), corresponding to the low-temperature triclinic form of  $\text{K}[\text{AlSi}_3\text{O}_8]$  -microcline. This is also evidenced by the presence in the spectrum of a doublet with a weakly pronounced absorption

maximum at wavelengths of 1020 and 1050  $\text{cm}^{-1}$ . At the same time, sharp well-separated microcline adsorption peaks indicate the presence of a feldspar structure with an ordered distribution of aluminum and silicon atoms.



**Figure. 5.** IR spectra of the Sultan feldspar of the Uvaisskoe deposit.

The firing of lump feldspar at a temperature of 850 °C does not lead to noticeable changes (see Fig. 5), however, at a temperature of 1350 °C, it turns into a milky-white opal-shaped glass, full of bubbles 0,5-1 mm in size. This is evidenced by the infrared spectrum, which has three absorption regions typical for glasses at a wavelength of 1060, 775-730 and 460-420  $\text{cm}^{-1}$ , corresponding mainly to bond vibrations - Si - O - Al -.

**Conclusion.** All the physical and chemical properties of the Sultan feldspar of the Uvaisskoye deposit show its suitability for the production of glass and ceramics, and meets the requirements of GOST-13457-2019 [15] brand. PShS-0.20-16 and GOST 7030-2019 [16] brand PShK 0,15-3

Thus, the suitability of the feldspar Sultan of the Uvaisskoye deposit was theoretically studied and substantiated, and all qualitative indicators were established by physical and chemical analyzes, which were compared with the requirements of existing standards, and appropriate conclusions were made about the acceptability of using this raw material in the production of glass, glass enamels, glazes, porcelain and other silicate materials. products.

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## EFFECT OF DIFFUSION PARAMETERS ON THE STATE OF IMPURITY NICKEL ATOMS IN SILICON

**Turgunov Nozimjon Abdumannopovich**  
Doctor of Physical and Mathematical Sciences,  
Research Institute of Semiconductor Physics and  
Microelectronics at the National  
University of Uzbekistan,  
[tna\\_1975@mail.ru](mailto:tna_1975@mail.ru)

**Asatova Umida Palvanovna,**  
Doctor of philosophy(PhD) of Physical  
and Mathematical sciences, Department of Physics  
Urgench StateUniversity  
[umida72@rambler.ru](mailto:umida72@rambler.ru)

**Rustam Ruzmetov**  
Master student of Department of Physics  
Urgench StateUniversity

**Annotatsiya:** Silicon-dagi electroactive aralashmalar atomlarining konsentratsiyasi blue aniklash uchun Hall effekti va usuli qo'llanildi.

**Kalit suzlar:** elektroaktiv aralashma atomlar, holl effekti, chukur satxlar, stansiya bulmagan sigim spektroskopiyasi (DLTS)

**Аннотация:** Для определения концентрации электроактивных примесных атомов в кремнии использовался метод эффекта Холла. С помощью метода нестационарной емкостной спектроскопии (DLTS) были определены значения глубоких уровней, создаваемые примесными атомами никеля.

**Ключевые слова:** электроактивные примесные атомы, эффект Холла, глубокие уровни, нестационарная емкостная спектроскопия (DLTS)

**Abstract:** The Hall effect method was used to determine the concentration of electroactive impurity atoms in silicon. Using the method of nonstationary capacitance spectroscopy (DLTS), the values of deep levels created by impurity nickel atoms were determined.

**Key words:** electroactive impurity atoms, Hall effect, nonstationary capacitance spectroscopy (DLTS).

**Introduction.** The study of the nature of accumulations of impurity atoms formed on the surface or in the volume of silicon single crystals, as well as the influence of various external influences on them, makes it possible to purposefully control the electrophysical, photoelectric, optical, and other properties of semiconductor materials. To develop technologies for obtaining modern semiconductor materials with high sensitivity to external influences, it is necessary to thoroughly study the patterns of physical phenomena occurring in the volume of a semiconductor under various conditions of its manufacture. One of the important stages of this process is the semiconductor doping.

**Literature review.** During diffusion doping of silicon single crystals with

impurities of 3d elements, the main part of impurity atoms is in an electrically neutral state in the form of various impurity clusters. Depending on the thermodynamic state and morphological parameters, these accumulations can significantly affect the properties of silicon single crystals[1-4].

The study of the behavior of impurity atoms during the formation of various clusters under high-temperature diffusion doping of semiconductor materials is one of the topical problems of modern microelectronics. To obtain semiconductor materials with predetermined parameters, it is necessary to take into account all stages of technological processing of samples. The conditions created during doping with various impurities are one of the main factors affecting the subsequent processes of the formation of defect structures in the volume of silicon single crystals. The results of previous studies have shown that the value of the diffusion temperature and sequential thermal annealing plays a decisive role in the incorporation of impurity atoms and their arrangement in the silicon crystal lattice[5-7]. Therefore, determining the optimal diffusion parameters is of the utmost importance in the production of semiconductor devices. In this regard, the present work considers the influence of the diffusion annealing time at temperatures  $T_1=1423$  K and  $T_2=1523$  K on the concentration of electroactive nickel atoms in silicon single crystals.

**Research Methodology.** To carry out the research, samples of single-crystal silicon of the KEF brand were used, with an initial resistance  $\rho=5$  O m·cm. Doping of single crystals of Si with nickel was carried out from a layer of a diffusant deposited on the silicon surface by vacuum deposition on a VUP-4 setup. High purity metallic nickel was used as a diffuser. Diffusion annealing was carried out in an electric resistance furnace SUOL-4M at temperatures of 1423 K and 1523 K for 30 minutes to 8 hours. After diffusion annealing, the samples were cooled at different rates. To achieve rapid cooling, the ampoules were dropped into water, through a thin layer of oil, which kept the samples from cracking. In this case, the cooling rate ( $v_{cool}$ ) of the samples reached  $v_{cool} \sim 400$  K/s. To obtain slower cooling rates, the ampoules were cooled in air or together with the oven turned off, where the cooling rate of the samples was  $v_{cool} \sim 0.05$  K/s. In the studies carried out, the Hall effect method was used to determine the concentration of electroactive impurity atoms in silicon. Using the method of nonstationary capacitance spectroscopy (DLTS), the values of deep levels created by impurity nickel atoms were determined [6].

**Analysis and results.** Compared to other elements of the metal group, nickel in silicon has the highest solubility and diffusion coefficient, and the total number of atoms exceeds the solubility of electrically active atoms by more than three orders of magnitude [8–10]. One of the important factors in the diffusion of impurities in silicon is the duration of diffusion annealing. In the process of nickel diffusion in silicon, the influence of the annealing time on the concentration of electrically active impurity atoms introduced into silicon was studied. As can be seen from fig. 1 (curve 1) at a diffusion temperature of 1523 K, in the annealing time interval from 30 min to 1 hour, the concentration of electrically active nickel atoms increases to  $2,5 \cdot 10^{13}$  cm<sup>-3</sup>.

A subsequent increase in the annealing time to 2 hours leads to an increase in the concentration of electrically active nickel atoms by almost one order of magnitude.

With a further increase in the value of the annealing time, it begins to decrease and at  $t=3$  hours it is  $1.6 \cdot 10^{14} \text{ cm}^{-3}$ . Over the next 5 hours, the gradual decrease in the concentration of electrically active impurity atoms  $N_{\text{Ni}}$  continues and at  $t=8$  hours it is equal to  $8 \cdot 10^{13} \text{ cm}^{-3}$ . The energy levels of impurity centers determined in  $n\text{-Si}\langle\text{Ni}\rangle$  samples under the conditions of the maximum concentration of electrically active atoms  $N_{\text{Ni}} = 2.2 \cdot 10^{14} \text{ cm}^{-3}$  for Ni are:  $E_v + 0,2 \text{ eV}$  и  $E_c - 0,41 \text{ eV}$ . These values of energy levels and their concentrations are the most stable for many samples and during repeated annealing.

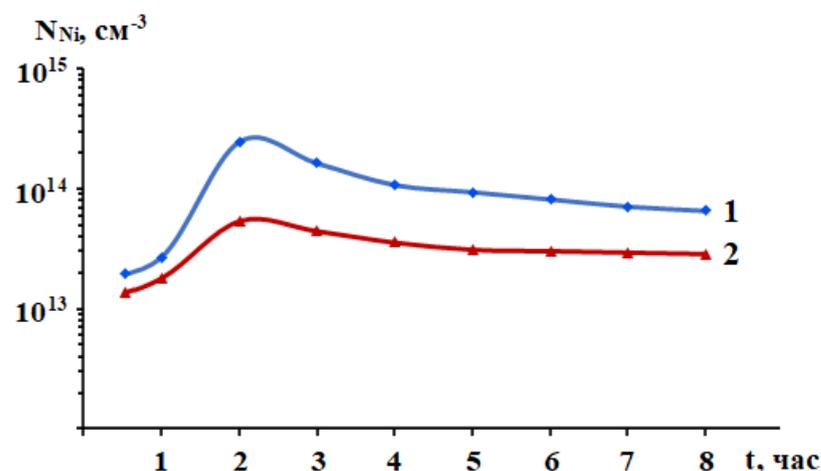
The dependence of the concentration of electrically active nickel atoms in silicon on the annealing time at a diffusion temperature of 1423 K is shown in Fig. 1 (curve 2). During the initial 30 minutes of annealing, the value of  $N_{\text{Ni}}$  is  $1.4 \cdot 10^{13} \text{ cm}^{-3}$ . With a further increase in the annealing time to  $t=1$  hour, a slight increase in the value of  $N_{\text{Ni}}$  is observed, where it reaches  $1.7 \cdot 10^{13} \text{ cm}^{-3}$ . During the next hour, it increases significantly and reaches its maximum value, which is  $5 \cdot 10^{13} \text{ cm}^{-3}$ . A further increase in the annealing time leads to a gradual decrease in the concentration of electroactive nickel atoms and at  $t=5$  hours reaches  $2 \cdot 10^{13} \text{ cm}^{-3}$ . The subsequent increase in the annealing time to  $t=8$  hours does not lead to significant changes in the value of  $N_{\text{Ni}}$ .

The data obtained show that with a decrease in the diffusion temperature of the Ni impurity in Si, the number of nickel impurity atoms in electrically active states decreases. The maximum value of electrically active nickel atoms both for samples with a diffusion temperature  $T_1=1423 \text{ K}$  and for samples with  $T_2=1523 \text{ K}$  is achieved with a duration of diffusion annealing  $t=2$  hours.

**Conclusion.** 1) At diffusion temperatures  $T_1=1423 \text{ K}$  and  $T_2=1523 \text{ K}$ , the required values of the annealing time were determined to introduce the maximum amount of electroactive nickel impurity atoms in silicon.

2) It was found that the value of the concentration of electrically active nickel atoms in silicon significantly depends on the temperature and time of diffusion annealing.

3) It has been established that with the duration of the diffusion time of  $n\text{-Si}\langle\text{Ni}\rangle$  samples equal to  $t=2$  hours, the maximum value of the concentration of electrically active nickel atoms in silicon is achieved.





**Figure.1.** Dependence of the concentration of electroactive nickel atoms in silicon on the duration of diffusion annealing at temperatures:  
1–1423 K and 2–1523 K.

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**UDK: 62-512**

## **DEVELOPMENT OF PRACTICAL RECOMMENDATIONS FOR CONSTRUCTION OF A FUZZY EXPERT SYSTEM FOR ASSESSING THE QUALITY OF THE FUNCTIONING OF THE URBAN PUBLIC TRANSPORT SYSTEM**

**Chariyev Xaliqul Shoniyozovich.**  
Doctor of Philosophy (PhD), PhD,  
Tashkent State Transport University;  
[transportlogistikasi@mail.ru](mailto:transportlogistikasi@mail.ru);

**Khusanov Laziz Erkinovich.**  
PhD Student of Tashkent State  
Transport University;  
[transportlogistikasi@mail.ru](mailto:transportlogistikasi@mail.ru);

**Annotasiya.** Ushbu maqolada taqdim etilayotgan jamoat transporti xizmatlari sifatini baholashning aqlli modellarini ishlab chiqish tavsiya etiladi.

**Kalit so'zlar:** shahar jamoat transporti (ShJT), sun'iy neyron tarmoqlari (SNT), intellektual boshqaruv axborot tizimi (IBAT), noaniq ekspert tizimlari (NET), transport, transport vositasi, avtomobil.

**Аннотация.** В данной статье рекомендуется разработать интеллектуальные модели оценки уровня качества предоставляемых услуг общественного транспорта.

**Ключевые слова:** городской общественный транспорт (ГОТ), искусственные нейронные сети (ИНС), интеллектуальная информационная система управления (ИИСУ), нечеткие экспертные системы (НЭС), транспорт, транспортное средство, автомобиль.

**Abstract.** This article recommends developing intelligent assessment models quality level of the public transport services provided.

**Keywords:** urban public transport (UPT), artificial neural networks (ANN), intellectual management information system (IMIS), fuzzy expert systems (FES), transport, transport vehicle, automobile.

**Introduction.** Implementation of intelligent systems management city public transport at the present stage of their functioning, it is logical continuation of existing methodological approaches and provisions in managing the passenger transportation system in a large city.

The multidimensionality of each specific situation affecting the profile management systems urban public transport, whether it be difficult terrain, entering and outgoing traffic flows, transport planning features, condition of roads and transport infrastructure in general the city, acts as a fundamental factor affecting the configuration of the transport network of a large metropolis and used management model city public transport.

**Literature review.** Today, the public transport system is well developed - in countries such as Germany, Sweden, Korea, China, Singapore, the United States, there is a wide range of systems that allow to monitor the flow of passengers in urban agglomerations.



**Research Methodology.** For this set of indicators, production rules for the triangle principle and the trapezoid principle. The primary outcome was to learn the worldwide tendency on this matter and to compare the results of different authors.

**Analysis and Results.** At the early stages of the study, we considered the nomenclature of existing quality indicators of passenger transportation, presented in GOST R 51004-96 "Transport services. Passenger transportation. Nomenclature of quality indicators."

Based on the results of the study of the issue of assessing the quality of the services provided by urban public transport (UPT), there was a methodology for conducting an experimental study of assessing the quality of urban public transport (UPT) services based on the artificial neural networks (ANN), including[1,2]:

- analysis and synthesis of the system of UPT in Tashkent, with the identification of shortcomings in organization and management;
- substantiation of the feasibility of transforming the existing passenger service system at UPT;
- development of perspective models of UPT management based on intellectual management information system (IMIS);
- formation of an information base of indicators of the functioning of the UPT in the city of Tashkent (characteristics of passenger flows, route network of the city), to assess the quality of passenger service based on the fuzzy expert systems (FES);
- assessment of the quality of passenger service based on fuzzy expert systems FES using IMIS;
- forecasting of transport processes based on ANN;
- development of options for reconstruction of the UPT network;
- development of recommendations to improve the quality of passenger service[3].

With the help of sets of fuzzy functions, it is possible to describe the state of any system, including the UPT system of a large city. Based on the results of a survey of the current state and development trends of UPT in the city of Tashkent, a system of fuzzy rules was developed (Table 1)[4].

The level of quality of the provided services was chosen as the resulting indicator:

from 1 to 0.8 – excellent, 0.8 to 0.6 – good, from 0.6 to 0.4 – normal, from 0.4 to 0.2 – bad, from 0.2 to 0 - very bad.

In the early stages of the study, we considered the nomenclature existing indicators of the quality of passenger transportation, presented in GOST P 51004-96 "Transport services. Passenger Transportation. Nomenclature of quality indicators"[5]. Of these, those indicators were selected which could be used in relation to the city of Tashkent in connection with the presence of statistical data in the reporting of the Toshshahartrans administration of the "City of Tashenta" to the authority state statistics of Tashkent[6,7,8]. The result was obtained a set of 10 indicators, the values of which were matched by the rules: excellent, good, satisfactory, unsatisfactory, etc. with the aim of further development of a fuzzy expert system (Table 1)[9]:

Table 1

## System of rules for UPT in Tashkent

№	Quality indicators system functioning UPT	Unit rev.	Rules
1	Average density route network UPT	km / km <sup>2</sup>	Satisfactorily – 1,5-2,5 Acceptable – 2,5-4,5 Unsatisfactory - more – 4, Unacceptable – 0-1,5
2	Movement interval	minutes	Fine – 2 Good - 2 to 4 Moderately good - 4 to 6 Satisfactory - from 6 to 10 Unsatisfactory - more than 10
3	Time spent on movement for 90% of pass.	minutes	Exemplary – 28 Good – 35 Satisfactory – 40 Limit permissible – 60 More than 60 is unacceptable.
4	Average trip length passenger	km	5-10,63 Excellent - more 10,63 Good – 7-10,63 Satisfactorily – 5-7 Unsatisfactory – 0-5
5	Transport mobility	trips to resident	Excellent - more 1058,5 Good – 949-1058,5 Satisfactorily – 731-949 Unsatisfactory - less – 731
6	Utilization rate rolling stock	$\delta / p$	Fine – 1 Good – 0,8 Average – 0,6 Satisfactorily – 0,4 poorly – 0,2
7	Walking distance approaches	m	Satisfactorily – 250-500 Maximum permissible – 500-800 Unacceptable - more – 800
8	Annual passenger turnover	mln pass.- km / year	Fine – 1,3 Good – 1,2-1,3 Unsatisfactory – 0-1,2
9	Capacity	pass / m <sup>2</sup>	Satisfactorily – 1-5 Unsatisfactory - more 5
10	Average number of passengers per vehicle	pass. on vehicle	Fine – 217-224 Good – 184-217 Unsatisfactory - less 184 Overload - more – 224

As a resultant indicator of fuzzy expert systems (FES), the "level of quality of services provided" was chosen[10,11].

**Results.** For this set of indicators, production rules according to the triangle principle and the trapezoid principle[12].

