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## RAQAMLI TEXNOLOGIYALARNING TA'LIM SOHASIDA QO'LLANILISHI

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### ***ANNOTATSIYA***

*Bugun dunyoda yoshlarga zamonaviy ta'lif berish va bu orqali mamlakat barqaror rivojini ta'minlash asosiy muammolardan biriga aylandi. Shiddat bilan rivojlanish kechayotgan hozirgi davrda axborot olish va undan to'g'ri foydalanishni o'rghanish yoshlar oldidagi asosiy maqsadga aylangani ayni haqiqat. Maqolada raqamli texnologiya, ta'linda raqamli texnologiyadan foydalanish, raqamli texnologiyani ta'lif tizimi vostilari, raqamli texnologiyasini ustunliklari haqida tushuncha berilgan.*

**Kalit so'zlar:** raqamli texnologiya, zamonaviylik, ta'lif texnologiyalari, zamonaviy ta'lif, ta'lif muassasalari, raqamli texnologiya, ta'linda raqamli texnologiya.

Mamlakatimiz Prezidenti Sh.M.Mirziyoevning Oliy Majlisga murojaatida barcha sohalarini raqamli texnologiyalar asosida yangilashni nazarda tutadigan Raqamli texnologiyalar milliy konsepsiyasini ishlab chiqish, shu asosda "Raqamli O'zbekiston – 2030" dasturini hayotga tatbiq etish masalasi qo'yildi. Shu jumladan, ta'lif sohasida ham zamonaviy raqamli texnologiyalarini qo'llashning yangi metodikalari ishlab chiqish va sohaga tadbiq etish kerakligi ta'kidlab o'tildi. Ta'lif tizimining hozirgi holati noan'anaviy ta'lif texnologiyalarining va metodikalari roli ortib borayotgani bilan tavsiflanadi. Ta'lif oluvchi tomonidan ularning yordami bilan bilimlarni o'zlashtirish an'anaviy texnologiyalarga qaraganda ancha tezdir. Ushbu texnologiyalar bilimlarni rivojlantirish, egallash va tarqatish xarakterini

o‘zgartiradi, o‘rganilayotgan fanlarning mazmunini chuqurlashtirish va kengaytirish, uni tezda yangilash, samaraliroq o‘qitish usullarini qo‘llash, shuningdek, har bir kishi uchun ta’lim olish imkoniyatini sezilarli darajada kengaytirish imkonini beradi. Raqamli texnologiyani o‘zi nima degan savolga quyidagicha javob beramiz: bu – xo‘jalik yuritishning bir zamonaviy shakli bo‘lib, unda ishlab chiqarish va boshqarishning asosiy faktori sifatida raqamli ko‘rinishdagi katta ma’lumotlar majmui va ularni qayta ishlash jarayoni xizmat qiladi. Shuningdek, davlat boshqaruviga, davlat va jamiyatning barcha sohalariga savodli, layoqatli kadrlar tayyorlashdek zalvorli vazifa to‘la ado etilmayotganligi sir emas.

Globallashuv asrida davlatning innovatsion imkoniyatlarini shakllantirish jarayonida asosiy vazifa o‘qituvchilar zimmasiga tushmoqda. Bunday muhim vazifani zamonaviy pedagogik va axborot texnologiyalarini mukammal egallagan, o‘z ustida doimiy ishlaydigan, bilim, ko‘nikma va malakalarini takomillashtiruvchi, ishiga kreativ yondashuvchi o‘qituvchigina hal eta oladi.

“Ta’lim jarayonini, oliy ta’limning o‘quv reja va dasturlarini yangi pedagogik texnologiyalar va o‘qitish usullarini keng joriy etish, magistratura ilmiy-ta’lim jarayonini sifat jihatidan yangilash va zamonaviy tashkiliy shakllarni joriy etish asosida yanada takomillashtirish zarur”. Ta’lim va tarbiya jarayonlari o‘z-o‘zidan insonni rivojlantirmasdan, faoliyatli shaklga ega bo‘lganida rivojlantira oladi. Talabaning bilim, ko‘nikma va malakalarining rivojlanishi uchun uning faoliyatini to‘g‘ri tashkil etish zarur. O‘quv materialini sust idrok etish jarayonida rivojlanish sodir bo‘lmaydi. Masalan: talaba kitobni qanchalik ko‘p varaqlamasin, o‘zi raqamlarni eslab qolmasa, ulardan misol tuzishni o‘rgana olmaydi, unda hech qanday misol yechish ko‘nikmasi shakllanmaydi.

Talabaning o‘z harakatlari kelajakda uning qobiliyati shakllanishining asosi bo‘ladi. Shunday ekan ta’limning vazifasi talabalarni harakatlarga undovchi vaziyatlarni tashkil etishdan iborat. Bir so‘z bilan aytganda, o‘qituvchilar har bir

talaba turli vaziyatlarda topshiriqlarni to‘gri yecha olishda individual vositalari va usullarini shakllantirishga yordam beruvchi maxsus o‘quv sharoitlarini yaratishlari zarur. Bu esa o‘z navbatida ta’lim tizimining oldiga qo‘ygan natijalarga erishish texnologiyasining muhim masalalaridan biri sanaladi.

Oliy ta’lim muassasalari talabalarining diqqatlari tarqoq bo‘lib, ular ko‘p holatda diqqat e’tiborlarini bir holatdan ikkinchisiga qaratishlari qiyin. Ammo talabaning o‘ziga doskada har qanday obyektni, elektron shakllar, yozuvlarni bajarish, rangi, kattaligi, shaklini o‘zgartirish imkoniyati berilganda diqqati kuchayadi. Masalan: ma’ruza va amaliy fanlarda dars o‘tishda kompyuter vositalari, proyektor, electron doskadan foydalаниishi bilan talabalarning darsga qiziqishlari ortadi hamda ta’lim jarayonining faolligi oshadi. Ma’lumot hajmining ko‘pligi talabalarga og‘irlik qilmaydi. Zero, jarayon yangi pedagogik texnologiyalarda foydalanib o‘tilsa, faol o‘qishga imkon beradi. Elektron doska - oliy ta’lim muassasalari ta’limi jarayonini ko‘rgazmali, rang-barang, qiziqarli qiluvchi samarali vosita. Ta’lim jarayonini rivojlantirishda raqamli texnologiyalar juda muhim hisoblanadi. Axborot kommunikatsion qurilmalar bilan jihozlangan o‘quv xonasida talabalar uchun ta’lim jarayonni tashkil etish hamda olib elektron qiziqarli va samarali bo‘ladi. Raqamli texnologiyalar - foydalanuvchi manfaatlari uchun axborotlarni yig‘ish, tahrirlash, saqlash, tarqatish va foydalanish maqsadlarida birlashtirilgan metodlar, ishlab chiqarish jarayonlari va dasturiy texnik vositalar to‘plamidan iborat.

Ta’lim tizimida raqamli texnologiyalardan foydalanish, o‘qitishning samaradorligini taminlash, dars jarayonlariga oid turli ilyutratsiya, video roliklar, ko‘rgazmali qurollar, tarqatma materiallar tayyorlash, multimedia maxsulotlari, kompyuter texnikasi, internet vositalaridan foydalanish va ularni dars jarayonida qo‘llash malakalarini oshirishga xizmat qiladi.

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<https://cyberleninka.ru/article/n/the-advantages-and-features-of-teaching-and-learning-online-in-the-education-process>

## MAHMUD AZ ZAMAHSHARIYNING HAYOTI VA ILM YO'LIDA OLIB BORGAN FAOLIYATI

Sapayeva Nilufar Jumanazarovna

“Ichan-Qal’ा” davlat muzey-qo‘riqxonasi “Allomalar” bo‘limi ilmiy xodimi.

### *ANNOTATSIYA*

*Ushbu maqolada ilm-fanning turli sohalari, ayniqsa, arab tili va adabiyotini, diniy ilmlarni, shuningdek, o’sha davrda ilm axli orasida qadrlangan xattotlik san’atini ham mukammal egallagan, tilshunos, adib, tafsir va hadis olimi Mahmud Az Zamahshariyning hayot yo‘li va ilm yo‘lida olib borgan faolitai to‘g‘risida qisqacha ma’lumot berilgan.*

**Kalit so‘zlar:** Zamakhshar, Buxoro, Abu Mansur as-Saolibiy, Somoniylar, Marv, Abu Mudar Mahmud ibn Jariyr al-Dabbiy al-Isfahoniydir, Fozil Solih Samariy, Al-Mufassal, Muqaddimat ul-adab.

## LIFE AND ACTIVITY OF MAHMUD AZ ZAMAHSHARI IN THE WAY OF SCIENCE

### *ANNOTATION*

*In this article, the life path of Mahmoud Az Zamakhshari, a linguist, writer, tafsir and hadith scholar, who perfectly mastered various fields of science, especially the Arabic language and literature, religious sciences, as well as the art of calligraphy, which was valued among scholars at that time brief information about his activities in the field of education and science is given.*

**Keywords:** Zamakhshar, Buxoro, Abu Mansur as-Saolibiy, Somoniylar, Marv, Abu Mudar Mahmud ibn Jariyr al-Dabbiy al-Isfahoniydir, Fozil Solih Samariy, Al-Mufassal, Muqaddimat ul-adab.

Ko‘hna Xorazm zaminida jahon fani va madaniyati rivojiga munosib hissa qo‘shgan ko‘plab buyuk allomalar etishib chiqqan. Abul qosim az-Zamaxshariy ana shunday ulug‘ siymolardan biridir.

Allomaning to‘liq ismi Abul qosim Mahmud ibn Umar az-Zamaxshariy bo‘lib, u hijriy 467-yil rajab oyining 27-kuni (1075-yil 19-mart) Xorazmning katta qasabalaridan biri — Zamaxshar qishlog‘ida tavallud topdi. Az-Zamaxshariy haqidagi ma’lumotlar asosan O‘rta asr arab manbalarida keltiriladi. Otasi unchalik badavlat bo‘lmasa-da, savodli, taqvodor, diyonatli kishi bo‘lgan va aksar vaqtini Qur’on tilovatiyu namoz o‘qish bilan o‘tkazib, Zamaxshardagi bir masjidda imomlik ham qilgan. Az-Zamaxshariyning onasi ham taqvodor, dindor ayollardan hisoblangan.

Aftidan, az-Zamaxshariyning otasi serfarzand bo‘lgan. Chunonchi, shoir qasidalaridan birida otasining farzandlari ko‘p va oilasi katta bo‘lgani tufayli ham tirikchilik yo‘lida tinmay mehnat qilgani haqida yozadi.

Alloma haqidagi ma’lumotlardan ma’lumki, uning bir oyog‘i yog‘ochdan bo‘lib, tarixchilar bu haqda: «Bir oyog‘i yog‘ochdan edi va uzun yaktagini tushirib kiygani uchun ko‘rgan odam uni cho‘loq deb o‘ylardi» — deb yozganlar. Og‘ir kasallik tufayli u yoshligidan bir oyog‘idan ayrilib qolgan qolgan va shundan so‘ng otasi uni endi og‘ir mehnatga yaramaydi, deb kiyim tikuvchi ustaga shogirdlikka bermoqchi bo‘ladi. Biroq yoshligidan ilmga havasmand o‘sgan Mahmud otasidan o‘zini madrasaga o‘qishga yuborishni so‘raydi. O‘g‘lidagi ilmga bo‘lgan zo‘r ishtiyoq va havasni sezgan otasi uni madrasaga beradi.

Az-Zamaxshariy ilm-fanning turli sohalari bilan qiziqib, tolibi ilmlar orasida zo‘r iste’dodini namoyon qila boshlaydi. U madrasada o‘qitiladigan ilmlarni, ayniqsa, arab tili va adabiyo-ti, diniy ilmlarni puxta egallahga kirishadi, o‘sha davrda ilm ahli orasida qadrlangan xattotlik san’atini ham mukammal egallab, o‘z tirikchiligini birqadar tuzatadi. So‘ng, arab tarixchisi va biografi ibn Xallikonning yozishicha, talabalik yoshiga etgach, bilimini yanada oshirish, har tomonlama kamol toptirish maqsadida Buxoroga yo‘l oladi. Buxoro, mashhur olim Abu Mansur as-Saolibiyning (961-1138) iborasi bilan aytganda: «Somoniylar davridan boshlab shon-shuhrat

makoni, sultanat ka'basi va zamonasining ilg'or kishilari jamlangan: yer yuzi adiblarining yulduzлari porlagan va o'z davrining fozil kishilari yig'ilgan (joy) edi». Az-Zamaxshariy Buxoroda o'qishni tugatgach, bir necha yil Xorazmshohlar xizmatida bo'lib, kotiblik bilan shug'ullanadi, hukmdorlar bilan yaqinlashishga urinadi. Biroq qobiliyati, ilmi, fazilatiga yarasha biror mansab va munosib e'tibor ko'rmagach, o'zga yurtlarga safar qiladi, matlabu-maqsadlarining ushalishiga umid bog'laydi. 1118-yili az-Zamaxshariy og'ir dardga chalinadi, bu kasallikdan tuzalgach esa hukmdorlar xizmatiyu mansab va mol-dunyo ta'masidan mutlaqo voz kechadi, qolgan umrini faqat ilm-fanga bag'ishlashga astoydil qaror qiladi.

Az-Zamaxshariyning o'z davri ilmlarini to'liq egallahsga, olimlik darajasiga etishishida, shubhasiz, ustozlarining xizmati benihoya katta bo'lgan. Mana shunday ustozlardan biri — til, lug'at va adabiyot sohasida mashhur olim Abu Mudar Mahmud ibn Jariyr al-Dabbiy al-Isfahoniydir (1113-yili Marvda vafot etgan). Al-Isfahoniy Xorazmda ham bir qancha muddat yashagan. Bu o'lkada mu'taziliylar ta'limotining joriy bo'lishi ham mana shu Al-Isfahoniy nomi bilan bog'liqdir.

Az-Zamaxshariy Bag'dodda shayx ul-islom Abu Mansur Nasr al-Xorisiy, Abu Saad ash-Shaqqoniy, Abul Xattab ibn Abul Batar kabi mashhur olimlardan hadis ilmidan tahsil oddi. Makkada bo'lganida esa nahv va fiqh bo'yicha ilmni Abu Bakr Abdulloh ibn Talxat ibn Muhammad ibn Abdulloh al-Yabiriy al-Andalusiy, ash-shayx as-Sadiyd al-Xayyatiy, lug'at ilmini esa Abu Mansur Mavhub ibn al-Xadar al-Javoliqiy kabi mashhur olimlardan o'rgandi.

Arab tilshunosligi va grammatiskasining turli tomonlariga oid asarlar az-Zamaxshariy ijodida salmoqli o'rin egallyaydi. Jumladan, arab tili grammatisiga oid «Al-Mufassal» (1121-yil) nomli asarini u Makkada yashagan paytida, bir yarim yil davomida yozgan. «Al-Mufassal» arab tili nahvu sarfini o'rghanishda yirik qo'llanma sifatida azaldan Sharqda ham, g'arbda ham shuhrat topgan asarlardan hisoblanadi. Ko'pchilik olimlar o'z ilmiy qimmati jihatidan az-Zamaxshariyning bu asari taniqli arab tilshunosi Sibavayhning (796-yili vafot etgan) arab grammatisiga oid kitobidan keyin ikkinchi o'rinda turadi, deb ta'kidlaganlar.

Arablarda shunday maqol bor: “Agar Zamaxshariy bo‘lmaganida, arablar o‘z tilini bilmas edi”. Shunga ko‘ra, allomaning bunday tahsin-maqtovlarga erishishi va butun dunyoga mashhur tilshunos, grammatik olim bo‘lib tanilishiga sabab arab tili grammatikasiga bag‘ishlab yozilgan “Al-Mufassal fin nahv” – “Nahv (grammatika) haqida mufassal kitob” asari bo‘lsa, ajab emas.

Iroqlik olim Fozil Solih Samariy ma’lumotiga qaraganda, Zamaxshariy qoldirgan boy ilmiy merosni quyidagicha tasniflash mumkin: diniy ilmlar, islom ulamolari va fiqhga oid asarlar; lug‘atshunoslik, arab tili grammatikasi (sarfl va nah ); aruz va adabiyot nazariyasi; badiiy adabiyot (she’riy devonlar va nasriy asarlar); mantiq va falsafaga oid asarlar; jo‘g‘rofiya va etnografiyaga oid asarlar. Bir qancha kishilar asarni yod olib, mukofotga ham sazovor bo‘lganligi manbalarda keltirilgan.

Bu misol az-Zamaxshariy asarining o‘sha davrda ham qanchalik yuksak baholanganini ko‘rsatadi. Bu asarning bir qo‘lyozmasi Toshkentda, O‘zR FA Sharqshunoslik institutida saqlanadi. «Al-Mufassal»ning ixchamlashtirilib, muxtasar holga keltirilgan nusxasi «Al-Unmazaj» («Namuna») nomi bilan ataladi. Grammatikaga oid asarlaridan Sharh abyat kitob Sibavayh» — hozir zikr etganimiz Sibavayhning kitobiga yozilgan mukammal sharhdir.

Az-Zamaxshariyning xorazmshoh Alouddavla Abulmuzaffar Otsizga bag‘ishlab yozilgan «Muqaddimat ul-adab» asari alohida ahamiyatga egadir. Bu o‘rinda shuni ta’kidlash kerakki, xorazmshohlar davrida ilm-fan, madaniyat ancha taraqqiy qilgan edi. Hukmdorlar, ayniqsa, xorazmshoh Otsiz olimlar, shoimu adiblarga hurmat bilan qarar, o‘zi ham iste’dodli, ma’rifatparvar, adabiyotga qiziqqan, bilimdon odam edi. Uning davrida ilm-fan taraqqiyoti yo‘lida bir qancha xayrli ishlar amalga oshirilgan. Shu sababdan bo‘lsa kerak, az-Zamaxshariy «Muqaddimat ul-adab»ni uning nomiga bag‘ishlab yozgan. Asar besh katta qismga bo‘lingan bo‘lib — otlar, fe’llar, bog‘lovchilar, ot o‘zgarishlari va fe’l o‘zgarishlari haqida bahs yuritadi. Asar 1137-yillari yozib tugallangan.

Zamaxshariyning boy ilmiy va adabiy-ma’naviy merosi dunyo olimlarining diqqatini o‘ziga tortgan, ularning aksariyati xorijiy tillarga tarjima qilingan. Komil ishonch bilan aytish mumkinki, Mustaqillik yillarida O‘zbekistonda

«Zamaxshariyshunoslik» maktabi shakllandi. Yurtimiz olimlari tomonidan uning hayoti, ilmiy-ma’naviy merosiga bag‘ishlangan qator tadqiqotlar, dissertatsiyalar, risolalar, romanlar yozilgan.

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## PROBLEMS RELATED TO THE SUPPLY OF INVENTORIES AND DIRECTIONS FOR THEIR ELIMINATION

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### ***ABSTRACT***

*This article examines the problems associated with the supply of inventories. As a result of the research, proposals were developed to improve the supply of inventories.*

**Keywords:** inventory, goods, asset, balance sheet, warehouse, supply process.

### **INTRODUCTION**

Rapid development of production in the economy and extensive use of local raw material resources, rational use of stock, creation of an effective system of their accounting is necessary.

The existence of society and its development are directly related to the consumption and use of various resources that become consumer goods in order to satisfy the needs of society members. Therefore, society must meet its needs with a certain amount of resources.

### **LITERATURE REVIEW**

R.Amit and P.Shouymaker stated that “resources are assets or factors that exist in the firm or are under its control, in tangible and intangible form. Resources include financial and material assets, know-how, and human capital” [1].

According to the American economist D. A. Dilts, resources are of the following categories:

“land;

capital;

workforce; entrepreneurial ability” [2].

H. Gaya stated that “resources are assets used in the company’s production process, they consist of equipment, material reserves, skills of employees and other factors” [3].

L.J. Abu Bakar and Kh.Ahmad “resources are considered production assets of the firm, with the help of which activities are carried out. They also turn into final products and services as tangible assets, human capital and other intangible assets” [4].

According to another group of economists, “firm resources are total assets, which include tangible and intangible resources at the firm’s disposal, organizational processes, firm attributes, knowledge and skills” [5].

R.T. Husayn and A. Vahid say that “economic resources include all assets, abilities, information, knowledge” [6].

According to K. Toma and K. Barbara, “material resources consist of material assets, which include land, buildings, raw materials, energy and other important resources” [7].

A group of Spanish economists defines material resources as follows: “material resources are tangible assets owned by the firm and used in its economic activity” [8].

Based on the above, in our opinion, resources are the amount of all assets owned by the entity that are necessary in the process of production, work and service. We can include natural resources, manpower resources, capital, entrepreneurial ability in the resources at the disposal of an economic entity.

## ANALYSIS AND RESULTS

It should be noted that in generalizing the opinions about the economic nature of inventories, in most cases the authors showed that they followed the traditional expression of the definition presented in national and international standards.

Inventories are material assets consumed in the production process, and their value is fully transferred to the value of finished products. They occupy the largest share in the cost structure and have a significant impact on financial results.

Inventories occupy an important place in the structure of assets. includes the following features:

inventory has a certain composition;

Inventories are classified according to various criteria:

Inventories have a specific valuation feature:

Inventories are informative.

In all economic entities in the economic sectors, inventories are used in production and other economic processes, including raw materials and materials, fuel, farm equipment and inventories, etc.

In order for business entities to operate effectively, it is necessary to ensure a well-thought-out stock management policy, which includes 5 stages.

At the initial stage of researching production reserves, their dynamics for a certain period are studied, their weight in the volume of current assets is calculated.

In the second stage, the composition and structure of inventory is analyzed by comparing the indicators of the base and reporting period. The structural analysis shows the weight of all reserve types in their total value, as well as their share in current assets. Horizontal and vertical analysis is used in the study of asset structure.

In the third stage, the indicators for evaluating the efficiency of the use of inventory are calculated. Such indicators include the following: stock turnover, material return, material capacity, the company's stock availability, stock profitability, etc. Factor analysis, which is an important part of inventory management, allows determining the influence of external and internal factors on the formation and movement of production stocks:

- influence of suppliers. These include non-compliance with the terms of delivery of materials, violation of the terms of the contract;
- the impact of buyers, which is reflected in the change in the volume of demand.

Internal factors include factors that describe the impact of the production environment in the organization. This group of factors includes lack of motivation and professional training of personnel, improper planning of the need for material resources, equipping with modern equipment for storing goods, etc. enter.

At the final stage, it is necessary to develop effective mechanisms for controlling the level of inventory. A study of the opinions of economists showed that there are a number of problems related to the supply of goods (Figure 1).

### Problems with the supply of goods

employees of enterprises engaged in the purchase of materials do not have sufficient information about organizations supplying goods

absence of a formalized procedure for the selection of goods suppliers

lack of specific criteria for assessing the amount of inventory

unexpected situations in the production process (differences in shift work, waiting, delays, technological delays)

production of a large volume of products

planned stoppage of production (breakdown of machines, replacement and re-adjustment of parts)

### Figure 1. The main problems related to the supply of goods<sup>1</sup>

The study of inventory formation problems showed that many enterprises do not use existing methods of inventory planning and control, and also do not always use inventory management performance indicators. These indicators describe the number of stock turnovers for the analyzed period, whether the enterprise is provided with reserves, in addition, the indicators can determine the excess of working capital. Analysis of the amount of reserves allows to determine the relationship between the availability of reserves and own working capital.

In particular, an increase in the volume of reserves leads to a decrease in the source of own funds of the economic entity. As a result, there is an increase in short-term debt. At the same time, stock turnover rates deteriorate, resulting in inefficient use of resources. In the future, this may lead to a significantly higher than normal increase in excess reserves. Therefore, first of all, it is necessary to identify deviations in warehouse management in a timely manner, as well as to regularly analyze the indicators of resource provision of the enterprise.

## CONCLUSION

1. Inventories play an important role in the production and economic activity of economic entities. This category of assets constitutes a significant weight in the cost of manufactured goods. In order to reduce the cost of manufactured products, it is important to set up inventory accounting and auditing correctly.

2. Today, the increase in the price of resources all over the world requires the rational use of stock from economic entities. Especially now, the increase in the value of fuel, grain, vegetable oil, sugar and other goods in the world market requires economic entities to pay special attention to the supply of material reserves. It is considered important to prevent shortages in grain processing enterprises, which are the object of the study, in order to prevent interruptions in the processing of grain and the production of flour products. Inventory accounting and auditing play a role in the proper implementation of these processes. That is, due to the reliable and quick

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<sup>1</sup> Made by author

information of accounting and auditing, economic entities can have sufficient inventory and ensure the stability of the activity.

3. Many regulatory legal documents have been developed regarding the organization of inventory accounting. However, in the context of current economic development and globalization, it is necessary to widely apply international standards of financial reporting. The standards adopted by the International Federation of Accountants specify methodological aspects of inventory accounting and disclosure of information about them. In our opinion, it is appropriate to widely use these standards in keeping accounts of inventories and preparing financial reports in joint-stock companies.

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# INTERNAL CONTROL SYSTEM ASSESSMENT ISSUES IN AUDITING

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## ***ABSTRACT***

*This article highlights the importance of evaluating the internal control system in audits. as a result of the research, recommendations were developed for evaluating the effectiveness of the internal control system*

**Keywords:** *audit, audit evidence, internal control system, control environment, control risk, level of materiality*

## **INTRODUCTION**

The reliability, comprehensibility and sufficient information supply of the auditor's report serve to provide the information necessary for the users of the financial statements. To achieve this goal, it is important to refer to advanced foreign experience in the process of understanding the nature of the audit report. Special attention should be paid to the evaluation of the internal control system in the effective organization of the financial statement audit. Research shows that if the audited entity has an effective internal control system, the quality of the audit will increase, and at the same time, the audit risk will decrease.