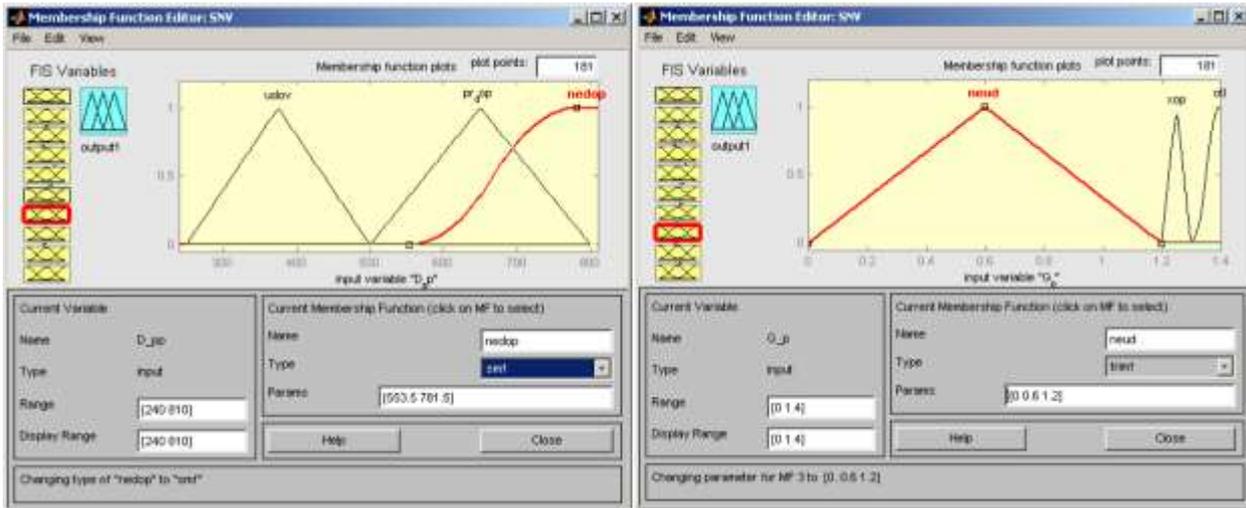


Figure: 1. Calculation of the membership function for the indicator "Distance of pedestrian approaches" and "Urban passenger turnover"

Output linguistic variable “Quality level services provided”. For this variable, we introduce the terms - {very bad}, {bad}, {ok}, {good}, {excellent}[13,14,15,16].

from 0.8 to 1 - excellent	1
0.6 to 0.8 – good	0,75-1
from 0.4 to 0.6 – normal	0,5-0,75
from 0.2 to 0.4 – bad	0,25-0,5
from 0.2 to 0 - very bad	0

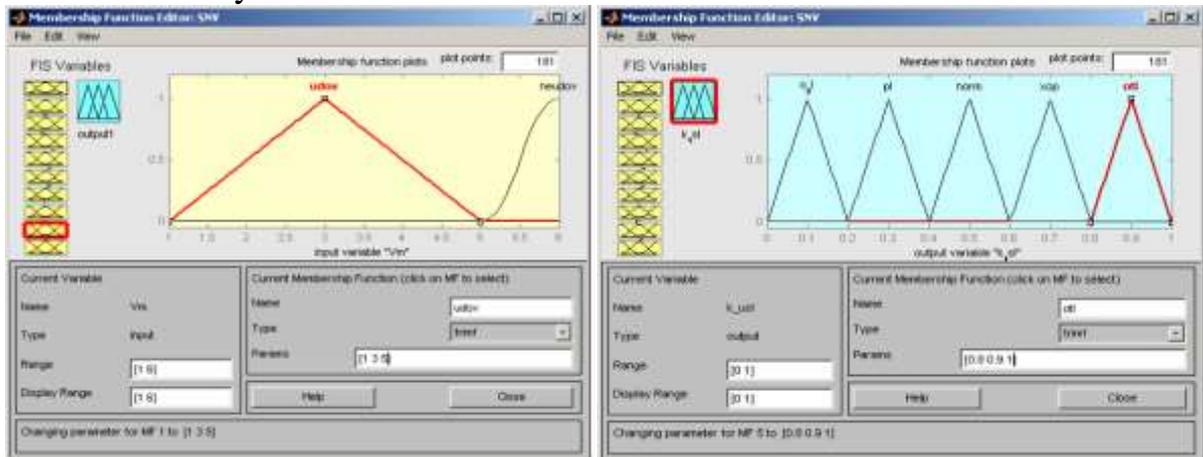


Figure: 2. Calculation of the membership function for the indicator "Capacity" and "Level of quality of services provided"

Thus, statistical data on the parameters of the functioning of the UPT system can serve as input variables when experts draw up the rules of the FES. By entering the values of the input variables, it is possible to model the evaluation process and, possibly, to effectively evaluate the state of the UPT system.

**Discussions.** A methodology has been developed for assessing the quality of service for urban public transport, formation-based intelligent passenger transport system featuring from previously used, using special adaptation mechanisms taking into account the evolution of organizations and institutions of the information society,



making it possible to build adaptive models of system management urban public transport ensuring a given level of service quality and safety transportation process.

**Conclusion Recommendations.** The current state of the city public transport system of a large city forms trends and directions of its development, and also determines the need search for original ideas in the development of scientific and practical approaches to management of its functioning. The importance of solving complex management problems, such as transport, territorial and sectoral systems operating in market conditions.

Thus, the statistics for the parameters the functioning of the urban public transport system can serve as input variables when experts draw up rules for fuzzy expert systems[17]. By entering the values of the input variables it is possible to simulate the assessment process and, possibly, efficiently assess the state of the urban public transport system[18].

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## THE EFFECT OF THE AMOUNT OF RETURNS ON THE QUALITY OF THE YARN

**Shumkarova Shamsiya Pulatovna**  
Senior lecturer of Jizzakh Polytechnic Institute,  
Uzbekistan, Jizzakh  
[shaxbozshunkarov1971@gmail.com](mailto:shaxbozshunkarov1971@gmail.com)

**Rajapova Marguba Nazimovna**  
Assistant of Jizzakh Polytechnic Institute,  
Uzbekistan, Jizzakh  
[margubarajapova@gmail.com](mailto:margubarajapova@gmail.com)

**Annotatsiya:** ushbu makolada tikvchilik korhonalari materiallardan buyumlar ishlab chiqarish chikarishda jersey kaytimlarini kaita ishlab chiqarishdan ip ishlab chikarildi va "Yigirish texnologiyasi" kafedrasida qoshidagi laboratoriya iplarga 400, 500 va br/mgacha buramlar berildi. Sinov ishlari uchun olingan 4 hil variantdagi, yani 30% tolasi ayran + 70% tolasi ayran, 45% tolasi ayran + 55% tolasi ayran, 20% tolasi ayran + 80% tolasi ayran + 80% tolasi ayran kaytimlari va 50% tolili kaytimlardan olingan iplardan namunalar olib qo'yish physicist-mechanic hossalari Toshkent tHqimachilik va engil sanoat institutidagi "CentexUz" laboratoriyasida aniqlandi.

**Tayanch suzlar:** jersey kaytim, buram, yigirish, fizik-mexanik hossalari, tdimachilik, ayran tolasi, mexanik hossalari, yigirish texnologiyasi.

**АННОТАЦИЯ:** В данной статье при производстве швейных изделий из материалов в швейной промышленности обрабатывают трикотажные нити и из них производят пряжу, а в лаборатории кафедры «технологии прядения» выдают пряжу до 400, 500 и br. / м. для тестирования было получено 4 различных варианта: 30% хлопкового волокна + 70% возврата хлопкового волокна, 45% хлопкового волокна + 55% возврата хлопкового волокна, 20% хлопкового волокна + 80% возврата хлопкового волокна и 50% хлопкового волокна + 50% хлопка. физико-механические свойства пряжи определяли в лаборатории «centexuz» ташкентского института текстильной и лёгкой промышленности.

**Ключевые слова:** вязание, кручение, прядение, физико-механические свойства, текстиль, хлопковое волокно, механические свойства, технология прядения.

**Abstract:** In this article, in the production of garments from materials in the garment industry, knitted threads are processed and yarn is produced from them, and in the laboratory of the department of "spinning technology" yarns are issued up to 400,



500 and br. / m. 4 different options were obtained for testing: 30% cotton fiber + 70% cotton fiber return, 45% cotton fiber + 55% cotton fiber return, 20% cotton fiber + 80% cotton fiber return and 50% cotton fiber + 50 % cotton. the physical and mechanical properties of the yarn were determined in the "centexuz" laboratory of the Tashkent Institute of Textile and Light Industry.

**Keywords:** knitting, torsion, spinning, physical and mechanical properties, textiles, cotton fiber, mechanical properties, spinning technology.

**Introduction.** One of the most important tasks facing the Republic of Uzbekistan is to provide the population with quality and beautiful sewing products. Because it is aimed at protecting people from the environment, as well as ensuring their beauty.

For the efficient use of sewing materials and the production of high quality products, the workers of the garment industry have a great task. The properties of different textile materials depend on what fibers and yarns they are made of, the structure of the materials and how they are decorated.

Manufacture of garments includes products from basic materials, ie knitwear, non-woven fabrics, gang (complex), artificial and natural footwear, fur, which are used for the surface and main parts of the product.

The garment industry must provide the population with quality and elegant clothing. The increase in the production and expansion of the range of garments depends on the development of the textile industry, as the main sewing materials are yarn, wool, silk and linen. The raw material base of the textile industry is constantly expanding due to the rapid growth of production of artificial and synthetic fibers.

The production of bulky synthetic and artificial spool yarns, staple fiber bindings, monolithic dyed chemical fibers has increased significantly.

**Methodology.** Certain hygienic, technical, aesthetic and economic requirements are set for garments. In recent years, the country has developed a large number of sewing shops or private entrepreneurship in the production of goods. However, the returns that come out in the manufacture of items have been discarded. This leads to an increase in the cost of the item. The main indicators of yarns include tensile strength, specific tensile strength, as well as unevenness. For this reason, in the production of garments from materials in the garment industry were processed yarn, from which yarn was produced, and in the laboratory of the Department of "Spinning Technology" yarns were given yarns up to 400, 500 and br / m. 4 different variants obtained for testing, ie 30% cotton fiber + 70% cotton fiber return, 45% cotton fiber + 55% cotton fiber return, 20% cotton fiber + 80% cotton fiber return and 50% cotton fiber + 50% cotton Physical and mechanical properties of yarns from fibrous yarns were determined in the laboratory "CentexUz" at the Tashkent Institute of Textile and Light Industry.

Before determining the quality of yarns with different returns, the samples were stored in climatic conditions in accordance with GOST 10681-75, and the test results are given in Tables 1-3.

Table 1

Changes in the physical and mechanical properties of yarns obtained from returns on the basis of resource-saving technology



Indicators	Mixture of secondary material resources in the yarn,%			
	30% cotton fiber + 70% cotton fiber return	45% cotton fiber + 55% cotton fiber return	20% cotton fiber + 80% cotton fiber return	50% cotton fiber + 50% cotton fiber return
Linear density of yarn, tex	60,8	61,50	60,0	61,10
Coefficient of variation on the linear density of the thread,%	4,12	3,26	4,57	3,10
Number of twists of the rope, br / m	400	410	405	407
Coefficient of variation of the number of twists of the thread,%	6,7	5,9	6,9	5,7
The breaking force of the rope, cN	323,8	367,5	311,9	398,2
Coefficient of variation on the breaking strength of the rope,%	6,75	6,12	8,80	5,66
The specificity of the rope tensile strength, cN / tex	5,32	5,92	5,19	6,5
Elongation at break,%	10,76	11,22	11,9	10,98
Coefficient of variation on the elongation at break of the thread,%	12,44	11,95	13,76	11,87

Table 2

Changes in the physical and mechanical properties of yarns obtained from returns on the basis of resource-saving technology.

Indicators	Mixture of secondary material resources in the yarn,%			
	30% cotton fiber + 70% cotton fiber return	45% cotton fiber + 55% cotton fiber return	20% cotton fiber + 80% cotton fiber return	50% cotton fiber + 50% cotton fiber return
Linear density of yarn, tex	60,3	60,50	60,8	60,7
Coefficient of variation on the linear density of the thread,%	3,78	3,12	4,12	2,98
Number of twists of the rope, br / m	505	520	515	518
Coefficient of variation of the number of twists of the thread,%	6,2	5,67	6,5	5,41
The breaking force of the rope, cN	360,12	410,30	376,11	465,23
Coefficient of variation on the breaking strength of the rope,%	6,97	6,78	7,45	4,98
The specificity of the rope tensile strength, cN / tex	6,82	7,39	6,19	7,66
Elongation at break,%	10,56	10,45	10,78	9,56
Coefficient of variation on the elongation at break of the thread,%	11,44	10,45	12,5	9,86

Table 3

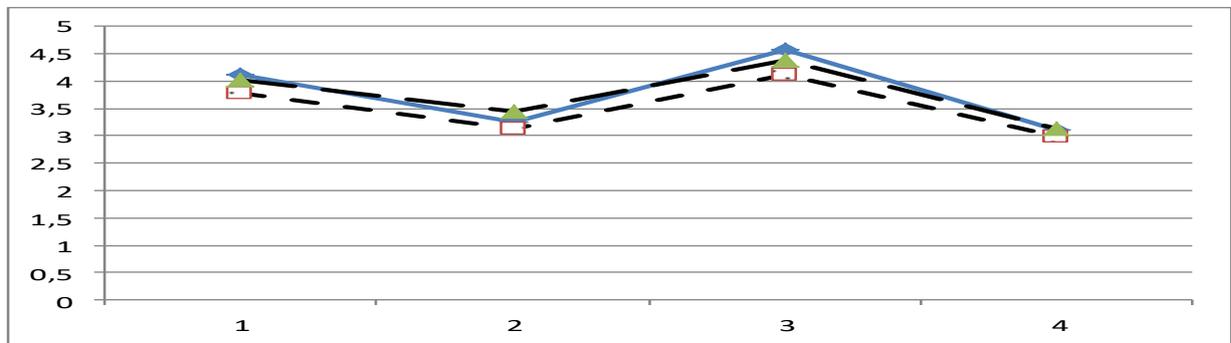
Changes in the physical and mechanical properties of yarns obtained from the return on the basis of resource-saving technology Changes in the mechanical properties.

Indicators	Mixture of secondary material resources in the yarn,%			
	30% cotton fiber + 70% cotton fiber return	45% cotton fiber + 55% cotton fiber return	20% cotton fiber + 80% cotton fiber return	50% cotton fiber + 50% cotton fiber return
Linear density of yarn, tex	60,6	60,0	60,5	61,0
Coefficient of variation on the linear density of the thread,%	4,02	3,45	4,47	3,12
Number of twists of the rope, br / m	612	608	610	598

Coefficient of variation of the number of twists of the thread,%	6,12	5,86	6,88	5,67
The breaking force of the rope, cN	330,6	398,8	356,7	420,4
Coefficient of variation on the breaking strength of the rope,%	7,56	7,44	8,12	5,12
The specificity of the rope tensile strength, cN / tex	5,45	6,64	5,90	6,89
Elongation at break,%	11,8	10,24	10,56	10,1
Coefficient of variation on the elongation at break of the thread,%	11,78	11,02	12,98	10,8

**Analysis and result.** 30% cotton fiber + 70% cotton fiber yarn, 45% cotton fiber + 55% cotton fiber yarn, 20% cotton fiber + 80% cotton fiber yarn, 50% cotton fiber + 50% The change in the physical and mechanical properties of the yarns with different number of twists from the cotton fiber loops is shown in Figures 1-7 below.

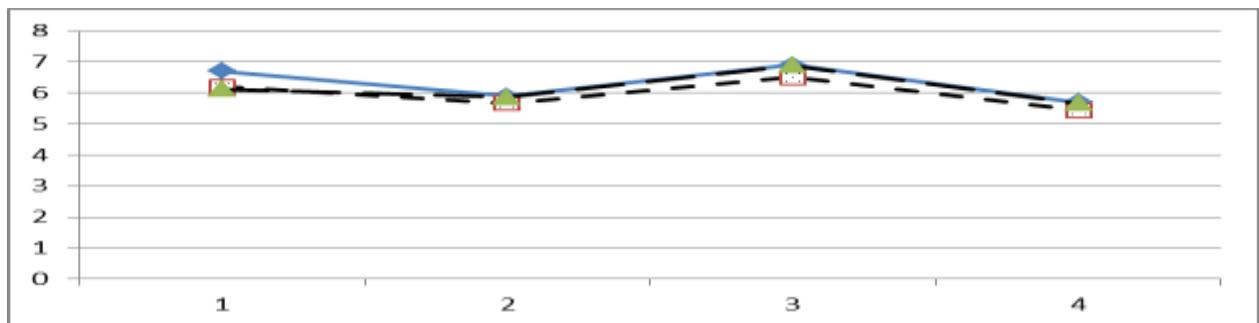
Yarn spinning is one of the main processes in spinning, from relatively short fibers to form a flexible, elastic, product-yarn (or pile) with a certain strength.



**The amount of returns**

- 1-number of turns 400br / m;
- 2-number of turns 600br / m;
- 3-The number of turns is 500br / m.

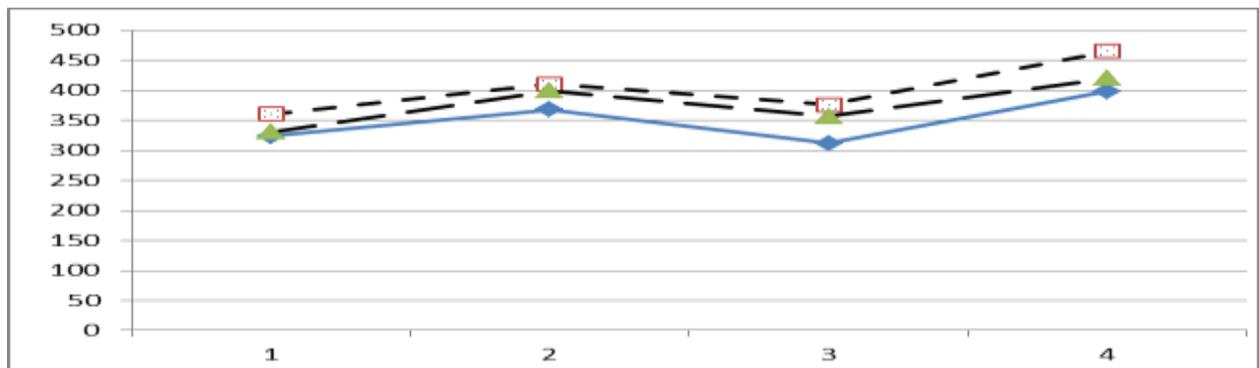
Figure 1. Variation of the coefficient of variation on the linear density of yarns obtained from returns on the basis of resource-saving technology.



**The amount of returns**

- 1-number of turns 400br / m;
- 2-number of turns 600br / m;
- 3-The number of turns is 500br / m.

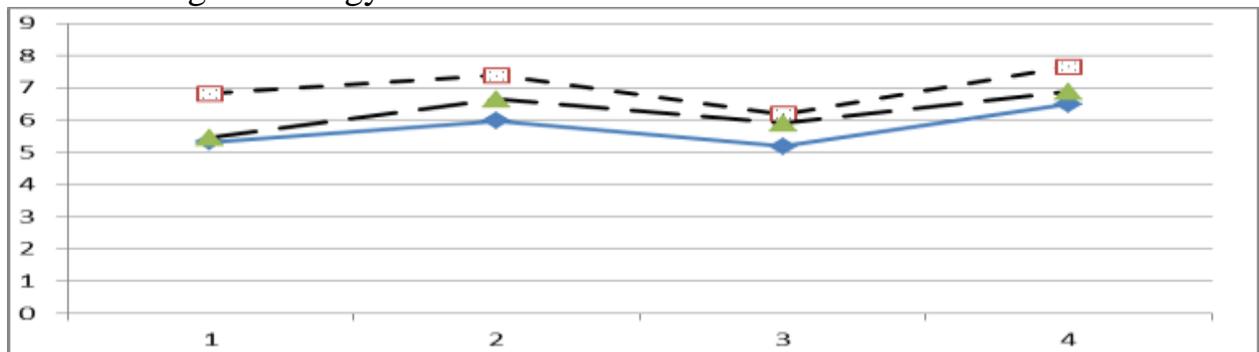
Figure 2. Variation of the coefficient of variation in the number of twists of yarns obtained from returns on the basis of resource-saving technology.