## **LITERATURE REVIEW**

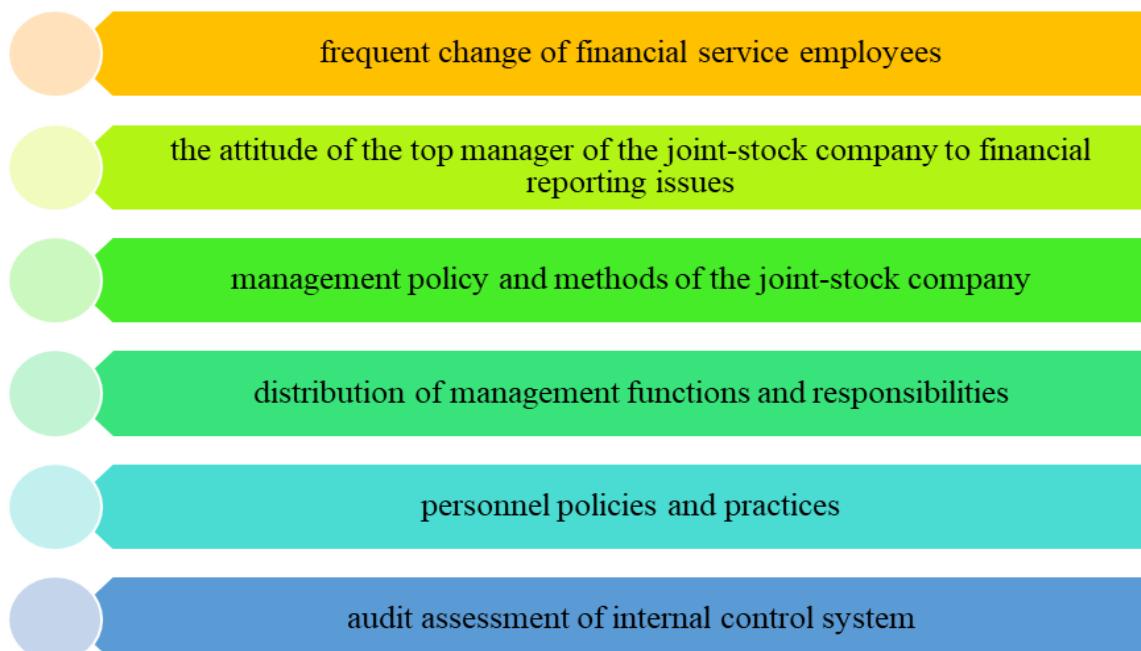
Lyubov Plotnikova and V. V. Rubanov said that "in turn, it is necessary to maintain an internal audit in the company for evaluation of the reliability of internal control system. It means that this is the next stage of the internal control system, which is targeted at expression of objective and independent opinion on efficiency of performed control procedures and rationality of risk management" [1].

According to Vaclovas Lakis and Lukas Giriūnas “one of the basic instruments of enterprise control, whose implementation in modern economic conditions provide conditions for achieving a competitive advantage over other enterprises is the creation of an effective internal control system. In the industry sector, the market is constantly changing, and this requires changing the attitude to internal control from treating it only in the financial aspect to the management of the control process” [2].

Ndifon Ejoh and Patrick Ejom stated that “internal controls refer to the measures instituted by an organization so as to ensure attainment of the entity’s objectives, goals and missions. They are a set of policies and procedures adopted by an entity in ensuring that an organization’s transactions are processed in the appropriate manner to avoid waste, theft and misuse of organization resources” [3].

## ANALYSIS AND RESULTS

The scope of business, organizational structure of the enterprise, type of activity, company’s products and other aspects relevant to the audit are covered in the planning of the audit. For example, it is necessary to know the level of demand for the organization’s product in the market. Such factors set the necessary requirements for the internal control system and determine specific areas of its verification. The composition of control environment factors is presented in Figure 1.



### Figure 1. Composition of control environment factors<sup>2</sup>

The higher the confidence in the internal control system, the fewer audit procedures are required to ensure the accuracy of the financial statements. To determine how reliable the company's internal control system can be:

- document circulation rate;
- correct distribution of tasks;
- quality of documentation;
- control registers and their timely completion are assessed.

Therefore, the internal control system serves to prevent errors in accounting and improve management efficiency.

Based on the results of the audit of the internal control system, the scope of the planned audit activities for checking the presence of quantitative deviations is approved or corrected. This is when the audit begins, according to the usual understanding. A legitimate question arises: why are the previous stages of audit necessary? The fact is that by evaluating the internal control system, the most "narrow" areas in the company's financial reporting system, which require more time than other accounting objects and areas, are identified.

Many chief accountants and managers of joint-stock companies believe that it is reasonable to start the audit before the formation of financial statements, so that the external auditor can indirectly participate in this process.

Nowadays, the internal control system is becoming more and more sophisticated, and as it is known, many concepts regarding the internal control system appear. Therefore, it is difficult to fully understand the internal control system without its concept, the concept of internal control also includes several components, and they are as follows:

the internal structure or internal environment of the joint-stock company, including the company's ethical rules, management style, decision-making process, distribution of powers, acceptance of responsibility, qualifications of employees and their attitude to the internal control system established in the joint-stock company;

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<sup>2</sup> Made by author

day-to-day control, compiling them in separate accounts and reports, managing enterprise assets and conducting monitoring in the enterprise;

organization of the risk identification and analysis department that may be encountered in the joint-stock company;

being an information access system, the company's information can be used only by persons related to the company and third parties (tax and statistics authorities, investors and banks);

in order to increase the efficiency of the internal control system of the joint-stock company, to carry out a strong control system over internal control. A control system is a systematic organization consisting of a firm basis, responsibility within the scope of authority, accountability to senior leaders, separation of functions, ability to quickly adapt to changes in internal and external factors, strict definition of the role and responsibility of each department, appropriate control over the activities of employees and their work. periodic evaluation can be understood.

A selective audit is conducted on most account objects. When applying non-statistical methods, the auditor often relies on his intuition and professional skills. In this case, the qualification of the auditor becomes crucial. And with statistical methods, the auditor will have a sufficient number of inspection elements. In this case, the conclusions based on such a choice will be proved, because the mathematical apparatus is used.

## CONCLUSION

At the end of the audit, it is necessary to pay attention to two aspects.

1. The enterprise may have information about claims directed to conditional events. Some of them may not be satisfied, but the auditor should evaluate all possible financial consequences. For this, at the end of the investigation, he applies in writing to the company's lawyer, asking him to provide all the necessary information about the lawsuits directed at the organization, about the cases that have not yet been decided by the court.

2. Events after the reporting date may also be relevant to the evaluation of financial statements. Suppose a company incurs a large loss after the financial year under review. This puts the organization at risk of a significant reduction in business volume or the future existence of the enterprise as a whole. From the point of view of the principle of continuity of activity, in this case, the valuation of the company's assets should be carried out not according to the book value, but according to the possible sale value. Therefore, the date of issuing the audit report is not the day of the report, but the last day of the auditor's stay at the facility.

In conclusion, it should be noted that the balance in the work of auditors during the audit of financial statements prepared by IFRS in general increases the effectiveness of the audit, eliminates ineffective repetitions, optimizes audit operations and allows full use of the obtained audit evidence.

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## GUIDELINES FOR THE APPLICATION OF SAMPLING METHODS IN THE GATHERING OF AUDIT EVIDENCE

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### ***ABSTRACT***

*This article describes the procedure for applying sampling methods in gathering audit evidence. Recommendations for improving the procedure for applying sampling methods were also developed in order to reduce the audit risk.*

**Keywords:** audit, audit evidence, audit sampling, statistical sampling, audit risk, materiality level.

### **INTRODUCTION**

Gathering evidence is one of the main processes of an audit and involves summarizing the results of analysis and gathering information to form an opinion about the reliability of the audited entity's financial statements and continuity of operations.

Audit evidence is information analyzed by the auditor about the business entity, which can be obtained both from the entity itself and from third parties, on the basis of which an appropriate opinion is formed about the completeness and reliability of financial statements and the financial condition of the audited entity.

### **LITERATURE REVIEW**

According to Akram Niktaba, Azim Aslani "the auditing evidences are written and electronic information that allow the auditor's to reach to a conclusion by

reasoning. In this regard, the audit documentation helps the auditor to adopt a starting point to be able to comment about the accounts and financial operations of the company. Such documents through a test that determines how well the accounting controls work and through testing, accounting details of accounting are obtained” [1].

A group of economists said that “gathering audit evidence and assessing its reliability and relevance is increasingly complex. Direct and indirect stakeholders can influence the collection of audit evidence and, thus, auditor independence” [2].

According to Joseph F. Brazel, Christine Gimbar, Eldar M. Maksymov, Tammie J. Schaefer “however, skeptical behavior does not always produce the same outcome. For example, an auditor observes a red flag when evaluating audit evidence and exercises an appropriate level of skepticism by performing additional testing. Conducting an investigation would be consistent with exercising appropriate skepticism, but also requires added effort from both the auditor and the client and does not ensure that a misstatement will be found. It is possible that the additional testing leads to an acceptable explanation for the inconsistent evidence observed, such that no audit adjustment is necessary” [3].

A group of economists “the purpose of using a public accountant is to assess whether the statement made by management is fair or not. In carrying out the audit process, the auditor must provide a valid and reliable opinion. Therefore, the collection of audit evidence becomes something important. However, audit evidence can be used to express an auditor’s opinion” [4].

## **ANALYSIS AND RESULTS**

Audit evidence is classified according to its characteristics:

by sources of acquisition: external, internal, mixed;

according to the method of obtaining: recording facts, determining documented facts, finding facts as a result of a special analysis;

by form of presentation: visual, written, oral;

according to the form of existence: documented, tangible and intangible objects, as well as legal entities and individuals who cooperate with the audited business entity and have information of interest to the auditor.

It should be noted that the evidence provided in writing from a third party or obtained by the auditor himself is the most reliable evidence.

Documentation of the audit process creates a basis for internal quality control. In this case, according to the requirements of ISA No. 230 entitled "Audit Documentation", all inspection results should be formalized in specific working documents.

The quality of the audit process largely depends on the audit documentation. It is determined by the quality of the working documents that record the audit evidence collected during the audit. The document can be prepared on paper in the form of standard forms and tables and in other forms. However, the data collection procedure of ISA 230 entitled "Audit Documentation", ensuring the control of audited data; does not reflect issues such as recording audit results in order to provide evidence of the reliability of financial statements. At the same time, it is necessary to obtain enough audit evidence to draw up an audit opinion on the company's financial statements.

The choice of methods of obtaining audit evidence depends on the following factors: riskiness of business, level of financial condition, organization, operation and quality of internal control and accounting systems.

However, in our opinion, it is appropriate to obtain audit evidence in two main ways: a substantive examination and an examination of internal controls.

The choice of the audit method is determined by the results of the preliminary assessment of the reliability of the internal control system and the audit risk. In auditing the internal control system, it is necessary to gather evidence on the effectiveness of the accounting and internal control systems.

The internal control system is assessed based on the requirements of ISA No. 315 entitled "*Identifying and Assessing the Risks of Material Misstatement*" and ISA No. 610 entitled "*Using the Work of Internal Auditors*". In our opinion, in order to

improve the quality of the audit, it is necessary to regulate the relationship to the internal and external audit within the framework of the same rules.

It should be noted that in large enterprises, where many operations take place, it is not possible to conduct a gross inspection of all economic operations. Therefore, the audit sampling can usually be used to check individual operations related to currency transactions, export-import contracts, construction, and information services. Therefore, it is necessary to use a sample test, which allows applying the results of the sampling to the entire population. Audit sampling is effective when the auditor selects items from a large pool and does not have information such as the extent, magnitude, and direction of errors.

One of the main requirements for selecting an auditor is its representativeness. Audit sampling should be appropriate to the nature and objectives of the audit.

The scope of sampling and sampling directions are determined by the specific characteristics of the client's activity, accounting and internal control system, and the level of audit risk. In our opinion, it is necessary to base the auditor's experience and professional qualifications on the sampling of auditors.

The conditions for sampling in the audit are as follows:

-  the size of the main set must be large enough, otherwise the application of sampling methods will be ineffective
-  the margin of error must be sufficiently low
-  each unit in the master set must be clearly defined
-  the choice must fully correspond to the purpose set by the auditor
-  the sampling should ensure the maximum reliability of the master set data
-  the main set should be the same both by the category of operations and by their value
-  each unit in the master set must have an equal chance of being selected

**Figure 1. The conditions for sampling<sup>3</sup>.**

Audit sampling is divided into non-statistical and statistical types. Generally non-statistical method is widely used in evaluation of internal control system. This method is used to determine the accuracy of accounting records or financial statements, which allows the auditor to obtain audit evidence and, after evaluating the characteristics of selected data, apply the validity of this evidence to the entire data set.

Using non-statistical methods, a certain set of elements of the object under investigation is checked, that is, the sampling of elements can be made arbitrarily. Sampling results are based on the auditor's judgment. Therefore, the use of non-statistical sampling is effective if the error rate is high.

Incorrect acceptance risk is the risk that a batch will be accepted despite having a material error. False rejection risk is the risk that the auditor may conclude that a collection is materially misstated when it is not, in fact, misrepresented. These risks differ depending on the results of the decisions made by the auditor: if a significant error is missed in the sample audit, certain difficulties may arise for the auditor; if the auditor decides that the set is not presented objectively, the most likely option is to increase the sample size or perform other tests. It usually leads to a correct decision about the objectivity of the master set.

In conducting a sample audit, as in all stages of conducting an audit, in addition to the sampling risk, there is an audit risk that is not related to the sample audit, which affects the representativeness of the sample. A non-sampling error occurs when the auditor does not detect exceptions and the auditor's tests do not reveal exceptions that exist in the sample for reasons unrelated to the sample size.

Sampling is used to reduce audit costs and minimize audit risk. In this case, the following decisions can be made: determining the size and range of the sample, selecting common elements, and evaluating the results.

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<sup>3</sup> Made by author.

## CONCLUSION

1. Analysis and summarization of data based on the application of various methods of data processing with the help of computer programs in various areas of the audit: assessment of importance and risk level, verification of the accuracy of turnover and balances in individual balance sheet items, assessment of the balance sheet structure in order to determine solvency, investors (owners) analysis of financial stability indicators to determine the level of protection of interests; analysis of business activity; analysis of the efficiency of financial and economic activity; assessing the flexibility of the economic development strategy and dividend policy of the subject under investigation.
2. Forming conclusions about the recording of operations and components of financial statements and accounting and internal control system. Based on the received evidence, an opinion is formed in all areas of the audit, data is compared with certain values, and appropriate recommendations are made for making corrections to accounting and financial statements, as well as suggestions for improving the accounting and internal control system and improving the financial condition of the audited business entity are developed.
3. Preparation and presentation of an interim summary of audit results with recommendations for correction of errors, improvement of the accounting and internal control system, and possible conclusions on the reliability of financial statements.

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# IMPROVEMENT OF REVENUE RECOGNITION PROCEDURE BASED ON INTERNATIONAL STANDARDS

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## *ABSTRACT*

*This article describes the procedure for recognizing income in the formation of financial results. As a result of the research, recommendations were developed for improving the procedure for recognizing income in economic entities.*

**Keywords:** accounting, financial reporting, accounting information, financial result, profit, loss, revenue.

## **INTRODUCTION**

Issues of improving the accounting of financial results in accounting are of constant interest to stakeholders from financial reporting information. In the Republic of Uzbekistan, in accordance with the international standards of financial reporting (IFRS), national standards are being revised and adapted to the requirements of international standards. However, standards are improving at the international level as well. In particular, in order to properly organize the account of financial results calculated from the main objects of accounting and to consider the requirements for recognition of income, the IFRS 15 “Revenue from Contracts with Costumers” was adopted.

## **LITERATURE REVIEW**

The financial result represents how it was obtained by each type of activity and is important in making decisions at the management level to coordinate the activities of the entire firm [1].

A group of economists came to the conclusion that "accounting of financial results is the main source of information for analyzing financial and economic indicators and making management decisions" [2].

Mariana Man and Liana Gadau state that "financial results, especially information about its profitability, help to assess the possible changes in the economic resources that the enterprise can control in the future" [3].

In general, in the works of the above economists, the issues of organizing the financial results account are covered, but the procedure for recognizing income is not fully covered.

## ANALYSIS AND RESULTS

The conditions specified in the contract concluded with the buyers have a significant impact on the procedure of revenue recognition in the accounting of income, expenses and financial results and disclosure in the financial statements.

According to the IFRS 15 "Revenue from Contracts with Costumers", the recognition of revenue consists of five stages. We will discuss these steps below.

1. Determining the terms of the contract. There should be no problematic aspects for organizations at this stage. The main condition for concluding a transaction is the certainty of economic benefits. Its peculiarity is that this trust should be achieved not only in the short term, but also in the long term.

IFRS 15 "Revenue from Contracts with Costumers" discloses the following issues:

the parties have approved the contract and must fulfill its terms;

the organization can determine the rights of each of the parties in relation to the goods (works, services) provided under the contract and purchased by the other party under this contract;

the organization can determine the payment procedure for goods (works, services);

the contract has a commercial content, and as a result of its execution, not only its duration and risks, but also the future cash flows of the organization will change;

there is a possibility that the enterprise will receive payment for the goods or services provided to the customer.

2. Determination of obligations to fulfill the terms of the contract. The name of this stage indicates that the contract is not the only obligation for which revenue is recognized. In particular, in one contract, several services, works or the period of their transfer to the buyer can be divided into different stages. For this reason, IFRS 15 "Revenue from Contracts with Customers" proposes to divide the terms of the contract into separate obligations.

In the term specified in the contract, the organization undertakes to perform other works described as the construction of a certain object according to the order of the customer, and the customer undertakes to create the necessary conditions for the contractor to perform the works, then accept their results and pay a certain price. In this case, the contract is concluded for the construction or reconstruction of the object, as well as for the installation, commissioning and other works integrally related to the construction object. Accordingly, there is no need to separate obligations for separate goods and services under such a contract, because the result is the same - the construction, reconstruction or capital repair of the facility.

3. Determining the transaction price. This criterion is important for the recognition of income, as it affects the amount of income expressed in monetary value. The concept of fair value was revised in IFRS 15 "Revenue from Contracts with Customers" and as a result it was proposed to use a separate selling price.

In determining the transaction price, organizations will need to assess: collection of receivables; the impact of variable wages, time value of money, contingent fee amounts, non-cash rewards, and client fees.

Contractual agreements may contain provisions on the timing of cash receipts from customers that do not coincide with the timing of revenue recognition. If the financing component is significant, IFRS 15 "Revenue from Contracts with Customers" requires an adjustment to reflect the effect of hidden financing.

The situation with customer financing is actually the opposite, but this process is reflected in accounting in a completely different way. Therefore, IFRS 15 "Revenue

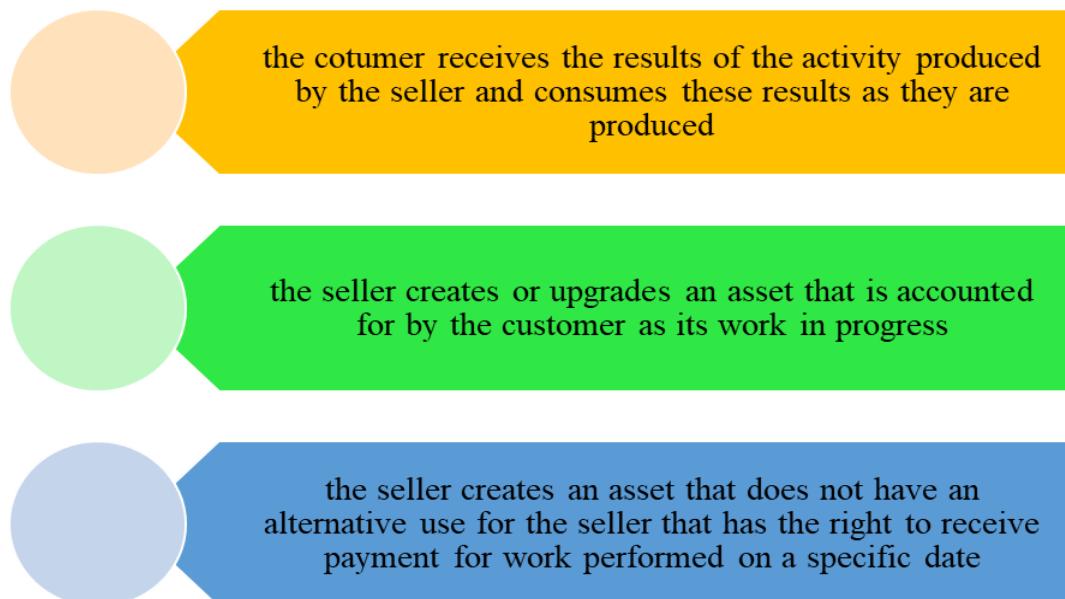
from Contracts with Costumers”, requires an assessment of advance payments for hidden financing on long-term contracts. If the time interval between the down payment and the recognition of sales proceeds is less than one year, then such payments are not recognized as hidden financing, in which case the seller borrows money from the buyer. However, if funding is recognized as available, lump sum payments will result in increased finance costs and deferred revenue.

This approach can lead to the division of transactions containing an important financial component into two parts, namely, a transaction for the sale of goods and a financing transaction. At the same time, the consequences can be significant in terms of establishing internal rules of the organization necessary to identify and account for hidden financing operations.

4. Implementation of the distribution of the price of the transaction to be executed. After determining the transaction price, it should be allocated to all previously allocated obligations.

5. Revenue recognition. This step changes the concept of revenue timing.

There are the following criteria for the recognition of income according to the IFRS 15 “Revenue from Contracts with Costumers” (Figure 1).



**Figure 1. Revenue recognition criteria<sup>4</sup>**

<sup>4</sup> Made by author

The implementation of the third and fifth steps in the updated revenue recognition model indicates the need to revise the existing accounting procedure.

For organizations, two key factors are important when implementing the third stage of transaction pricing - the amount of variable compensation and the significant financial component. To account for the factor of variable compensation, organizations implementing long-term contracts should consider advance payments as an important component of financing for the first time. In this case, it will be very difficult to settle the settlement of long-term contracts.

Under the fifth, final step of the new model, customers must also recognize revenue within a certain period of time if one of the three criteria defined in the standard is met.

The following are the most important differences between the model defined in IFRS 15 "Revenue from Contracts with Customers" of revenue accounting in accounting and the existing practice of accounting financial results in organizations:

1. IFRS 15 "Revenue from Contracts with Customers" applies to all organizations. Each entity of the economy must use this model in accounting for financial results and recognizing revenue. For contracting entities operating under long-term contracts, each contract must now be evaluated for compliance with at least one of the three recognition conditions described above in order to recognize revenue when the facility is ready.

2. If control over the relevant "asset", that is, over the goods or services included in the contract, is transferred to the customer, the contractual obligation is fulfilled.

3. Meeting the requirement of at least one of the three criteria specified in the standard over a certain period of time obliges companies to recognize revenue.

## CONCLUSION

The following conclusions were reached regarding the improvement of the calculation of financial results:

1. Accounting reform in our country based on the requirements of international standards is being carried out rapidly. The preparation of financial reports by joint-stock companies, commercial banks and large taxpayers based on the requirements of international standards serves to increase their investment attractiveness.

2. Organizations also feel the need to attract large amounts of investments based on the characteristics of their activity. Therefore, the organization of accounting work in this industry based on the requirements of international standards is the need of the hour.

3. International standards of financial reporting are constantly improving. In particular, it is necessary to organize the accounting of income and expenses, which are considered the most important objects of accounting, on the basis of international standards. The application of IFRS 15 “Revenue from Contracts with Customers” in the recognition of income in organizations makes a significant contribution to improving the accounting of financial results.

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# IMPROVING THE PROCESS OF PREPARING FINANCIAL STATEMENTS BASED ON THE REQUIREMENTS OF INTERNATIONAL STANDARDS

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## *ABSTRACT*

*This article presents the requirements for the preparation of financial statements by economic entities. As a result of the research, recommendations were developed to improve the process of preparing financial statements based on international standards.*

**Keywords:** accounting, financial report, international standard, asset, private capital, liabilities, profit, loss.

## **INTRODUCTION**

Financial statements are a unified system of information on the property and financial status of the economic entity, its results. It is compiled on the basis of accounting information in accordance with certain rules and a prescribed form, and serves as the main source of information for evaluating the activity and financial situation. On the basis of the indicators of financial statements, an accurate assessment of the state of property, balance and liquidity of the enterprise as a whole, capital sources is carried out, financial stability, solvency and profitability, as well as development trends are determined.

## **LITERATURE REVIEW**

The essence of the financial report is explained in detail in normative legal documents and economists.

According to ISA №1 entitled “Presentation of financial statements”, “financial statement is not designed to meet individual information needs, but is designed to meet the needs of all users” [1].

U.Singh conducted research on financial statements and said that “the accounting process involves recording, classifying and summarizing various business transactions. Financial statements are the result of this process, which provides various information related to profitability and financial position” [2].

According to a group of economists, “financial statements are used by the management of the company as a basis for making management decisions. Financial statement data is considered necessary for the analysis of activity, it is possible to determine the reasons for deviations from the parameters set in the plan and to identify unused production reserves” [3].

R. Buvaneswari and S. Lakshmi stated that “financial report is an official document about the financial activity of an enterprise or organization, which must be prepared based on the concept and principles of accounting” [4].

## ANALYSIS AND RESULTS

The purpose of financial statement is to provide information in the necessary form to all interested users of this information, which helps to solve a number of complex and important tasks of effective management of the business entity.

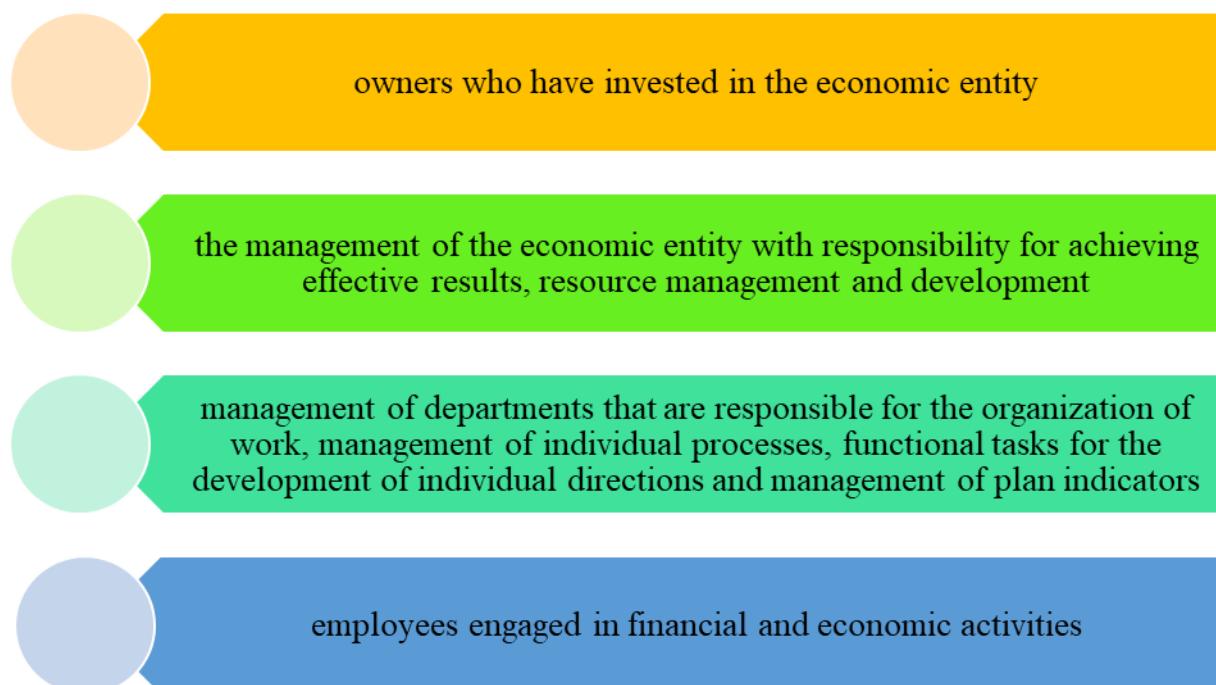
The user of the financial report is any legal or natural person interested in the information about the business entity. The range of users of financial statement information is very wide and there are different levels of requirements for this information. Some are interested in the return on the capital invested in this entity, others are interested in information on taxes, others are interested in the completeness and timely payment of the payment for the labor expended, etc.

Different groups of users study the financial statements of business entities to achieve their goals. All the information required by different levels of users is reflected in the financial report and used to evaluate various economic indicators for

them. Based on the data of the financial report, models for the development of separate areas of activity are developed.

Generally, users of financial statements are divided into two groups - internal and external users.

Internal users analyze the reports of business entities in order to determine the positions of this entity in relation to the previous, current and future conditions of existence, to know the results of its financial activity and financial status. This group of users is usually divided into:



**Figure 1. The group users of financial statements<sup>5</sup>**

External users are users of information located outside the enterprise. External users interested in financial statement are interested in:

Owners should evaluate the current and projected financial and economic status of the enterprise and the effectiveness of its development strategy in terms of return on invested capital and financial stability.

<sup>5</sup> Made by author

Investors and creditors see the purpose of financial analysis in the assessment of liquidity, solvency and cash flow.

State bodies assess the financial report as to whether taxes, fees, payments, etc. are calculated and paid on time and correctly to the state budget. Tax authorities are interested in the correct formation of the taxable base on the basis of financial statement data. The tax service checks compliance with tax legislation and correctness of tax benefits, assesses the tax potential of the enterprise. Forecasts of the state fiscal policy are formed based on this information. This, in turn, affects the development of state social programs.

Partners (suppliers, buyers, etc.) evaluate the solvency and stability of the economic entity.

Financial market participants collect, analyze and evaluate information about their customers in terms of creditworthiness, liquidity and investment attractiveness.

In addition to official financial statements, these users can access other public information documents. For example, information about property, the amount and stability of cash flows (according to the bank's current accounts), types of business operations, the composition of the securities portfolio. Also, for example, the following information is of interest to banks: about the size and stability of cash flow; on the types of economic operations; on the composition of the securities portfolio, etc.

Statistical offices use financial reports in the formation of macroeconomic indicators on the state of development of the gross domestic product, national income, employment, industries and regions at the country level.

Competitors use financial statement databases to evaluate information about market share, product or service quality, technological processes, pricing policies, and competitor operating conditions. In this process, information about market conditions, the structure of the business environment, financial status and payment discipline, trade policy, etc. can be used by competitors.

Business partners, creditors, suppliers and contractors, buyers and customers are interested in information about the organization's solvency, the stability of the supply of goods and the price policy, the development prospects and forecasts of the enterprise. Therefore, they determine the customer's solvency, financial stability, and competitiveness of products.

Foreign partners use financial and statement data to assess the stability of the business entity's activity, its production and financial capabilities. It is also interesting to assess the level of economic potential, investment opportunities, competitiveness, financial condition and solvency. The more complete and objective the information about the business entity is, the higher the probability of choosing it as a partner. For example, when choosing a foreign partner, exporting companies evaluate the company's financial condition and solvency, and when choosing an importer, they evaluate the competitiveness of products. It should be noted that the more complete and objective the information about the business entity is, the higher the probability of choosing the most suitable partner.

Investors are interested in the level of profitability of the enterprise and its financial stability and financial independence, the effectiveness of current, financial and investment activities based on the assessment of cash flows and its assets. They are also interested in issues such as the financial prospects of the business entity, the ability to invest capital in it, the timely repayment of loans and the payment of appropriate interest. For these purposes, investors evaluate liquidity and solvency, ability to generate cash flow, and risks in invested capital.

Owners are interested in the level and dynamics of private equity and financial performance indicators. They receive information for financial analysis and control, assessment of management quality, capital management, and general financial and economic activities. A set of indicators for assessing profitability, liquidity, financial independence and stability, payment of dividends and prospects for the development of an economic entity is also of interest.

The balance sheet provides information about the financial position of the business entity from the point of view of stability of activity by reflecting the financial position on a certain date. The report on financial results reflects the results of the business entity's activity in the statement year. Also, this report makes it possible to draw conclusions about the efficiency and reasonableness of the activity, as well as to determine the factors affecting the efficiency of the economic entity.

It should be noted that in the analysis of activities, it is important to use information in the form of financial statements to reliably reflect the property and financial situation and financial results.

## CONCLUSION

1. Accounting information is summarized in the form of financial statements. There are strict requirements for the preparation of financial reports in our country, and their timely preparation and presentation are among the main tasks of accounting service employees.

2. The financial report is an open document prepared in a unified manner and intended for internal and external users. The use of financial statement information is of particular importance for stakeholders in making important economic decisions.

3. The obligation of joint stock companies operating in our country to prepare reports based on international standards of financial statement is defined in regulatory legal documents. Compilation of financial statements by joint-stock companies based on the requirements of international standards contributes to increasing their investment attractiveness.

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## IMPROVING THE PROCESS OF GATHERING EVIDENCE IN AUDITS

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### ***ABSTRACT***

*This article explains the nature of audit evidence. The article also clarifies the aspects that need to be taken into account in the process of collecting audit evidence.*

**Keywords:** audit, audit evidence, analytical procedures, external confirmation, audit program.

### **INTRODUCTION**

The requirements for collecting evidence in the audit of financial statements of organizations are detailed in ISA No. 500 entitled "Audit evidence". Audit evidence is all the information collected by the auditor during the audit, which allows for the formation of an unbiased opinion. Evidence includes information from accounting documents, including financial statements and other information. During an audit, the auditor is required to gather sufficient and appropriate evidence to form an opinion.

The main requirement for evidence in the international standards of auditing is their reliability. The reliability of the evidence collected during the investigation will depend on the source from which it was obtained.

### **LITERATURE REVIEW**

According to ISA 500 “audit evidence – Information used by the auditor in arriving at the conclusions on which the auditor’s opinion is based. Audit evidence includes both information contained in the accounting records underlying the financial statements and other information” [1].

Stefan Zuca said that “audit evidence is defined as all the information used by the auditor in arriving at the conclusions on which the audit opinion is based and can

be classified as: the underlying accounting records maintained by management to support the preparation of the entity's financial statements, and other information" [2].

According to other economists "audit evidence includes written and electronic information that permits the auditor to reach conclusions through reasoning. In this respect, audit evidence help auditors to establish a starting point from which an auditor expresses audit opinion on the accounts and financial operations of the company being audited" [3].

R. Nelly Nur Apandi, Alfira Sofia, Hanifa Zulhaimi said that "digitalization changes in business transactions require junior auditors to pay attention to these changes in the audit evidence collection process. For senior auditors who have more audit experience, it will be easier to understand changes in business digitization than junior auditors" [4].

## **ANALYSIS AND RESULTS**

The need to use external confirmation methods to obtain audit evidence depends on the level of risk of material misstatement. The greater the risk of material misstatement, the greater the need to use external confirmation to obtain reliable evidence.

The auditor should use external inquiries to obtain answers from third parties in accordance with the audit objective. Factors affecting the reliability of audit evidence should be taken into account when preparing a request for third parties. Factors affecting the reliability of audit evidence include:

the form and content of the request sent to the third party;

accumulated experience in sending requests to third parties in an audit organization;

the nature of the information reflected in the external confirmation;

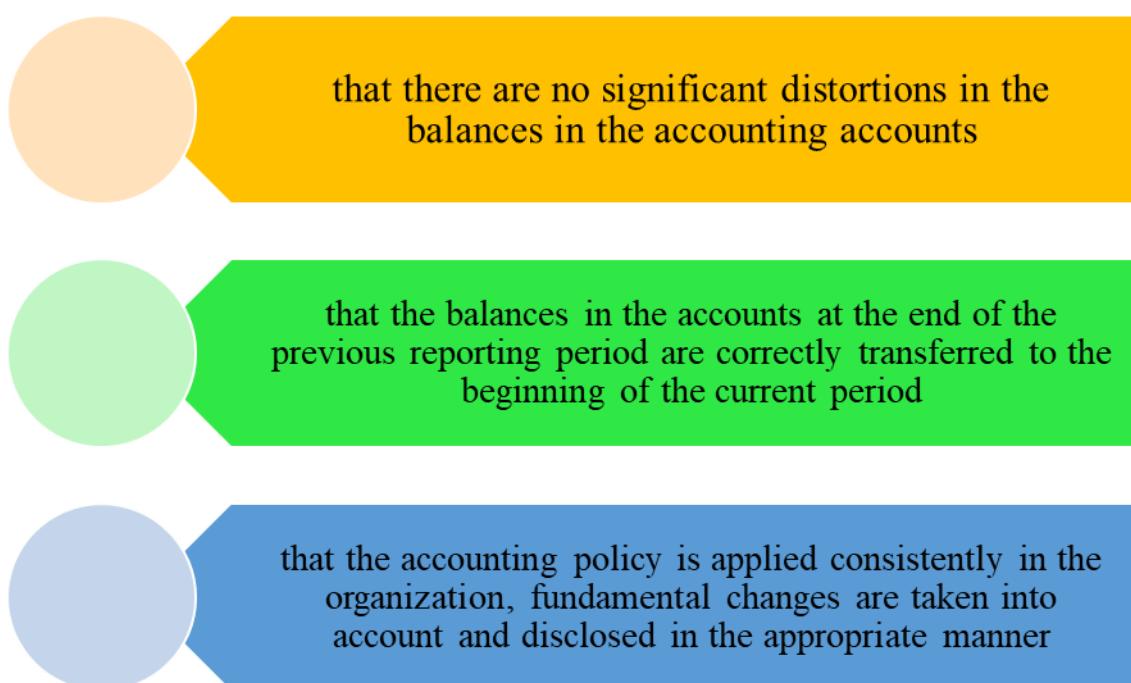
performance characteristics of the third parties who sent the external verification response.

During an audit, the auditor may use affirmative or negative inquiries, or both. A positive external inquiry involves a request by the auditor to respond in any way to the information provided by the recipient, or to respond by providing relevant information. In response to a positive request, reliable audit evidence is obtained. However, there is a risk that a third party will not respond to a request.

The auditor should clarify that the results of external verification, taking into account the results of other actions performed, ensure the reliability of financial statements.

**When the organization's activity is checked for the first time by the auditing organization, it must comply with the requirements of ISA 510 Summary: Initial Audit Engagements—Opening Balances.**

Organizations should pay attention to:



**Figure 1. Considerations in gathering audit evidence<sup>6</sup>**

If the organization's activities are audited for the first time by the audit organization, the auditor can use the results of the previous audit and the audit conclusion.

<sup>6</sup> Made by author

The following audit actions can be used when the organization's activities are audited by the auditing organization for the first time:

analysis of the level of payment of receivables or payables, obtaining evidence about the existence and amount of debt at the beginning of the reporting period and overdue debts;

getting acquainted with the results of the inventory conducted by the internal audit;

study whether income and expenses are correctly distributed over the reporting period.

If the auditor has not obtained sufficient audit evidence on the correctness of the balances in the accounts, the auditor may draw up an audit opinion with comments. An adverse audit opinion may be issued if there are material misstatements in the preliminary examination of the entity's activities or if the accounting policies have been incorrectly applied.

It is necessary to use the requirements of ISA No. 530 entitled "Audit sampling" in the sampling of inspection objects within the framework of international audit standards.

Audit sampling is understood as the application of audit actions to objects that are less than 100% of the balance sheet or operations category. Any item of the financial report or any object of accounting can be selected during audits. It helps the auditor to obtain audit evidence on certain characteristics of the selected objects and to form conclusions on the results of the sampling.

There are 2 methods of sampling in audits, statistical or non-statistical. Statistical sampling involves the random sampling of items and the use of probability theory to estimate the results of the sampling. Probability theory is also used in the process of sampling risk assessment. If the sampling does not conform to certain static laws, it is recognized as non-statistical sampling.

In audit inspections, the auditor selects objects for inspection from the general collection. According to international standards, the general set is the entire set of information about the activity of the subject. Individual objects in a common

collection are sampling elements. Sampling elements may include balances of fixed assets, internal documents on inventories, etc.

The use of the sampling method is associated with a certain risk, and the auditor's conclusions based on the results of the sampling may differ from those obtained in the examination of the entire set. Sampling risk means that the auditor's conclusion on the results of the sampling may differ from the conclusion that would have been reached if the entire audit had been performed in the same way.

The auditor's professional judgment is usually used to assess audit risk. In an audit, the auditor must choose actions that reduce risk. Audit risk is the risk that the auditor will express a favorable opinion in the presence of material misstatements in the financial statements.

There is a direct and close relationship between audit risk and sampling risk. Sampling risk affects the components of audit risk. For example, if the auditor does not detect errors when he examines the controls, he concludes that the risk of the control system is low. In this case, the errors in the total set will be high.

The auditor may perform unacceptable analytical procedures to detect errors when material misstatements exist. Sampling risk can be reduced by increasing the sample size.

The auditor can select specific items from the set during the audit. It is based on the characteristics of the organization's activities, the level of control risk and takes into account the general characteristics of the collection.

When the auditor examines the estimated value, it is necessary to pay attention to the correctness of the calculations used by the management of the organization. When reviewing the rules for approval of the organization's management on accounting, the auditor must determine whether the estimated value is approved by the appropriate authorized person, whether the rules for verification and approval are reflected in the accounting documents.

In checking the assessed values, the auditor compares the obtained data with the data being audited.

Audit evidence on estimated values can be obtained by reviewing subsequent events that occur after the end of the reporting period but before the end of the audit. In this case, the reasonableness of the determination of appraised values may not require detailed consideration.

## CONCLUSION

1. During the final assessment of the reasonableness of the assessed values, attention is paid to the study of the characteristics of the organization's activities and the analysis of the consistency of the assessment with other evidence obtained during the audit. If there is a significant difference between the value confirmed by the auditor's evidence and the value determined by the management, the management of the entity should justify it. If management does not provide an adequate basis for the assessment, the auditor should ask management to revise the estimates.
2. If the inconsistencies in determining the estimated value are reasonable, but there is a general tendency to overestimate or underestimate the estimates, the auditor should determine whether this situation has a material effect on the financial statements or not.
3. In the practice of international audit, transactions related to the parties directly related to the activities of the business entity are checked based on the requirements of ISA No. 550 entitled "Related parties". The auditor should perform audit procedures to obtain sufficient and appropriate audit evidence regarding the identification and disclosure of related parties and the effects of related party transactions that are material to the financial statements. However, the auditor should not be expected to identify all related party transactions.

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## THE USE OF STARCH TO OBTAIN A BIODEGRADABLE FILM

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### ***ANNOTATION***

*This article raises the issue of the production of biopolymers for industrial polymer products as a replacement for plastic containers and packaging materials based on petroleum products. The most common polymers in the work are considered biodegradable packaging products from plant materials used to produce products such as starch, cellulose, polylactide. The work used the narrow method of Labora to obtain biopolymers and conduct test experiments. The use of plant polymers for biodegradable packaging will help solve the problem of eliminating plastic waste, and will undoubtedly improve the environmental situation both in our country and around the world.*

**Keywords.** Bio packaging. Ecology. Biodegradable materials, plant polymers. Starch.

**Introduction.** The waste of synthetic polymer products, which have been increasing in recent times, is a clear proof of demand and interest in biopolymers. "biopolymer" is a kind of guarantee that the product is safe for life activities for nature and people. The main reason for the development of biopolymers is also the problem of eliminating their synthetic waste, which is growing every year. Biopolymers (full name – biodegradable polymers) differ from the rest of the plastics in that they decompose in the environment under the influence of physical factors and microorganisms-bacteria or fungi. If the polymer and its entire mass decompose in the soil or water for six months, then the polymer is a biopolymer, which allows you to solve the problem of waste. In most cases, the breakdown products of biopolymers

are carbon dioxide and water. The high density of the population, the use of packaging materials in all areas of human activity and in other areas also creates the problem of the elimination of plastic waste, which is sharply increasing. Therefore, an important step in solving this global problem will be the gradual transition from plant polymers to the production and use of biodegradable packaging products. Such materials are completely decomposed in nature in a few months and can not only harm the environment, but, on the contrary, enrich the soil. Plant polymers can be obtained as the main material for the production of their products and gradually replaced with conventional oil and gas-based plastics. The development of biopolymers is carried out in two main directions: - production of biodegradable polyesters based on hydroxycarboxylic acids; - to give industrial polymers bio decomposition and to produce plastic masses based on multiplying natural components. All these technologies are actively developing. Starch is a polysaccharide that accumulates in roots, seeds, stems and leaves throughout the life of plants. On an industrial scale, it is obtained from corn, wheat, rice. The choice of starch as the basis for the creation of composite polymer materials depends on a number of reasons: - availability and almost inexhaustible raw material base; - the presence of useful properties that are not present in synthetic polymers; - the possibility of synthesizing starch derivatives. Starch is the main reserve polysaccharide of plants. It accumulates in the cells of seeds, fruits, tubers in the form of grains, as well as in leaves and stems. Starch grains contain 98-99.5% polysaccharides and 0.5–2% non-carbohydrate components (for example, lipids, proteins, ash elements). Starch is a mixture of linear (amylose) and branched (amylopectin) polysaccharides. The ratio of these components in starch depends on the type of plant and the stage of its development. On average, starch contains 15-25% amylose and 75-86% amylopectin. Plasticizers are introduced into the composition to obtain a film that is destroyed by bacteria from a mixture of amylose and amylopectin and is soluble in water: glycerin or polyoxyethylene glycol. At the same time, with an increase in the starch content, the fragility of the film increases. In order to reduce the cost of biodegradable materials in Uzbekistan conditions (UPA

synthesis, film for agricultural technology, garbage bags), it is recommended to use untreated starch mixed with polyvinyl alcohol, talcum powder and other substances. Polylactide is a convenient thermoplastic, which has a suitable shelf life for use on packaging. When properly disposed of, it is hydrolyzed to natural and safe products. The production of this polymer to solve the problem of the successful elimination of a large number of plastic packaging. Today, polylactide is one of the cheapest biodegradable polymers [3, 5]. For the production of samples of packaging film as raw materials, two types of bizkrahmal are obtained: potatoes and corn. In the first case, the following ingredients were obtained: 50 g of potato starch, 5 ml of glycerin, 5 ml of table vinegar and 50 ml of water. Corn is also taken in the same proportions for starch. Water was poured into the container, glycerin and circassian acid (20%) were added, whether mixed. Then starch was added and heated until thickened, stirring constantly. Then, the dark mass was distributed over a flat surface (aluminum foil) and laid out and dried. According to this recipe, the potato film was poorly separated and became mechanically unstable, while the corn became brittle by cracking and was not sampled.



In the second case, other proportions were taken: 10 g of potato or cornstarch, 5 ml of glycerin, 5 ml of circassian acid (20%) and 60 ml of water. All ingredients were mixed and heated until thickened, after which the mixture was evenly distributed over the foil and left to dry. In this case, films that do not tear when stretched turned out to be of good quality. A study conducted showed that from potato and cornstarch, under normal conditions with the addition of glycerin and organic acid, films that are sufficiently resistant to mechanical action can be obtained. These films easily

decompose into substances completely harmless to nature due to bioparchalization in the soil or water in a few months. These tiles can be used for food bags, disposable picnic containers, garbage bags, agricultural needs.

**Conclusion.** A study conducted showed that under normal conditions, films with sufficient resistance to mechanical action can be obtained with the addition of potato and cornstarch, glycerin and organic acid. These films easily decompose into substances completely harmless to nature due to bioparchalization in the soil or water in a few months. These tiles can be used for food transportation bags, disposable picnic containers, garbage bags, agricultural needs.

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## EFFECTIVE STRATEGIES FOR TEACHING ALDOUS HUXLEY'S LIFE AND LITERARY ACTIVITY

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### **АННОТАЦИЯ**

Уибуба мақолада Олдас Хакслининг ҳаёти ва ижодини ўргатиши жараёнини интерфаол усулда ташкиллаштириши учун фойдаланилиши мумкин бўлган методлар ва улардан кутилган натижалар ҳақида маълумотлар берилган.

**Калим сўзлар:** адабиёт, антиутопик роман, тест, намойиш, БББ.

### **АННОТАЦИЯ**

В этой статье освещены методы и ожидаемые результаты, которые можно использовать для организации учебного процесса обучения жизни и творчеству Олдаса Хакслея.

**Ключевые слова:** литература, антиутопический роман, *О дивный новый мир*, тест, презентация, ЗХУ.

### **ANNOTATION**

*This article discusses the methods and learning outcomes that can be used in organizing the teaching process of Aldous Huxley's life and literary activity.*

**Key words:** literature, dystopian novel, test, presentation, KWL.

Our young generation should learn not only our Uzbek national literature but World Literature too. When the man knows all about World Literature, then he can become a literary educated person. First of all we should know what the literature is itself and World literature. We know that a lot of great writers created wonderful

novels, stories, plays and poems in literature. Their works kept till nowadays and everybody can learn them.

Literature is one of the main types of Art alongside with cinema, theatre, and painting. Its role is immense in getting to know the life and in bringing up people. In other words literature is "the text - book of life". But, of course, this does not mean that after reading some books of fiction you are in know of life. In order to become a "literary educated person" one has to study not only the book itself but also one has to get acquainted with the history of literature, which reflects the history of people.

English literature, as well as American one, is a part of world literature. It has passed great and complicated way of development, and reflects the history of country and people. National peculiarities of English people find their reflection in people's ballads, in Chaucer's poesies, in the works of Moore, Dickens, Shakespeare, Dreiser, London and others.

In every country the history of literature is closely connected with the history of class struggle and social contradictions within nation. This refers to the English literature too.

We think that learners of the English language should get acquainted with life and creative works of world-known American and English writers, whose works are still read because they are about eternal problems of human being and human society.

Taking into account of the above mentioned we consider that the study and learning Aldous Huxley's creation is useful.

Our article is dedicated to teaching Aldous Huxley's creation. We devoted much time to study Aldous Huxley's works. Reading texts or reading fiction in the foreign language is one of the great educative and general cultural values to the pupils. It widens their horizon. The fiction books acquaint them with the life and the achievements of the people of the nation, as well as with the literature, history, geography, culture, manners and customs of the peoples and countries of the language studied.

*Brave New World* is a great book to introduce to the classroom because students will love reading about a dysfunctional dystopian society that exists in the future. Set

in the year 2540, this classic text explores the inner workings of a future divided into factions and riddled with issues that stem from an attempt to cultivate the perfect society. *Brave New World* has become an essential part of most curriculums because it explores the aspects of humanity that are the most ruthless and involved and how those aspects carry on to the future.

In the classroom, students should be encouraged to discuss how similar or different Aldous Huxley's fictional future society is to today's reality. Was he particularly insightful about the technological advances and moral setbacks that he presents in his novel?

We can give the following tasks for discussing the novel *Brave New World*:

| I Know   | I Want to know                                  | I Learned  |
|--|---|--|
| Aldous Huxley is an English writer                                   | Has he another job?                             | He was an English writer, novelist, philosopher  |
| He is one of the representatives of English literature in XX century | What kind of works did he create?               | They wrote novels, short stories, poems, film stories, <u>satire</u> and <u>screenplays</u>  |
|  | Which is the best known of his works?           | “Brave New World”  |
|  | Who are the main heroes of the novel?           | Bernard Marx, John the Savage  |
|  | What is theme of the novel<br>“Brave New World” | <i>Brave New World</i> presents a startling view of the future which on the surface appears almost comical. Huxley's real message is very dark. His idea that in centuries to come, a one-world government will rise to power, stripping people's freedom, is not new. In fact there are hosts of books dedicated to this topic. |

- Define and discuss concepts of utopian/dystopian literature.
- Use examples from the novel to distinguish between direct and indirect forms of satire.
- Discuss the intended emotional effect that the author wished to have on readers.
- Identify and discuss the various themes that arise in the text.
- Respond to the controversial ideas and practices presented in the novel.
- Discuss the gains and costs of the author's futuristic society.

If we want to teach Aldous Huxley's life and literary activity, we think that the following types of activities can be useful in a class of English learners:

After giving the full information about Aldous Huxley's life and his creation we can do the following activities:

### I. Answer the following questions

- 1) What kind of literary trend does Aldous Huxley belong?
- 2) When and where was he born?
- 3) What can you say about the life of Aldous Huxley?
- 4) What is the theme of Aldous Huxley's works?
- 5) Have you read one of Aldous Huxley's works?
- 6) What do know about the creative activity of Aldous Huxley?
- 7) What can you say about the plot of *Brave New World*?
- 8) Who are the positive characters in the novel *Brave New World*?
- 9) Who are the negative characters in the novel *Brave New World*?
- 10) What is main idea of the work *Brave New World*?