**The amount of returns**

- 1-number of turns 400br / m;
- 2-number of turns 600br / m;
- 3-The number of turns is 500br / m.

Figure 3. Changes in the tensile strength of yarns obtained from returns based on resource-saving technology.



**The amount of returns**

- 1-number of turns 400br / m;
- 2-number of turns 600br / m;
- 3-The number of turns is 500br / m.

Figure 4. Changes in the specific tensile strength of yarns obtained from returns based on resource-saving technology.

**Conclusion.** Compared to the performance of 30% cotton fiber + 70% cotton fiber yarn with the number of twists obtained on the basis of resource-saving technology, the coefficient of variation of the linear density of yarn obtained from 45% cotton fiber + 55% cotton fiber yarn by 20.87%, the coefficient of variation in the number of turns decreased by 11.9%, The breaking force increased by 11.89%, the coefficient of variation in breaking strength decreased by 9.3%, the specific breaking strength increased by 10.88%, the break-in elongation increased by 4.1%, the



coefficient of variation in breaking length decreased by 3.9%. , The coefficient of variation in linear density of yarn obtained from 20% cotton fiber + 80% cotton fiber loops increased by 9.84%, the coefficient of variation in the number of twists increased by 2.89%, the tensile strength decreased by 3.67%, coefficient of variation in breaking strength increased by 23.29%, specific breaking strength decreased by 2.4%, elongation at break increased by 9.57%, coefficient of variation in breaking elongation increased by 9.5%, 50% cotton fiber + 50% cotton The coefficient of variation in the linear density of the yarn from the fiber loops decreased by 24.75%, the coefficient of variation in the number of twists decreased by 14.9%, the tensile strength increased by 18.68%, the coefficient of variation in the tensile strength decreased by 16.14%, comparable the breaking force increased by 18.15%, the breaking elongation decreased by 2.0%, the coefficient of variation in breaking length decreased by 4.5%, the number of turns was 500 br / m Compared to the performance of yarn from 30% cotton fiber + 70% cotton fiber yarn, the coefficient of variation in linear density of yarn from 45% cotton fiber + 55% cotton fiber yarn decreased by 14.17%, the coefficient of variation in the number of twists decreased by 4.24% , the breaking force increased by 17.1%, the coefficient of variation in the breaking strength decreased by 1.5%, the specific breaking strength increased by 17.9%, the break-in length increased by 13.22%, the break-in ratio increased by 6.4%, 20% cotton fiber + 80% of cotton fiber returns the coefficient of variation in the linear density of the obtained yarn increased by 10.06%, the coefficient of variation in the number of twists increased by 11.04%, the tensile strength increased by 7.3%, the coefficient of variation in the tensile strength increased by 6.89%, the specific tensile strength increased by 7.62%. increased, the elongation at break decreased by 10.5%, the coefficient of variation at elongation at break increased by 9.24%, the coefficient of variation at linear density of yarn from 50% cotton fiber + 50% cotton fiber loops increased by 21.2%, by the number of twists coefficient of variation decreased by 12.2%, interrupt strength increased by 22.6%, interruption coefficient of variation decreased by 28.5%, specific interference strength increased by 10.96%, interruption elongation increased by 9.4%, interruption elongation The coefficient of variation decreased by 13.81%, comparing the performance of yarn from 30% cotton fiber + 70% cotton fiber yarn with the number of twists 600 br / m, the coefficient of variation of the linear density of yarn from 45% cotton fiber + 55% cotton fiber yarn by 14.17%, the number of twists coefficient of variation decreased by 4.24%, interrupt strength increased by 17.1%, interruption coefficient of variation decreased by 1.5%, specific interference strength increased by 17.9%, interruption elongation increased by 13.22%, interruption elongation The coefficient of variation on the linear density of yarn obtained from 20% cotton fiber + 80% cotton fiber loops decreased by 6.4% coefficient of variation increased by 10.06%, coefficient of variation by the number of torsions increased by 11.04%, breaking strength increased by 7.3%, coefficient of variation by breaking strength increased by 6.89%, specific breaking strength increased by 7.62%, elongation at break Decreased by 10.5%, the coefficient of variation in elongation at break increased by 9.24%, the coefficient of variation in linear density of yarn from 50% cotton fiber + 50% cotton fiber loops increased by 22.38%, the coefficient of variation in the number of twists increased by 7.3 % decreased, the breaking strength increased by 21.3%, the



coefficient of variation in the breaking strength decreased by 32.27%, the specific breaking strength increased by 20.89%, the break-in length increased by 14.4%, the break-in ratio increased by 8, Decreased by 32%.

The results of the study show that the tensile strength of yarn obtained from 50% cotton fiber + 50% cotton fiber returns, the specific breaking strength is higher than that of yarns obtained from mixtures of other ingredients.

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## **DETERMINATION OF THE MOVEMENT OF THE COTTON SECTION OF THE TRAJECTORY IN THE WORKING AREA OF SMALL CLEANING UNIT**

**Salomov Abubakir Akhmadkulovich**  
Assistant of Jizzakh Polytechnic Institute  
[salomovabubakir07@gmail.com](mailto:salomovabubakir07@gmail.com)

**Egamberdiev Fazliddin Otakulovich**  
Associate Professor of  
Jizzakh Polytechnic Institute  
[fazliddin.123456789@mail.ru](mailto:fazliddin.123456789@mail.ru)

**Sharopov Bobir Nabijon o'g'li**  
Assistant of Jizzakh Polytechnic Institute  
[sharopvobobir1@gmail.com](mailto:sharopvobobir1@gmail.com)

**Jurayev Anvar Jurayevich**  
DSc., professor of Tashkent Institute  
of Textile and Light Industry  
[salomovabubakir07@gmail.com](mailto:salomovabubakir07@gmail.com)

**Annotasiya.** Maqolada paxta bo'lagining tozalovchi barabanni ajratuvchi bo'ylab harakatining matematik modelini aniqlash bo'yicha nazariy tadqiqotlar natijalari keltirilgan. Paxtaning bir qismini katta axlatdan tozalash zonasining arra barabaniga etkazib berish zonasida harakat traektoriyasini aniqlash masalasi hal qilindi. Olingan paxtaning bir qismi harakati traektoriyalari va tuzilgan grafik bog'liqliklar tahlili asosida qoziq va arra barabanlari o'qlari orasidagi masofaning qiymati asoslanadi.

**Kalit so'zlar:** paxta tozalagich, kichik axlat, katta, baraban, qoziqlar, tishli, traektoriya, markaz masofasi, massa, markazdan qochma, havo qarshiligi, ishqalanish kuchi, diametr, burchak tezligi, radius, tozalash effekti.

**Аннотация.** В статье приведены результаты теоретических исследований по определению математической модели движения части хлопка по колку барабана очистителя. Решена задачи определения траектории движения в зоне подачи части хлопка к пыльному барабану зоны очистки хлопка от крупного сора. На основе анализа полученных траекторий движения части хлопка и построенных графических зависимостей обоснована значение расстояния между осями колкового и пыльчатого барабанов.

**Ключевые слова:** очиститель хлопка, мелкий сор, крупный, барабан, колки, пильчатый, траектория, межосевое расстояние, масса, центробежная, сопротивление воздуха, сила трения, диаметр, угловая скорость, радиус, эффект очистки.

**Annotation.** The article presents the results of theoretical studies to determine the mathematical model of the movement of a piece of cotton along the splitter of the cleaner drum. The problem of determining the trajectory of movement in the zone of supplying a part of cotton to the saw drum of the zone of cleaning cotton from large litter is solved. Based on the analysis of the obtained trajectories of movement of a part of the cotton and the constructed graphical dependencies, the value of the distance between the axes of the pile and saw drums is substantiated.

**Key words:** cotton cleaner, small litter, large, drum, piles, serrated, trajectory, center distance, mass, centrifugal, air resistance, friction force, diameter, angular velocity, radius, cleaning effect.

**Introduction.** Known cleaning unit for raw cotton brand UHK [1, 2], which mainly contains a section for cleaning small litter with pile drums and a section for cleaning large litter with serrated cylinders with grates, brush guides and removable drums.

The main disadvantage of the known raw cotton cleaner (prototype) is that its use does not provide a potentially high cleaning effect of the cleaner when cleaning machine-made raw cotton, which causes high clogging, which mainly depends on the number of cleaning serrated cylinders. As a result, when using the prototype, the cleaning effect is limited by the number of cleaning serrated cylinders used in it [3]. In addition, there are two feeding brush drums in the coarse debris section, which are used inefficiently.

**Development of an effective scheme of the cleaning unit section.** The section for cleaning large debris of the cleaning unit (Fig. 1) includes a pile drum 1, an additionally installed saw drum 2 with a lapping brush 3 and a grate 4, a removable brush drum 5, a main saw drum 6 with a lapping brush 7 and a grate 8, removable brush 9 and a feeding brush drum 10, a pile drum 11, an inclined tray 12, a regeneration saw drum 13 with a lapping brush 14 and a grate 15 and auger 16.

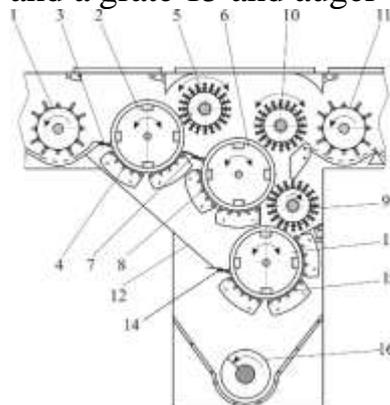


Figure 1. Scheme of a section from a large litter of a cleaning unit

It is known that in existing UHK units and recommended cleaning equipment, pieces of cotton are carried over the pins of the drum and dragged through the mesh surface, the separated contaminants fall out of the holes in the mesh surface. The piles

release a piece of cotton at the appropriate rate. A piece of cotton moves along different trajectories depending on the value of the initial output speed, mass, concentration. In this case, the cotton falls on the surface of the first saw drum, which is located in the large waste cleaning zone. The teeth of the saw pick up a piece of cotton wool and clean it of large debris, interacting with the chisels. To achieve high cleaning efficiency, it is important to determine the following in theoretical studies:

- the law of movement of cotton on the surface of the heap;
- speed and trajectory of a piece of cotton wool;
- the condition of the fall of a piece of cotton wool on the surface of the first drum of the saw;
- distance between pile and saw drums;
- the arc of vibration of a piece of cotton wool held by the teeth of the saw, and the distance between the racks.

On fig. 2 is a calculation diagram showing the movement of a piece of cotton wool over the surface of the pile of the drum..

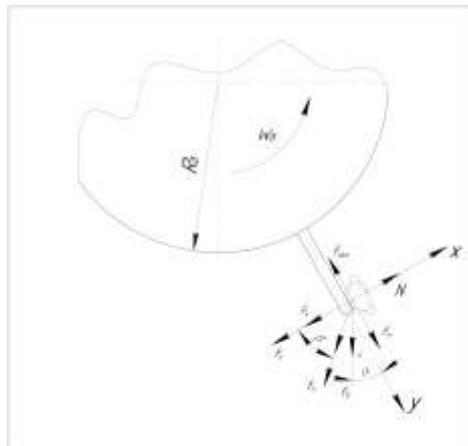


Figure 2. Schematic diagram of the movement of a piece of cotton on the surface of the pile

As shown in the calculation diagram in Figure 2, when the pile drum rotates, the following forces act on a piece of cotton:

$\overline{G}$ - gravity force;

$F_u$ - inertia force;

$F_M$ - centrifugal force;

$F_K$ - coriolis force;

$F_{\text{тр}} -$  the frictional force between the cotton piece and the pile surface;

$F_x$ - air resistance force;

$N$  – reaction force;

$F_\sigma$ - the force of binding a piece of cotton to other pieces of cotton.

As a result of solving the numerical solution of the obtained differential equation (8), using the Runge-Kutta program, it is possible to determine the trajectory of the movement of the pile surface in the zone of cleaning the cotton piece from small impurities. Based on the solution, it is possible to determine the values of the speed of a piece of cotton at the moment of exit from the pile drum, depending on the parameters of the system..

**Research methodology.** When a piece of cotton is thrown from the surface of a heap, it is mainly affected by gravity and air resistance. The calculation scheme is shown in Figure 2. According to the calculation scheme, the system of differential equations representing the law of motion of a piece of cotton has the following form [7]:

$$\begin{aligned} m_n \frac{d^2 y_1}{dt^2} &= -m_n g - F_x \sin \alpha_1 \\ m_n \frac{d^2 x_1}{dt^2} &= -F_x \cos \alpha_1 \end{aligned} \quad (10)$$

here:  $\alpha_1$ - the angle between the velocity vector and the x-axis of a piece of cotton escaping from the surface of the pile.

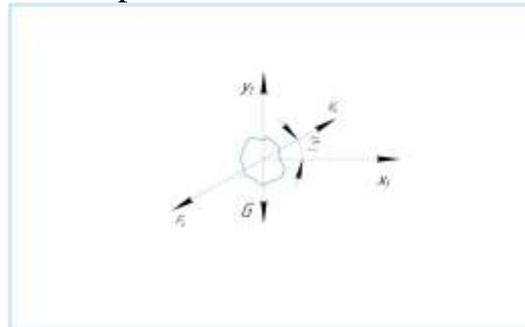


Figure 3. Scheme for calculating the forces of impact on the surface of the pile of cotton

It should be noted that the greater the air resistance, the smaller the piece of cotton wool in the trajectory of movement, flying a short distance along the x axis and falling on the surface of the saw drum.

To form a numerical solution of the resulting system (10), its differential equations x and individual solutions on the u axes were obtained. In this case, we integrate the first equations (10) once in time [8]:

$$v_{y1} = \frac{dx_1}{dt} = \frac{t}{m_n} (g + kv_x^2 \sin \alpha_1) + c_1 \quad (11)$$

Accordingly, (11) is again integrated with respect to time []:

$$Y_1 = \frac{1}{2} (g + kv_x^2 \cos \alpha_1) t^2 + c_1 t + c_2 \quad (12)$$

Given the following initial conditions, on  $t = 0$   $v_n \sin \alpha_1$   
 $y_0 = 0$  да,  $c_1 = v_n \sin \alpha_1$ ,  $c_2 = 0$

In this case (10), we integrate the system twice with respect to time to obtain the solution of the second equation [9-11]:

$$\frac{dx_1}{dt} = c_3 \quad \text{and} \quad x_1 = c_3 t + c_4 \quad (13)$$

The initial condition  $t = 0$ ,  $c_3 = 0$ ,  $c_4 = v_n \cos \alpha_1$

In that case, the solution is the following:

$$X_1 = v_n t \cos \alpha_1 \quad \text{and} \quad \frac{dx_1}{dt} = v_n \cos \alpha_1 \quad (14)$$

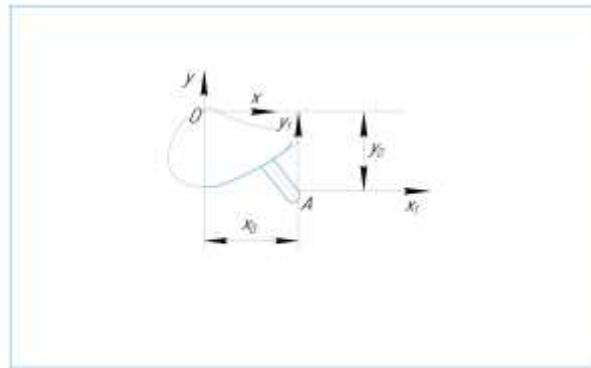


Figure 4. The scheme of coordinates of a piece of cotton in the shoot  
As a result, according to the diagram in Figure 4, we can write the following:

$$X = x_0 + v_n t \cos \alpha_1,$$

$$Y = y_0 + \frac{t^2}{2}(g + kv_x^2 \sin \alpha_1) + v_n t \cos \alpha_1 \quad (15)$$

Here:

$$v_n = \omega_6 [R_6 + (h_k - \frac{1}{2} h_{\Pi})] \quad (16)$$

here:  $h_k$  – pile height;

$h_{\Pi}$  – length of cotton piece.

Also

$$x_0 = [R_6 + (h_k - \frac{1}{2} h_{\Pi})] \sin \varphi_1;$$

$$y_0 = [R_6 + (h_k - \frac{1}{2} h_{\Pi})] \cos \varphi_1 \quad (17)$$

The resulting equations (13) and (15) were implemented for the following values of the parameters of numerical solutions:

$$R_6 = (0,130-0,165) \text{ m}; \quad \omega_6 = (35,0-55,0) \text{ c}^{-1}; \quad N_6 = (0,7-1,1) 10^{-1} \text{ m};$$

$$m_n = (0,2-0,7) 10^{-3} \text{ kg}, \quad x_0 = (0,11-0,15) \text{ m}; \quad y_0 = (0,08-0,09) \text{ m};$$

$$V_n = (4,5-8,0) \text{ m/s}.$$

**Analysis and results.** In cotton ginning plants, the trajectories of cotton pieces dropped from the pile surface of the pile drum in the small waste section on cotton depend on a number of parameters, the main ones being the weight of cotton and the weight of cotton. the initial value of the linear speed.

As a result of the calculations, the motion trajectories were obtained, which are presented in Figures 5-7. In particular, according to the analysis of the trajectories presented in Figure 5, the mass of a piece of cotton is  $0,2 \cdot 10^{-3}$  kg, i.e., with a mass of it consists of one fiber, the concentration of the drum is  $38 \text{ s}^{-1}$ , a piece of cotton wool rises by 0,134 m along its axis and reaches 0,3 m along the abscissa axis. Accordingly, the mass of a piece of cotton is  $0,85 \cdot 10^{-3}$  kg, i.e., with its mass of consisting of at least four fibrous seeds, the trajectory of movement rises to only 0,073 m along its axis and up to 0,221 m along the abscissa axis. At the same time, in the shaded part in Fig. 5 it is required to accept the impact zone of the saw drum, i.e. the distance between the axes of the pile and the saw drum along the x axis it will be:

$$X = x_0 + 0,227 \text{ m} + R_{ap} \quad (18)$$

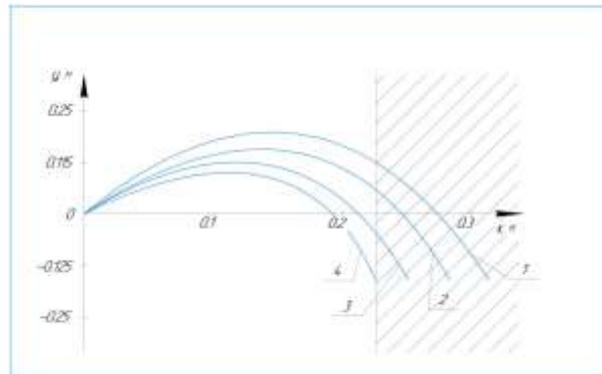
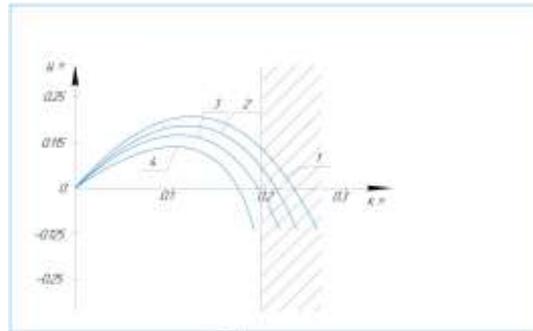


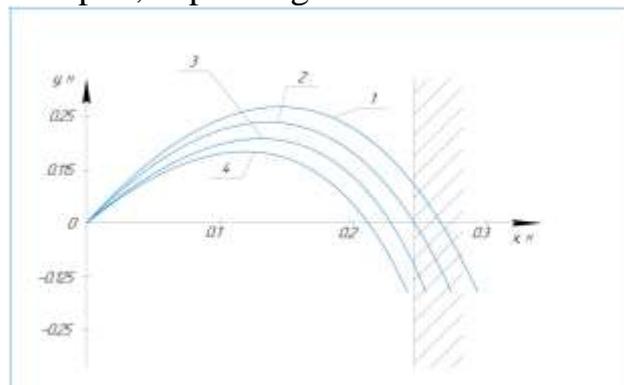
Figure 5. The laws of change in the trajectory of cotton after its jump from the surface of the pile, depending on its mass

Accordingly, in Fig. 6 shows the laws of change in the trajectory of a piece of cotton wool after it is dropped from the surface of a heap, depending on its initial linear speed. According to the analysis, with a piece of cotton weighing  $0,4 \cdot 10^{-3}$  kg and an initial linear speed of 8,5 m/s, a piece of cotton reaches 0,231 m along the abscissa axis, and rises to 0,132 m along the abscissa axis.