### II. Do the test:

1. Aldous Huxley graduated from Balliol College, .... with a first-class honours degree in English literature.

- A) Oxford
- B) Cambridge
- C) Glasgow

2. Aldous Huxley is the author of nearly ..... books.

- A) fifty
- B) sixty
- C) forty

3. When Huxley was informed that he was elected Companion of Literature by the [Royal Society of Literature](#)

- A) On 9 April 1962
- B) On 9 May 1962
- C) On 9 April 1961

4. Huxley was best known for his....

- A) novels
- B) story
- C) poem

5. *Brave New World* is a [dystopian novel](#) written in .... by English author [Aldous Huxley](#) and published in .....

- A) 1931, 1932
- B) 1932, 1933
- C) 1930, 1931

6. Huxley wrote *Brave New World* while living in [Sanary-sur-Mer](#), .....in the four months from May to August 1931.

- A) France
- B) Italy
- C) America

**III. Read the text and retell it. Here we can give any text about the life and activity of Aldous Huxley.**

**IV. Describe the picture. We may show students writer's portrait or some pictures which episodes of his works were depicted.**

**V. Make up a dialogue between two main heroes of work "Brave New World". Students may choose the heroes by their own will.**

**VI. Mark each statement as true either (T) or false (F)**

1. Aldous Leonard Huxley was born in 1894 on July 26 and died in 1963 on November 22.
2. Huxley was an English writer, novelist, philosopher, and prominent member of the [Huxley family](#).
3. Huxley graduated from [Balliol College, Oxford](#) with a [first-class honours](#) degree in English literature.
4. The author of nearly sixty books, Huxley was best known for his short stories.
5. Early in his career, Huxley published short stories and poetry, and edited the literary magazine [Oxford Poetry](#).
6. He went on to publish travel writing, film stories, [satire](#), and [screenplays](#).
7. He spent the latter part of his life in France until his death.

**VII. Make presentation on the creations of Aldous Huxley.**

Students choose the theme and make presentations about the creations of Aldous Huxley.

Aldous Huxley's novel, set in the twenty-sixth century, presents a fictional dystopian society in which the entire world is controlled by a singular, governmental entity called the World State. Humans are genetically bred to follow rules and to carry out their respective preordained functions in society. The only form of "happiness" comes in the form of a drug called soma, and people are indoctrinated with the ways of the World State while they sleep. As some individuals begin to question the world around them, a "Savage" named John, who has been raised outside of the order of the World State, enters this mainstream society and stirs up trouble. A book written way ahead of its time, *Brave New World* depicts both the advantages and disadvantages of a world in which stability is preferred to freedom.

The most important aim of the novel "Brave New World" is to warn people from the danger of scientific progress and development of technology. The novel acts not only as a warning for the future but also as a satire on the world Huxley lived in.

Huxley is worried about a state of mind, one that puts happiness into a materialistic paradigm, and then uses it as a method of control, justified as what the people want. In the novel Aldous Huxley depicts the society that is controlled, manipulated with the help of technology, reproduction through technological and medical intervention, the Bokanovsky Process, and hypnopaedic conditioning. What is the most interesting about how Huxley portrays technological advancements is that the technology has been allowed to grow and flourish, while actual scientific advancement has been stunted.

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## БАЗОВЫЕ ШАГИ ЗАЩИТЫ ИНТЕРНЕТА ВЕЩЕЙ

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### **АННОТАЦИЯ**

*В статье представлены базовые шаги защиты Интернета вещей. Показаны 5 основных правил безопасного пользования смарт-устройствами и защиты Интернета вещей. Каждый шаг представлен основными техническими моментами при подключении устройств: определение параметров конфиденциальности данных, проверка наличия обновлений встроенного ПО, загрузка решений по безопасности и защиты смарт-устройств.*

**Ключевые слова:** Интернет вещей, защита и безопасность IoT, IoT-устройства, смарт-устройства, IoT-приложения.

### **ABSTRACT**

*This article presents the basic steps to secure the Internet of Things. Shows 5 basic rules for safe use of smart devices and protecting the Internet of Things. Each step covers the basic technical aspects of connecting devices: defining data privacy settings, checking for firmware updates, downloading security solutions and protection for smart devices.*

**Keywords:** Internet of things, IoT protection and security, IoT devices, smart devices, IoT applications.

## ANNOTATSIYA

*Ushbu maqola Internet ashyolar xavfsizligini ta'minlash bo'yicha asosiy qadamlarni taqdim etadi. Smart qurilmalardan xavfsiz foydalanish va internet ashyolarini himoya qilishning 5 ta asosiy qoidalarini ko'rsatadi. Har bir qadam qurilmalarni ularshning asosiy texnik jihatlarini qamrab oladi: ma'lumotlar maxfiylici sozlamalarini aniqlash, proshivka yangilanishlarini tekshirish, xavfsizlik yechimlarini yuklab olish va aqlli qurilmalar uchun himoya.*

**Kalit so'zlar:** Internet ashyolari, IoT himoyasi va xavfsizligi, IoT qurilmalari, aqlli qurilmalar, IoT ilovalari.

## ВВЕДЕНИЕ

Устройства Интернета вещей (IoT) стали неотъемлемой частью жизни каждого, упрощая выполнение повседневных дел. Использование голосового помощника помогает записать заметку или поставить напоминание о встрече, подключение смартфона к камерам видеонаблюдения и смарт-звонкам обеспечивает удобное управление системой дома, а смарт-телевизоры позволяют насладиться просмотром любимых фильмов [1]. С ростом популярности смарт-устройств увеличивается интерес к ним со стороны киберпреступников, которые постоянно ищут новые способы атак пользователей. Примеры устройств интернета вещей включают умные мобильные телефоны, умные холодильники, умные часы, фитнес-трекеры, умные пожарные сигнализации, умные дверные замки, умные велосипеды, медицинские датчики, умные системы безопасности, а также виртуальные помощники, такие как Alexa и Google Home.

## ЛИТЕРАТУРА И МЕТОДОЛОГИЯ

Широкое распространение этих устройств приводит к тому, что в случае взлома одного из них компания-производитель не сможет оперативно отозвать все устройства и обновить систему защиты. Кроме того, хакеры могут через одно устройство проникнуть во всю сеть. Один девайс предоставит

несанкционированный доступ к широкому спектру конфиденциальных данных - от банковских реквизитов до медицинских записей, и даже к важным корпоративным сведениям, учитывая, что многие люди используют одни и те же устройства дома и на работе. Ключевая особенность «интернета вещей» - связность. Концепция IoT основана на принципе M2M. Это означает, что электронные устройства могут «общаться» друг с другом без посредничества человека. IoT - это автоматизация наивысшего уровня. В IoT для обмена информацией через интернет используются TCP/IP-протоколы. Интернет вещей усиливает проблему конфиденциальности и безопасности данных, полученных от устройств, подключенных к интернету. Последствия хакерских атак могут быть необратимыми [2].

Представим 5 основных правил безопасного пользования смарт-устройствами и защиты Интернета вещей.

**1. Защищайте Wi-Fi роутер.** Для безопасности Интернет-соединения следует обеспечить надежную защиту роутера, который является основным устройством Интернета вещей. Большинство пользователей после установки роутера оставляют настройки по умолчанию, что является достаточно распространенной ошибкой. Это может представлять большую угрозу безопасности ваших подключенных устройств. Поэтому следует немедленно сменить пароли для подключения к роутеру и для доступа к его настройкам. При смене пароля выберите вариант WPA2 (или WPA 3 на более новых роутерах). Кроме этого, не забывайте обновлять встроенное программное обеспечение до последней версии, хотя многие из роутеров делают это автоматически, однако время от времени следует проверять актуальность версий.

**2. Шифруйте веб-трафик.** Еще одним способом повышения безопасности онлайн и защиты Интернета вещей является шифрование веб-трафика. Самый простой метод - создать виртуальную частную сеть (VPN), которая будет работать как зашифрованный туннель для вашего веб-трафика. Это позволит не только защитить ваши данные от посторонних лиц, но и в случае необходимости - получить доступ к ним из любой точки мира. Также вы можете настроить отдельную сеть для всех

подключенных девайсов, чтобы снизить риски заражения. **3. Позаботьтесь о безопасности смартфона.** Теперь мобильные устройства обладают функционалом компьютеров и используются не только для звонков, но и для фотосъемки, хранения файлов, получения и отправки электронной почты. Большинство этих задач предусматривает доступ к личным данным и подключение к Интернету, ваш смартфон должен быть надежно защищен. Для большинства смартфонов доступны [решения по безопасности](#), которые помогают предотвратить проникновение угроз на устройство. Для дополнительной защиты также следует зашифровать все конфиденциальные данные на смартфоне. В случае получения доступа к устройству киберпреступники не смогут прочитать ваши личные данные [3]. **4. Обновляйте устройства.** Регулярное обновление устройств - базовое правило кибербезопасности. Любые исправления безопасности и обновления следует применять сразу после их выхода, своевременно не исправив определенную уязвимость, вы рискуете стать жертвой атак киберпреступников. Поэтому обращайте внимание на запросы обновлений и своевременно устанавливайте доступные исправления. **5. Защищайте смарт-телевизор.** Сегодня трудно найти телевизор, который не обладает смарт-функциями. Соответственно такие устройства тоже могут быть [скомпрометированы киберпреступниками](#). В частности, злоумышленники могут использовать уязвимости для удаленного управления телевизором или инфицировать устройство [вредоносным программным обеспечением](#) [4].

## РЕЗУЛЬТАТЫ

Чтобы защитить смарт-телевизор, сначала следует правильно настроить его. Прежде всего необходимо определить параметры конфиденциальности для данных, которые может собирать ваш провайдер, а также включить функцию [родительского контроля](#) для защиты детей от нежелательного контента. Кроме этого, важно проверить наличие обновлений

встроенного программного обеспечения, и конечно загрузить [решение по безопасности для защиты смарт-телевизора](#) [5].

## ОБСУЖДЕНИЕ

Поскольку количество девайсов, подключенных к сети, постоянно растет, а их функциональные возможности совершенствуются, каждый пользователь должен позаботиться о защите Интернета вещей от потенциальных киберугроз. Ведущие технологические компании до сих пор не приложили достаточно усилий по разработке решений для обеспечения безопасности IoT-приложений. Если за эту важнейшую задачу не возьмутся гиганты индустрии, то обязанности лягут на плечи множества стартап-компаний, которые в значительной степени обеспечивают нынешний рост сектора IoT. К 2025 году более половины продуктов IoT будут производиться небольшими компаниями, существующими менее трех лет. Можно представить, что лишь часть этих компаний будет в силах обеспечить нормальный уровень безопасности своих изделий [6].

## ЗАКЛЮЧЕНИЕ

Что необходимо для обеспечения действительно прочной защиты устройств IoT. Во-первых, необходимо поощрять производителей активнее сотрудничать с поставщиками ПО, аппаратного обеспечения и в целом с экосистемой отрасли. Старшие партнеры могут стать для новичков рынка ценным источником опыта и знаний по применению существующих стандартов и элементов безопасности. Во-вторых, нужно развивать образование. В пример можно привести создание лабораторий безопасности на базе Microsoft, Breed Reply и Indiegogo [7]. В этих лабораториях даже небольшие разработчики могут получить доступ к передовому оборудованию и сделать свой вклад в развитие систем безопасности. Работающие в этих лабораториях узнают, что вопросы безопасности должны быть первоочередными на всех этапах IoT-проекта - от идеи до серийного выпуска и даже после и во время эксплуатации. В нашем

мире все больше предметов можно подключить к интернету, а значит, все больше предметов становятся потенциально подвержены взлому. Возможно, мы никогда не решим эту фундаментальную проблему, но, объединив усилия, мы можем создать безопасный интернет вещей, которого заслуживает мир.

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## BANKLAR FAOLIYATIDAGI VALYUTA RISKINI BAHOLASH VA UNI BOSHQARISH USULLARI

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### **ANNOTATSIYA**

*Ushbu maqolada valyuta riski tushunchasi, uning zamonaviy tijorat banklari faoliyatidagi roli va o'rni, valyuta riski rivojlantirishning asosiy yo'nalishlari, afzalliklari va kamchiliklari, valyuta riski rivojlantirish va uni boshqarishda uchraydigan ba'ze muammolar o'rganib chiqilgan va bu muammolarni hal etish uchun ba'ze amaliy taklif va tavsiyalar berilgan. O'zbekiston tijorat banklari amaliyotida valyuta riski haqidagi barcha to'plangan statistik ma'lumotlar asosida tahlil qilingan.*

**Kalit so'zlar:** risk, daromadlilik, likvidlilik, bank, valyuta, onlayn tahlil, boshqarish, operatsiya, tijorat banki.

## **METHODS FOR ASSESSING AND MANAGING THE RISK OF CURRENCY IN THE ACTIVITIES OF BANKS**

### **ABSTRACT**

*This article examines the concept of currency risk, its role and role in the activities of modern commercial banks, the main directions, advantages and disadvantages of the development of currency risk, some problems encountered in the development and management of currency risk, and some practical proposals and recommendations are given to solve these problems. In the practice of commercial banks of Uzbekistan, it was analyzed on the basis of all accumulated statistics on currency risk.*

**Keywords:** risk, profitability, liquidity, bank, currency, online analysis, management, operation, Commercial Bank.

## KIRISH

Bozor munosabatlarining muhim bo‘g‘inlaridan biri bo‘lgan bank tizimini isloh qilish va erkinlashtirish zamirida iqtisodiyotni rivojlantirish, xalqaro bank tizimi talablariga mos keluvchi mahalliy banklar faoliyatini tashkil qilish va ular faoliyatini yanadatkomillashtirish bugunning dolzarb vazifalaridan hisoblanadi.

So‘ngi yillarda bank tizimini ommaboplashtirish va erkin raqobat sharoitiga moslashtirish ko‘zda tutilgan bir qator hujjatlar qabul qilindi. Xususan, 2018 yil 23 martda O‘zbekiston Respublikasi Prezidentining «Bank xizmatlari ommabopligrini oshirish bo‘yicha qo‘srimcha chora-tadbirlar to‘g‘risida»gi 3620-sonli Qarori qabul qilinishi bank xizmatlarini ko‘rsatishda mavjud muammolar va banklar tomonidan amalga oshirilishi kerak bo‘lgan chora-tadbirlarni belgilab berdi [1].

Operatsiyalar samaradorligi va risk o‘rtasidagi optimal balans hamda bank maqsadlarining optimalligi aktivlarni boshqarish strategiyasining kompleks tanlov kriteriyalaridan biri hisoblanadi. Risk darajasi va operatsiyalar samaradorligi o‘rtasidagi o‘zaro kelishuv aniq bir tijorat bankning joriy faoliyati prioritetidan kelib chiqib alohida aniqlanadi. Banklar faoliyatida uchraydigan bo‘lgan risklarni turli xil ko‘rsatkichlar orqali ifodalash ularni boshqarish va bartaraf etishda muhim ahamiyatga ega hisoblanadi.

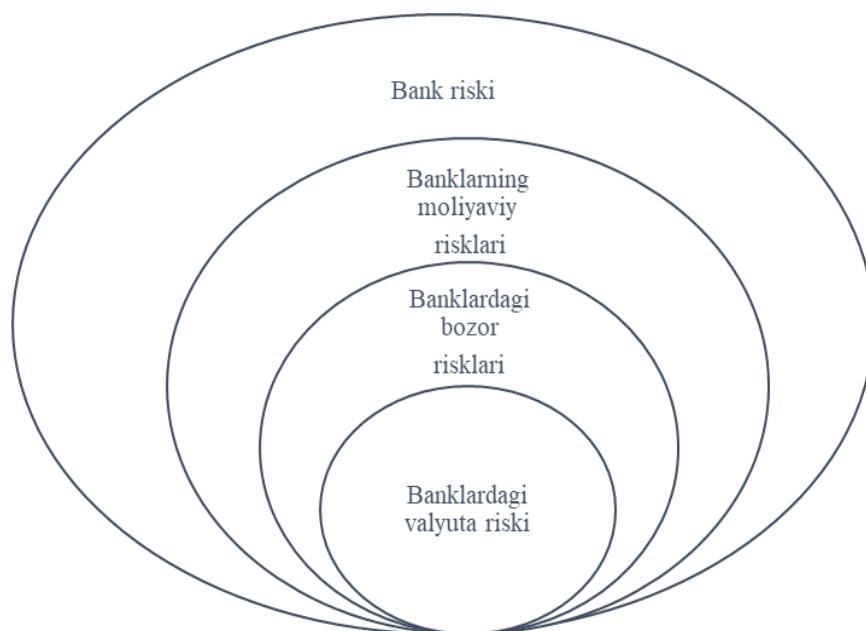
## ADABIYOTLAR TAHLILI VA METODOLOGIYA

Mavzuga oid birqancha olimlarning tadqiqot ishlari va ilmiyy nazariyalari bilan yaqindan tanishib chiqildi. Mixaylova A.V., Rassadin V.E., Sedukova K.K. ta’kidlashicha, “Risk-bu hujumning ma’lum bir ehtimoli ma’lum bir voqeа, shuning uchun u nafaqat o‘z ichiga olishi mumkin salbiy natija ehtimoli, shuningdek ijobjiy natija ehtimoli natija va oxir-oqibat u nima bo‘ladi, unga kim qaror qilganiga bog‘liq, unda kim ishtirok etadi va harakatlar rejasi qanchalik puxta o‘ylangan ishtirokchilar” [2]. “Bank tavakkalchiligi” toifasiga kelsak, A. A. Tulivetrova bank riskini "bank faoliyatining vaziyat xususiyati" sifatida belgilaydi, uning natijasidagi noaniqlikni aks

ettirish va imkoniyatni aniqlash kutilganidan voqelikning salbiy o‘zgarishi” [3]. “Ichki va tashqi bank risklarini ajrating. Ichki risklar ular to‘g‘ridan-to‘g‘ri kredit tashkilotining faoliyati bilan bog‘liq. Bu kredit risklari, valyuta risklari, foiz risklari, likvidlik riski va boshqa risk turlari. Tashqi risklar bevosita bog‘liq emas kredit tashkilotining faoliyati. Bu mintaqaviy risklar, huquqiy risklar, ijtimoiy risklar, texnik risklar va boshqa turlari risklar. Moliyaviy risklar moliyaviy oqimlarning buzilishi bilan bog‘liq bo‘lib, ular natijada foyda yoki kapitalning yo‘qolishiga olib kelishi mumkin” [4]. “Valyuta risklari valyuta yo‘qotishlari riskini anglatadi”, “Bir chet el valyutasining o‘zgarishi bilan bog‘liq tashqi iqtisodiy, kredit va boshqalarni amalga oshirishda boshqasi valyuta operatsiyalari” [5]. “Tijorat banking tavakkalchiligini baholash aniqlangan tizimli va tizimli jarayon risk manbalari, risklarni aniqlash amalga oshiriladi, risklar baholanadi va qarorlar ustuvor tartibda qabul qilinadi riskni maqbul darajaga tushirish ” [6].

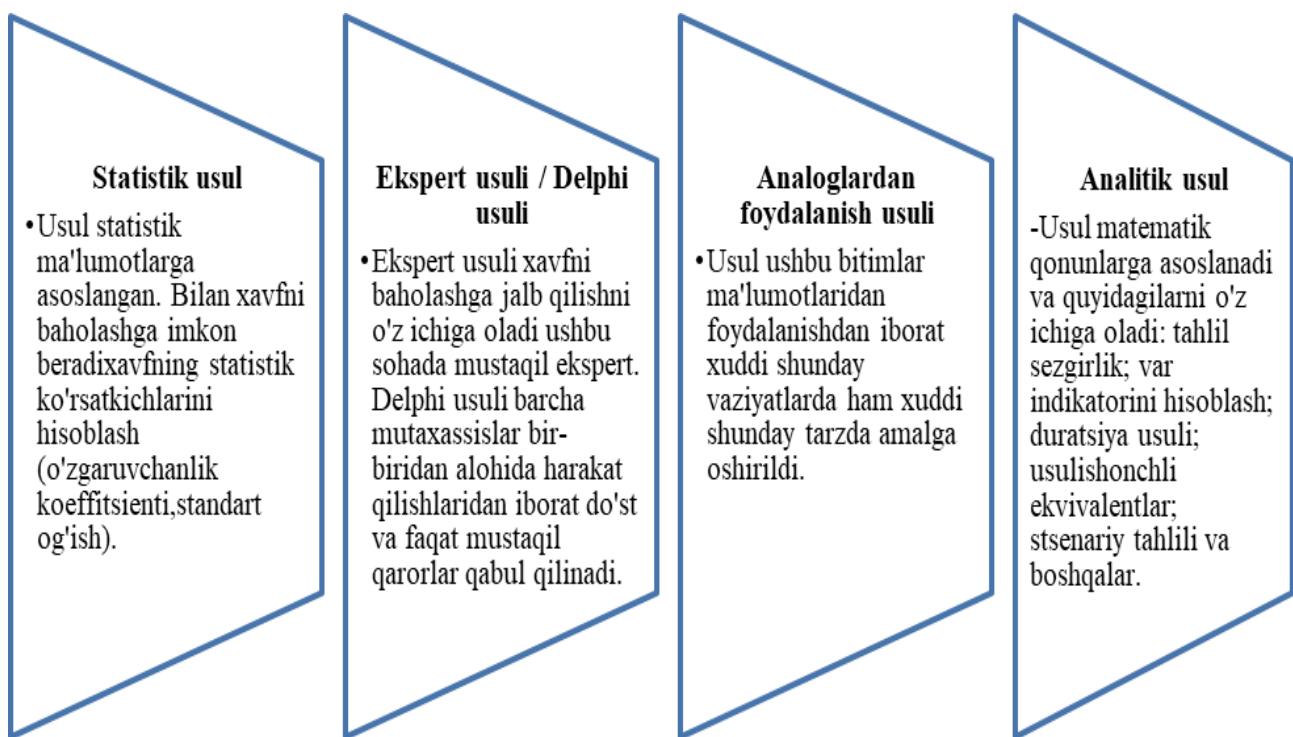
## NATIJALAR

O‘zbekiston Respublikasi bank tizimida valyuta riski o‘zining me’yoriy-huquqiy rivojlanish bosqichlariga ega. Tijorat banking valyuta riski ularning asosiy omillaridan biridir bozor risklari. Bank risklari tarkibidagi valyuta risklarining o‘rni 1-rasmda eng aniq ko‘rsatilgan.



**1-rasm. Bank risklari tarkibidagi valyuta risklarining o‘rni**

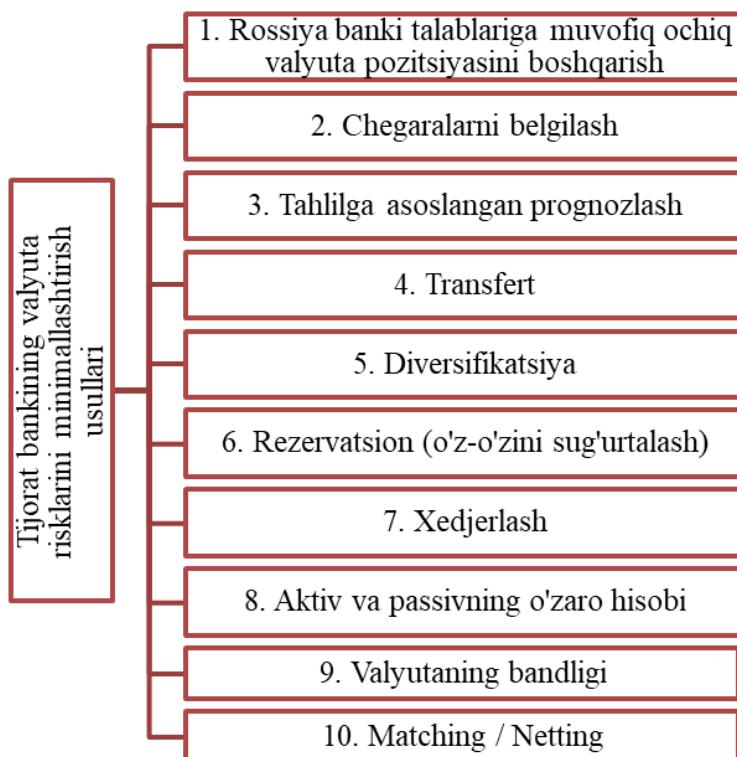
Valyuta risklari o‘z ichiga oladi salbiy oqibatlar, valyuta kursining o‘zgarishi haqiqati tijorat banki uchun ham qulay hodisa bo‘lishi mumkin. Valyuta risklarining quyidagi turlari mavjud: tranzaktsion risk, iqtisodiy risk, translatsion riski. Baholashni amalga oshirishning turli xil usullari mavjud tijorat bankining valyuta riski. Valyuta riskini baholash uning aniq miqdoriy xususiyatlarini olish uchun muhimdir ushbu turdagи riskni samarali boshqarish. Tijorat bankining valyuta risklarini baholashning asosiy usullari 2-rasmda keltirilgan.



## 2-rasm. Tijorat bankining valyuta risklarini baholashning asosiy usullari

Tijorat valyuta risklarini minimallashtirishning asosiy usullari turli mualliflar taklif qiladigan banklar tizimlashtirilgan va 3-rasmida keltirilgan.

Turli mualliflar taklif qiladigan tijorat bankining valyuta risklarini minimallashtirishning asosiy usullari tizimlashtirilgan va 3-rasmida keltirilgan.



**3-rasm. Tijorat bankining valyuta risklarini minimallashtirish usullari**

## MUHOKAMA

Bizning tadqiqotlarimiz shuni ko‘rsatmoqdaki risklarni boshqarishning turlicha bosqichlari qatorida riskning boshqarishning zamonaviy bosqichlarini amalga oshirish riskni boshqarishning muhim vositalaridan biri hisoblanadi. Zamonaviy tadqiqotchilar valyuta xatarlarini baholash va boshqarishning turli xil usullarini aniqladilar. Usullarning har biri o‘zining afzalliliklari va kamchiliklariga ega. Shu munosabat bilan valyuta risklarini malakali baholash va samarali boshqarish dolzARB masala hisoblanadi. Bizning fikrimizcha, valyuta risklarini boshqarishda tajribadan o‘tgan ilg‘or xorijiy tajribalarni tadqiq etish, ularning o‘ziga xos bo‘lgan xususiyatlarini respublikamiz sharoitida qo‘llash muhim ahamiyatga ega.

## XULOSA

Xulosa qilib shuni aytish mumkinki, banklar faoliyatida valyuta operatsiyalari natijasida yuzaga kelayotgan risklarni oldindan ko‘ra bilsh, sezish va ularning oqibatlarini bartaraf etishning zaruriy shart-sharoitlarini yaratish muhim vazifa hisoblanadi. Operatsiyalar samaradorligi va risk o‘rtasidagi optimal balans hamda

bank maqsadlarining optimalligi aktivlarni boshqarish strategiyasining kompleks tanlov kriteriyalaridan biri hisoblanadi.

Valyuta risklarini boshqarish samaradorligi bankning xorijiy valyutadagi operatsiyalardan moliyaviy natijalarida aks etadi. Valyuta risklarini kamaytirish yo‘nalishi sifatida yangi valyuta depozit mahsulotlarini qulay shartlarda joriy etish orqali valyuta majburiyatlarini oshirish tavsiya etiladi.

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## СТАРОФРАНЦУЗСКИЙ ЯЗЫК В IX-XIII ВЕКАХ

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### **АННОТАЦИЯ**

*В этой научной статье выражен прогресс старофранцузского языка в IX-XIII веках и его изменение в старофранцузских письменных источниках. В статье представлено изменение структуры французского языка с примерами, появление «Царского языка» и состояние старофранцузского.*

**Ключевые слова:** «Царский язык», романский язык, популярные романские слова, окситанские слова, латынь.

### **ABSTRACT**

*This scientific article expresses the progress of the Old French language in the 9th-13th centuries and its changes in Old French written sources. The article presents the change in the structure of the French language with examples, the emergence of the “Royal Language” and the state of Old French.*

**Key words:** “Royal language”, Romance language, popular Romance words, Occitan words, Latin.

### **ВВЕДЕНИЕ**

Распад Империи Карла Великого повлек за собой множество последствий, которые отразились на языке: господство феодализма, раздробившее королевскую власть; вторжение норманнов в Англию, Францию и Италию;

эпоха крестовых походов, заставившая открыть Восток; всемогущество Римской церкви, подчиняющей себе христианский мир. Средневековое общество отражало мир, в котором информации было мало, общение затруднено, а торговля ограничена. Именно в этой неблагоприятной обстановке родился французский язык.

**«Царский язык».** В таких условиях развивались и укреплялись уже существовавшие между местными диалектами расхождения. Все деревни и все города выработали свою отчетливую речь: романский язык развивался везде свободно, без принуждения. То, что мы называем старофранцузским, соответствовало ряду по существу устных, географически разнородных, нестандартизованных и некодифицированных лингвистических разновидностей, как и в случае с английским языком.

## ЛИТЕРАТУРА И МЕТОДОЛОГИЯ

Французские диалекты размножались и разделялись на три большие группы, достаточно четко индивидуализированные, какими мы их находим и сегодня (см. карту диалектной Франции выше): языки ойла на севере, языки ок на юге, франко-провансальский во Франш-Конте, Савойя, Валь д'Аост (Италия) и на территории нынешней франкоязычной Швейцарии. В X веке французский язык, который часто ассоциируется с франкским, еще занимал лишь узкую территориальную базу среди языков ойля (см. слово *Françien* на карте): на нем говорили только в районах Парижа и Орлеана, со стороны высших слоев населения. Короли Франции, со своей стороны, все еще говорили на франкском (неманском языке). *Langues d’Oc* Юга соответствовали наиболее глубоко романизированной части Галлии, которая не входила в состав владений франков, но некоторое время находилась под вестготским господством, которое, однако, не оставил прямых следов во французском языке.

## РЕЗУЛЬТАТЫ

В 987 году Хьюг Капет был избран и коронован королем Франции; он был первым государем, умевшим изъясняться только на народном романском языке, то есть на «французском». Династии Капетингов удалось укрепить королевскую власть и взять на себя задачу расширения своих владений. Но только в 1119 г. король Людовик VI (который правил с 1108 по 1137 г.) провозгласил себя в письме папе Каликсту II «королем Франции», а не «королем франков» и «сыном частного короля». Римская церковь. Это первый текст, в котором упоминается слово Франция. Отсюда и французское слово. На самом деле в то время существовало написанное и произносимое [franswè] слово françois, причем слово francine было создано в 1889 году филологом Гастоном Парисом для обозначения французского языка Иль-де-Франс 13 века. в отличие от Пикара, Нормана, Бургундии, Пуатевена и т. д. Как бы он ни назывался, Francique, Français или François, язык Иль-де-Франс все еще не был широко распространен, и на нем говорили только в этом небольшом регионе (см. карту выше).

## ОБСУЖДЕНИЕ

**Состояние старофранцузского.** Фонетически французский язык 13 века был чрезвычайно сложной системой, особенно в отношении гласных; всего их было 33: 9 оральных, 5 носовых, 11 оральных дифтонгов, 5 носовых дифтонгов и 3 трифтонга. На стороне согласных в старофранцузском языке появились три аффрикаты: [ts], как в центре, произносится как tsent, [dz], как в ноге, произносится как dzjambë, [tch], как в лошади, произносится как tcheval. Трудно получить представление о том, каким было сложное произношение старофранцузского языка в 13 веке. В качестве примера возьмем этот стих из Chanson de Roland: Старофранцузские (произношение) белые козы шкуры [dés péawss de tchièvress blan-ntchess] Современные французские (произношение) белые козы шкуры [dé po t'chèvr' blanch]

## ЗАКЛЮЧЕНИЕ

В словарном запасе старофранцузского языка был большой запас популярных романских слов, несколько сотен окситанских слов, тысяча германских слов и несколько десятков слов арабского происхождения. Основная часть словарного запаса по-прежнему была взята из латыни с фонетической адаптацией. Хотя французский еще не был навязанным официальным языком, он использовался как транспортный язык высшими слоями населения и королевской армией, которая во время крестовых походов доставила его в Италию, Испанию, Кипр, Сирию и Иерусалим. В 12 веке французский язык начал использоваться в письменной форме, особенно в королевской администрации, которая использовала его наряду с латынью. Как видно, по мере укрепления королевской власти и централизации власти язык короля Франции распространялся, особенно в других языках нефти. Но еще несколько столетий латынь сохранит свои прерогативы в письменной форме и в школах.

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# ЛАТЫНЬ КАК ЯЗЫК СОЦИАЛЬНОГО ПРОГРЕССА СТАРОФРАНЦУЗКОГО ЯЗЫКА

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## **АННОТАЦИЯ**

*В этой научной статье выражено использование латыни как языка социального прогресса старофранцузского языка и его употребление в старофранцузских письменных источниках. В статье представлено употребление латинского языка с примерами, появление популярной латыни, начало великих германских нашествий.*

**Ключевые слова:** латынь, язык социального прогресса, старофранцузский язык, популярный латынь, галльские языки.

## **ABSTRACT**

*This scientific article expresses the use of Latin as the language of social progress of the Old French language and its use in Old French written sources. The article presents the use of the Latin language with examples, the emergence of popular Latin, and the beginning of the great Germanic invasions.*

**Key words:** Latin, language of social progress, Old French, popular Latin, Gaulish languages.

## ВВЕДЕНИЕ

**Латынь как язык социального прогресса.** Те, кто стремился к полному римскому гражданству, должны были принять привычки, образ жизни, религию и язык Рима. Это были условия для использования всех преимуществ римского гражданства, необходимых для всех, кто хотел подняться по ступеням социальной иерархии. Римская валюта распространилась по всей Империи; финансовые компании управляли римской администрацией, используя только латынь. Требовалось невероятное количество сборщиков налогов и младших служащих: галльские «туземцы», желавшие получить должности, выучили латынь. Армия представляла собой еще одно мощное средство латинизации. Побежденные должны были заплатить тяжелую дань римлянам, предоставив большую военную силу, которой командовали на латыни.

## ЛИТЕРАТУРА И МЕТОДОЛОГИЯ

Основание латинских школ благоприятствовало письму и латинскому алфавиту, что нанесло значительный ущерб галльской устной традиции, которая не могла противостоять мощному латинскому языку. Транспортным языком галльской знати мог быть только латинский или греческий: греческая цивилизация веками сияла в бассейне Средиземного моря, тогда как римская цивилизация уже более века оказывала свое влияние. Римская религия стала официальной, и с I века нашей эры друиды больше не занимали своего места в галло-римском обществе. К концу V века христианизация Галлии будет завершена. В награду за оказанные услуги многие римляне получили бесплатную землю. Римские поселения были важны, потому что они способствовали распространению латыни в сельской местности.

## РЕЗУЛЬТАТЫ

**Появление популярной латыни.** Не следует думать, что это была латынь Цезаря и Цицерона, которая навязалась и на которой говорили в V веке. Это была латынь, на которой изначально говорили государственные служащие, солдаты, римские поселенцы и ассимилированное коренное население. Эта разновидность латыни постепенно стала отличаться от классической латыни

первого века. Параллельно с этим классическим языком, предназначенным для аристократии и школ, развилась популярная латынь, региональные колориты которой стали очень важными из-за контактов между победителями и побежденными. Постепенно эта сильно видоизмененная и популярная латынь стала использоваться даже священнослужителями и писцами для написания публичных актов и множества религиозных и гражданских документов. Фактически, после краха гигантской имперской структуры народная латынь должна была окончательно восторжествовать над так называемой классической латынью. Из-за закона о реабилитации в середине популярный латинский язык, на котором говорили в разных провинциях Рима, постепенно распадался в соответствии с конкретными политическими, социальными и географическими условиями. В регионах, далеких от Рима, таких как северная Галлия, и в тех, где были контакты с германским населением, развилась еще более иная форма разговорной латыни.

## ОБСУЖДЕНИЕ

**Начало великих германских нашествий.** В 375 году произошло то, что историки назвали «столкновением гуннов» против германских остготов, живших к северу от Черного моря между Дунаем и Днепром (Украиной). Именно этот 375 год считается началом великих вторжений и началом распада Римской империи. То, что римляне называли «вторжениями варваров», последние называли *Völkerwanderungen*, то есть «переселением народов». С лингвистической точки зрения эти вторжения можно охарактеризовать как явления языковой экспансии, где столкнулись языки с переменным динанизмом. Готы, остготы, вестготы, вандалы, франки, саксы, бургунды, алеманы и т. д. сталкивались друг с другом из одного уголка Европы в другой и хлынули в Западную Римскую империю. К концу V века Западная Римская империя исчезла, уступив место основанию нескольких германских империй.

## ЗАКЛЮЧЕНИЕ

Франки заняли северную Галлию и Германию, а вестготы оккупировали Испанию и южную Галлию; англы и саксы проникли в Британию после

изгнания кельтов в Арморику (современная французская Бретань); бургунды вторглись в центр-запад Галлии (Бургундия, Савойя, современная франкоязычная Швейцария); аламаны были отброшены в Гельвецию (Швейцария), свевы — в Галисию (Испания), а вандалы завоевали побережье Северной Африки и стали хозяевами моря, оккупировав Балеарские острова, Корсику и Сардинию.

В конце V века Западная Римская империя была разделена на десять германских королевств. Но большинство этих королевств не могли образовать прочных государств, за исключением франков и англосаксов. Тем не менее, эти германские вторжения способствовали созданию современной Европы, в частности, благодаря некоторым франкским королям, в том числе Хлодвигу, который основал Франкское королевство и навязал католицизм, и Карлу I из Каролингов, более известному как Карл Великий.

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## OLIY TALIMDA MANAVIY MARIFIY ISHLARNI RAQAMLI BOSHQARISHDA PEDAGOGIK TENOLOGIYALARIDAN FOYDALANISH

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Logistikada axborot texnologiyalari kafedrasи assistenti

### *ANNOTATSIYA*

*Bugun dunyoda yoshlarga zamонавиј та’лим бериш ва бу орқали мamlакат barqaror rivojini ta’milash asosiy muammolardan biriga aylandi.*

*XXI asr – texnologiyalar asri hisoblanadi. Shunday ekan dars jarayonida turli zamонавиј axborot vositalaridan o‘rinli foydalanish, kompyuterli ta’lim jarayonida darslarni o‘quvchi va kompyuter orasidagi munosabatlarga ko‘ra tashkil etish, boshqarish, nazorat qilish bugungi kunda dolzarb masalalardandir. Shiddat bilan rivojlanish kechayotgan hozirgi davrda axborot olish va undan to‘g‘ri foydalanishni o‘rganish yoshlar oldidagi asosiy maqsadga aylangani ayni haqiqat. Maqolada raqamli texnologiya, ta’limda raqamli texnologiyadan foydalanish, raqamli texnologiyani ta’lim tizimi vostilari, raqamli texnologiyasini ustunliklari haqida tushuncha berilgan.*

**Kalit so‘zlar:** axborot vositalari, axborot-kommunikatsiya texnologiyalari, intelektual,raqamli texnologiya, zamонавијлик, ta’lim texnologiyalari.

Oliy talimda manaviy-marifiy ishlarni raqamli boshqarish pedagogik tenologiyalaridan foydalanish, o‘quv jarayonini yanada samarali va interaktiv qilishga yordam beradi. Bu texnologiyalar, o‘quvchilarning o‘zlashtirishning yanada ko‘p yo‘nalishlarda va interaktiv usullarda amalga oshirilishini ta’milaydi.

Quyidagi pedagogik tenologiyalar oliy talimda manaviy-marifiy ishlarni raqamli boshqarishda foydalanish mumkin:

**1. Interaktiv ta’lim platformalari:** Bu platformalar o‘quvchilarga interaktiv vazifalarni o‘zlashtirish, onlayn darslarga qatnashish, ma’lumotlarni o‘rganish va baholash imkonini beradi. Bu shu bilan birga, o‘qituvchilar o‘quvchilarning natijalarini monitoring qilish va ular bilan aloqada bo‘lishlari uchun ham foydalanishadi.

**2. Multimediyali darsliklar:** Raqamli boshqarishda pedagogik tenologiyalar, o‘quv dasturlarini o‘z ichiga olish va ularni o‘quvchilarga 3D model, grafikalar, video va audiolarni o‘z ichiga olish imkonini beradi. Bu usul, o‘quvchilarning qiziqishlarini oshiradi va o‘rganish jarayonini yanada qiziqarli va samarali qiladi.

**3. O‘quv dasturlaridagi interaktiv modullar:** Raqamli boshqarish pedagogik tenologiyalari o‘quv dasturlarida interaktiv modullarni amalga oshirish imkonini beradi. Bu modullar o‘quvchilarning o‘zlashtirishni yanada samarali qiladi va ularning o‘ziga xos tajribani olishga imkon beradi. O‘quvchilar o‘zlashtirish jarayonida o‘zlarining fikrlarini ifoda qilish, masalalar yechish va jamoatchilik bilan hamkorlik qilish imkoniyatiga ega bo‘ladi.

**4. Virtual o‘qish resurslari:** Virtual o‘qish resurslari, o‘quvchilarga o‘zlashtirishni yanada qiziqarli qilish va o‘rganish jarayonida ularga o‘ziga xos tajribani taqdim etishga yordam beradi. Virtual laboratoriylar, o‘quvchilarning amaliyot tajribasini oshirishga imkon beradi. Virtual ekskursiyalar va turli interaktiv dasturlar, o‘quvchilarni o‘zlashtirish jarayonida qiziqishlarni oshirishga yordam beradi.

**5. Onlayn ta’lim platformalari:** Onlayn ta’lim platformalari arqali o‘quvchilar darslarga qo‘shilishlari va o‘zlashtirishlari mumkin bo‘ladi. Bu platformalar, interaktiv darslar, ma’ruzalar va sinalash materiallari orqali o‘quvchilarning o‘zlashtirilishini yanada samarali qilishga imkon beradi. O‘quvchilar o‘zlarining o‘ziga mos vaqtida o‘quv materiallariga kirish imkoniyatiga egalar.

Bu pedagogik tenologiyalar o‘quvchilar o‘zlarining o‘zlashtirish jarayonida aktiv ishtirok etishini va o‘zlarining o‘rganishni yanada samarali qilishini ta’minlaydi. O‘qituvchilar ham o‘quvchilarni baho berish, natijalarni monitoring qilish va ular bilan aloqada bo‘lishlari uchun bu tenologiyalardan foydalanmumkin. Bu texnologiyalar o‘quv jarayonini yanada interaktiv va samarali qilish imkonini beradi va o‘quvchilarning o‘zlashtirishini oshiradi. Ularning foydalangan jarayonida o‘quvchilar o‘z fikrlarini ifoda qilish, masalalar yechish, ijtimoiy hamkorlikda ishtirok etish va kreativ muammolarni yechish imkoniyatlariga ega bo‘ladi. Bundan tashqari, pedagogik tenologiyalar, o‘quvchilarning o‘zlashtirish va o‘rganish natijalarini baholash va baho berish jarayonlarini ham yanada samarali qilishga yordam beradi. O‘quvchilarning o‘zlashtirish darajasini, ma’lumotlarni tushunish darajasini va rivojlanishini monitoring qilish imkonini beradi. Pedagogik tenologiyalar, masofaviy o‘quv (uzaktan ta’lim) dasturlarini ham o‘z ichiga oladi. Bu usul, o‘quvchilar va o‘qituvchilar o‘rtasidagi masofaviy aloqalarni ta’minlaydi va o‘quvchilarning o‘zlashtirishini va o‘rganishini masofadan ham samarali qilishga yordam beradi.

Raqamlı texnologiyalarni o‘zlashtirish insoniyat tarixidagi boshqa innovatsiyalarga qaraganda tezroq sodir bo‘lmoqda: bor-yo‘g‘i yigirma yil ichida raqamlı texnologiyalar rivojlanayotgan mamlakatlar aholisining qariyb 50 foizini qamrab olishga va ularning yordami bilan jamiyatlarni o‘zgartirishga muvaffaq bo‘ldi.

**Xulosa qilib shuni takidlاب o‘tish zarurki.** O‘qituvchilarning o‘rgatiladigan material mazmunini tanlashda axborot kommunikatsiya texnologiyalar mazmunidagi bilimlar bilan cheklanilmasligi lozim. Bugungi kunda mamlakatimizda ko‘plab gazeta, jurnal, axborotnoma-byulleten, radio, televideniey, axborot agentliklari, internetda veb-saytlar faoliyat ko‘rsatmoqda. Bularning barchasi birgalikda oliy talimda manaviy-marifiy ishlarni raqamlı boshqarishda pedagogik tenologiyalardan foydalanishning muhim aspektlarini hosil qiladi. Bu texnologiyalar o‘quvchi va o‘qituvchilarning o‘zlashtirish yo‘lini yanada samarali qilish va o‘quv jarayonini interaktiv va qiziqarli qilish imkonini beradi.

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***ANNOTATSIYA***

*Maqolada bugungi kunda mamlakatimizda balki butun dunyoda onalarning jismoniy aqliy va ruhiy sog‘lom farzand dunyoga keltirish va shu ruknda tarbiyalashning sinalgan usullari va tarbiyatagi muammolar haqida so‘z boradi. Farzand tarbiyasida jamiyat, mahalla va ota onaning o‘rni, ahamiyati - farzandning shaxsiy ijtimoiy moslashuviga ta’sirni o‘rganib chiqamiz. Yangi O‘zbekiston ravnaqining poydevori bo‘lib xizmat qiladigan farzandlar tarbiyasini to‘g‘ri shakllantirish yangi o‘quv qo‘llanmalar chop etish va yurtimizning barcha xududlarida axborot vositalarida tanishtirib borish haqida chora tadbirlar taklif etilmoqda.*

**Kalit so‘zlar:** *Bola, rivojlanish, ijtimoiylashuv, yosh davrlari, tarbiya, xis qilish, shakllantirish.*

***АННОТАЦИЯ***

*В статье рассказывается об апробированных методах рождения физически, психически и психически здоровых детей у матерей в нашей стране на сегодняшний день и проблемах в воспитании. Изучим значение общества, общества и родителей в воспитании ребенка - влияние на личностную социальную адаптацию ребенка. Предлагается издать новые учебники и внедрить их в СМИ во всех регионах страны, правильно формировать*

воспитание детей, которое послужит фундаментом развития нового Узбекистана.

**Ключевые слова:** ребенок, развитие, социализация, юношеские периоды, воспитание, чувство, формирование.

### **ANNOTATION**

The article talks about the tested methods of mothers giving birth to physically, mentally and mentally healthy children in our country today, and the problems in upbringing. We will study the importance of society, neighborhood and parents in raising a child - the impact on the child's personal social adjustment. It is proposed to publish new textbooks and introduce them in the media in all regions of the country, to properly shape the upbringing of children, which will serve as the foundation of the development of the new Uzbekistan.

**Key words:** Child, development, socialization, youth periods, education, feeling, formation.

Har bir ota ona o‘z farzandining baxtu saodatli ma’naviy sog‘lom istiqboli porloq kelajakdagi mustaqil hayotida ham moddiy jihatdan sog‘lom bo‘lib yashamog‘ini orzu qiladi va shu maqsadga erishish uchun butun umrini bor yo‘g‘ini sarf qiladi. Ayniqsa bu bizning bolasevar xalqimizning qalbiga singib ketgan fazilatdir. Islom dini ta’limotiga ko‘ra farzand Alloh tomonidan berilgan ulug‘ ne’mat bo‘libgina qolmay, u ota onaga topshirilgan ma’suliyatli juda kata omonat hamdir. Bolani aqlan ham jismonan sog‘lom parvarish qilish, unga odob ahloq va ta’lim tarbiyani o‘rgatib borish xar bir ota onaning kundalik vazifalari sirasiga kiradi. Oiladagi sog‘lom muhit va to‘g‘ri tarbiya farzandning keyingi oladigan bilim va kasb hunarlari uchun poydevor vazifasini o‘taydi. Bola tarbiyani dastlab oilasida oladi. Kattalarning butun xatti harakatini xuddi rasmga olgandek ongiga, ulg‘aygach ularni xayotga tatbiq etadi. Odob - axloqi yomon bolalar asosan muhiti sog‘lom bo‘lmagan oilalardan chiqadi. «Bugungi - o‘g‘ri, firibgar va xulqi yomon kimsalar kecha tarbiyasiga e’tibor berilmagan bolalardir», - degan edi Abdulla Avloniy. Yana bir

xadisda esa «Ilm Xitoyda bo‘lsa ham uni izlab topib egallangiz, zero ilmni talab qilish har bir musulmonga farzdur» deyilgan. Menimcha faqat ota onasini yo‘qotgan emas, balki qarovsiz qolgan, tarbiyasiga birov ahamiyat bermagan bola ham yetim xisoblanadi. Kelajagimiz poydevori bo‘lgan bolalarni tarbiyasiga katta ahamiyat berishimiz ularning yuksak axloqiy qadriyatlar milliy va diniy an’analarimizga sodiq bo‘lishiga e’tibor qaratish lozim. Payg‘ambarimiz (s.a.v) ning «Ota o‘z farzandiga chiroyli tarbiyadan yaxshiroq meros qoldirolmaydi» degan ibratli xadislari ham bezizga emas. Yana bir hadisda esa «Bolalaringiz kattarganda sizlarni hurmat qilishini xohlasangiz, ularni kichikligida siz hurmat qiling» deyilgan. Bolalarni o‘z holiga tashlab qo‘ysa, kim bilan do‘splashyapti, nimalarga qiziqishi borligiga e’tibor qaratilmasa buning oqibatida yoshlikdan chekish va giyohvandlikka ruju qo‘yayotgan, mактабдаги коллеjлардаги дарсларни сабабсиз qoldirib beparvo yuradigan bolalarga to‘g‘ri yo‘l ko‘rsatib ularga ilmning ahamiyati va yoshlik qadrini tushuntirib borish zarur. Hozirgi kundagi ma’lumotlarga qaraganda O‘zbekiston Respublikasida aholining 64% foizini yoshlar tashkil qilar ekan. Ularning ulg‘ayib komil inson bo‘lishi uchun davlatimiz barcha moddiy va ma’naviy shart sharoitlarni muhayyo qilmoqda, ulardan sport inshootlari, dam olish va istirohat maskanlarini barpo etib yoshlar ixtiyoriga berib qo‘yilmoqda. Farzandlar fe’l arvoridagi salbiy yoki ijobjiy sifatlari – tug‘ilgandan olingan tarbiya natijasidir. Otalar farzandlari bilan ko‘proq suhbatlashishi va ularning qiziqishlarini to‘g‘ri qabul qilshi juda muhim, an’anaviy odatlarimizga ko‘ra otalar oila boshlig‘i, shu bilan birga farzand tarbiyasida ham faol ishtirok etishi lozim. Agar farzand otasi ishdan kelganda faqat tergashini eshitsa, farzand nigohida ota shoshilinch vaziyatlarda yordamga keladigan shifokorga aylanib qoladi. 2-3 yoshda bolada shahsiy g‘urur shakllana boshlaydi. Bola tug‘ilishi bilan bir yoshgacha bo‘lgan davrda unda «Men» tuyg‘usi rivojlanishdan oldin uni tartib va tarbiyaga chaqirish o‘rgatish zarur. Odatiy misol: bola tug‘ilishidan boshlab uning vaqtini to‘g‘ri taqsimlab tartib bilan ovqatlantirilsa, bola ortiqcha vaznga ega bo‘lmaydi va to‘shakda yotgan joyida peshob qilmaydi. O‘z-o‘zidan ovqatlanishga o‘rgatilsa kelajakda qabziyatdan qiynalmaydi. Bolada asabiylashish va xasad xarakterining asosiy sababi ojizlikdan.