1-  $V_n = 8,5$  m/s; 2-  $V_n = 6,8$  m/s; 3-  $V_n = 5,3$  m/s; 4-  $m_n = 0,4 \cdot 10^{-3}$  kg.

Figure 6. The laws of change in the trajectory of cotton after dropping it from the surface of the pile, depending on its initial linear velocity



5-  $V_n = 8,5$  m/s; 6-  $V_n = 6,8$  m/s; 7-  $V_n = 5,3$  m/s; 8-  $V_n = 4,5$  m/s;  
 $m_n = 0,2 \cdot 10^{-3}$  kg

Figure 7. The laws of change in the trajectory of cotton after dropping it from the surface of the pile, depending on its initial linear velocity

When the linear velocity decreases to 4,5 m/s, the trajectory of the piece of cotton increases to 0,187 m in the x-axis and to 0,103 m in the y-axis. The impact zone on the saw drum starts at 0,192 m, and the distance between the axles is very small 0,588 m.

Further, the cleaning of cotton improves and masses of fibrous seed appear, i.e. at  $m_{\pi} = 0,2 \cdot 10^{-3}$  kg (Fig. 7), its trajectory is optimal and the zone of influence of the saw drum along the abscissa axis reaches 0,252 m. In this case, it is advisable to take the distance between the axes of the drums within (0,62-0,67) m.

On fig. 7 shows the laws of change in the trajectory of a piece of cotton wool after it is dropped from the surface of a heap, depending on its initial linear speed for the condition  $m_{\pi} = 0,2 \cdot 10^{-3}$  kg.

From here it is recommended to choose the distance between the axes of the drums along the abscissa axis (0.62-0.70) m.

**Conclusion.** An efficient design of the cotton-cleaning unit has been developed. On the basis of theoretical studies, a mathematical model of the movement of a cotton fly along a drum splitter has been obtained. Research has determined the trajectory of the movement of parts of cotton, substantiated the value of the center distance of the pile and serrated drums.

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## CONDITIONS OF RATIONAL USE OF WATER RESOURCES IN UZBEKISTAN

**Rakhmonov Golib Akhmadjonovich,**  
**Lecturer of Fergana State University**  
[alfargoniy.uz@gmail.com](mailto:alfargoniy.uz@gmail.com)

**Annotasiya.** Suv resurslarini muhofaza qilish va ulardan oqilona foydalanish muammolari, xususan, mavjud ichimlik suvi zahiralari saqlashning dolzarbligi, fan va texnikaning hozirgi zamonda suvdan oqilona foydalanish usullari, suv havzalari, ularning ahamiyati haqida ma'lumot. va muhofaza qilish, suv resurslaridan beparvolik bilan foydalanish natijasida yuzaga kelgan vaziyat, suvdan foydalanishning huquqiy, tarbiyaviy masalalari, ayniqsa, mavjud ichimlik suvi zahiralari asrab-avaylashning ahamiyati ko'rsatilgan.

**Kalit so'zlar:** Suv resurslarini boshqarish. Suvga bo'lgan talabni boshqarish. Suv resurslari va suv talabini boshqarish tamoyillari. Cheklangan suvdan foydalanish tizimi. Limitlar asosida suvdan foydalanish tizimining mohiyati va amalga oshirish jarayoni.

**Annotation:** Information on the problems of protection and rational use of water resources educational issues, in particular, the urgency of conserving existing reserves of drinking water, in today's world of science and technology, the methods of rational use of water, reservoirs, their importance and protection, the situation caused by negligent use of water resources, legal, educational issues of water use, especially the importance of conserving existing reserves of drinking water are presented.

**Keywords:** Water Resources Management. Water demand management. Principles of water resources and water demand management. Limited water use system. The essence and process of implementation of the system of water use on the basis of limits.

**Introduction.** The world's water problems are characterized by escalating and multifaceted. One of the main reasons for this is that water resources are extremely unevenly distributed and located across the planet. Due to this situation, water supply is already regulated in many countries around the world. Because the future development of the state, the well-being of the population and, most importantly, its peaceful and secure life depend on these factors. In particular, "The situation with water shortages in our region is becoming more complicated every year.

In the last 10 years, for example, the volume of water in Uzbekistan has decreased by 12%, and this year compared to last year by 15% "[1]. Water scarcity is a key factor that can affect the sustainable development of Uzbekistan. The country is currently facing some problems related to water shortages, drying up and pollution of water sources.

**Literature review .** Although Uzbekistan has its own water resources, it is one of the countries experiencing severe water shortages due to the fact that its main water resources are formed by the interstate waters of the Amudarya, Syrdarya and their tributaries, the Kashkadarya and Zarafshan rivers. This is an obstacle to economic



development and rising living standards. The main tributary of the Amudarya is formed in Tajikistan, and the Syrdarya in Kyrgyzstan.

The water resources of the Amudarya and Syrdarya are determined by hydrometric stations located near the source of the rivers from the mountains. However, in each basin under consideration, there are many river waters that are not accounted for by hydrometric methods, groundwater that flows from mountains and hills, and debris that is not accounted for by snow and rain. The Center of Hydrometeorology Services of Rivers is calculated on the basis of data in 1932 / 33-1989 / 99 [2].

Of particular importance is the modernization and investment in the equipment and technology of the Fergana Valley irrigation system. Indeed, over the past 10 years of independence, \$ 1.2 billion in investment projects has been allocated for technical and technological reconstruction and modernization of the irrigation system in Uzbekistan. In addition, Uzbekistan is a full member of international organizations such as the International Committee on Irrigation and Drainage, the World Water Council, the Islamic Interstate Network for Water Resources Development and Management, the International Commission on Large Dams.

**Analysis and results.** The importance of water resources in the Fergana Valley "Water in Central Asia is an integral part of development and security in general," said D. Chitati, a researcher at the Institute of Geopolitical Research and Applied Sciences. He believes that states located in the upper reaches of transboundary rivers must strictly adhere to the relevant international UN conventions, their basic requirements, including the condition that the use of these waters does not harm the environment and the interests of neighboring states. Interstate water relations of the Republic of Uzbekistan are based on the Constitution of the Republic of Uzbekistan and the Law "Water and water use" and other legislative acts on water issues and are governed by relevant intergovernmental agreements, treaties, protocol decisions. In these matters, the Republic of Uzbekistan confirms the recognition of previously adopted documents, first of all, drawn up taking into account the real situation in the region. It is possible that some previously adopted documents do not meet the requirements of the new laws and regulations of individual states, but it should be borne in mind that in the early 1990s (the period when most interstate documents were adopted) the fact of depletion of water resources in the region. At that time, the available water resources were distributed not only between the republics, but also among the sectors of the economy, and the current production and social infrastructure are structured taking into account the existing water resources and their distribution. Even a slight deviation from the previously agreed decisions will lead to confusion not only in the individual country, but in the whole region. This requires a serious and conscious approach to similar issues. For example, "In the basin schemes of the Amudarya and Syrdarya rivers developed in the 1980s, the share of each country, the amount of water intake is still recognized by all the republics of the region" [5. B. 40].

The following two documents are the main documents in the interstate management of water resources:

- Schemes of perfect use and protection of water resources of the Amudarya and Syrdarya basins, approved by all countries (before independence);



- Agreement between Uzbekistan, Kazakhstan, Kyrgyzstan, Tajikistan and the Republic of Turkmenistan on cooperation in the field of joint management of use and conservation of water resources of interstate sources, 18.02.1992 (after independence).

Design, research and development organizations of five republics in the region participated in the development of these documents. The first document defines the principles and physical dimensions of the distribution of water resources in the region. Perhaps this principle or physical dimensions in the distribution of water resources may not currently satisfy someone for one reason or another. Despite this, all of them were based on the necessary calculations in a timely manner and underwent a serious examination. Not all of these documents were adopted at once, of course, they were adopted on the basis of lengthy discussions, the results of numerous meetings of experts, after making the necessary calculations.

The positive role of the Agreement between the Governments of Kazakhstan, Kyrgyzstan and Uzbekistan on the use of water and energy resources of the Syrdarya Basin, signed on March 17, 1998, in order to alleviate the tense situation in the region in connection with the energy regulation of the Toktogul reservoir. This document is not ideal from the point of view of international law and may in some way contradict the established principles (or points) of the domestic legal acts of the participating states, but in the transition period developed common principles that satisfy everyone and the interests of countries. The agreement is the only intergovernmental document currently in force. Thanks to this agreement, the balance of water relations between the three countries in the Syrdarya basin has been established, and the parties are trying to implement its decisions on the basis of annual "working agreements" with specific volumes, flows, water supply and delivery times.

Bilateral working groups have been set up and agreements have been reached to develop cooperation with neighboring countries in the field of water resources. Cooperation has also been established within the Central Asian Interstate Water Coordination Commission. Negotiations are underway with the Kyrgyz Republic on the establishment of a commission on the use of transboundary water resources and water resources. The issue of staff turnover in the Fergana Valley, located on the border with Kyrgyzstan, is being addressed. According to the "Road Map" signed in the field of water relations at the level of First Deputy Prime Ministers of Uzbekistan and Kazakhstan, cross-border canals are used jointly.

The following measures are planned to improve and further develop interstate cooperation in the field of transboundary water resources in the region:

- Continuation of active cooperation of the Republic of Uzbekistan with the countries of the Aral Sea Basin and regional interstate water management organizations on the joint use of water resources and interstate water resources;

- Development of mutually acceptable mechanisms for joint management of transboundary water resources, ensuring a balance between the interests of Central Asian countries;

- promotion of norms and principles of UN conventions on transboundary waters;

- joint monitoring and creation of an open data exchange mechanism for the implementation of existing legal agreements, including the program to improve water metering in the Syrdarya, Amudarya and other transboundary rivers;



- To study the possibility of participating in the co-financing of water projects implemented by the parties, taking into account the interests of Uzbekistan and regional partners;

- Regular exchange of information on water use between the countries of the region;

- to promote the development of a single position by the countries of the region on the construction of large hydraulic structures, taking into account the common interests;

- Development of joint plans for the management of regional water resources and the definition of future tasks, including the adoption of measures to adapt to climate change and the exchange of experience in areas of mutual interest [6].

Uzbekistan has ratified 12 international agreements, including on the use and protection of transboundary watercourses and international lakes (Helsinki, 1992) and on the use of international watercourses in the absence of ships (New York, 1997). It has acceded to UN conventions.

**Conclusion.** In short, the situation with water in the Republic, as well as in the Fergana Valley, not only regionally but also globally, and the growing threat show that the problem of fair and rational use of transboundary water resources should be addressed only on the basis of basic principles of international law. This, in turn, requires that the initiators of the construction of large energy facilities take a conscious approach to this work, adhering to the principles of international law.

Problems are relatively easily solved when all aspects of complex interconnections in a water resource system are seen as interdependent. Therefore, there is a need to coordinate, consolidate and link actions related to water resources management within each country. The following work needs to be done to prevent the gap between man and nature. Including:

1) rational use of water bodies, care for water conservation, restoration and improvement of water quality, observance of established norms of water intake;

2) violation of the rights granted to other water users, as well as. prevent damage to economic and natural objects (land, forests, wildlife, minerals, etc.);

3) maintain water protection and other water economy constructions and technical devices, improve the quality of their use, keep records of the received water.

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## TYPOLOGY OF MENTALITY FORMS

**Kurbaniyazova Raushana Kurbanbaevna**  
**Senior Lecturer, Department of Social Sciences,**  
**Urgench branch of the Tashkent**  
**Medical Academy, Doctor of Philosophy**  
[Rushana\\_k@gmail.com](mailto:Rushana_k@gmail.com)

**Annotatsiya:** Ushbu maqolada mentalitetning jamiyatdagi oʻrni, shakllarining tipologiyasi yoritilgan. Mentalitet oʻz predmetiga koʻra quyidagilarga boʻlinadi: individual va jamoaviy mentalitet, mavjudlikning muayyan sohalari boʻyicha: siyosiy mentalitet, huquqiy mentalitet, iqtisodiy mentalitet (mehnat faoliyati), diniy mentalitet, axloqiy mentalitet, estetik mentalitet va ularning oʻziga xos xususiyatlari tahlil qilinadi.

**Kalit soʻzlar:** Mentalitet, individual va guruh mentaliteti, mentalitet shakllari, etnik mentalitet, milliy mentalitet, global mentalitet.

**Аннотация:** В данной статье описывается роль менталитета в обществе, типология его форм. По своему предмету менталитет подразделяется на: индивидуальный и коллективный менталитет, по конкретным сферам существования: политический менталитет, правовой менталитет, экономический менталитет (трудовая деятельность), религиозный менталитет, нравственный менталитет, эстетический менталитет, анализируются их специфические черты.

**Ключевые слова:** Ментальность, индивидуальная и групповая ментальность, формы ментальности, этническая ментальность, национальная ментальность, глобальная ментальность.

**Annotation:** This article describes the role of mentality in society, the typology of its forms. Mentality is divided into followings according to its subject: individual and collective mentality, on specific areas of existence: political mentality, legal mentality, economic mentality (labor activity), religious mentality, moral mentality, aesthetic mentality, and their specific features are analyzed.

**Key words:** Mentality, individual and group mentality, forms of mentality, ethnic mentality, national mentality, global mentality.

**Introduction.** Mentality as a set of socio-psychological characteristics of an individual and as a subject of society determines the specific features of his perception of the world, way of thinking, emotional attitude, speech and activity. The development of mentality is achieved through self-awareness, intercultural interaction, changes in socio-economic conditions and the social structure of society. Changes in social processes and changes in the mentality of society affect the development of people's views and ideas. Changing the mindset of people is the beginning of reforms. True devotion, initiative, and creativity can be expected from people who are conscientious and alert.

The society we live in today needs a new idea, a new idea, and most importantly, a new generation of cadres capable of carrying out reforms. It is therefore important to explore the topic of mentality.



**Main Part.** In the Uzbek philosophical and encyclopedic dictionary there are several definitions of the concept of "mentality": "mentality" is mental ability, mental strength, which is formed in social conditions" [10, 257].

To study the essence of mentality in more depth, it can be studied in the following types:

1. According to the subject - individual and collective mentality;
2. According to the composition and distinctive features of the social community - types of mentality depending on nationality, professional activity, age, territorial and geographical position, party affiliation, historical aspects;
3. In special areas of existence - political thinking, legal thinking, economic thinking (work), religious thinking, moral thinking, aesthetic thinking.

The individual psyche includes a set of properties that are inherent only to a particular individual. These characteristics, which are unique to members of a given social community, constitute the group psyche. If a given group is part of a wider society (for example, if a regional group is part of an ethnic group), then the content of the mentality of this wider society is represented by common characteristics present in all subgroups.

The mentality of a team can have different levels of commonality. Depending on the composition and distinguishing features of the social community, their mental characteristics differ.

In general, the society is polymental, and everyone can be a part of several types of mentality.

The group mentality does not exist on its own, outside the individual mentality, because outside the consciousness of individuals there is no social consciousness of any level of complexity.

Group mentality is a commonality inherent in the mentality of members of a particular social community, and their invariance embodies the variety of individual mentalities.

The group mentality is inextricably linked to culture. Each type of culture has a certain mentality. National culture corresponds to the national mentality, subculture - to the mentality of small social groups from the nation (for example, children's mentality, youth mentality, elderly, rural, urban, professional and other mentality types).

Between individual and group mentality, there is a two way relationship. The mentality of every person is formed in the process of his entry into the culture of this social group. However, the mental characteristics of the existing group are acquired by the individual and become his own. In turn, socially significant cultural innovations in the mental characteristics of an individual can be incorporated into a group mentality and influence the behavior of a social group. At the same time, the impact of the maturity of this individual mentality on the group mentality is significant. Of great importance is the influence of the group mentality on the personality, especially in the formation of the latter in the process of education and upbringing.

The category "*Political thinking*" is included in the scientific and educational literature.

In content, the political mentality is a combination of conscious and unconscious



political ideas, values, attitudes, stereotypes of certain social communities within the framework of political reality. Political mentality is not just a worldview.

R.A. Lubsy interprets the psyche as an active process of perceiving the world, which involves both cognitive activity and motor activity. Accordingly, a multifaceted model of political mentality is offered, which includes:

- 1) conscious and unconscious representations of political reality, serving as a cognitive motive for political action;
- 2) political value orientations, which have a conscious and unconscious character and serve as a value motive for political behavior;
- 3) political attitudes and goals - a conscious willingness and an unconscious tendency to react to a situation in a certain way [3].

In our country, people's structures and modern political foundations are being formed that meet international standards and are the basis of all spheres of public life, primarily the most democratic forms of relations between society and the state.

“As a result of gradual socio-political transformations in all spheres of life in recent years, along with a change in the consciousness and worldview of our people, the working methods and activities of civil servants and officials have acquired a new quality and modern content”[2, 82].

“*Legal mentality*” - Legal mentality is historically unique, most typical and stable for a particular social or national-ethnic community, worldview attitudes, assessments and attitudes towards objects of state-legal reality.

Legal mentality is a reflection of the existing legal reality, along with other legal phenomena in the sphere of the spiritual world of society.

Between legal consciousness, legal worldview, legal thinking and legal mentality there is an inalienable unity, and in their interaction legal consciousness is the basis for the formation and manifestation of legal consciousness, legal worldview, legal thinking.