Tokio universiteti professori bolalar psixologiyasi bo'yicha mutaxasis Toshio Yamashita - bolaning asabiylashish sabablarini quyidagicha sanab keltiradi:

- kasallik sababli sog'lig'i yomonlashganda;
- ochlik yoki xorg'inlik sabab o'zini yaxshi his qilmaganda;
- noxush voqea yoki qo'rquinchdan qattiq ta'sirlanganda;
- jismoniy mashqlar yetishmasligidan kuch sarflanmay to'planib qolganda;
- o'z aytganida turib olganda;
- ota - onaga taqlid qilganda;

Bu ro'yxatdan ko'rinib turibdiki bolaning asabiylashish omillari uning atrofidan va tarbiyasidan izlamoq kerak. O'z farzandingizni boshqalar oldida masxara qilmang. Bolani urshgandan ko'ra maqtash afzalroq va samaraliroq. Erta ta'limning antiqa dalillaridan sanalgan ko'p odamni yig'a oladigan kuch, yani "yetakchilik" – bu bolani rivojlantiradi. Har bir guruhda yetakchilik rolini bola o'ynaydigan bo'ladi. Doktor Yamashita o'zining bolalar psixologiyasi nomli kitobida «Yetakchilik qobiliyatiga ega bola uning atrofida boshqa ko'pgina bolalar bo'lsada, doimo o'z fikrlari qilayotgan ishlarini aniq maqsadga yo'naltirganini, o'yin yoki mashg'ulotlarida u doimo biror yangi narsa ixtiro qilishga harakat qiladi» deya tariflagan. She'r yodlash bola xotirasini mustahkamlaydi. Statistik ma'lumotlarida keltirishicha bola bir yilda 170 ta she'r yodlay olar ekan. Bola xotirasida 100 tadan 200 tagacha she'rni saqlab qolar ekan. Takrorlash ilm olish garovi deganlaridek agar bola she'rni bir qatorini unutsa, she'rni boshidan oxirigacha qaytarsin shunda butun she'r yoki hikoyani yodida saqlashi oson bo'ladi va aqliy qobiliyat, ijodiy imkoniyatlari rivojlanadi. Shuning uchun farzandlardagi ilk bolalik xotiralari ularning butun hayoti va kelajagi uchun juda katta ta'sir qiladi. Ota onalar farzandlar yonida tortishuvi oiladagi adolatsizlik va ichkilikbozlik moddiy tomondan yetishmasligi bolalik davridagi yomon xotiralar aggressiv va salbiy xarakterlarni juda kuchli rivojlantiradi va bunday farzandlar kelajakda albatta jamiyatda o'z o'rnini topishga va qalbidagi jarohatlarni unutishga qiynaladilar.

Ko‘plab Yevropa va Osiyo davlatlari psixologlari ilmiy nazariyasi va taqdiqotlarini o‘rganadigan bo‘lsak yer yuzidagi tug‘iladigan farzandlar 4 ta toifaga bo‘linar ekan

1. Indigo farzandlar
2. Kristal farzandlar
3. Kamalak farzandlar
4. Quyoshli nurli farzandlar

Bundan ko‘rinib turibdiki yer yuzida tug‘ilayotgan farzandlar aslo bir birlariga o‘xshamas va bir birlarini takrorlamas ekan. Endi bunday 4 qatlamlili farzandlar haqida to‘xtalsak. Indigo farzandlar asosan ikkinchi jahon urushi tugab, yer sayorasi obdon yangilanib yangi bosqichga o‘tganida (1950-1960 yillardan) tug‘ila boshlagan. Yani to‘lqin-to‘lqin, ozgina dam olib 2000 yilga qadar Indigo farzandlar tug‘ila boshladi. Bunday farzandlar asosiy vazifasi yerimizni urushdan keyingi holatini qayta taraqqiyotga taylorlab, ko‘plab yangiliklar yaratishdan iborat edi. Shuning uchun ham e’tibor bersangiz o‘sha yillarda tug‘ilgan ota bobolarimiz mehnatkash, sabr-toqatli, tinchlik zamonlarni juda qattiq qadrlovchi, insoniylik hislatlari yuqori shukronalik hislariga juda to‘yingan va o‘qish, oliy ma’lumotli bo‘lish, yangilik yaratishni yaxshi ko‘radigan fe’l-atvorda bo‘lganlar. Bunday farzandlarning aurasi dumaloq baqlajon rangda noyob bo‘lib unday farzandlar ko‘proq onalariga suyanishgan va bo‘ysunuvchanlik xarakteri yuqori bo‘lgan. Kristal farzandlar asosan Indigo onalardan tug‘iladi va unday farzandlar 2001 yildan boshlab yer sayyoramiz yana bir qadam rivojlanib yuqorilaganda tug‘ilishni boshlagan. Kristal farzandlar aurasi oq olmos rangida tuxumsimon shaklda bo‘lib ular asosan fan-texnika tarraqiy etgan davrda tug‘ilganligi sababli fe’l-atvorlari tubdan farq qiladi. Ularning majburiy mehnatga ortiqcha talabchanlikka va qat’iy talab va tartiblarni yoqtirmasligi, arzimagan sabablar va hodisalardan tez ranjib qoladilar. Ammo ular shu bilan birgalikda tabiatni yashillikni yaxshi ko‘rvuchi hayvonot dunyosini ham yaxshi ko‘rvuchi ko‘ngli toza, mehribon, mehr-muhabbat, do‘stlik rishtalari kuchli rivojlangan bo‘lib, ularning tug‘ilgan muhiti va sharoiti shunga bog‘liq. Kamalak farzandlar 2012 yildan yer yuzida juda katta ko‘tarilish, globallashgan dunyoga o‘tish

davridan tug‘ila boshlagan va ular nomidan ko‘rinib turganidek serjilo nozik, turli ranglarda. Bunday farzandlar endi rivoj topayotganligi sababli hali ilmiy izlanishlar o‘z nihoyasiga yetganicha yo‘q. Shuning uchun ham barcha fanlar va sohalarda kuzatilayotgan yangi inovatsiyalar, metodlar ta’lim-tarbiya usullari ham doim sharoit va muhit talabga qarab o‘zgarib turadi.

Birinchidan inson o‘zini shaxsiy rivojlantirishi mumkin bo‘lgan kitobga hech qachon pulni tejamasligi kerak. Ikkinchisi bu hammamizning qaramligimizga aylanib ulgurgan smartfonimiz. Uning yordamida biz bir daqiqada butun dunyodan xabardor bo‘lamiz . Uning yordamida biz bir zumda o‘zimizga kerakli ma’lumotni topa olamiz, lekin doim ham foydali emas. Holbuki barcha ota onalarning internetga kirishga imkoniyati bor ekan nega ularga bola tarbiyasiga oid foydali ma’lumotlarni yetkazuvchi bir mobil dasturni yaratgan holda ularga bunda yo‘lboshchi bo‘la olmayabmiz. Aytishingiz mumkin yosh avlodga maktab, kollej, universitet darsliklari orqali kerakli barcha bilimlar berilyabdi deya. Lekin inson ongi shunday tashkil topganki unga bu bilimlar amaliyotda kerak bo‘lgandagina u o‘sha ma’lumotlarni to‘la yuklama bilan qabul qila oladi. Endigina ona bo‘lgan ayol farzandini qanday parvarish qilish uni qanday tarbiyalash haqida shunchalar ko‘p qayg‘uradiki, unga berilgan har qanday maslahat har qanday ma’lumotni gubkadek shimib oladi biz o‘sha fursatdan to‘g‘ri foydalanib unga shu davr mobaynida farzandiga qanday muomalada bo‘lishi, qanday qilsa u yetuk farzandni tarbiyalay olishini tushuntiradigan bir qo‘llanma yoki dasturni yaratishimiz darkor. Chunki kelajak quruvchilarini biz onalar tarbiyalamoqdamiz eng asosiy e’tiborni onalar tarbiyasiga qaratsak yanglishmagan bo‘lamiz deb hisoblayman.

Bizdagi asosiy kamchiliklardan biri deb juda ko‘p hollarda ota-onaning kelishholmasligi tortishuvlari va bu vaqt ichida farzandlar ko‘z oldida sodir bo‘ladigan oilaviy janjallar, ba’zi hollarda esa farzandlarning ushbu janjallarga aralashishi deb hisoblayman. Ba’zida esa onaning yoki otaning farzandini do‘sit pozitsiyasiga qo‘yib u bilan dardlashishi. Bu farzandning ruhiyatini sindiradi sababi bola ota yoki onasining muammosini eshitganidan so‘ng unga yordam bergisi keladi va tabiiyki uning qo‘lidan hech narsa kelmagach u o‘zidan qoniqmaslik hissiga duchor bo‘ladi.

Katta bo‘lgach u o‘zini noshud deb hisoblashni boshlaydi boshqalar uning ustidan hukmronligini osongina o‘tkaza oladi, va uning shaxsiy fikri tobora yo‘qolib boradi. Bunday holatlar bo‘lmasligi uchun ota ona avvalo o‘zini yaxshi tanib olishi o‘zining hissiyotlarni boshqarishni bilishi kerak. Ota-onas uchun mayda tashvishdek ko‘ringan narsa bolaning butun kelajakdagi hayotini hal qilib yuborishi mumkinligini ular anglab yetishlari kerak. Albatta bu muammoning faqatgina bir qismi va bunday holatlar juda ko‘p ota-onalar muammoning potensialini his qilishi uchun o‘zlari psixologik tarafdan oz bo‘lsada savodxonligi bo‘lishi kerak.

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## **AXBOROT KUTUBXONA MUASSASALARIDA ZAMONAVIY AXBOROT-KUTUBXONA XIZMATLARI**

**Pirmedova Xaytgul Muxammedovna**

TDYU ARM direktori.

**Xalikova Muxabbat Akbar qizi**

TDYU ARM axborot texnologiyalari bo‘yicha yetakchi mutaxassis.

**Sharipova Gulshan Asad qizi**

TDYU ARM bo‘lim mudiri.

### ***ANNOTATSIYA***

*Maqolada dunyodagi eng nufuzli bo‘lgan universitetlarning kutubxonalaridagi Axborot-kutubxona xizmatlari tahlil qilindi va ularni O‘zbekistondagi oliy yurtlari kutubxonalarida joriy qilish imkoniyatlari o‘rganildi.*

### ***Kalit so‘zlar.***

*Axborot-kutubxona xizmatlari, oliy o‘quv yurtlari kutubxonalari, elektron kutubxona.*

### ***ABSTRACT***

*The article analyzed information-library services in the libraries of the most prestigious universities in the world and explored the possibilities of their implementation in the libraries of higher institutions in Uzbekistan.*

### ***Key words.***

*Information-library services, libraries of higher educational institutions, electronic library.*

Yoshlarning intelektual salohiyatini oshirishda axborot-kutubxona muassasalarining o‘rni beqiyosdir. Qadimdan kutubxonalar ilm tarqatuvchi maskan hisoblanib kelingan. Asosiy vazifa albatta kutubxonachi zimmasiga tushar edi. Bugungi kunga kelib bu vazifa yanada mas’uliyatli tus olmoqda.

Axborot-kutubxona muassasalarining bosh maqsadi barcha toifadagi foydalanuvchilarning axborotga bo‘lgan talabini qondirishdan iborat. Ushbu maqsad yo‘lida har bir axborot-kutubxona muassasasi o‘zi uchun strategiya ishlab chiqishi va turli toifadagi foydalanuvchilarga ko‘rsatish mumkin bo‘lgan axborot-kutubxona xizmatlari sonini ko‘paytirib borishi maqsadga muvofiqdir.

Foydalanuvchilarning qiziqishlarini o‘rganish, foydalanuvchilarga ijod erkinligini yaratib berish, jamiyatning boshqa uyushmalari bilan hamkorlikda izlanishlar olib borish va o‘zaro hamkorlikni rag‘batlantirish axborot-kutubxona muassasalari oldida turgan dolzarb masalalardan hisoblanadi. Dunyo kutubxonalarining faoliyatini kuzatib shunga amin bo‘lish mumkinki, kutubxonalarda kitobxonga ma’lumot-axborot xizmati ko‘rsatish kutubxona xodimlarining asosiy vazifasi hisoblanadi. Kutubxona xodimlari ham shu o‘rinda, ilmiy izlanuvchi vazifasini bajaradigan shaxslar hisoblanadi. O‘z ilmiy izlanishlari bilan kutubxona foydalanuvchilarining axborotga bo‘lgan ehtiyojlarini qondirishadi.

Ushbu tadqiqotdan maqsad dunyodagi eng nufuzli bo‘lgan universitetlarning kutubxonalarini tahlil qilish va ularni O‘zbekistonidagi oliy yurtlari kutubxonalarida joriy qilish. Tadqiqot quyidagi uchta eng yuqori o‘rinlarda turuvchi universitetlar kutubxonalari doirasida amalga oshirildi.

1. “Harvard Library” Garvard universiteti kutubxonasi. Kutubxona 1638 yilda tashkil etilgan, AQSh dagi eng qadimgi hamda dunyodagi eng kata akademik kutubxona tizimi hisoblanadi. Garvard universitetiga tegishli kutubxonalar 25 dan ortiq bo‘lib, u yerda 800 dan ortiq xodimlar ishlashadi. Kutubxona fondi 60 millionda ortiq moddiy hamda elektron resurslar bo‘lib, ular 460 dan ortiq dunyo tillarida yozilgan manbalardir.

2. “Bodleian Libraries” Oksford universiteti kutubxonalari. Bodleian kutubxonalar Oksford universitetini qo‘llab-quvvatlaydigan kutubxonalar tizimidir. Kutubxona 4 asr muqaddam tashkil etilgan bo‘lib, hozirda Buyuk britaniyadagi eng yirik

kutubxona hisoblanadi. Kutubxonada 13 milliondan ortiq bosma nashrlar, 80 000 dan ortiq elektron jurnallar va noyob kitoblar va qo‘lyozmalar, klassik papiruslar, xaritalar, musiqa, san’at va bosma efemera kabi ajoyib maxsus to‘plamlar mavjud.

3. “ASU Library” Arizona davlat universiteti kutubxonasi. Kutubxona 1975 yilda barpo qilingan bo‘lib, Kutubxona fondi 6 milliondan ortiq bosma nashrlar, 1 000 dan ortiq elektron jurnallar va noyob kitoblar va qo‘lyozmalardan iborat.

### **Dunyodagi eng nufuzli universitetlar kutubxonalarida xizmatlar tahlili.**

| <b>№</b>  | <b>Kutubxonalarda ko‘rsatiladigan xizmatlar nomi</b> | <b>Tashkilot nomi</b>   |  |  |
|-----------|--|---|--|--|
|           |  | <b>“Harvard Library”<br/>Garvard universiteti kutubxonasi</b> | <b>“Bodleian Libraries”<br/>Oksford universiteti kutubxonasi</b> | <b>“ASU Library”<br/>Arizona davlat universiteti kutubxonasi</b> |
| <b>1</b>  | Internet, wifi                                       | +   | +  | +  |
| <b>2</b>  | Yig‘ma elektron katalog xizmatidan foydalanish       | +   | +  | +  |
| <b>3</b>  | Bibliografiya xizmati                                | +   | +  | +  |
| <b>4</b>  | Ma’lumot-axborot xizmati                             | +   | +  | +  |
| <b>5</b>  | Elektron kutubxona                                   | +   | +  | +  |
| <b>6</b>  | Printer, skayner va nusxa olish xizmatlari           | +   | +  | +  |
| <b>7</b>  | O‘quv zallarini jamoa bo‘lib bron qilish xizmati     | +   | +  | +  |
| <b>8</b>  | Ko‘chma kutubxonalar tashkil qilish xizmati          | +   | +  | +  |
| <b>9</b>  | Nogironlar uchun maxsus xizmatlar                    | +   | +  | +  |
| <b>10</b> | Ekskursiya xizmatlari                                | +   | +  | +  |
| <b>11</b> | Kompyuterlarni ijaraga                               | +   | +  | +  |

|    |   |   |   |   |
|----|---|---|---|---|
|    | berish xizmatlari                                       |   |   |   |
| 12 | Turli xil qo'shimcha kurslar                            | + | + | + |
| 13 | Maxsus mutaxassislar xizmati                            | + | + | + |
| 14 | Ilmiy ma'lumot bazalariga a'zolik                       | + | + | + |
| 15 | Online a'zo bo'lish                                     | + | + | + |
| 16 | Masofadan kitobxonga xizmat ko'rsatish                  | + | + | + |
| 17 | Masofadan to'lovlar qilish imkoniyati                   | + | + | + |
| 18 | Turli xil qo'shimcha kurslar                            | + | + | + |
| 19 | Nashr hamda media xizmatlari                            | + | + | + |
| 20 | Kitoblarni uygaga yetkazib berish xizmati               | + | + | + |
| 21 | Foydalanuvchilarga kutubxona manbalarini targ'ib qilish | + | + | + |
| 22 | Kutubxona xodimidan so'rang xizmatlari (ASKaLibrarian)  | + | + | + |
| 23 | Ijtimoiy tarmoqlarda ma'lumot beruvchi bloglar          | + | + | + |
| 24 | Kutubxona fondi qilingan podcastlar                     | + | + | + |

Mazkur Kutubxonalarining maqsadi keng ommaga ko'rsatiladigan xizmatlar sonini oshirish natijasida foydalanuvchilarning axborotga bo'lgan ehtiyojini qondirishdan iborat.

Axborot-kutubxona xizmatlarini asosan ikki turga bo‘lish mumkin: an’anaviy va noan’anaviy xizmatlar. An’anaviy xizmatlar bu kitob berish, kataloglashtirish, bibliografiya, fondni saqlash kabi xizmatlar sanalsa, noan’anaviy xizmatlar safiga zamonaviy axborot texnologiyalaridan foydalangan holda xizmat ko‘rsatish kiradi. Bugungi kunda noan’anaviy axborot-kutubxona xizmatlaridan foydalanuvchilar soni oshib borayotganligini guvohi bo‘lishimiz mumkin.

Tahlil natijalariga ko‘ra foydalanuvchilar e’tiborini onlayn tarzda amalga oshirilayotgan xizmatlar jalb qilayotgani ma’lum bo‘ldi. Asosan elektron kutubxona yaratish xizmatlariga, aynan kutubxonachilik ishidagi to‘lovlarni onlayn amalga oshirish xizmatiga va ilmiy-ta’limiy ma’lumotlar bazalaridan uzluksiz foydalanishni joriy etish kabi xizmatlarga bo‘lgan talab ortib bormoqda.

O‘zbekiston jahon miqiyosiga chiqishi, dunyodagi ilm-fan sohasidagi ilg‘or yangiliklardan juda tez xabardor bo‘lishi va O‘zbekiston olimlarini dunyo tanishi uchun ham xalqaro tashkilotlar bilan ma’lumot almashishi muhim sanaladi. Shu maqsadda O‘zbekiston bir necha yirik ilmiy-ta’limiy ma’lumotlar bazalarga a’zo bo‘lib, ular jumlasiga Ebsco, Emerald, Springer, ProQuest, Thomson Reuterslar kiradi. Lekin jahondagi boshqa yirik kutubxonalarning ilmiy-ta’limiy ma’lumotlar bazalaridan foydalanish sur’ati biznikiga nisbatan 20 baravardan 100 baravargacha yuqori ekanligini ko‘rishimiz mumkin.

O‘zbekiston rivojlangan mamlakatlar qatoriga kirishi uchun ilmiy-ta’limiy ma’lumotlar bazalaridan uzluksiz foydalanishni yo‘lga qo‘yishi, ilmiy-ta’limiy ma’lumotlar bazalarini shakllantirishi, mualliflar bilan masofadan turib har qanday masalalarni hal qila olish metodikasini va mavjud ilmiy-ta’limiy resurslar targ‘ibotini muntazam amalga oshirish mexanizmlarini ishlab chiqishi hamda ularni tadbiq etishi lozim.

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## **ELEKTR ZANJIRLARINI KIRXGOFF QONUNLARI YORDAMIDA HISOBLASH**

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### ***ANNOTATSIYA***

*Kirxgof qonuni bo‘yicha elektr zanjirlarini hisoblash. Murakkab (tarmoqlangan) elektr zanjirlarini hisoblashda Kirxgoff qonunlaridan foydalaniladi. Kirxgoff qonunlari bo‘yicha tenglamalarni yaratish uchun siz quyidagilarni bajarishingiz kerak:*

- 1. Elektr sxemasidagi shohobchalardagi, tugunlar va sxemalar sonini aniqlang.*
- 2. Har bir shaxobchadagi toklarning oqimni aniqlang.*
- 3. n-1 tugunlarni tanlang va ular uchun Kirxgofning birinchi qonuni bo‘yicha tenglamalar tuzing.*

4. *Kirxgofning ikkinchi qonuni bo'yicha tenglamalar tuziladigan konturlarni tanlang.*

5. *Har bir konturning yo'nalishini belgilab oling.*

6. *Kirxgofning ikkinchi qonuni bo'yicha m tenglamalar tuzing. Bu holda kontur bo'ylab yo'nalishlarini EYuKning yunalishiga moslab aniqlab oling.*

**Kalit so'z:** *Tugun, kontur, shahobcha, tok, kuchlanish, zanjir, oqim, manba, yunalish, tizim, zanjir, manfiy, musbat.*

## АННОТАЦИЯ

Законы Кирхгофа применяются при расчете сложных (разветвленных) электрических цепей. Чтобы составить уравнения по законам Кирхгофа, необходимо проделать следующее:

1. Определить по схеме цепи число ветвей, узлов и контуров.

2. В каждой ветви задаться предполагаемым (положительным) током.

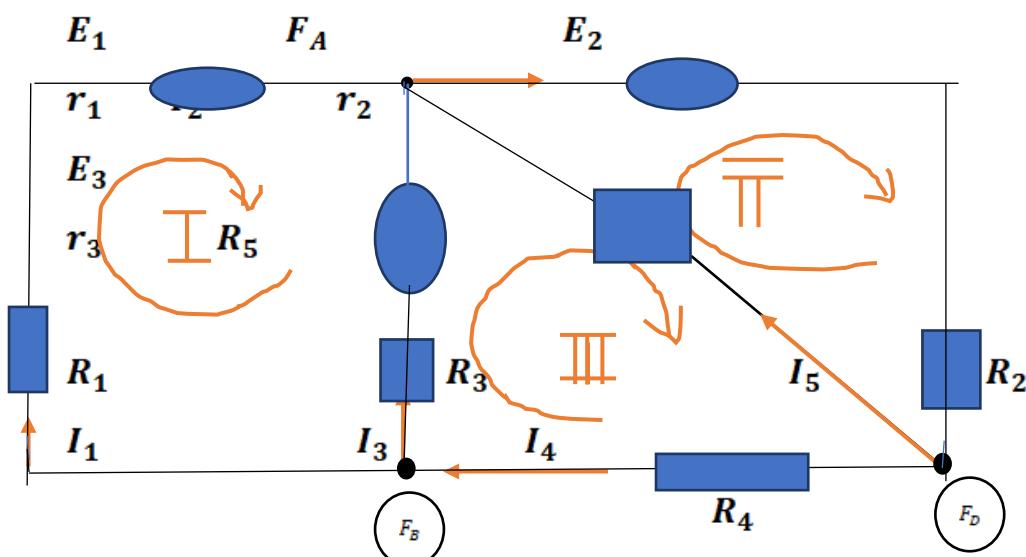
3. Выбрать  $n-1$  узлов и составить для них уравнения по первому закону Кирхгофа.

4. Выбрать контуры для которых будут составлены уравнения по второму закону Кирхгофа.

5. Задаться направлением обхода в каждом контуре.

6. Составить  $m$  уравнений по второму закону Кирхгофа. При этом все ЭДС, направления которых совпадает с направлением обхода по контуру, записывают со знаком плюс, а все ЭДС, направление которых противоположно – со знаком минус.

7. Подставить числовые значения и решить получившуюся систему уравнений. Если ток получится положительным, то это означает, что действительное направление данного тока совпадает с предполагаемым, а если отрицательным, то противоположно.



Joriy elektr zanjiri elektronlarning ma'lum bir nuqtadagi harakat tezligi bo'lib, amperda o'lchanadi va diagrammalarda harf bilan belgilanadi "I". Amperning hosila birliklari, shuningdek, milli-, mikro-, nano va boshqalar mos keladigan prefikslar bilan ishlatiladi. 1 kulonlik zaryad birligini 1 soniyada siljitim natijasida 1 amperlik oqim hosil bo'ladi. Kirxgofning birinchi qonuni (Kirxgofning oqimlar qonuni) eliktr zanjirning tugunlariga taluqlidir . Uning formulalaridan biri quyidagicha:

$$1\text{-tugun uchun} \quad I_1 - I_2 + I_3 + I_5 = 0$$

$$2\text{-tugun uchun} \quad -I_1 + I_4 - I_3 = 0$$

Bizda 5ta qarshilik mavjud.Qarshilik kata R harfi bilan belgilanadi. 3ta tugun mavjud .Uch yoki undan ortiq elementlarning tutashuvi eliktr zanjirning tuguni hisoblanadi. Birinchi tugunni  $F_A$  ,ikkinchi tugunni  $F_B$  , Uchinchi tugunni  $F_D$  harflari bilan bilgilab oldik.

Bizda berilgan qiymatlar quyidagicha:

$$R_1=25\text{om}, \quad R_2=20\text{om}, \quad R_3=75\text{om}, \quad R_4=70\text{om}, \quad R_5=20\text{om},$$

$$r_{i1}=10\text{om}, \quad r_{i2} = 10\text{om}, \quad r_{i3}=20\text{om}.$$

$$I_1 = \frac{F_B - F_A + E_1}{R_1 + r_1}$$

$$I_2 = \frac{F_A - F_D + E_2}{R_2 + r_2}$$

$$I_3 = \frac{F_B - F_A - E_3}{R_3 + r_3}$$

$$I_4 = -\frac{F_B + F_D}{R_4}$$

$$I_5 = \frac{F_D - F_A}{R_5}$$

Kirixgofning qonuniga asoslanib tenglamamizning noma'lum hadini topib olamiz.

$$\begin{aligned} & \frac{F_B - F_A + E_1}{R_1 + r_1} - \frac{F_A - F_D + E_2}{R_2 + r_2} + \frac{F_B - F_A - E_3}{R_3 + r_3} + \frac{F_D - F_A}{R_5} = 0 \\ & \frac{F_B - F_A - E_3}{R_3 + r_3} - \frac{F_B + F_D}{R_4} - \frac{F_B - F_A + E_1}{R_1 + r_1} = 0 \end{aligned}$$

***Qarshiliklarni urninga qiymat kiritib  $F_A$  va  $F_B$  larni topib olamiz.***

$$\begin{aligned} & \frac{F_B - F_A + 15}{25+10} - \frac{F_A + 70}{20+10} - \frac{F_A}{20} + \frac{F_B - F_A - 5}{75+20} = 0 \\ & -\frac{F_B - F_A + 15}{25+10} - \frac{F_B}{70} - \frac{F_B - F_A - 5}{75+20} = 0 \\ & \frac{F_B - F_A + 15}{35} - \frac{F_A + 70}{30} - \frac{F_A}{20} + \frac{F_B - F_A - 5}{95} = 0 \\ & -\frac{F_B - F_A + 15}{35} - \frac{F_B}{70} - \frac{F_B - F_A - 5}{95} = 0 \\ & \frac{288F_B - 288F_A + 4320 - 266F_A + 18620 - 399F_A + 84F_B - 84F_A - 420}{7980} = 0 \\ & -\frac{38F_B - 38F_A + 570 - 19F_B - 14F_B - 14F_A - 70}{1330} = 0 \end{aligned}$$

$$372F_B - 1037F_A + 22520 = 0$$

$$-71F_B - 52F_A + 500 = 0$$

$$26412F_B - 73627F_A = -1598920$$

$$26412F_B + 19344F_A = 186000$$

$$-92971F_A = -1784920$$

$$F_A = 19.198$$

$$26412F_B - 73627 \times 19.198 = -1598920$$

$$26412F_B = -1598920 + 1413491.14$$

$26412F_B = -185428$

$F_B = -7.020$

$$I_1 = \frac{F_B - F_A + E_1 - 7.02 - 19.19 + 15}{R_1 + r_1} = 0.87A$$

$$I_2 = \frac{F_A - F_D + E_2 - 19.19 - 0 + 70}{R_2 + r_2} = 2.97A$$

$$I_3 = \frac{F_B - F_A - E_3 - 7.02 - 19.19 - 5}{R_3 + r_3} = -0.32A$$

$$I_4 = -\frac{F_B + F_D}{R_4} = -\frac{-7.02 + 0}{70} = 0.10A$$

$$I_5 = \frac{F_D - F_A - 0 - 19.19}{R_5} = -0.95A$$

Ikki tugun oralig‘iga ketma-ket ulangan elementlardan iborat bir xil tok o‘tadigan zanjirning qismi *shohobchadeb* ataladi.