Системный анализ правового сознания позволяет сформировать его модель, составляющие его элементы (правовые представления, правовые стереотипы, ценностно-правовые установки, правоотношения). Они существуют на двух уровнях - сознательном (сознательном) и неосознаваемом (бессознательном). Однако на бессознательном уровне структурные элементы стабильны (малоизменчивы), а на сознательном уровне они могут меняться.

Legal mentality is a complex multifunctional phenomenon that can be distinguished by cognitive, evaluative, regulatory, protective (defensive), communicative, stabilizing and right-holding functions of consciousness, as well as categorization and integration functions [5, 23].

“Ensuring the rule of law in society is the main guarantee of the effectiveness of all ongoing reforms, raising the standard of living of the population, ensuring peace, harmony and stability in the country” [1, 48].

“*Economic mentality*” (*labor activity*) - “labor mentality” is a thinking that is formed in the process of satisfying the vital needs and self-consciousness of individuals, families, communities, peoples, nations and peoples living in certain natural, climatic, economic, social, political, spiritual conditions, is the leading



spiritual factor, passed down from generation to generation, reflecting in practice the peculiarities of the way of life, way of life and folk mentality. [7, 27].

Traditions of labor play an important role in the history of every nation. Our labor mentality, formed under the influence of long political and social stability and sunsets in the history of our people, greatly weakened management, has always been the basis for understanding national identity, preserving spiritual and moral values, development and renewal. The main factor in it is the quality of natural creation.

The concept of labor mentality is a mechanism of action for the formation of a national mentality in content and essence. If the labor factor is the driving force in relation to the mentality, then, in turn, the mentality is a national form embodied in activities in relation to labor. Thus, with the help of the concept of labor mentality, one can study the past, present and prospects for the development of a person, family, nation, people and society. This approach to the issue is theoretically and practically important. For thinking and action, labor plays an important role as a criterion for coordinating action.

The content, essence and features of the labor mentality are much broader, it connects human activity with society, gives it a national form and content, and represents all the objective and subjective factors influencing it.

"*Religious thinking*" - French scientist M. Blok in his book "Feudal Society" explored "religious thinking" as a special section. M. Blok connected mentality with questions of religion and folk religious ideas [4, 504].

The majority of the population of our country is a believer and in one way or another believes in Islam, developing a specific type of "religious thinking".

The religious mentality is considered in two categories of people: the mentality of believers who follow all the principles of religion, that is, the mentality of believers who follow all the principles of religion, and those who do not follow all religious principles and laws.

Both categories of people are united by one principle: the mentality of believers who believe in God, but do not practice it, is formed on the basis of doubts, assumptions, delusions, and the thinking of a perfect believer is based on specific facts. The thinking of a believer differs from the thinking of an ordinary person in that he has a faith, which in Arabic is called "aqida". Faith means connecting one thing to another. Consequently, the Islamic faith is a set of views and beliefs that firmly bind a Muslim to certain concepts [8, 6].

"Firstly, our region is one of the most ancient cradles of Islamic science and culture. The International Center for Islamic Civilization in Uzbekistan is being built in Tashkent to study the rich historical, scientific and spiritual heritage of our people, to familiarize the world community with it and, most importantly, to reveal the humane nature of Islam" [2, 36].

Religious tolerance has long become an integral part of the Uzbek people's mentality. Our efforts to establish tolerance and mutual respect, to ensure religious freedom, to protect the rights of believers, to prevent their discrimination, delight the whole world [2, 311].

The concept of "*moral thinking*" is used to justify the need to introduce the humanistic ideals of bioethics into all spheres of society.



Aesthetic thinking is a combination of socio-psychological characteristics of the subject, which determines the path of artistic development of the world. Knowledge of aesthetic thinking is necessary to understand the processes of artistic creation, the perception of works of art, and the understanding of the beauty of the world.

These types of psyche represent the specific features of the subject's reflection of the corresponding aspects of the essence and represent the activity of the subject in this sphere of life. The study of mentality in such types is analogous to the forms of social consciousness. The psyche is investigated by types, taking into account the various features of the spiritual world of people (features of political, religious, aesthetic imagination).

There are different types of mentality: ethnic (folk) mentality, national mentality and global mentality.

"Ethnic mentality" is an integral feature of people living in a certain culture, which allows them to describe their specific views on the world around them and explain the specifics of their response to them. It manifests itself through a system of knowledge, beliefs, views, assessments, norms and mentalities based on traditions that exist in a particular society, which determines the hierarchy of values along with the dominant needs and archetypes of collective consciousness. beliefs, ideals, inclinations, interests and other social relations that separate an ethnic group from other peoples.

The spiritual structure of the ethnos is manifested in specific customs, traditions, traditions, tastes.

"*National mentality*" - "the mentality of a nation, of course, is not determined only by the treasury of values. The national mentality is also reflected in the daily life of the nation through its behavior, attitude to events and phenomena, behavior, actions, behavior" [9, 3]. The definition of mentality given by Professor K. Kh. Khonazarov suggests that it is associated with a "storehouse of values." Indeed, the "national mentality" can be considered a value. Because it is formed in the process of the historical development of the nation and manifests itself as an integral part of its way of life, life and lifestyle.

"*Global mentality*" is a global and universal type of group mentality, which is developing under the influence of modern globalization processes.

The previous group mentality included socio-psychological characteristics common to all group members, distinguishing them from other groups. This mentality is defined in each group by particular ways of perceiving the world, thinking, behaving, and acting. Their task included ensuring the self-reproduction of groups and protecting their interests.

A new type of mentality can ensure the combination of the necessary ways of perception and behavior of representatives of different societies. These mental characteristics are essential for mentality: all social communities - ethnic, national, regional, confessional, professional - communities organize actions and activities aimed at solving global problems and preserving civilization.

The global mentality has an international character, its carriers are the most developed people of different ethnic groups and different countries, and it includes the most important components of the ethnic, national and regional mentality for



development.

Because this new type of mentality is the result of the unification of the spiritual foundations of different societies, it works for the whole of humanity, and not for individual peoples, countries or regions. If the national and regional mentality solves the problems of countries and regions, the global mentality is aimed at solving the problems of all mankind and ensuring its survival. The task of general civilizational thinking is to create a spiritual foundation for solving the global problems of our time. This new type of thinking is aimed, firstly, at establishing harmony in relations between peoples, countries and regions, and secondly, at relations between society and nature. If a sufficient part of the planet's population becomes the carrier of this mentality, it will play an important role in resolving the conflict of civilizations and other global problems [6]. This new type of thinking is aimed, firstly, at establishing harmony in relations between peoples, countries and regions, and secondly, at relations between society and nature. If a sufficient part of the planet's population becomes the carrier of this mentality, it will play an important role in resolving the conflict of civilizations and other global problems [6].

At the heart of the mentality of a common civilization is globalization, or the realization of a universal identity that sees itself as an integral part of humanity.

**Conclusion.** In short, the concept of a general psyche is used as an integral feature of the spiritual world of people, the concept of a specific psyche is used to classify particular traits. The general psyche includes all the socio-psychological features that distinguish the subject from others, and the private psyche includes important, defining mental features of the subject in relation to specific events of existence.

The mentality is based on generalized goals and programs of human activity. Thus, the mentality becomes a factor of rational regulation of the intellectual activity of individuals.

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## **FAMILY AS THE MOST IMPORTANT PART OF SOCIAL BEING AND AND ITS INFLUENCE ON SPIRITUAL AND MORAL FORMATION OF PERSONALITY**

**Toshkuvatova Rano Sheralievna**  
**Samarkand State University**  
[toshquvovarano@mail.ru](mailto:toshquvovarano@mail.ru)

**Annotatsiya:** Annotatsiya: Maqolada oila ijtimoiy hayotning eng muhim qismi sifatida qaraladi. Inson va jamiyat uchun ma'naviy-axloqiy ahamiyatga ega bo'lgan oilaning o'rni tahlil qilinadi. O'rganish predmeti - zamonaviy voqelik sharoitida oilaviy munosabatlarni ma'naviy-axloqiy amalga oshirish nuqtai nazaridan oilaning faoliyat ko'rsatish usullari. Muammo inson va jamiyatni o'rganishning metodologik funktsiyalarida boshlang'ich asos rolini o'ynaydigan ma'naviyat prizmasi orqali ko'rib chiqiladi.

**Kalit so'zlar:** oila, falsafii anglash, ma'naviyat, insonparvarlik, maqom, axloqiy qadriyatlar, Navruz, "sumalak", "alla", umuminsoniy qadriyatlar.

**Аннотация:** В статье семья рассматривается как важнейшая часть социального бытия. Анализируется роль семьи в духовно-нравственном значении для человека и общества. В качестве предмета изучения выступают способы функционирования семьи в плане духовно-нравственной реализации семейных отношений в условиях современной действительности. Проблема рассматривается через призму духовности, выполняющей роль исходной основы в методологических функциях изучения человека и общества.

**Ключевые слова:** семья, философское осмысление, духовность, гуманизм, статус, нравственные ценности, Navruz, «сумаляк», «алла», ценности.

**Abstract:** In the article, the family is considered as the most important part of social life. The role of the family in spiritual and moral significance for a person and society is analyzed. The subject of study is the ways of the functioning of the family in terms of the spiritual and moral implementation of family relations in the conditions of modern reality. The problem is considered through the prism of spirituality, which plays the role of the initial basis in the methodological functions of the study of man and society.

**Keywords:** family, philosophical reflection, spirituality, humanism, status, moral values, Navruz, sumalak, alla, values.

**To be beautiful does not mean to them be born**

**After all, beauty we can learn to.**

**When a person is beautiful in soul,**

**What looks can with her compare?**

**Omar Khayyam**

**Introduction.** Family problems are widely studied by specialists in various fields of humanitarian knowledge. They are presented in a socio-philosophical, sociological, ethical, psychological perspective. As for the philosophical interpretation of family problems, it includes various approaches, interpretations and assessments.



Representatives of many philosophical schools directly or indirectly touched on the problems of the family.

The concept of "family" acquires a philosophical status in the works of Plato and Aristotle. The family was of interest to these philosophers of antiquity primarily from the position of its relationship to the general social order and, mainly, to the state. In the concepts of F. Bacon, T. Hobbes, I. Kant, an understanding of the family is formed, inspired by the paradigms of natural law. In this womb, the family is perceived as an integral component of the natural rights of man. The humanistic orientation of the philosophical ideas of J.-J. Rousseau predetermined the consideration of the family in the context of the categories of morality and freedom. The philosophical basis for understanding marriage and the family from the standpoint of social and individual necessity is laid down in the works of G.V.F. Hegel. The tradition of analyzing the family as an element of the system of social relations originates in ancient philosophy. In the project of an ideal state structure, set out in the treatise "The State", Plato introduces the institution of marriage and strict state control over reproductive behavior in order to maintain demographic stability. In the "Laws" he consistently continues the line of state control in the field of marriage and family relations, considering the issues of their regulation at the level of state policy. The only thing for his philosophical concept is "the postulate of the determining and dominant role of the state in the formation of marriage and the family and their subsequent functioning." [1]

**Literature review.** Aristotle saw in the family the initial cell and the basis of the state. "The interests of the state are the truth and essence of the interests of the family and society. The family is the first form of communication that arose naturally to meet "daily necessities." [2] It is justified in Aristotle by two circumstances: the desire for procreation and the instinct of self-preservation.

In modern times, family problems are raised in the works of F. Bacon, T. Hobbes and D. Hume. F. Bacon expresses a preferential attitude towards celibacy, which gives more chances and opportunities for committing socially useful deeds. T. Hobbes considers mandatory sanctioning of marriage by the state, provided for by civil law, as a necessary condition. Its essence is reflected in the concept of "legitimate contract". Philosopher D. Hume advocates the limitation and complete elimination of divorce. Morality is an acquired personality characteristic; it is formed in the process of education. Therefore, parents need to pay special attention to the development of the moral qualities of the individual.

The system of moral values is formed in society on the basis of its economic and social relations, depends on the degree of development of the spiritual culture of the people. The moral world of children growing up in the family also depends on what value orientations a family is guided in its daily life, what it considers the most important and decisive in life, and what is secondary, insignificant. And although each generation introduces something of its own into the system of moral values, there is also a stable hierarchy of such values that is passed down from generation to generation. There are elementary moral values that have a universal human character, which a person must absorb with mother's milk: the value of human life and the inadmissibility of murder, the protection of the honor and dignity of the individual, concern for the weak, the immorality of encroaching on the honor of a woman, respect



for elders, moral security. "Sociological studies, surveys of young people show that the interests of society, the values of labor, education, the citizens of our country invariably put forward." [3]

**Main Part.** A large place among the value orientations is occupied by the creation of one's own family, the birth and upbringing of children, material security, health; friendship and fellowship. The same studies have shown that, right up to the end of higher education, young people basically retain the system of value orientations that they have developed within their parental family. Thus, the moral values of the family are highly stable, and the more responsible is the role of the family in shaping the spiritual wealth and moral qualities of young people.

In the context of globalization, the paradoxical nature of the situation is determined, on the one hand, by the crisis of modern social life, and on the other hand, by the growth of national self-consciousness and interest in the spiritual life of peoples against this background. In this connection, the need for a radical improvement in the moral atmosphere is more acutely felt than ever. Unlike other educational institutions, the family lays not only the basic foundations, but also sharpens the facets of the personality through its consistent familiarization with eternally living and enduring spiritual values, which in turn expands the possibilities for moral education and upbringing of a person, the formation of his worldview and the enrichment of the inner world. . Therefore, any neglect of the family leads not only to a decrease in its prestige, but also, as a result, to the loss of spiritual and moral traditions, the formation of an egoistic consciousness, a consumerist attitude to the world, and the destruction of the humanitarian sphere of domestic education. Laying the foundation for the spiritual and moral education of the individual, the family proceeds from the spiritual, moral and socio-cultural norms of society as a whole. The presence of contradictions between these norms in real life further enhances the role of the family as an intermediary between society and the individual and influences the formation of value orientations of the younger generation.

The spiritual values of the Uzbek people, their traditions, customs, mores for many generations have played and are playing today a decisive role in the formation of the personality, in the formation of the spiritual and moral qualities of the younger generation. They contain such humanistic values that are not subject to aging. At the same time, they create the ethnic specificity of the people, decorate its spiritual image. Now, in the period of globalization, it is important not to lose those spiritual values of the past that have been accumulated by many generations, since in the education of young people it is impossible to do without using the experience of the people in this area.

The Uzbek people love and know how to enjoy life, therefore, various holidays are held on a grand scale, to the incendiary music of national orchestras, with songs and dances. One of the significant events of the year is the Navruz holiday - the time of the spring equinox, the onset of the new year, the awakening of nature and the start of sowing. Each family carefully prepares for this event: they put their houses, gardens in order, plant and whitewash trees. An indispensable attribute of Navruz is sumalak - the first dish of the new year, which is prepared from sprouted wheat grains. The whole process of preparing for the holiday has an educational value. Young people are



accustomed to work, learn a lot of interesting things about the spiritual heritage of their people. In addition, according to tradition, during the Navruz holiday, all those who quarreled should make peace, visit the sick and the elderly, and show mercy. The moral contours of the Uzbek family are formed precisely through such folk traditions. The spiritual and moral formation of the personality is one of the complex, urgent problems of our time, without the solution of which the further progress of our society is not possible.

The formation of moral values is also covered in the treatises of the great medieval scholar Abu Rayhon Beruni. He poses the problem of purity of body and spirit. "If there is purity and discipline in the family, then there is moral purity," indicating that the upbringing of the younger generation is influenced by the environment in which it grew up. In his work "Kanon Masuda" - a book for posterity, great importance was given to moral education and work. The great Uzbek poet Alisher Navoi left a rich spiritual heritage. In his works, the question of moral education and training is widely raised,

If you can do a good deed,  
If you have a family and children,  
See that time does not fly in vain ...  
You gave birth to children, but you should know  
How to give them education from an early age  
Honor and honor is not in nobility and rank,  
And in modesty and honest upbringing...[4]

Thus, the basic principles of the Uzbek family are the sanctity of marriage, the responsibility of parents for the upbringing of children and the duty of children to their parents, mutual respect and harmony, protection of family honor and dignity. Traditions are an integral part of the way of life and culture. During the years of independence of Uzbekistan, historical cultural values and original national traditions, including those associated with the institution of the family, have not only been preserved, but also further developed in our society.

Uzbek families retain high authority and respect for their parents. The number of citizens who are convinced of the need to obtain parental blessings for marriage continues to grow. Every second inhabitant of the country is sure that in order to create a family, the newlyweds need material independence and mutual love. However, after marriage, the sons settle near the parental home to help their parents, with whom the youngest son usually stays.

The family is happy with children. A child spends a significant part of his life surrounded by a family. In the process of communication, a child's personality structure begins to form from the first days of life, his own sense of the world, his own system of relations develops. Until now, the tradition of Uzbeks to perform a lullaby - Alla has been preserved. Affectionate words and gentle melody have a beneficial effect on him. Getting older, he begins to realize the meaning of the song, to understand the instructions and wishes of his mother.

Relationships, environment and atmosphere of the family - that's what is important for the child, as for the formation of a successful personality. Therefore, all-round support and strengthening of this important social institution, especially young



families, has become one of the priorities of state policy in Uzbekistan in the years of independence.

The relevance of the importance of ensuring family well-being is manifested today in the implementation of targeted programs - "Healthy mother - healthy child", "Consumer loans to young families", in the activities of the scientific and practical center "Oila" and other NGOs

**Conclusion.** Thus, the family is not only the most important social value, but also a spiritual, moral, deeply philosophical value, which is a special whole unique world. Let's repeat the simple truth. All people come into the world through the family. The socialization of a person starts from the family and goes through various forms of training and education, rising to the appropriate heights through the assimilation of a common culture. Literature, art and philosophy occupy a worthy place in this general culture of upbringing and education of a person. The philosophy of family and marriage was, is and will remain the scientific problem that has always stood in the center of attention of the greatest thinkers.

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### **PROBLEMS OF FORMATION OF WOMEN'S LEADERSHIP IN UZBEKISTAN**

**Zuhrakhon Seitova**  
**Associate Professor**

**Nukus State Pedagogical Institute**  
**named after Ajiniyaz Ph.D.**

[z.seitova62@mail.ru](mailto:z.seitova62@mail.ru)

**Annotatsiya.** Xotin-qizlarning siyosiy huquqlarini kuchaytirishga, davlat va jamiyat qurilishi va boshqaruvidagi ishtirokiga alohida e'tibor qaratilayotganligi bois ularning jamiyatdagi o'rni mustahkamlanmoqda. O'zbekiston Respublikasi Prezidenti Sh.M.Mirziyoyev tomonidan xotin-qizlarning jamiyatdagi o'rni va mavqeyini oshirish borasida ustuvor vazifalar belgilab berildi. Maqola muallifi mamlakatimizda ayollar va erkaklar tengligini mustahkamlashga qaratilgan keng ko'lamli islohotlar amalga oshirilayotgani, qator yangi qonun hujjatlari qabul qilinib, amaldagi qonun hujjatlari o'zgartirilib, to'ldirilayotganini ta'kidlaydi.