Kamida uchta shohobcha birlashgan nuqta esa, elektr zanjirining *tuguni* deyiladi.

*Kontur*- elektr zanjirining bir nechta shohobchalaridan o‘tuvchi berk yo‘l.

Oddiy holda elektr zanjiri uch qismdan iborat bo‘ladi: energiya manbai, ste’molchi, ulovchi simlar. Lekin umumiy holda elektr zanjiri bir necha manbaiga va iste’molchilarga ega bo‘lishi mumkin. Real elektr zanjiri esa yuqoridagi elementlardan tashqari ulab-uzuvchi (viklyuchatel) qurilmalari kontrol-o‘lchash priborlari, himoya asboblaridan iborat bo‘ladi. Faqat chiziqli elementlardan iborat zanjir - chiziqli elektr zanjiri deb ataladi.

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# ТӨЛЕПБЕРГЕН ҚАЙЫПБЕРГЕНОВТЫҢ «СУҮЫҚ ТАМШЫ» ПОВЕСТИНДЕ ГӨНЕРГЕН СӨЗЛЕРДИҢ ҚОЛЛАНЫЛЫЎЫ

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ФИЛОЛОГИЯ: ЛЕКСИКОЛОГИЯ

## АННОТАЦИЯ

**Актуаллығы.** Қарақалпақ тил билиминде аз үйренилген мәселелердиң бири архаизм, истаризм, диалектизм илимий кәзқарастан анализленеди. Мақалада тилимиздеги гәнерген сәзлердиң кәркем әдебият стилинде де жиий қолланылыуы лингвистикалық кәзқарастан баян етиледи.

**Предмети.** Объекти – кәркем шыгарманың тили, предмети – қарақалпақ тилиндеги гәнерген сәзлер ҳәм диалекттик сәзлерди анализлеуден ибарат. **Мақсеми.** Тилимиздеги гәнерген сәзлерди жыйнау, олларды таллап, анализлеу, кәркем шыгармаларда қолланылыуын үйрениу. Ўазыйтасы – гәнерген сәзлердиң кәркем шыгармалар тилинде ёнимли қолланылыуыннысаллар жәрдеминде үйрениү.

**Методологиясы.** Салыстырмалы, баянлау усылы.

**Нәтийжелери.** Гәнерген сәзлер ҳәм диалекттик сәзлерди үйрениү арқалы олардың заманағай, муқабыл түрін жаратыу ҳәм қолланыу.

**Жуўмақлар.** Тилимизде сийрек қолланыуши диалекттик ҳәм гәнерген сәзлердиң функциясы шекленгенликтен, тилимизде жаңа ишки байыу арқалы сәзликтер дүзиу.

**Гилт сөздер.** Гәнерген сәзлер, архаизм, истаризм, семантика, лексикология.

Халықтың тарийхый рауажланыў басқышларында жаңа түснік ҳәм құбылысларды билдиретуғын жаңа атамалар – неологизмлер пайда болып отырса, керисинше базы бир сөздер – терминлер гәнереди, олар қолланыў ёрисин тарайтып, сонында қолланыўдан биротала шығып қалады. Архаизмлер гәнерген сөздердин бир топары болып, пассив сөз қатlamға киреди. Үақыттың ётийи менен тилдин сөзлик курылсында да архаизмлердин синонимлери пайда болады, олар активлесип архаизмлердин қолланыў ёрисин шеклейди. Өзиниң сөзлик қурамдағы орнын басқа сөздерге берген архаизмлерди **лексикалық архаизмлер**, ал көп мәнили сөздердин айырым гәнерген мәнилери **семантикалық архаизмлер** деп аталады.

Тилдин сөзлик қурамындағы қолланылыў ёриси тарайтып қолланылыўдан шығып баратырған сөздер – гәнерген сөздерди изертлеў ҳәм оларды классификация жасаўға арналып рус тил билиминде бир қанша мийнетлер жазылды. Түркій тиллерде усы мәселеге бағышланған А. Махмудов, Е. Абдилбаев ҳәм Е. Қиличевтиң изертлеў жумысларында гәнерген сөздер кең түрде анализ жасалған. Қазақ тил билиминде Ә. Болғанбаевтың қазақ тилиниң лексикология тарауына арналған мийнетинде ёз алдына тема ретинде бериліп, тематикалық топарларға бөлип қарайды.

Сондай-ақ, профессор Е. Бердимуратовтың арнаұлы изертлеўинде, қарақалпақ тилиниң лексикология тарауына арналған мийнетлеринде, сабактыларда сөз етилген. Автордың «Хәзирги қарақалпақ тилиниң лексикологиясы» мийнетинде гәнерген сөздерди **тарийхый сөздер** ҳәм **архаизмлер** деп ёз алдына бөлек алып қарайды ҳәм олардың бир-биринен айырмашылық белгилерин көрсетеди. Қарақалпақ тилиндеги гәнерген сөздер, оларды ҳәзирги үақыттағы жаңа сөздер (неологизмлер) менен салыстыра үйрениў, тилимизде бурын қандай сөздердин қолланылғанын мектеп оқыушыларына үйртиў, бул сөздердин мәнисин ҳәм кәркем шығармалардың тилинде қолланылыўын түснидириў үлкен әхмийетке ийе. Гәнерген сөздер кәркем әдебият стилинде де жийи қолланылатуғын бирликтеп

есапланады. Жазыўшы, шайырлар кёркем шығармаларда гёнерген сёзлерди пайдаланыўда сүүретленетуғын ўақыяға сәйкес дәўир колоритин бериўди, шығарманың қаҳарманының жеке тил ёзгешелигин кёрсетиўди нәзерде тутады.

Мысалы ушын, жазыўшы Тәлепберген Қайыпбергеновтың «Суўық тамшы» повестине нәзер аўдарғанымызды, ондағы гёнерген сёздердин леклика-семантикалық жақтан орынлы қолланылғаны дыққатымызды тартты. Бул шығармада қолланылған тарийхый ҳәм архаизм сёзлерден елеғе дейин пайдаланамыз. Бирақта, олардың мәнилери қалып тек ғана атамалары жаңа сёзлер (неологизмлер) менен алмасты. Усы орында сизге шығармада қолланылған сёзлердин мәнилериң көң түрдө түсндирип ётсек:

1. Бул **меңиреў**, тасланды, гёне жайдың этирапы жұдә кеўилли, быған-жыған адамлар.
2. Шетиректе **жуптылардың** жасырын сёйлесиўлери ингәләп жылаған бёпесин қос алақанына жатқарып бесик қылыш тербеткен жигитлер, келиншеклер.
3. Жасы сексенниң шамасындағы ақ жаўлықты, ҳасалы ана қырық бес-елий жаслардағы қызыл **гежили кәйіуаны** ҳаял менен турған бир бурымлы, бурымға қосылмаған маңлай шашы буйра қыздың қасына тоқтадық.
4. **Отағасы**, жүрин, мениң жанашыр, меҳрибаным анаў отыр екен, – деди.
5. Азмаз **гидирип** турдым да, Калинин кәшесин ийегим менен кёрсеттим.
6. Этирапы шәл ёсимликтери: сексеўил, **көсик**, қарабарақ аралас жантак. Еден ҳәзир жарылса, кирип кетер едим.
7. Усы күни түсімде Зияда бизиң таза тамның ишинде **гөлегөйлеп** жүрип, мени қараңғыда қамаландырып, түни менен кроваттан талай-талай жықты.
8. Бул **найсапты** жек кёре басладым.
9. Азанда буткама келсем, жумысымның баяғы бир қыйлышты: шёккиш, биз, **созан**, сабақ, **атауыз**, щётка.
10. Ох, қандай катастрофа – деп, ёкшеси менен **қобдыйымды** тепти.

Жоқарыда келтирилген гөнерген сөзлердиң мәнилери:

|             |   |
|-------------|---|
| Мениреў     | Келбетлик. Есаўан, ақылсыз, аўалақ, ҳеш нәрсени ойламайтуғын.                                 |
| Жупты       | Атлық. Қостар, ерли-зайыпты.  |
| Гежи        | Атлық. Жұн жипек орамалдың бир түри.  |
| Кәйўана     | Атлық. Орта жастағы ақыллы, парасатлы, ҳәр нәрсеге кеңес берерлік ҳаял.                       |
| Отағасы     | Атлық. Жасы үлкен, ақсақал.   |
| Гидириў     | Фейил. Аз ғана күтип турыў, сәл иркилиў, күтиў.   |
| Кәсик       | Атлық. Құмда ёсетуғын жабайы пиязға уқсас ёсимлик.  |
| Еден        | Атлық. Ёжирениң, бәлмениң қара үйдин адам отырыўға, жатыўға қолайластырылған ишкі майданшасы. |
| Гәлелгейлеў | Фейил. Бир нәрсениң ямаса биреўдин қасынан айланышықладап шықпаў.                             |
| Найсап      | Атлық. Инсапсыз, бузық, оңбаған, занғар.  |
| Созан       | Атлық. Ушы топыр ийлемлеў үлкен ийнениң түри.   |
| Атаўыз      | Атлық. Тистеўиш.  |

Тил – ҳәрдайым раўажланып отырыўшы қубылыс. Ол ҳәр қыйлы дәүирлерде раўажланып, жетисип барады. Тилдеги айырым сөзлер кең қолланылады, айырым сөзлер улыўма қолланыўдан шығып қалады. Тилимизде жийи қолланыўдан шығып қалған сөзлер гөнерген сөзлер есапланады. Гөнерген сөзлерди сол тилдеги тарийхый хәм көркем шығармаларда ушыратамыз. Гөнерген сөзлердин жазыўшылыр тәрепинен ёз шығармаларында орынлы қолланыўы тилдин лексикалық байлығын, сөзлик қорының бай екенлигинен дерек береди. Жазыўшы Тәлепберген Қайыпбергенов та бүгинги күнде қолланыўдан шығып қалған гөнерген сөзлерден пайдаланыў арқалы повесттиң көркемлик жақтан жетисиүне, қарақалпақ тилинің бай сөзлик қурамға ийе

екенлигин билдириүде ёз үлесин қосқан. Бул гёнерген сөзлерди үйрениү, олардың мәнисин түсіндірип бериў арқалы тилимиздин жетилисиүне ёз үлесимизди қосқан боламыз. Бул жумыс келешекте қарақалпақ тилинин жаңа түсіндірме сөзлигин дүзиүде, жазыўшының шығармалары бойынша түсіндірме сөзликлер ислеўде аз ғана болса да ёз көмегин тийгизеди.

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## YETAKCHILIKDA ERKAK VA AYOLNING USLUBI

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### ***ANNOTATSIYA***

*Ushbu maqolada yetakchilikda erkak va ayolning uslubi. Rahbariyatda ayollar va erkaklarning uslublari har xilligi. Qanday farqlar yoki o'xshashliklar borligi, ayollar va erkaklar bu o'rindagi farqi va ular bunga qanday munosabatda bo'lishlari. Yetakchilikda ularning munosabati va o'rni haqaida yoritilgan.*

**Kalit so'zlar:** gender tengligi, yetakchilik qobiliyati, ayollar va erkaklarning yetakchilik uslublari, rahbarlik rollari, yetakchilik individual yutuqlarga asoslangan jamoaviy o'rghanish va o'zaro ta'sir, xulq-atvor.

### ***АННОТАЦИЯ***

*В этой статье стиль мужчин и женщин в руководстве. Мужчины и женщины имеют разные стили лидерства. В чем различия или сходства, разница между женщинами и мужчинами в таком положении и как они на него реагируют. Объясняются их взаимоотношения и роль в лидерстве.*

**Ключевые слова:** гендерное равенство, лидерские способности, стили лидерства женщин и мужчин, лидерские роли, лидерство, основанное на индивидуальных достижениях, коллективное обучение и взаимодействие, поведение.

### ANNOTATION

*In this article, the style of men and women in leadership. Men and women have different styles of leadership. What are the differences or similarities, the difference between women and men in this position and how they react to it. Their relationship and role in leadership is explained.*

**Key words:** gender equality, leadership ability, women's and men's leadership styles, leadership roles, leadership based on individual achievements, collective learning and interaction, behavior.

Ma'lumki, asosan erkaklar egallagan yetakchilik sohasiga ayollar ham kiradi. Rahbariyatda ayollar va erkaklarning uslublari har xil. Qanday farqlar yoki o'xshashliklar bor, ayollar va erkaklar nima qilishadi va ular bunga qanday munosabatda bo'lishadi? Ko'pincha erkaklar va ayollarning avtokratik va demokratik uslublari misolida ayollar va erkaklarning yetakchilik uslublari haqida asosiy ma'lumotlar mavjud. Ayollar va erkaklarning yetakchilik uslubidagi xatti-harakatlari yetakchilik rollari bilan bog'liq. Bunda erkaklar va ayollar uchun farqli vaziyatlar mavjud va ayollar yetakchi bo'lish uchun ko'proq to'siqlarga duch kelishadi, ayniqsa erkaklar egallaydigan yetakchi rollar uchun. Bu masala odatda xatti-harakatlardan ko'ra yetakchilik uslublari nuqtai nazaridan muhokama qilinadi.

Uslublardagi farqlar muhim bo'lishi mumkin, chunki ular odamlarning qarashlariga ta'sir qilishi mumkin bo'lgan omillardan biri hisoblanib ayollar yetakchi bo'lishi kerakmi yoki yo'qligi haqidagi bahslar mavjud. Genderning yetakchilikka ta'sirini muhokama qilishda ayollarning odatiy diqqat markazida bo'lishi ajablanarli emas. Bir tomondan, yetakchilik uslubidagi tafovutlar ayollarning imkoniyatlardan va ayniqsa, yomon rahbarlik rollaridan chetlashtirish uchun asos bo'lishi mumkin. Boshqa tomonidan, bir xillikni idrok etish ayollarning g'ururining an'anaviy manbai bo'lgan va yetakchi ayollarning yuqori ishlashiga hissa qo'shishi mumkin bo'lgan munosabatlar fazilatlarini tan olinmaydi. Ammo farqlar va o'xshashlik asosiy nuqta emas.

Shu sababli, ayollar va erkaklarning yetakchilik uslublari farq qiladi, erkaklar va ayollar bor turli ijtimoiy rollarda, masalan, oilada va ish joyida erkaklarning ayollardan asosiy farqlari, ya’ni erkakning qat’iyatli, nazoratli va ishonchli moyilligi, masalan: ular “tajovuzkor, ambitsiyalı, dominant, mustaqil, o‘ziga ishongan va raqobatbardosh” sifatida tavsiflanadi. Aksincha, ayollar mehribon, mehribon, yordam beradigan, hamdard, g‘amxo‘r, o‘zaro munosabatlarda sezgir va muloyim bo‘lgan turli xil xususiyatlarga ega.

Erkak va ayol lider rollarida malakali bo‘lish uchun bir-birlarining yetakchilik uslubini qabul qilishga harakat qiladilar. Boshqacha qilib aytganda ,bu rahbarlik jinsni bilmaydi. Liderning ta’rifi - bu guruh tomonidan lider deb atalgan shaxs, guruh a’zolari o‘zini lider deb biladigan shaxs, guruhlarning qaroriga eng katta ta’sir ko‘rsatadigan va haqiqatda bajaradigan shaxs etakchilik xatti-harakatlari. Vazifa xulq-atvoriga ko‘ra, ayollar ishlab chiqarishni ta’kidlaydilar. Guruh yaxshi bajarilganda, ular vazifani bajarishda o‘zlarining kuchli hissalarini davom ettiradilar, bunda erkaklar o‘z hissalarini guruh yaxshi bajargan sari kamaytiradi. Rahbar ayollar erkaklarga qaraganda qo‘ldagi vazifa haqida muloqot qilish uchun ko‘proq vaqt sarflaydilar, chunki ular ko‘proq ishni bajarishadi

Ayollar birinchi o‘zaro munosabatlarda erkaklarga qaraganda ancha iliqroq deb baholanadi. Avtoritar rahbarlik uslubidan foydalanadigan ayollar xuddi shu uslubdan foydalanadigan erkaklarga qaraganda kamroq ijobiy qabul qilindi. Shuningdek, qaror qabul qilishda ayollar erkaklarga qaraganda demokratik yoki ishtirokchi uslubdan foydalanadilar. Ayollar nazorati ostida ishlagan erkaklar ayollarning rahbarligi uchun ko‘proq ochiq edi. Ayol tinglash boshqalarni qulay va muhim his qiladigan mahorat sifatida qadrlanadi.

Ayollar o‘zaro qanday munosabatda bo‘lishadi va ular qanday usullardan foydalanadilar: birinchi navbatda, ayollar o‘zaro teng huquqli (barcha odamlarning tengligiga ishonadigan shaxs) nuqtai nazariga ega.

Ikkinchidan, ayollar ko‘proq hamkorlik va qo‘llab-quvvatlovchi, erkaklar esa ko‘proq hamkasblari ko‘proq o‘zini talab qiladi va raqobatbardosh bo‘ladi.

Uchinchidan, ayollar hamjihat, hamdard, qo'llab-quvvatlovchi, demokratik va xotirjam bo'lgan liderlarni xohlashadi. To'rtinchidan, aksariyat ayollar yetakchilikni kuch va hukmronlikdan ko'ra ko'proq yordam va tashkilotchilik sifatida qabul qiladilar.

Agar biz xulosa qilib aytgan bo'lsak, ayollar va erkaklar teng darajada samarali rahbarlardir. Bundan tashqari, ayol va erkak liderlar konfliktlarni boshqarish uslublarida teng darajada samarali. Faqatgina farq ayollar va erkaklar nizolarni boshqarish uslublari yoshi, ma'lumoti va boshqaruv tajribasini o'z ichiga oladi - rahbarlar bir-biriga o'xshash bo'lishi kerak.

Shunday qilib, yetakchilik individual yutuqlarga asoslangan jamoaviy o'r ganish va o'zaro ta'sir, shuningdek, tenglik munosabatlari qobiliyatları va hissiy jihatdan qayd etilgan razvedka. Erkak va ayol individuallikni namoyon qilishi mumkin, qat'iyatlilik va hukmronlik ijtimoiy jihatdan erkaklarga xosdir. Ushbu hodisaning talqini yangi yetakchilik amaliyotiga o'tish ayollarning ustunligini yaratishini taxmin qilishdir. Ammo yetakchilikning yangi modellari tomon bu jarayon ancha murakkab, chunki siljish bilan bog'liq faqat jinsga emas, balki gender kuch dinamikasi. Bu qiziqroq, chunki u biznesda muvaffaqiyatga qanday erishishni tushunishda gender bog'liqligi o'zgarishi haqida.

Ushbu ishtiroklarni tekshirish uchun biz ma'lum xususiyatlarning assotsiatsiyasini tushunishimiz kerak ,erkaklik va ayollik bilan va biznes muvaffaqiyati qoidalariiga nima aloqasi bor. Buning asosiy sababi, ijtimoiy dunyoga qarashning ikki faoliyat sohasiga bo'linganligi: jamoat sohasi, masalan, ish. Va shaxsiy soha - oila va jamiyat. Dunyoga bunday qarash juda tabiiy. Masalan, mehnat sohasidagi mehnat malakali, bog'liq deb hisoblanadi maishiy sohada kadrlar tayyorlash va mehnatga oid. Bu hayotning ikki sohasini gender ajratishdir etakchilikda muhim ahamiyatga ega. "Ayol va erkak" yorlig'i aniq deb hisoblanadi xususiyatlari va har bir sohada qanday qilib yaxshi ish qilish kerakligi ham. Xotin-qizlar uy sharoitida - oilada, erkaklar esa mehnat sohasida faol ishtirok etadilar.

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***ANNOTATSIYA***

*Makolada respublikamiz uzlusiz ta 'lim tizimida sifatli ta 'lim masalasi ilgari surilgan bulib, unda ta 'lim sifati pedagoglarning kasbiy maxorati, ukuv tafakkur faoliyatini professional jixatdan tashkil etishi va ta 'lim oluvchilarning uzlashtirilishi anik baxolash mezonlariga amal kilingan xolda olib borilishi, formal baholashdan cheklanish masalasi yoritilgan. Sifatli ta 'lim jamiyatimiz tarakkiyotining asosiy omili ekanligi kayd etilgan.*

**Kalit suzlar:** *Ta 'lim, ta 'lim jarayoni, ta 'lim mazmuni, ta 'lim shakli, dunyokarash, sifat, tashxis, baxo, ekvalent, natija, faoliyat.*

***АННОТАЦИЯ***

*В данной статье поднимается проблема качества образования общеобразовательных школах Республики Узбекистан. Автор статьи рассматривает данный вопрос с уровнем профессиональной подготовленности педагогов и педагогическим подходом учебному процессу, умением правильно оценить учащихся, избегать от формальной оценки в педагогической деятельности. Автор утверждает, что качество образования неразрывно связано с развитием общества.*

### **ANNOTATION**

*Following article based on the problem of quality education in today's continuous education, additionally how to develop job performance of teachers professionally and to evaluate students according to their acquired knowledge. As so, in this article it is demonstrated how to avoid formal evaluation, as quality education is foundation of our development of our society*

Keyingi yillarda mamlakatimizda ijtimoiy-iqtisodiy rivojlanishning ustuvor yo‘nalishlariga hamda xalqaro standartlar talablariga mos keladigan oliy ta’lim tizimini yaratish bo‘yicha keng ko‘lamli ishlar amalga oshirilmoqda.

Joriy yil iyuni oxiri, iyuli boshlarida Toshkentda YUNISEF (BMTning Bolalar jamg‘armasi) va ta’lim sohasi vakillari O‘zbekistondagi ta’lim sifati masalasini muhokama qildi. YUNISEF o‘tkazgan tadqiqotlar natijasiga ko‘ra, to‘rtinchi sinf o‘quvchilari orasida faqat 43 foiz bolalargina o‘qigan narsasini tushuna oladi. “Inson kapitalini rivojlantirish: kelajak uchun ta’lim” mavzusida tashkil etilgan muloqot doirasida ta’lim sohasi va YUNISEF vakillari O‘zbekiston milliy ta’lim dasturi loyihasini muhokama qildi.

Mazkur muammo nafaqat boshlang‘ich ta’lim, balki umumiy o‘rta ta’lim va oliy ta’limning dolzarb muammosiga aylanganligi barchamizga ma’lum. Privordida ushbu yilda abuturiyentlar ko‘rsatkichlarining saltak 50 foizi o‘tish balidan ancha orqadaligi barchamizni tashvishlantirmoqda.

So‘ngi yillarda Yangi O‘zbekistonda ta’lim soxasini rivojlantirish, Uchinchi Renessansni yaratish, bu jarayonda sohani tubdan isloh kilish bo‘yicha yangi tizim shakllandi. Ta’lim soxasida jahon ta’lim standartlariga faol integratsiyalashuvini ta’minalash uchun oliy ta’lim muassasalarining ta’lim sifatini oshirish va innovatsion rivojlantirishga karatilgan ishlar amalga oshirildi. Kadrlar saloxiyatini yuksaltirish masalari kaytadan ko‘rib chikilmoqda.

Aynan pedagog kadrlar tomonidan pedagogik jarayonni tashkil etish va uning sifat samaradorligini oshirish uzlusiz ta’lim tizimining bosh masalasiga aylandi.

Mazkur maqolada biz talabalik safiga qabul qilingan ko‘plab bo‘lg‘usi kadrlarning umumta’lim , kasb hunar kollejdlari tomonidan berilgan shahodatnomasidagi baholar talaba tomonidan o‘zlashtirgan bilimiga ekvalent emasligi guvohi bo‘layotganligimiz asosida ushbu masalaga pedagogik jihatdan e’tiborni qaratdik.

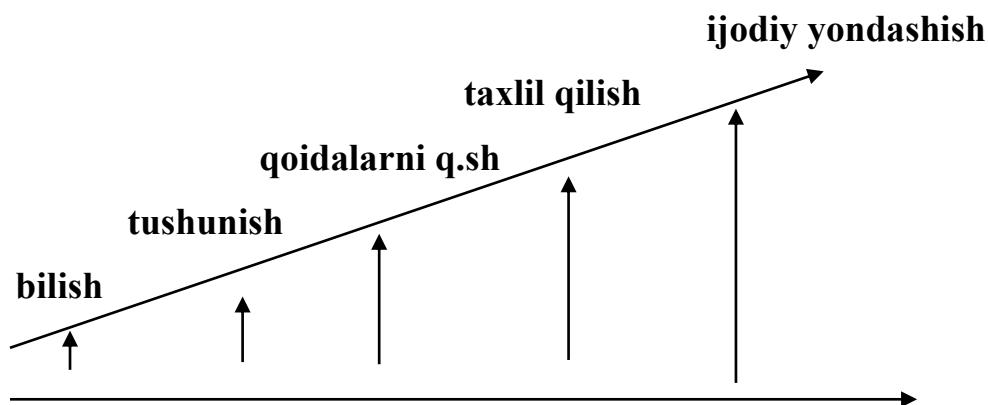
...Bilish inson hayotida muhim rol o‘ynaydi. Bilish asosida inson dunyoqarashi shakllanadi. Dunyoqarash o‘z ichiga dunyoni his qilish, dunyoni tushunish jarayonlarida hosil bo‘ladigan iroda, idrok, kayfiyatlarni ham qamrab oladigan tushunchadir. Pedagogik jarayonda o‘quvchilarda dunyoqarash, ijodiy va erkin fikrlay olish qobiliyatini shakllantirish imkoniyatini yaratish o‘ta dolzarb masaladir.