**Kalit so'zlar:** Prezident, ayol, Taraqqiyot strategiyasi, Gender tenglik, siyosat, lider ayollar.

**Annotation:** The role of women in society has increased due to the strengthening of their role in the construction and management of the state and society, special attention to enhancing their political rights. The President of the Republic of Uzbekistan Sh.M. Mirziyoyev identified priority tasks in the field of enhancing the role



and status of women in society. The author notes that large-scale reforms are being carried out in our country aimed at strengthening the equality of women and men, a number of legislative acts are being adopted, existing ones are being changed and supplemented.

**Key words:** President, woman, Gender Equality Strategy, politics, women leaders.

**Аннотация:** Роль женщин в обществе возросла благодаря усилению их роли в строительстве и управлении государством и обществом, особому вниманию к повышению их политических прав. Президентом Республики Узбекистан Ш.М.Мирзиёевым определены приоритетные задачи в сфере повышения роли и статуса женщин в обществе. Автор отмечает, что в нашей стране проводятся масштабные реформы, направленные на укрепление равноправия женщин и мужчин, принимается ряд законодательных актов, изменяются и дополняются существующие.

**Ключевые слова:** Президент, женщина, Стратегия достижения гендерного равенства, политика, женщины-лидеры.

**Introduction.** In accordance with the Constitution of Uzbekistan, men and women in our country have equal rights and freedoms and equal opportunities for their implementation. National legislation provides for legal mechanisms and guarantees for achieving a balanced participation of men and women in power structures, ensuring equal opportunities for women's economic independence, developing their business and promotion, creating conditions for the equal exercise of rights and obligations in the family.

The Republic of Uzbekistan received a historic opportunity to solve gender issues and create conditions for the broad participation of women in all affairs of society, which is one of the important prerequisites for achieving social, scientific, economic, political and cultural goals.

The President of our country Shavkat Mirziyoyev, in his congratulatory address to women, noted that our people from ancient time have revered the sacred image of a mother, a woman as an incomparable creation and surrounds her with love and care. It is paid a special attention to ensuring the legitimate rights and interests of women to achieve such a great goal. Also, it is paid a great attention to improve their employment, education, health, and the well-being of their families<sup>3</sup>.

**Literature review.** Doctor of Economic Sciences, Professor E.A.Tonchu brilliantly highlighted the issue of a woman, her role and place in public life in her book "Woman and Society": they have reached their present position in society and the state" so that they could "comprehensively develop their strengths and abilities in order to become a full, equal and active member of human society, would combine active, creative equality and participation in public life with the most important social function as a motherhood»<sup>4</sup>.

The current conditions of world development and the paradoxes of globalization also affect the position of women. Ensuring women's rights contributes to strengthening

<sup>3</sup> Mirziyoyev Sh.M. Congratulations to women on March 8, 2022. <https://rossaprimavera.ru/news>

<sup>4</sup> <https://www.labirint.ru/authors/62455/>



democracy, to increase the level of well-being, stability and tolerance. Countries where women has rights, they can have life choices, equal access and equal opportunities to participate in public and state life, are the most stable and viable countries are ready to meet the challenges of the new century.

Uzbekistan is one of these countries in Central Asia. Women are increasingly occupying leading positions in all areas of activity. They make a significant contribution to the development of education, culture and science. Uzbek women scientists have distinguished themselves in the fields of chemistry, biotechnology, agriculture and many other areas.

M. Behbudi says the Sadoi Turkiston: Education is more important for girls than for boys, and he called for the funds spent on various decorations and excesses to be spent on the education of girls, to prepare teachers from them, so necessary for schools<sup>5</sup>. Nowadays, there are 2456 women who registered in the Unified Electronic System for the Coordination of Postgraduate Education engaged in research activities, 1185 women are conducting investigative work in basic doctoral studies, 80 women in doctoral studies, 964 women are independent researchers (PhD) in Uzbekistan, in 2020-2021<sup>6</sup>.

Their intellectual work is highly appreciated by foreign scientific centers. About 660 women doctors of sciences, 6 academicians work in scientific and educational institutions of the republic. About 3000 women are conducting research activities in scientific institutes in the Academy of Sciences of Uzbekistan. The country pays special attention to the education of girls. From an early age, they have the opportunity to develop their leadership and organizational skills. They are provided with comprehensive support, consultations help to form a worldview, politics, psychology, and economic laws. According to the head of state, special attention is paid to ensuring the legitimate rights and interests of women. It is paid a great attention to improve the labor activities, education, health promotion, and the well-being of their families are improving.

It is re-established the post of Deputy Prime Minister in order to ensure the systematic and effective implementation of these tasks, the State Committee for Family and Women Affairs. In 2021, Uzbekistan approved the Strategy for achieving gender equality, calculated until 2030. The document assumes an increase in the number of women in management, a decrease in gender imbalance, access to education, and a fight against violence and harassment of women. Today, gender equality in the republic has been elevated to the rank of state policy - the president speaks about its importance, and various programs to support women are being implemented in the country with the assistance of international organizations.

Men and women are parts of the world and society. At first sight, from the social point of view, the roles of women and men are "painted" and predetermined by their biological sex. Certain roles are a priori imposed on women and men, the deviation from which is associated with social rejection. Boys are not allowed to cry and to play with dolls, girls are not allowed to fight and roll cars.

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<sup>5</sup> Behbudi M. // Sadoi Turkiston. 1914. No. 11.

<sup>6</sup> <https://review.uz/07z>



It is not allowed the girls to take the initiative in love affairs, young men not to serve in the army. It is not allowed for women to put career first, men not to put career first, and so on. Modern men and women are facing stereotypes and new thinking at the same time. On the one hand, women and men are equal and free to make any career growth, on the other hand, it is absolutely necessary to restore and preserve traditional values in this world.

According to the priorities in the Action Strategy for 2017-2021 the following tasks are set: increasing the socio-political activity of women, strengthening their role in government and society, ensuring the employment of women, college graduates, lyceums, their broad participation in entrepreneurship and further improving the facilities of the family.

Expanding the role of women in public administration is also a key element of the national sustainable development goal No. 5. On October 20, 2018, the government of Uzbekistan adopted a resolution "On measures to implement national goals and objectives on the ground" of sustainable development for the period up to 2030". Task 5.5 is about "ensuring the full and effective participation of women and equal opportunities for them to lead at all levels of decision-making in political, economic and public life".

As Helena Fraser, UNDP Resident Representative in Uzbekistan, noted: "The presence of a critical mass of women in leadership positions is a positive development of society in all countries. Thus, world practice shows that the increase in the representation of women in public administration leads to the fact that legislation is developed taking into account gender factors, the participation of women in politics suggests that the daily problems of women also begin to grow in parliamentary debates. Thus, increasing the representation of women in public administration can improve the protection of women's interests»<sup>7</sup>.

Today, systemic reforms are being carried out in Uzbekistan aimed at empowering women, increasing their role in all processes of state administration and society as a whole. It is about restoring a special status and respect for women. These principles have become the basis of the implemented state policy in the field of gender equality.

The Strategy reflects the key aspects of the activities of state structures for 2021–2030 in such areas as ensuring decent employment for women, increasing the enrollment of our girls in higher education, promoting them to leadership positions, including through a temporary quota system, supporting the poor and socially vulnerable women. These areas will become priorities in the near future, and the Strategy provides for the equal participation of women and men in the implementation of these processes. Uzbekistan is a party to major international agreements providing for the legal, social and economic protection of women from any form of oppression and violence.

**Analysis and results.** Women and men today have absolutely equal rights. This is enshrined in the Constitution of the Republic of Uzbekistan. The gender factor is mentioned in the Labor Code. The state has established labor standards for women, maternity leave, flexible working hours for mothers raising minor children. It is also

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<sup>7</sup> <https://uzbekistan.un.org/ru/114524-vystuplenie-kheleny-freyzer-na-otkrytie-nacionalnogo-dialoga-zhenschiny-v-rukovodstve>



mentioned diverse norms for ensuring the rights of women are also enshrined in labor contracts between employers and trade unions.

Today, women can realize their potential in various fields. To increase their representation in public administration, a personnel reserve has been formed of more than 15,000 women capable of holding leading positions in politics, the economy and public life. Comprehensive work is underway to train women leaders.

For the first time in the history of Uzbekistan, following the results of the parliamentary elections in December 2019, the number of women in the national parliament reached 32%. According to the rating of the Inter-Parliamentary Union "Women in National Parliaments" (as of the beginning of 2020), the Parliament of Uzbekistan ranks 44th among 193 states. The proportion of women in political parties reached 46%, in higher education - 47%. The ratio of women to men in leadership positions in the country is 27% and 73%, respectively.

The tradition of female professional leadership in our country appeared relatively recently. There were times when a female leadership was seen more as an exception. Nowadays, women are able to work in all spheres of business. They can lead with patience in order to achieve success. When a company is led by woman, the development is usually more progressive. Women are very responsible and attentive to any issues. The presence of women in decision-making structures makes politics socially oriented.

State concern for women is a sign of the health of society, its humanity and morality, and personal attention of the President of the country is a guarantee of the successful implementation of the adopted relevant programs. Studies on gender equality in a number of developed countries that have come very close to gender equality have given real good results: life expectancy has increased, depression has decreased, crime rates have decreased, and simply made more people subjectively happy.

Analyzing the feminization of all aspects of society, this process is still ongoing. However, despite all the measures women can reach the heights of professional status than men. This also requires a significant socio-cultural change in the modern world. Consequently, the process of achieving gender parity is slow, despite some progress in ensuring equal rights and opportunities for men and women.

**Conclusion.** There is a difference between the living conditions of urban and rural families, where there is a completely different way of life and different attitudes between spouses and between children and parents. It is important to fight against the influence of stereotypes, myths and prejudices on public opinion, which, unfortunately, still dominates the concept of human rights, which often leads to domestic violence and divorce. Despite all this, we are confident that the presence of political will in Uzbekistan on the part of the country's leadership will solve the existing problems in the field of ensuring gender equality.

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## **INTERPRETATION A PERFECT HUMAN IN THE TARIKATS MAWLAWI AND NAQSHBANDI**

**Rakhmonov Sunnatillo Mavlonovich**  
**PhD, Associate Professor,**  
**Samarkand State Institute**  
**of Foreign Languages**  
[rakhmonov\\_s@gmail.com](mailto:rakhmonov_s@gmail.com)

**Annotasiya:** Ushbu maqolada naqshbandiya va mavlaviya tariqatining umumiy jihatlari aks ettirilgan. Tasavvufda turli tariqatlar mavjud. Naqshbandiya o'z mazmuniga ko'ra boshqa tariqatlardan farq qiladi. Mavlaviyaga Jaloliddin Rumi tomonidan asos solgan. Mavlaviyya va naqshbandiya tariqatlari insoniyat tomonidan umume'tirof etilgan tariqatlar bo'lib, komil inson tarbiyalashga xizmat qiladi.

**Kalit so'zlar:** Tasavvuf, ta'limot, zikr, maxfiy zikr, jahriy zikr, sa'mo, naqshbandiya, mavlaviya.

**Аннотация:** В данной статье отражены общие аспекты тарикаты накшбандия и мавлавия. В суфизме есть разные тарикаты. Накшбандия отличается от других тарикатов своим содержанием. Мавлавия был основан Джалалиддином Руми. Тарикаты мавлавия и накшбандия являются общепризнанными тарикатами и служат воспитанию совершенного человека.

**Ключевые слова:** Суфизм, учения, зикр, тайный зикр, джахри зикр, сама, накбандия, мавлавия.

**Abstract:** This article reflects the common features of Naqshbandiya and Mavlaviya. There are various tariqas in Sufism. In its content, Naqshbandiya differs from other tariqas. Mavlavia was founded by Jalaliddin Rumi. The Tariqats of Mavlavia and Naqshbandiya are recognized by humanity and promote the upbringing of a perfect person.

**Key words:** Sufism, teachings, dhikr, secret dhikr, jahri dhikr, samo, nakshbandiya, mavlaviya.

**Introduction.** The land of ancient Movarounnahr has long been considered one of the centers of high civilization and culture. To achieve such lofty goals, our ancestors achieved this, first of all, by raising the banner of enlightenment against ignorance and devoting their intellect and potential to deep study and enrichment of scientific achievements. They enjoyed the cream of not one but two Renaissance eras. Recognized as the "Golden Age of Islamic Culture", the beacon of science emerged in Central Asia in the ninth and twelfth centuries, revived in the fifteenth century as the second Renaissance during the reign of the Timurids, founded by Amir Temur. It was during this period that the activities of mysticism and tariqats flourished in Central Asia.



Sufism is the teaching of human perfection and the perfection of being human - means, first of all, to overcome the need for body and soul required. To love the world, to love wealth - this lust enslaves. One who follows the path of mysticism rejects lust. All lust is a source of shame and spiritual destruction, leading a person into the abyss of the abyss. The only sure way to get rid of these flaws it is to overcome the need for lust. Cleansing the soul and heart of Riyadh is done through smoking. Riyadh smoking not just be patient, but stand in the path of Truth to voluntarily set a great goal and to achieve it is to accept all the challenges and strive for the goal. Sufism is a philosophical teaching about the world of theology, human spirituality, psyche, needs and its relationship with God. At the same time, mysticism is the science of sculpting the human heart.

**Research Methodology.** Sufism is the basis for the upbringing and development of virtuous, sincere, educated and perfect people. In other words, the spiritual maturity of a person is the main goal of mysticism, in the pursuit of which every great sheikh developed his own rules of order, and on this basis various leech-leeches were formed.

Tariqas are the soul of Islam. Just as there are many ways to study Sharia and other sciences, there are different ways to study mysticism. Each tariqa pursues the truth in its own way. Although mystical methods are different, their main goal is to get closer to one, that is, to Truth.

The deeds of the tariqa are more perfect than the deeds of the Shari'a and presupposes the observance of working capacity. The tariqa of Islam aimed at performing prayers according to Sharia is a special spiritual path. It goes without saying that how many so many blessings will you reap when you pray.

These teachings and duties are taught and guided by the murshid to the perfect murids. The sect is to love one's parents and piru teacher, to sacrifice one's life for the motherland like Najmiddin Kubro, to give all one's strength and opportunity for the peace of the country, like Khoja Ahrori Wali, for the welfare of the people.

The great representative of the Naqshbandi sect, Khoja Bahauddin Naqshband (1318-1389), associated Islam with life, personality, family and the development of society and urged them to "eat less, sleep less and talk less." Amir Temur also followed this motto and said to the arch-state, all officials: "Eat less - you will live richly without hunger, sleep less - you will achieve perfection, you say less - you will be wise." [2. Б. 25]

Dhikr is one of the main practices in mysticism that promotes human perfection and awakens him from his slumber to a state of vigilance and awareness. In one of the beliefs of the tariqas, the human psyche enjoys secret remembrance, that is, the silent remembrance of Allah, while in another, the dhikr remembrance, that is, the remembrance of Allah through loud music and dance, is used.

In the Naqshbandi tariqa, from the time of Mahmud Anjir Fagnawi to Bahauddin Naqshband, the representatives of the Khojaghan sect performed the dhikr along with the secret dhikr. [6. Б. 26-27]

Unlike Naqshbandi, the Mawlawi sect is based on sama dhikr. In Mawlawi, the state of samo zikr is reflected in music and in the state of mysticism "shatahot" (in the sense of "to seethe").



The Mawlawi sect was founded in 1240 by the famous theologian and poet Jalaliddin Rumi (1207-1273). Jalaliddin Rumi was often called "Mawlana", hence the name of the sect. The term "maulana" is used in honor of teachers and is added to their names, and in the sense of respect is pronounced before the name of the person. Initially, the activities of this sect spread to the regions of Turkey and Iran, to which were added the middle and lower strata of the city's population, and then the upper strata.

In the Mawlawi tariqa, Mawlana Jalal ad-Din Rumi It is attributed to the rahmatullohi alayhi and it widespread in Anatolia. His lineage goes back to Abu Bakr Siddiq on his father's side and to the Khorezmshah dynasty that ruled in Movarounnahr on his mother's side. He lived for a long time in Konya, the capital of Sultan Alouddin Seljuk, after many travels, where he died and was buried. He received knowledge of Sharia from his father, a renowned Hanafi jurist. Mawlana Jalal ad-Din Rumi, may God bless him and grant him peace, was a preacher and lawyer, and later became famous for his Sufism, poetry and authority.[9. Б. 6-7]

In the Naqbandi tariqa, "Who has the right to mention jahriya?" Mahmud Anjir Fagnawi answered: "Only a Sufi who is free from lying and slander, free from filthy food, free from hypocrisy, and free from giving in to the truths and vain things of this world can perform Jahr dhikr."

**Analysis and results.** According to Mahmud Anjir Fagnawi, the purpose of dhikr, whether overt or covert, is the same - to reach the truth. Both types of remembrance contain wisdom, advice, and the need for status. Hazrat Bahauddin Naqshband practiced dhikr in accordance with the teachings he received through the psyche of Hazrat Abdul Khaliq Gijduvani. Mir Kulol also obeyed the will of Allah and taught Bahauddin the secret interpretation of dhikr.[6. Б. 27]

According to sources, Hazrat Bahauddin Naqshband was forced to sit in the Jahr dhikr and samo assembly. When Bahauddin Naqshband was asked about this dhikr dance and samo, he said, "We do not deny it, nor do we do it!" they pointed out. This information is also mentioned in sources such as Rashahot and Maktubot, which are the basis of religious tolerance today.

Although the Mawlawi tariqa was a Sunni sect shortly after its founding, they linked their lineage with Ali ibn Abu Talib and considered it one of the twelve independent tariqas prevalent in the world.[7. Б. 126]

As mentioned above, the main part of the Naqshbandi practice is the secret remembrance of the name of Allah by a representative of the tariqa, while in the Mawlawi tariqa it is preferable to pronounce it aloud.

According to the sources, the Prophet (peace and blessings of Allaah be upon him) taught secret remembrance to Abu Bakr in the cave, and he recited the remembrance aloud to Ali.[1. Б.173] Therefore, although both dhikr were practiced in some Naqshbandi communities, this laid the foundation for the Mawlawi sect to join Ali ibn Abu Talib.

During the reign of Bahauddin Naqshband, the introduction of the secrecy of dhikr fully corresponded to the main motto of Naqshbandiism "Dast ba koru dil ba yor". The advantages of the secret of dhikr was that people could read dhikr secretly, whether they were working, sitting or standing, without noise or dancing. That is, they



could constantly remember. This rule in the Naqshbandi sect also led to the spread of the teachings among the masses.

Representatives of the Mawlawi tariqa had their own homes and khankis Mawlawi, where they practiced dhikr samo (Arabic - "remember, remember - the ritual" samo) associated with the remembrance of God in mysticism, and a series of musical poems was performed in it. Ceremony). Unlike other tariqas, the Mawlawi pays special attention to the ritual of remembrance in the group, listens to music, sings and writes a fist. The Mawlawi tariqa was also known as the Gardi dervishes.

Jalaliddin Rumi used music as a "wordless word" to direct human emotions to the essence and to melt the human heart while playing music during samo. This, in turn, paved the way for the rise of zikr samo in the Mawlawi tariqa [8. Б. 230].

In mysticism, the flute is a symbolic image of the lover, that is, the lover of divine love. The grace of the wise and prudent man, the perfect man who has devoted himself to the path of divine love, must be extremely romantic and delicious. The "complaint of loss" of a nay who has lost his pure life is like the soul of an enlightened person who always strives for the world of eternal spirituality.

At its core, the Naqshbandi sect is close to the rules of the Mawlawi sect, as it promotes new teaching methods such as speaking, secret, inner memory. That is, he developed eleven new rules, requirements and methods for approaching Allah, which were completely new in quality and radically different from the previous ones, as well as the use of secret and secret remembrance in the Mawlawi and Naqshbandi sects.

In the Mawlawi tariqa, Mawlana Jalaliddin Rumi's Sufi views, such as knowing the truth, abstaining from lust, acquiring knowledge and working, are similar to the ideas of the Naqshbandi tariqa.

It means "If you want to be the owner of the worldly property, that is, the Hereafter, worship Allah alone and avoid others. For in the Hereafter, neither the world, nor wealth, nor your brother will be able to help you. Only God will bless you and you will be saved".

It means, Allah created man more intelligent than all other creatures and made him great and noble. Because of reason, Adam conquers the world. But only when the mind strives to know the Truth, it attains the status of goodness and greatness, says Mevlana.[3. Б. 125]

In the philosophical views of Jalaliddin Rumi, Allah is more important than existence. He is above all human Good and Evil, Existence and Absence. The mystery of his relationship with the created world is incomprehensible, and the knowledge of Allah is not characteristic of an ordinary transient person. It is clear from this that the concept of Allah Rumi is so elegant and diverse that it cannot be considered a supporter of one-sided simple pantheism - the unity of being (wahdat ul-wujud).[7. Б.124]

Jalaliddin Rumi is a famous theologian, poet and genius of the Mawlawi tariqa. The famous motto of Jalaliddin Rumi: "Look into your heart, knowing the truth and peace." The Mawlawi tariqa was a strictly centralized path of mysticism, and many Ottoman sultans were also associated with the Mawlawi tariqa.

Jalaliddin Rumi, like all philosophers, emphasizes that a person must start changes on his own. According to Mawlana, a person should serve people as long as he lives in society. Anyone who does not serve people cannot say that he served the



Truth. The idea of justice put forward by Jalaliddin Rumi is very close to the idea of justice in the Naqshbandi sect. It is impossible to be truthful because of a selfish approach, without being a nationalist, only good deeds in this world will bring a person closer to Truth, and a slave will improve only by wishing himself well for others.

There are no examples of fanaticism in the views of Mawlana Jalaliddin Rumi. The pinnacle of Rumi's philosophy is that he promotes the idea of tolerance in sectarian strife. Man was not created for sects and religions, he was created for man.

Mawlana Rumi looks at the world with a sharp eye, studies a person as he is, and reveals the most subtle, hidden secrets of the human heart. Rumi observes the nature and aspirations of man during his exploration, seeking the horns of the soul. Along with the greatness of a person, he analyzes the evil caused by his shortcomings, that is, his greed, and shows ways to get rid of them and become pure. In Rumi's writings, ways to achieve spiritual maturity, enlightenment and happiness are described through simple actions. Rumi acts as a fighter for human perfection, teaches a person to understand himself, hate evil and be proud of good. Guiding people towards righteousness, purity and knowledge, Rumi preached goodness and purity and became an example of perfection himself [8. Б. 232].

The Mawlavi tariqa is now widespread in Turkey, and there were followers of this tariqa in Iran, but they were persecuted by the king of Iran for their very pantheistic views. Members of the Mawlavi tariqa were also known in the West as "spinning dervishes" or dancing dervishes because they were spoken aloud through dance and music. At the same time, members of the Mawlavi tariqa have always been tolerant of Christians and Jews. [5. Б. 344]

The difference in the appearance of the Mawlavi tariqa is the hat of the dervishes, which they are used to wearing. In the life of Jalaliddin Rumi, the followers of the Mawlavi tariqa consisted of representatives of the lower classes and artisans, like the Naqshbandi tariqa. The Mawlavi tariqa expanded as an independent movement after the death of Jalaliddin Rumi (1273).

As a result of the popularization of Sufi practices in the Mawlavi tariqa and the popularity of Rumi's Spiritual Masnavi, written in Sufism, it gained popularity among the people. The great work of Jalaliddin Rumi, consisting of lyric verses and quatrains, Ma'navi Masnavi, reflected the inner meaning of the Qur'an, therefore Abdurahman Jami called it the Persian Qur'an or Hast Qur'an dar zaban-i pahlavi. [4. Б. 15]

At the same time, Abdurahman Jami described Bahauddin Naqshband, saying: He did not enjoy the seal of holiness except the heart of King Naqshband. He is a pure pearl, that is, Bahauddin is not everywhere, his ore is in the soil of Bukhara. " Because the lifestyle of Bahauddin Naqshband and the teachings he created correspond to the sunna of the most perfect person, the great Muhammad (peace and blessings of Allah be upon him).[6. Б. 76]

From what we have said above, it can be concluded that dhikr, whether secret or secret dhikr, must think so carefully of the essence of the Creator that the whole body of the dhikr must follow its heart and follow in its footsteps. The purpose of dhikr is to purify the heart from bad feelings and goals, to always engage in the remembrance of Allah, and to attain the truth. The fact that a member of the sect is always in a state of secret remembrance of Allah in his heart is a sign of his manners.



Sufism, thanks to Jalaliddin Rumi, penetrated the poetry of the people, introduced ideas of humanity into it and became an invaluable spiritual treasure of our people. Bahauddin Naqshband served to educate the ideal person through the ideas of hard work, based on the teachings that he created, humanity, the desire for knowledge and love for all being. [10. Б. 47]

While Sufism in Naqshbandi expresses religious and ethnic tolerance with its social, spiritual and ideological characteristics, the inclusion of rituals such as singing, music and even dancing in Sufism includes the acceptance of mystical ideas by peoples of different ethnic, linguistic and socio-economic backgrounds<sup>6</sup> ethnoculturally laid the foundation for the widespread dissemination of mysticism.

**Conclusion/Recommendations.** In general, the Mavlavi and Naqshbandi sects differ theoretically only by dhikr, but in practice they are generally recognized sects that contribute to the upbringing of an ideal person. Even today, the ideas of mysticism are extremely important in educating the spiritual maturity and spiritual purity of young people. In particular, the ideological and spiritual impact of mystical teachings on the creation of a "vaccine of honesty" and the fight against corruption, which has risen to the level of public policy, is incomparable.

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## IT WAS A COUNTRY IMPOSSIBLE TO REACH

**Navruzov Saparbay**  
Associate Professor  
of History faculty  
Urgench State University  
[navrozov\\_s@mail.ru](mailto:navrozov_s@mail.ru)

**Nurullayeva Nodira**  
Associate Professor of  
History faculty  
Urgench State University  
[Nurullaeva\\_n@mail.ru](mailto:Nurullaeva_n@mail.ru)

**Annotasiya.** Maqolada XVIII-XIX asrlarda Rossiya va Yevropa elchilari, savdogar va tadqiqotchilarning Xiva xonligiga qilgan sayohatlari davomida kuzatgan voqealar haqida soʻz boradi.

**Kalit so'zlar.** Sayohatchilar, tadqiqotchilar, rus, yevropalik, Xiva, xonlik, Amudaryo, Orol dengizi, Jenkinson, Lord, Qoraqum, Qizilqum

**АННОТАЦИЯ.** В статье рассматриваются события, наблюдаемые русскими и европейскими послами, торговцами и исследователями во время их поездки в Хивинское ханство в XVIII-XIX веках.

**Ключевые слова.** Путешественники, исследования, русские, европейцы, Хива, ханство, Амударья, Аральское море, Дженкинсон, Лорд, Кара-Кумы, Кызыл-Кумы.

**Abstract.** The article discusses the events observed by Russian and European ambassadors, traders and researchers during their trip to the Khiva Khanate in the XVIII-XIX centuries.

**Key words.** Travelers, researches, Russian, European, Khiva, khanate, the Amudarya river, the Aral Sea, Jenkinson, Lord, Kara-Kum, Kyzyl-Kum  
*The eye of the strange visitor, the hand of the writer...*

**Introduction.** Indeed, the feudal rule of the Khiva khanate put every selfish foreigner in the same distress who visit the country with malicious intention. The brave Hungarian scholar, the tourist Herman Vamberi, had described in the past that every foreigner who came to Khiva, whether he was a scientist, a merchant, a diplomat, a tourist, or a military man, would face a tragic fate.

For the Europeans, the scorching heat of summer in this "no human step on it" country, the bitter cold of winter, the raging winds in the desert and barren, the drought, and finally the onslaught of the pirates in the desert were an impassable barrier between Khiva and Russia for a long time.

**Literature review.** The caravan of Anthony Jenkinson, an English merchant who set out on a long and dangerous journey under the auspices of the Russian emperor, set out in April 1558 with Richard and Robert Johnson and a Tatar translator and entered the khanate's borders only in mid-autumn. Jenkinson wrote about it as in followings: "We stopped at the castle of Selluzer (Vaseer) in the western part of the khanate. On the 14th of October we set out from here and arrived in Urgench for two



days, after which we paid the toll at the expense of ourselves and every head of the camels and horses in our caravan. Then we stayed here for a month, waiting for the ruler of the country, Ali Sultan, who had gone to Khorasan. When I was ordered to the receive of the returning ruler, I handed him the label of the Russian tsar[1].

Jenkinson was warmly received by the ruler Ali Sultan. He handed over his label to the trader, who had asked many questions during the interview, stating that his caravan would be under government protection. The tourist described what he saw as in following: "The city of Urgench is located on a plain. The perimeter is about 4 miles long, surrounded by a wall made of hard-clay, and the buildings are also made of hard-clay collapsed and in disarray. The top of only one long street is paved, which is a market[2]."

**Analysis and results.** The middle of the 16<sup>th</sup> century was a period of intense struggle for political power in the Khorezm state. The tourist was able to see the economic and political crisis in the country: "The city has passed from hand to hand four times in the last seven years due to feudal wars, so both merchants and the rich are poor." Jenkinson worried about the lack of trade profit in the country. He saw that only goods imported from Bukhara and Iran were mostly sold in the city. Jenkinson described the influence of the rich Turkmen in the struggle for political power in the country: "The whole country, from the Caspian Sea to the city of Urgench, is a Turkmen country under Azimkhan's rule." The tourist continued his journey through the cities of Khorezm to Bukhara. For instance, he wrote that, "The ruler of the country lives in the Castle of the Celluser (Vazeer) and it is located on a high hill in the city. The khan's palace consists of a low, unsightly building."

The English merchant saw that the financial and economic well-being of the population was in a state of disrepair. The tourist, Anthony Jenkinson who witnessed the rich harvest of agriculture in the fertile lands of the country, wrote: "One of the local crops - melon, is distinguished by its large size and juiciness. The melons are consumed in the country instead of drinks after meals. There is another blessing, it is a watermelon, the size of a large cucumber, yellow in color, sweet as sugar".

The Khorezm oasis and the Aral Sea basin are the first maps drawn by surveyor geodesist Muravin. It is the first time that this unique map is being published. The tourist, who gave interesting information about oasis farming, made a special mention of another plant. "Oats, one of the cereals, resembles sugar cane in height, and the grain resembles rice, the crop is on top of the stalk, and the leaves resemble the branches of a vine."

The British tourist, whose trip to Bukhara ended, returned to the oasis back. "We arrived in Urgench on March 25. We stayed in Urgench and Selluzer fortresses for 8 days, prepared the caravan for return and set off on April 2 [3]."

The ruler of Urgench sent a letter to the Russian tsar through Jenkinson by sending 4 ambassadors also. But after this visit, despite the trade and embassy relations between Russia and the Khiva khanate, there was almost no written material about the khanate until the end of the 16<sup>th</sup> century.

In the first half of the seventeenth century, relations between Russia and the khanate were revived. Meanwhile, the political developments have once again soured relations between Russia and Khiva. In 1646, robbers in the territory of Abulghazykhan



looted the goods of a Russian trade caravan worth 10,257 soums. Later, in 1669, Anushakhan sent a caravan to Russia led by Polat Muhammadbek Ruzimov to restore the broken ties. There were a total of 20 people in the Khiva caravan, 15 of whom were on their way to restore embassy relations.

In response, on the instructions of the Russian tsar, a caravan of his son Ivan Fedot'ev and Matvey Muromtsev left Astrakhan on February 15, 1669, and arrived in Khiva on June 2. In his memoirs, Ivan Fedot'ev notes with joy that Khiva khan Anushakhan warmly welcomed the Russian ambassadors and allowed them to see the khanate's cities.

The tourists first saw the city of Khanka, then moved to Hazarasp. He said "Various officials in Urgench and Khiva also trade in cotton and silk. The price of a pound of silk is 60 soums, and 10 pounds of cotton fiber is one and a half soums." The tourist also pointed out that the khanate had no trade relations with India and Balkh, and that the prices of trade goods were higher in Russia, which was beneficial for traders. [4].

A tourist observing the economic and political situation of the khanate saw the following scene. "There are 15,000 officials in different positions on the lands of the Urgench khanate, not much grain is planted on the lands of the khanate, and there are few wood forests. The firewood will be brought to the city from a three-day road destination to the river."

Looking at the political situation of the khanate, Ivan Fedot'ev also thought about its foreign relations with neighboring countries. "The khan of Urgench had no relations with the Turkish sultan and the Crimean khan. He is at war with the king of Iran because the king did not send any presents to the khan. The ruler of Urgench attacked the Iranian cities of Astrobod and Karashar and enslaved the population."

Ivan Fedot'ev's caravan bought 12 enslaved Russian citizens for 828 soums in the Khiva khanate on September 13, 1669 and returned to Astrakhan on November 6. These data on the middle of the 17<sup>th</sup> century are important in the study of the economic and political situation of the khanate [5].

Speaking about the Khiva khanate, visitor Fedotev did not give any information about the city of Khiva, not even mentioning the word Khiva. This is due to the construction of the city of New Urgench in the mid-1740s.

The new city developed rapidly politically and economically and played an important strategic role in the foreign relations of the khanate. That is why Fedot'ev even mentions the ruler of the country as the khan of Urgench.

But the tourist did not take a deeper look at the socio-political events taking place in the country. During this period, power in the khanate began to pass into the disposal of large feudal lords, major military conflicts arose, which ended in a bloody war. Indeed, in the 18<sup>th</sup> century, the Khiva khanate was "experiencing a severe crisis".

On September 5, 1740, a Russian caravan of warriors Kazaks with Dmitry Gladishev, a lieutenant of the Orenburg Dragon Regiment, fluent in Tatar, surveyor Muravin, engineer Nazimov, and translator Usmon Araslanov, set out for the Khiva Khanate. The pirates attacked Nazimov, Roman Kazakov and Petr Maksimov in the caravan and fled away by taking them in captive.



The Russian trade caravan barely entered the Khiva khanate on November 7, 1740. Tourist Dmitry Gladishev and surveyor geodesist Muravin drew a map of the road from Orsk to the fortress of Khanka and wrote down what they saw and experienced as their report on the trip.

During the occupation of Nadir Shah, the ruler of Iran, Russian tourists in Khorezm acted on the dictates of conscience. Surveyor Muravin entered the residence of Nodirshah near Khanka on the orders of the Russian ruler, where he stayed for some time, significantly delaying the movement of the invaders to the capital under diplomatic influence. This courage of the Russian state officials in the invasion of Nadirshah deserves the gratitude of generations [6].

The meeting between Gladishev's caravan and 20 representatives of the Khan, led by Avazmirob from Khiva, was as follows. "We arrived in the deserted town of Gurlan in the Khiva khanate on November 6, where there were 100-160 houses built of cotton wool. There are 8 cities under the jurisdiction of Khiva, ditches are dug around it and it is surrounded by a cotton wall, its height is 5-6 sarjins ". The tourists did not provide any information about the cities other than Gurlan, Xonqa and Khiva, which they observed.

The map of Khiva khanate drawn by geodesist Muravin in 1743 shows the cities of Vazir, Gurlan, Kat, Shavat, Khiva, Urgench, Khanka and Khazarasp. Commenting on the map, the researcher Y.Khanikov notes that "in 1506, the city of Vazir was a stronghold in the spread of Uzbek power in the 16<sup>th</sup> century under the leadership of Elbarskhan. The medieval city Vazeer, collapsed during this period and the city population was immobilized to the northwest of Gurlan.

The autumn visit of tourists in the khanate provided an opportunity to get acquainted with the flora and fauna of the oasis. Tourists who paid attention to farming in the northern part of the khanate informed, "Karakalpaks are engaged in grain growing. Wheat, barley, millet, rice, sesame, cotton and tobacco were planted along rivers and lakes, as well as in lowlands. The agricultural culture of the Khorezmians was not left out of the attention of Russian tourists: "The crop fields are irrigated with turbid water flowing in ditches. The main livestock are camels, cows, horses, donkeys, sheep and goats, as well as chickens in poultry farming. The farms consist of horticulture, vegetables and melons, and grow apples, pears, pomegranates, grapes, jiyda, mulberries, peaches, water-melons, carrots, radishes, turnips, onions and peppers."

Thinking about the trade in the country, the Russian tourists informed that Russian traders came through Astrakhan, Khiva trades in silk and cotton while the people living on the Aral Sea were trading with their livestock in Khiva.

"There is another detail in the evidence of Gladishev and Muravin. The word Amudarya is replaced by the words Ulli(Ulkan) river, which may have meant the main riverbed." There are such fishes as ship sturgeon, stellate sturgeon, starlet, wels catfish and white common carp in the Aral Sea basin and its rivers."

During Gladishev's stay in Khiva an enslaved Ural Kazakh Andrei Borodin reported that there were survivors of the Bekovich-Cherkassky detachment in the city.

These data on the socio-economic situation, economy and population of the khanate, collected by Gladishev and Muravin during their travels [7], served to form



the knowledge and views of the Russian scientific and cultural community on the culture, economy and political system of the oasis. Today, these materials, as well as the first large-scale map of the oasis and the Aral Sea basin compiled by surveyor Muravin and the map of Khiva, play an important role in the scientific study of the history, ethnography and culture of the peoples of Uzbekistan.

There is a book with single copy kept in the fund of the Scientific Library of the National University of Uzbekistan.

It is an edition of Moscow University in 1776. The collection *Moskovskiy lyubopytnyy Mesyatseslov na 1776 god* (Moscow Curious Monthly Book for 1776) published materials on the trip of the merchant Daniil Rukavkin to the Khiva Khanate in 1753. [8].

By order of the Russian Tsar Elizabeth Petrovna, a caravan of merchant Daniil Rukavkin set out from Orenburg through the Kyrgyz-Kazakh deserts to Khiva in order to study and trade with the peoples of the Bukhara-Khiva khanate. The caravan, which was in danger of being looted by pirates at any moment, arrived safely in the khanate under the supervision of armed guards. But "as soon as we arrived successfully," writes Rukavkin, "according to the khan's decree, the caravan was kept under control for 10 months, and the caravan's goods were taken to the khan's palace free of charge." Upon learning of these events, the governor of Orenburg responded by ordering the arrest of the Khiva ambassadors. Only then did the Russian caravan return to Russia.

"The soil of the Khiva Khanate is sandy, fertile; wheat, rice, barley, millet and sesame are grown, and oil is prepared from sesame. Oats are used as food for people, and fodder for horses, sheep and cattle. The vegetables are varied and the gardens take up a lot of space. They have a variety of fruits: black and colorless varieties of grapes, apples, pears, plums. Cotton is also widely grown"

As for the inhabitants of the khanate, the tourist writes: "The population of Khiva is mainly the Sarts, who are grain growers and traders. While some Uzbeks, who see themselves as high-class, want to trade with Russia despite fears of Kyrgyz-Kazakh pirates crossing the desert to Orenburg in a trade caravan, at the same time most Khiva residents are reluctant to become Russian citizens too. Another nomadic people in the territory of the khanate are the Turkmens. They are few in number and weak, they have no khans, but they obey their leaders." But the Samaran merchant did not notice the real situation with the collection of taxes in the Khiva khanate. "The khans of Khiva do not collect certain taxes from their citizens, and from time to time, when necessary, they collect 3-5soums per yard." It's clear that the Russian tourist, unaware of the local financial system and had not seen the oppression of the people due to taxes, which were the main source of the treasury of the khanate.

**Conclusion.** Albeit briefly the data provides facts about slavery in Khiva in Rukavkin's comments. There are captives of all nationalities in Khiva and other cities of the khanate. The khans relied more on foreigners to protect themselves. That's why the servants in the palace get a lot of money." Rukavkin, saddened by the plight of his fellow countrymen but unable to free them, failed to achieve any positive results. However, it has significantly widened the road between Khiva and Russia, which his predecessors called a "it was a country impossible to reach" In any case, four Russian



citizens who had suffered for more than 40 years in captivity returned home in Rukavkin's trade caravan also.

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## AXIOLOGICAL ANALYSIS OF INTELLIGENCE AND PROFESSIONAL ETHICS

**Burkhanova Mamura Gulyamovna**  
**Navoi State Pedagogical Institute**  
**Department of Practical English**  
[mega.burxanova@mail.ru](mailto:mega.burxanova@mail.ru)

**Annotasiya:** Maqolada ziyololik va kasbiy axloqning aksiologik tahlili ko`rib chiqilgan. Ziyolilik va kasbiy axloq munosabatlardagi turli vaziyatlar orasida tahlili, uning o'ziga xos axloqiy muhitini tavsiflovchi tahlilliy holatlar ajralib ko`rsatilgan. Bu ilmiy tadqiqot ishimiz, o'z navbatida, ziyololik va kasbiy axloqning aksiologik tahlilini va ularning axloqiy me'yorlarining o'ziga xosligini belgilaydi.

**Tayanch so`zlar:** ziyolilik, kasbiy axloq, aksiologik tahlil, munosabatlar, axloqiy muhit, axloqiy va kasbiy me'yorlar

**Abstract:** The article is devoted to the axiological analysis of intelligence and professional ethics. Among the various situations in the relationship of intellectual and



professional ethics, there are analytical cases that characterize the analysis, its specific ethical environment. This study, in turn, determines the axiological analysis of intellectual and professional ethics and the specificity of their ethical norms.

**Keywords:** intelligence, professional ethics, axiological analysis, relations, ethical environment, ethical and professional norms

**Аннотация:** Статья посвящена аксиологическому анализу интеллекта и профессиональной этики. Среди различных ситуаций в отношении интеллектуальной и профессиональной этики существуют аналитические случаи, которые характеризуют анализ, ее конкретную этическую среду. Это исследование, в свою очередь, определяет аксиологический анализ интеллектуальной и профессиональной этики и специфичности их этических норм.

**Ключевые слова:** интеллект, профессиональная этика, аксиологический анализ, отношения, этическая среда, этические и профессиональные нормы

**Introduction.** Axiology (axio means value, logos means science, doctrine) is a field of philosophy that studies and deals with this issue. In the former Soviet Union, very little was known about this. Because of independence, our perceptions of values have changed rapidly. The formerly glorified party-class values of the former Soviet Union have become a mirage, unable to meet the demands of modern realities, and have closed together with the pages of history of the past decades. In Uzbekistan, there is a growing focus on values, the various aspects of which are being analyzed by scientists and experts. Philosophy of Values - Many topics in axiology have a special place in the scientific research of our specialists.

**Literature review.** A valuable approach to understanding morality has been developed in the works of researchers such as P. Sorokin, I. Guizinga, E. From, K. Levi-Strauss, J. Baudrillard, M. Scheler, N. Hartman, D. von Hildebrand. In particular, D. von Hildebrand [1] created one of the most profound differences between moral values and other types of values. First, it separates values from ordinary pleasure and objective good for man. It then divides values into ontological (the value of being, the existence of something) and qualitative ("qualitative" - unlike ontologists, they have their opposite in the realm of unworthiness). Finally, within the framework of quality values, Hildebrand distinguishes intellectual, aesthetic, and moral values.

Among local authors, such an approach to ethics was developed by R. G. Apresyan, who defines morality through values and their corresponding requirements, and defines a number of basic moral values as the main content of morality [2]. According to him, "morality is, first of all, the ego of a certain kind of value and the corresponding requirements aimed at reconciling different (according to different criteria) interests; and decisions, actions, and policies are evaluated in terms of these values and requirements"[3].

L. V. Maksimov studied in detail the nature and interdependence of moral values. The history and content of the concept of "values" are analyzed in depth in the works of A. A. Ivin and V. K. Shokhin [4].

**Research Methodology.** The value approach to morality promotes the idea of the transcendence of morality, viz. everything is "irreversible" for natural or social phenomena, in other words, its belonging to another, intangible world.



E.P. Prokhorov, a well-known researcher of journalism, was one of the first to draw attention to the problem of values in the theory of intelligence and professional ethics. In his view, a common aspect of solving all social problems in a modern, complex organized society consisting of different groups are universal humanistic values developed in the process of human development, uniting all people and creating the basis for each person's behavior in different fields. of life: politics and economics, public life and private life, relations between countries and individuals, etc. Professional ethics concretizes the general ethical norms and values that determine a person's attitude to his professional duties, indirectly to his profession and to society as a whole. Its content is, first of all, the relevant codes of ethics - codes of ethical norms and rules that must be followed. They define a particular type of relationship between people that is optimal in terms of the individual's ability to perform their professional duties.

Among the various situations in the relationship of intelligence and professional ethics, the most typical cases characterizing the relative independence of professions, its specific ethical environment, begin to emerge. This, in turn, determines the specificity of people's actions, the specificity of their moral values.

Thus, as soon as a professional relationship became qualitatively stable, it led to the formation of a special ethical relationship consistent with the nature and content of labor, which reflected the practical possibilities of certain relationships between the professional group members and the group itself with society.

**Analysis and results.** Ethical and professional standards have historically shifted from concrete to abstract. Initially, their meaning was very clear and related to specific actions or things. And only in the course of a long historical development will their semantic content become of general, correct moral significance. Professional ethics is important for several reasons: first, it allows you to organize any profession based on a set of rules. These standards support productivity and promote excellence among professionals.

If the occupation was chaotic or did not follow any law, it would not be possible for the specialist to contribute to social development and self-growth.

In addition, teamwork is encouraged through professional ethics and relationships are established between colleagues. This is because adhering to professional standards enhances positive relationships between people.

The use of a moral-axiological approach is the main goal in the implementation of the psychological work itself and the humanistic moral values of society in general. Of course, the ethical-axiological approach cannot be said to be unique.

However, the axiological approach can be considered as one of the most important in determining the importance of other important components. It consists of substantiation, analysis of the meaning and content of values, a holistic and elemental approach to psychology from the point of view of value theory.

The purpose of axiological analysis is to ethically analyze what exists, evaluate it, and develop the ideal. In this case, the functions performed by the axiological approach (analytical, evaluative, prognostic, goal-setting, etc.) can significantly increase the effectiveness and quality of practical psychological activity.



**Conclusion/Recommendations.** It can be seen that these three approaches develop a variety of possibilities inherent in the initial understanding of value as an image (conceptual or figurative) formed in the process of social practice about the importance of certain elements of the external and internal world for human life.

The essence of value is the human- (cultural) -creative significance of the events of the world of life, which are strengthened in one way or another. Human culture is imbued with value relationships. But based on this relationship, it is not a subjective product of human consciousness and will at all. Human culture is a world that is objectively, hierarchically organized (and internally contradictory at each stage of this hierarchy). This world is given to everyone as a natural habitat to be mastered. And this assimilation cannot and should not be pure head, rational cognition, but should be exactly the mastery, the transformation into its essence. The measure of a person's understanding of the world of human culture is a measure of a person's humanity (in any case, one of the dimensions because there are others, for example, a person's contribution to the world of human values).

Often local scholars rely on the following definition: "Values in the broadest sense of the word are preconceived notions about something that meets some needs, interests, intentions, goals, general, sustainable ideas about something good man's plans. "

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## EASTERN ROMANTISM AND SOCIAL REALITY IN THE DEVELOPMENT OF MODERN ART

Oysuluv Uroкова

Associate Professor

Head of the Department of  
Social Sciences and Humanities,  
Andijan State Medical Institute  
[alfargoniy.uz@gmail.com](mailto:alfargoniy.uz@gmail.com)

**Annotatsiya:** Ushbu maqolada zamonaviy badiiy san'at rivojida Sharq romantizmi va ijtimoiy vokelikning o'ziga xos to'g'ri yoritilgan bo'lib, unda xayol orzu va armonlar, xalq tarixi va o'yinchoqlari bilan bog'liq afsonalar tasvirlari tasvirlaridagi obrazlarni zamonaviy rasmlarimiz asarlaridagi taxlillari tasvirlangan.

**Kalit so'zlar:** romantizm, tasviriy san'at, san'at, zamonaviy rassomlar, ijodkor, tafakkur va orzu kengligi, xayoldagi orzu.

**Аннотация:** В данной статье описываются особенности восточного романтизма и социальной действительности в развитии современного искусства, в которой отражен анализ мнимых мечтаний и стремлений, мифов и легенд об истории и судьбах народа в творчестве наших современных художников.

**Ключевые слова:** романтика, изобразительное искусство, искусство, современные художники, творчество, широта мысли и судьбы, мечта в воображении.

**Annotation:** This article describes the peculiarities of Eastern romanticism and social reality in the development of modern art, which reflects the analysis of imaginary dreams and aspirations, myths and legends about the history and destiny of the people in the works of our contemporary artists.

**Keywords:** romance, fine arts, art, contemporary artists, creativity, breadth of thought and destiny, dream in the imagination.

**Introduction:** After the significant changes in the history of Uzbekistan, culture, literature and art of our people due to independence, with the change of the themes of our art, ideas, artistic and aesthetic shifts in the hearts and eyes of our artists. There are many artists, and instead of following certain things, they have taken the path of feeling, expressing them, and as a result, popularizing and disseminating new, national, contemporary artistic thinking conclusions. In the depiction of dreams and aspirations, myths and legends about the history and destiny of the people, the images can be called the traditions of fine arts of our country, creative individuality, if necessary, the works of our contemporary artists and rightly the creators of the poetic mood.

It is difficult to say whether the works of the artist reflect his heart, mind, thinking and experience, or the creativity and methodological research of the past and present artistic scholars, teachers and peers who influenced him. Everyone has their own height, breadth of thinking and destiny, the place and significance of the steps they take in the universe. Someone steps very fast and hastily, someone's mind and spirit take on a complex unity with the Universe and person, someone tries to make his word and word clear without melting.



**Literature Review.** At the same time, the idea of expanding the path of the image with the limitations of reality, fact and subject, of enjoying the opportunities of the image spread all over the world, expands. In our art in the 70-80s of the XX century, along with older artists such as A.Mirzaev, Sh.Abdurashidov, B.Jalolov, J.Umarbekov, S.Alibekov, M.Tukhtaev, V.Burmakin, Ch.Melnikov, Akmal Nur began to perform stylistic tones in a different voice. Although the young artists expected external influences and persecution, they managed to significantly expand the scope of our culture with their works that are in line with the breath of national life and changes in world art. While the older artists attracted the attention of more historical and contemporary themes, the younger ones were interested in the breadth of the image, the artistic-aesthetic imagery paths that unite East and West. Young people felt that the problem of the universe and man was not a narrow and limited subject, but a wide range of imagery, encouraging them to think extremely deeply.

A person for romantics is the whole universe. It has its own "night" aspects, as well as mysteries and attractions. In the romantic concept of the universe and the individual, there is respect for exoticism in nature, irreversible individuality in man, originality in society. The creator creates artistic reality without normative regulations, and for romantics it is even more than reality. Genius does not obey norms, but creates them [1].

As Yu.Borev rightly points out, "Romantics focused on the heritage of medieval art and Christian ideas focused on the inner world of man. The spiritual life of a person is placed at the center of art. The realm of romanticism is the soul and its mysterious soil, from which all the best and vague aspirations to glory emerge, seeking satisfaction from the ideals created by fantasy." [2] Reality has emerged in the eyes of romantics as something mysterious, illogical, enigmatic, a sphere of social frustration against human reason and personal freedom. Hence, "world grief" is an attitude of global conceptual significance. The goal of romance is to completely resolve all conflicts and create an ideal, perfect society. The contradiction between the dream of perfection and everyday reality creates two worlds in a romantic culture." [3]

As G.Mahmudova noted, "art plays an invaluable role in the nation's worthy place in the human family. The work of art is an example of intricate harmony and integrity. While the artist aims to show the reader and the audience the complex problems of life, even the deepest ideas in his work are not easily visible at first glance. Often broad reflections, wonderful spiritual experiences, and spiritual beauties are hidden between external events and situations. The high-minded reader should be able to see this basic idea, the main aesthetic content and artistic subtlety" [4].

Uzbek fine arts have an important place in the world of art. This situation is due to the culture of creative thinking and emotional richness of the individual, which began to take shape in the 60s of the twentieth century. In this regard, it is difficult to meet modern artists in the world who are equal to them. In understanding their works and paintings, it is worth recalling VG Belinsky's words about AS Pushkin's lyrics: "The general taste of Pushkin's poetry is the inner beauty and man who values the human heart." The desire to glorify the beauty of man in his manifestation of humanity is the main content of the aesthetic ideal of Uzbek artists.



For example, the themes of Eastern fine arts traditions dominate in conjunction with literature. Because “fiction, as a form of art, is an independent way of understanding the reality of existence, which, unlike science, is based on figurative rather than logical reasoning. Therefore, the development of figurative thinking should become the main principle of the chronology of the history of literature” [5].

In Sufi literature, the “figurative image,” which is an artistic method, becomes a method of revealing the mystical Truth. Because the world of Sufis cannot be expressed directly in simple words, they use different sayings, that is, “figurative images.” From the twelfth century onwards, Sufi motives gradually began to enter the Islamic cultural regions. Along with them begins a wide range of artistic images, such as “may”, “friend”, “friend” and so on. k.lar »[6]. These meanings and themes are the main ideological content of modern Uzbek fine arts.

This principle does not, in fact, accept the individualization of images, events are interpreted in the form of a more ideal and romantic-generalized harmony. The artist strives to be consistent in interpreting generalized and explicit plots, starting with miniatures and murals of the East. Generalized themes of war and peace, beauty and ugliness, creation and destruction are also interpreted through visual images, but they lack individual confidence, a clear transmission of character traits.

As T. Mahmudov noted, “a person's spiritual image is determined by his lifestyle and period. Time cultivates man, and man changes time. Works of R.Choriev, B. Boboev, G. Abdurahmonov, M. Saidov, N. Kuzibaev, G. Zilberman, G. Chernukhin, J. Umarbekov, B. Jalolov, A. Mirzaev, M. Tokhtaev and others In the 70's, a new wave entered our fine arts, as a result of which new positive heroes were discovered in the world of art.” [7]

If Chingiz Akhmarov and Bahodir Jalolov, idealizing the aesthetic ideal, imagine it as a general, concrete expression of beauty, in the work of Yuri Zorkin strongly expressed the intense emotions of the romantic mood. While the works of Chingiz Akhmarov and Yuri Zorkin are an example of the romantic flight of expression of the aesthetic ideal, in A. Wiener's paintings the aesthetic ideal is seen as a form of affirmation of the reality of life [8]. Ch. Akhmarov uses a soft gamma in colors, avoids contrasting colors and tries to interpret subtle, light motifs. One of the protagonists of his works, Navoi walks in a figurative garden, where the river of life flows. Paradise is depicted as a blossoming garden with beautiful trees and fragrant flowers. In this garden live the favorite heroes of Navoi poetry - beautiful people. That is why Chingiz Akhmarov is one of the artists whose creative individuality is probably the most appropriate epithet for the word “poetic”. However, the word “poetic” used in relation to Chingiz Akhmarov's work is not only an epithet to express the delicate and lyrical nature of his paintings, but also the aesthetic content of Chingiz Akhmarov's creative individuality.

The poet is immersed in thoughts of life, his loving heart is tormented by separation and longing. He is in a whirlpool of deep thoughts about humanity. The poet, who is looking forward to the meeting, reads the following lines with inspiration:

“Oh, let the fiery love in the garden of love now set its rules!

I hug my girlfriend and whisper these tender words to her.” [9]



Chingiz Akhmarov reveals the images of musicians, artists, dancers, lovers and drinkers in a very subtle and poetic way. They reflect one of the most important features of Akhmarov's genius - musicality and originality, the originality of the figurative structure.

The image of a bartender has a special symbolic place in the works of Eastern poets, especially in Navoi. Ch. Akhmarov described the juicer as a young man who treats poets with wine. It is the epitome of the eternal young hearts of the juicy poets here. Juicer is the best friend who can either help you get away from yourself, or come back to you and find yourself, or help you find peace of mind.

**Analysis And Results.** The aesthetic originality of the fine poetry of the East found its classic expression in the work of Ch. Akhmarov. As a monumentalist of modern buildings, he not only uses traditional forms or methods of painting on the wall and miniature poetics, but as a thinking artist clearly expresses his attitude to this problem.

Chingiz Akhmarov thinks a lot about how he can refer to the epics and lyrics of past centuries to bring the monumental picture of our time into the orbit of today's perceptions.

**Conclusion.** Modern monumental painting should not, first of all, move to the illustration of epic themes and use the formal and stylistic features of miniatures, but to develop poetry that attracts and elevates the human spirit of the epic. In the epic, Ch. Akhmarov sees one of the living sources of modern poetic heroism. The epic contains a glorious anthem about beauty and man, and such an idea, according to Chingiz Akhmarov, "corresponds to our century."

The eternal philosophical theme of Eastern poetry on the meaning of life and existence is Ch. Akhmarov understands the new worldview and aesthetics of our time, especially in terms of the romantic spirit.

Ch. Akhmarov's skill is that as a true monumentalist he can reflect philosophical problems such as good and evil, life and death, joy and sorrow, creation and destruction through well-thought-out compositions, the depth of the image, the ability to create a surprisingly coherent harmony.

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