Biz yoshlarning ertangi kunda erkin fikrlovchi barkamol shaxs bo‘lib shakllanishi uchun ularni mifik partasidanoq mustakil ijodiy fikrlashga yo‘naltira borishimiz pedagogik faoliyatimizda bosh strategik masala xisoblanadi.

Ta’lim oluvchilarning o‘zlashtirish darajasini aniqlashda pedagog ta’lim mazmunini bilish jarayonlari va bosqichlari algoritmlari asosida yondashish lozim.

Taniqli olim, akademik V.Bespalko o‘quvchilarni ta’lim mazmunini o‘zlashtirish darjasini quyidagi diogrammada yoritib bergen: ta’lim mazazmuniga

### **Ta’lim mazmuniga ta’lim mazmuni**



Bizning qarashimizcha, pedagogik jarayonda ko‘plab pedagoglarimiz reproduktiv metodlar asosida i egallangan bilim,ko‘nikma bilan kifoyalangan holda

ta’lim oluvchilarni baholanmoqda. I.Bespalko diogrammasiga e’tiborni qaratsak, talaba yoki o‘quvchi bilish, tushunish,qoidalarni aytib berish bilan kifoyalamanmoqda va ijobjiy baholanmoqda. Vaholanki tahlil qilish, ta’lim mazmuniga ijoddiy yondashish mezonlari bosqichiga erishish pedagoglar e’tiboridan chetda qolmoqda.

Natijada o‘quvchilarimiz xotira asosida o‘zlashtirgan bilimlari tez yodidan ko‘tarilganligi guvohi bo‘lmoqdamiz. Demak reproluktiv ( nomahsuldor) metodlardan proluktiv ( mahsuldor) metodlarga o‘tish ta’lim jarayonida mantiqiy yondashishga yo‘naltiriladi va ta’lim oluvchilarda tahlil qilish, umumiyyadan hususiylikka,ijodiy yondashish ko‘nikma,malakalarini shakllantirib boradi.

Demak, ta’lim oluvchilarning o‘zlashtirishini baholashda nazorat topshiriqlari bilish jarayoni bosqichlari mezonlarini aniqlashga qaratilgan bo‘lishi maqsadga muvofiq.

Ta’lim oluvchilarning bilimini nazorat qilishda pedagog og‘zaki nazorat savollari, test va turli topshiriqlarni ishlab chiqishda quyidagi mezonlarga e’tibor qaratishi lozim;

1. O‘quv elementlarini xotirada saqlash holatini aniqlovchi nazorat savollar majmuasi;

2. Ta’lim mavzusi bo‘yicha qoidalarni bilish, muammolarni yecha olish, topshiriqlarni bajara olish holati, ya’ni reproduktiv darajada o‘zlashtirishni aniqlash;

3. O‘tilgan mavzu asosida mustaqil ravishda tenglamalar tuza olish, uning yechimlarini ko‘rsata olish xususiyatlari, ya’ni produktiv o‘zlashtirish darajasini aniqlash;

Ma’lumki, umumiy o‘rta ta’limda o‘quvchilarni bilimini tekshirish asosan reproduktiv darajadan yuqori ko‘tarilmayapti. Masalan: rus tili ,ingliz tili bo‘yichsa “4”, “5” baho oluvchi o‘quvchilar mustaqil ravishda grammatik jihatdan to‘g‘ri yozish yoki muloqat qilish o‘rta maktablarda erishilmayapti.

Ta’lim mazmunini axborot tarzida o‘zlashtirish, fikr kuchi bilan emas, balki xotira asosida bilim o‘zlashtirish o‘quvchilarimizga xos xususiyatlarga aylanmoqda.

Bunda pedagoglarimiz ta’lim jarayonini reproduktiv metodlar bilan chegaralanishi va produktiv darajaga ko‘tara olmasligi asosiy sabablardan biridir.

Ta’lim jarayonini produktiv bosqichga ko‘tarishda muammoli ta’lim, modulli ta’lim, klaster, ta’lim texnologiyalar, bahs, munozara, konferensiya darslari mustaqil ijodiy topshiriqlar muhim ahamiyatga ega.

Uzluksiz ta’lim tizimida o‘qitishning reproduktiv metodlari bilan cheklanishning salbiy okibatlari nimadan iborat?

Bugungi kunda ta’limda axborot berish asosida tuzilgan o‘quv jarayoni ta’lim oluvchi extiyojni odatda ta’minlamaydi. Natijada tez yoddan chikish, qiziqishni yo‘qotish, mustaqil, shu jumladan ijodiy faoliyat ko‘rsatish uchun yetarli darajada rivojlantirmaslik ro‘y beradi va unga qo‘srimcha o‘z faoliyatiga passiv munosabatni ta’minlaydi. Amaliy hayotimizda o‘quvchilarimiz, qolaversa talabalar tomonlaridan o‘zlashtirilayotgan bilimlar tez unutilayotganligi sir emas. Albatta, bu xol pedagogik jarayonda pedagog va o‘quvchilarning faoliyatiga xamda pedagogik jarayonda tashkil etilgan o‘quv tafakkur faoliyatiga bogliq.

Aynan bu xakda A.Eynshteyn yoshi kaytganda kinoya bilan aytgan edi: «O‘qitishning zamonaviy usullari «Muqaddas» qiziquvchanlikka halal beradi... Burch xislari va majburlash qarash va izlashdan quvonch topishga ko‘maklashadi deb o‘ylash katta xato bo‘ladi... ». (Gernik F. Albert Eynshteyn. M., 1966).

Mashxur zamonaviy ingliz fizigi A.B. Pippard (Kavendish laboratoriysi direktori) bu xaqda shunday fikr bildiradi: «...Balo imtixonlar natijalari bo‘yicha kim yaxshirok, kim yomonrok deb aytib bo‘lmasligida emas... balki imtixonlar o‘quvchilarni OO‘Yudan tashqarisida qadrlanadigan qobiliyatlarini rivojlantirishga undamasligida... yaxshi to‘ti xam ortikcha ko‘p baho olishi mumkinligi eng yaxshi talabalar o‘zida to‘ti qobiliyatlarini rivojlantirishga harakat qilishga olib keladi. Shunday achinarli xulosa – britaniya universitetlarida fizika bo‘yicha imtixonlar tahlilining natijasidir...» (Pippart A.B. Obrazovanniy uchenik. M.1979).

Bugungi uzluksiz ta’lim tizimida xam hamon reproduktiv o‘qitish bilan cheklanish ommaviy tus olgan bo‘lib u ta’lim jarayonini keng qamrab olgan.

Reproduktiv metodlar asosan ta’lim mazmuni xaqida ma’lumot beradi, ammo ta’lim jarayonini amalda o‘quvchilarni o‘ylash va fikr yuritish pogonalariga ko‘tara olmaydi.

Taniqlim olim K.G. Markvardt aytishicha (1981) «bilim» tushunchasining ma’nosи o‘quvchi yoki talabalar xotirada saqlanayotgan ma’lumot deb tushuniladi. Bu bilimlarning mavjudligi (yakuniy nazorat yoki imtixonlar paytida) talaba ularni tiklay olishi, ya’ni bu bilimlarga murojoat kilib berilgan savolga xech kanday qo‘llanmalar yordamisiz javob berishi orkali pedagog tomonidan baxolanadi.

Agar talaba imtihon paytida bu ma’lumotlarni tiklay olsa (ya’ni qo‘llanmalarsiz bayon kilib bera olsa) bu o‘zlashtirishning asosiy ko‘rsatkichi xisoblanadi. Ular odatda bevosita shu ma’lumotga oid savol berilganda xotiradan yuzaga chiqadi yoki boshqacha qilib aytganda esga tushadi. Xotiradan tiklangan bilimlar shu xolatda uzoq saqlanmaydi. Kerak paytda ular qiyinchilik bilan yodga keladi, ko‘pincha umuman esga kelmaydi. Ko‘p marta o‘tkazilgan sinovlar shuni ko‘rsatdiki ko‘p vaqt o‘tmasdan (bir oydan keyin) talabalar ko‘p narsalarni eslay olmaydilar. Bu xaqda talabalarning o‘zları xam afsus bilan tan olmoqdalar. Reproduktiv metodlarning salbiy asoratlardan biri o‘quvchi yoki talabalarda mustaqil bilim olish malakalaridan mahrum etib bormoqda. Namuna bo‘yicha faoliyat usulini tiklash va kaytarish reproduktiv usulning asosiy alomatlaridir. Pedagog og‘zaki va yozma nutqdan foydalanadi, o‘rganuvchilar esa tayyor namuna bo‘yicha topshiriklar bajaradilar. O‘qitishda bunday yo‘nalishning ommaviy tus olishi afsuski, o‘quv tafakkur faoliyatini ijodiy bosqichga ko‘tara olmaydi. Bu esa ta’limning samaradorligini oshirmaydi, balki, sxolastik o‘qitishning ko‘rinishlaridan biri bo‘lib qolmoqda. Aynan, axborotli o‘qish o‘quvchida buyuk fizik Eynshteyn aytgan “Muqaddas qiziqish”ni uyg‘otishga imkon bermaydi.

Mazkur masalalarni hal etishda zamonaviy pedagogik texnologiyalarni uzluksiz ta’limga joriy etilishi, har bir dars jarayoni ta’lim oluvchilarda birinchi bosqich bilishdan yuqori bosqich -ijodiy bilish darajasiga ko‘tarish, o‘zlashtirilgan bilim, ko‘nikma, malakani real baholash ijtimoiy zarurat bo‘lib qolmoqda.

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## TECHNOLOGY FOR IMPROVING SOCIAL-CULTURAL COMPETENCE OF STUDENTS IN THE EDUCATIONAL ENVIRONMENT OF A HIGHER EDUCATION INSTITUTION

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### *ANNOTATION*

*The article is a scientific analysis of the socio-cultural environment in higher education institutions today. The mechanisms and elements for the improvement of the social and cultural competence of future teachers in the conditions of a higher education institution are justified. The main stages of the implementation of the socio-cultural approach in the modelling of the successful educational process will be presented.*

**Key words:** *sociocultural competence, competence approach, sociocultural situation, conflict reality, educational environment, levels of competence development.*

## ТЕХНОЛОГИЯ ПОВЫШЕНИЯ СОЦИАЛЬНО-КУЛЬТУРНОЙ КОМПЕТЕНТНОСТИ СТУДЕНТОВ В ОБРАЗОВАТЕЛЬНОЙ СРЕДЕ ВУЗА

### *АННОТАЦИЯ*

*В статье представлен научный анализ современной социокультурной среды в высших учебных заведениях. Обоснованы механизмы и элементы повышения социокультурной компетентности будущих учителей в условиях*

высшего учебного заведения. Представлены основные этапы реализации социокультурного подхода к моделированию успешного образовательного процесса.

**Ключевые слова:** социокультурная компетентность, компетентностный подход, социокультурная ситуация, конфликтная реальность, образовательная среда, уровни сформированности компетентности.

## TALABALARING IJTIMOIY- MADANIY KOMPETENSIYASINI OLIY TA'LIM MUASSASASI TA'LIM MUHITIDA TAKOMILLASHTIRISH TEXNOLOGIYASI

### *ANNOTATSIYA*

*Maqolada hozirgi kunda olyi ta'limga muassasalaridagi ijtimoiy-madaniy muhit ilmiy tahlil etiladi. Olyi ta'limga muassassasi sharoitida bo'lajak o'qituvchilarining ijtimoiy-madaniy kompetensiyasini takomillashtirish mexanizmlari va elementlari asoslanadi. Muvaffaqiyatli ta'limga jarayonini modellashtirishda ijtimoiy-madaniy yondashuvni amalga oshirishning asosiy bosqichlari asoslab taqdim etiladi.*

**Kalit so'zlar:** ijtimoiy-madaniy kompetentsiya, kompetentsiya yondashuvi, ijtimoiy-madaniy vaziyat, ziddiyatli vogelik, ta'limga muhiti, kompetentsiyani shakllantirish darajalari.

**Kirish.** Ta'limga tizimini takomillashtirishning hozirgi bosqichida talabalarining ijtimoiy-madaniy kompetentsiyasini rivojlantirish umumiyligi madaniy kompetentsiya darajasini oshirish jarayonida dolzarb vazifa sifatida qabul qilinadi. Ijtimoiy-madaniy kompetentsiya ta'limga tarbiyaning o'rnatilgan an'anaviy me'yordi asosida o'rganilishi kerak, lekin shu bilan birga, ta'limga tizimini innovatsion talqin qilish bo'yicha mavjud tajribaga va shaxslararo muloqot va ijtimoiy o'zaro ta'sirning belgilangan vazifalariga murojaat qilish kerak. Ko'rinish turibdiki, nafaqat malakali, tayyor va takomillashishga qodir mutaxassisni, doimiy o'zgaruvchan jamiyatning

hozirgi sharoitida ularning intellektual shaxs, o‘z muhiti bilan ijobiy munosabatda bo‘lishga qodir yuqori madaniyatli o‘qituvchi tayyorlash kerak.

Ijtimoiy-madaniy kompetentsiya shaxsning rivojlanish jarayonida ijtimoiy-madaniy rivojlanish tamoyillarini sinab ko‘rishga tayyorligi sifatida qabul qilinishi kerak. Demak, ijtimoiy tizimdagи shaxs - bu o‘z-o‘zini rivojlantirish va ichki dunyosini, o‘z-o‘zini takomillashtirishga qaratilgan intellektual, jismoniy, axloqiy fazilatlar, shuningdek, kasbiy bilim, ko‘nikma va malakalar yig‘indisidir.

Ijtimoiy-madaniy bilimlarning turli sohalari vakillarining fikrlaridan asosida ijtimoiy-madaniy kompetentsiyaning ilmiy ahamiyati va mazmunini aniqlashga harakat qildik. Madaniyat va jamiyat o‘rtasidagi munosabatlarning ma’lum bir jihatini ko‘rib chiqqan E.Giddensning fikriga murojaat qilishni o‘rinli deb bilamiz: “Bizning shaxsiyatimiz va dunyoqarashimizga biz yashayotgan madaniyat va jamiyat kuchli ta’sir ko‘rsatadi. Shu bilan birga, kundalik harakatlarimiz orqali biz madaniy va ijtimoiy kontekstlarni faol ravishda qayta yaratamiz va o‘zgartiramiz.[1]

**Adabiyotlar tahlil.** Bo‘lajak o‘qituvchilarining ijtimoiy-madaniy kompetentsiyasini rivojlantirish an’anaviy ta’lim tizimidan talabalarining shaxsiy bilim va ehtiyojlarini rivojlantiruvchi innovatsion tizimga o‘tish zarurati asosiy sabablardan biri hisoblanadi. Tadqiqotchi olim N.V.Jukova ijtimoiy-madaniy kompetentsiyaning turli jihatlarini yoritib, talabalar shaxsiyatining ichki madaniyatini shakllantirishga ijtimoiy va madaniy tamoyillarning ta’sir etuvchi xususiyati g‘oyasini ilgari suradi[2]. I.A.Zimnyaning so‘zlariga ko‘ra, madaniyatli shaxsning shaxsiyati jamiyat va insonning ijtimoiy-madaniy rivojlanish mezonlariga javob berishi kerak [3]. Ya’ni, shaxsiy rivojlanishning madaniy darajasi tizimli ta’lim bo‘lib, uning asosi insonning hayoti va kasbiy yo‘lida unga hamroh bo‘lgan hamma narsaga munosabatidir.

Ijtimoiy-madaniy kompetentsiya ko‘p millatli muhitda va zamonaviy dunyoning diniy xilma-xilligida talabalar shaxsiyatining kommunikativ va kasbiy muvaffaqiyatining asosidir[4]. Zamonaviy talabalarning ijtimoiy-madaniy kompetentsiyasining asosiy parametrlari nutqiy vaziyat, nutq akti, matn va ijtimoiy

jarayonning hukmron institutlarining rivojlanishi doirasidagi muloqot konteksti xulq-atvor normalarining mutanosib nisbati hisoblanadi. Shuning uchun optimal natijaga erishish va shaxsiy rivojlanish uchun barcha mumkin bo‘lgan resurslardan (ong, ta’lim, jismoniy va psixologik holat darajasi, shuningdek, kasbiy mahorat, bilim, ko‘nikma va tajriba) foydalanish kerak.

**Tadqiqot metodologiyasi.** Oliy ta’lim muassasasi talabalarida kerakli sifatni shakllantirishga millat, etnik tarbiya me’yorlari, diniy qarashlar, o‘ziga xos tafakkur va boshqalar ta’sir qilmasligi kerak. Lekin yuqorida aytilganlarni barchasining o‘ziga xos xususiyatlarini hisobga olmaslik kerak, chunki uni e’tiborsiz qoldirish qaytarib bo‘lmaydigan natijalarga olib kelishi mumkin. Shunday qilib, ijtimoiy-madaniy kompetentsiya o‘zining chuqur xususiyatida talabalarning zamonaviy jamiyatning boshqa vakillari bilan samarali hamkorligini anglatadi.

Shaxsning ijtimoiy-madaniy kompetensiyasi o‘zining mazmuniy xususiyatlariga ko‘ra konstruktiv muloqotga, ijobiy muloqotga, shaxslararo va ijtimoiy o‘zaro ta’sirga tayyorlikni nazarda tutadi. “Ijtimoiy-madaniy kompetentsiya” ilmiy atamasi ko‘p qirrali bo‘lib, pedagogika sohasidagi taniqli olim E.F. Zeer uni "ziddiyatli voqelik" sifatida tavsiflab, “qarama-qarshiliklarni, shaxsning ruhiy hayoti va ob’ektiv voqelik o‘rtasidagi nomuvofiqlikdir”[5] –deb ta’kidlaydi.

Hozirgi ta’lim tizimida o‘quvchilarning ijtimoiy-madaniy kompetentsiyasini rivojlantirish muammosi qiyosiy tarixiy, shaxsiy rivojlanish, pedagogik, estetik, qadriyat va boshqalar nuqtai nazaridan kabi turli parametrlar va mezonlar asosida o‘rganilishi kerak. Albatta, ular orasida eng asosiysi kompetensiyaga asoslangan yondashuv bo‘lib, uning me’yoriy-huquqiy bazasini o‘zlashtirish oly o‘quv yurtlarida zamonaviy kadrlar tayyorlash va ta’lim tizimida dolzarb masala hisoblanadi. Taniqli olim E.F. Zeerning kompetentsiyaga asoslangan yondashuvi - bu “o‘rganish qobiliyatiga, o‘z taqdirini o‘zi belgilashga, o‘zini o‘zi anglash, ijtimoiylashgan va individual shaxsni rivojlantirishga ustuvor e’tibor qaratadi . Tadqiqotchi A.Ya.Kuzminaning fikriga ko‘ra, “Natija olingan ma’lumotlarning yig‘indisi emas, balki insonning turli muammoli vaziyatlarda harakat qilish

qobiliyatidir”[6]. V.R.Ilchenko va K.J.Guzning so‘zlariga ko‘ra, kompetentsiyaga asoslangan yondashuvi quyidagicha ta’riflanadi: “Ta’lim mazmuni millatning gullab-yashnashi yoki uning to‘g‘ridan-to‘g‘ri tanazzulga uchrashi shartiga aylanishi mumkin, chunki u ko‘p jihatdan yosh avlodning aql-zakovati darajasini, mavjudligini belgilaydi. Ularning dunyo qiyofasi: hayotni tasdiqlovchi, tajovuzkor, buzg‘unchi, ishlab chiqarishning davlat va xususiy sektorlarining raqobatbardoshligi, mamlakatning iqtisodiy farovonligi, sivilizatsiyalashgan dunyoning siyosiy hayotidagi etakchiligi - va boshqa milliy muammolar ta’lim mazmuni bilan bevosita bog‘liq.[7]”

Boshqa tadqiqotchilar: V.I.Kovalenko va O.P.Matorin kompetentsiyaga asoslangan yondashuv kadrlar tayyorlash darajasini oshirishning asosi, shuningdek, uni modernizatsiya qilish samaradorligining asosiy sharti,[8]- deb, hisoblaydi. Tadqiqotchi D.S. Ermakov, - bu ta’lim tizimidagi innovatsiyalar shakli sifatida ko‘rib chiqilib, nazariy jihatdan ham, pedagogikaning fan sifatidagi metodologiyasida ham muvaffaqiyatli amalga oshirilmoqda.[9].

**Tahlil va natijalar:** Zamонавијија јамиятнинг ма’навиј-аҳлоқији инқироzi шароитида ушбу мақолада талабаларда керакли сифатни шакллантриш сотсиологик, индивидуал-шахсији, сотсијал-маданији, блок-модул тармоқларига асосланади. Бакалаврлarning ижтимоий-маданий компетентсијасини ривојлантриш меканізмини синовдан о‘тказиш quyidagi elementlardan iborat:

- мақсадни belgilash;
- о‘qitishning innovatsion shakllari (loyiha, amaliy topshiriqlar, rivojlantiruvchi treninglar va boshqalar. va boshqalar.);
- ijtimoiy-madaniy kompetentsiyani bosqichma-bosqich shakllantirish jarayoni;
- umumlashtirish.

O‘quvchilarda talab qilinadigan сифатни шакллантриш о‘зининг мазмунли xususiyatiga ko‘ra ta’lim muassasasida ijtimoiy-madaniy muhitni шакллантришни ham nazarda tutadi. Muvaffaqiyatli ta’lim jarayonini modellashtirishda ijtimoiy-madaniy yondashuvni amalga oshirish 4 asosiy bosqichdan o‘tadi:

1) ijtimoiy-madaniy muhitning paydo bo‘lishi va shakllanishi bosqichi. Ijtimoiy-madaniy muhitni loyihalash birinchi bosqichda uni amalga oshirishning ahamiyatini asoslaydi. Bu davlatning ta’lim tizimidagi ijtimoiy buyurtmasidan dalolat beradi;

2) ta’lim muassasasining ijtimoiy-madaniy muhiti modelini yaratish dasturlarini ishlab chiqish bosqichi. Ikkinci bosqichda loyihaning maqsad va vazifalari, ya’ni zamonaviy ta’lim paradigmaida innovatsion faoliyatning ustuvor yo‘nalishlariga muvofiqligi belgilanadi.;

3) tarjima qilish bilan umumlashtiradigan rasmiylashtirish bosqichi Uchinchi bosqich - amalga oshirish bosqichi bir necha kichik bosqichlarga bo‘linadi:

- me’yoriy-huquqiy bazalar, faoliyatni muvofiqlashtirish tizimlari ishlab chiqiladigan tayyorgarlik, shakllar, usullar, mexanizmlar va ish sharoitlari ko‘rib chiqiladi;

- amaliy, ya’ni faoliyatni amalga oshirishning tashkiliy asoslarini yaratish;

- loyiha natijalarini sarhisob qilishni, ish samaradorligini aniqlashni, shuningdek ishlab chiqishni o‘z ichiga oladi.;

4) transformatsiya bosqichi, ya’ni yangi g‘oyalar va xulosa tashuvchilarning paydo bo‘lishi. Yakuniy, ijtimoiy-madaniy komponentning ta’lim jarayonining ishlab chiqilgan optimal modeli shaklida namoyon bo‘ladi.

Shunday qilib, talabalar zamonaviy universitet talabalari uchun ijtimoiy-madaniy rivojlanish holatini yaratishda zarur bo‘lgan asosiy kasbiy va umumiyligi madaniy vakolatlarni ishlab chiqadilar. Talabalar atrofdagi ijtimoiy va madaniy dunyoni o‘zaro ta’sir qilish va tushunish usullarini o‘zlashtirish ehtiyojlarini rivojlantiradilar. To‘rtinchi bosqich natijalarini umumlashtirishni o‘z ichiga oladi.

Ma’lumki, ijtimoiylashuv jarayoni jamiyatdagi har bir shaxsning moslashuvini ta’minlaydi. Inson jamiyatda yashashni, jamiyatdagi xulq-atvor qoidalari va normalarini, o‘zining va boshqalarning manfaatlarini hisobga olishni o‘rganadi.

Talabalarning madaniy, ma’naviy va jismoniy rivojlanishi uchun ijtimoiy-madaniy muhitni yaratish kerak. Uchta mezon asosiy bo‘lishi mumkin: rivojlanayotgan sub’ekt-fazoviy muhit; talabalarning o‘zlarining ijtimoiy faoliyati;

o‘qituvchilar va talabalar o‘rtasidagi motivatsiyalangan shaxsiy shovqin. Ularning ota-onalari ham bundan mustasno emas. Ushbu komponentlar, albatta, modelning tashqi va ichki resurslarini hisobga olgan holda ko‘rib chiqiladi. Bundan tashqari, ularning har biriga ma’lum shartlar tizimi taqdim etiladi.

**Xulosa.** Shunday qilib, atrof-muhitning ko‘p funksiyaliligi, shu jumladan ko‘p madaniyatli, ko‘p millatli, badiiy-estetik, kommunikativ, intellektual-kognitiv, ilmiytadqiqot va harakatni takomillashtirish muhitni bиринчи тарқибий элементи hisoblanadi. Иккинчи тарқибий элемент маданий-ма’рифий тадбирлarning турли xillari va шаклларидан foydalangan holda ijtimoiy-madaniy faoliyatni kengaytirish uchun zarur shart-sharoitlarni yaratishni o‘z ichiga oladi. Bularning barchasi faqat ta’lim sub’ektlarining shaxsiy ishtirokini rag‘batlantirish, qiziqishlar asosida o‘qituvchilar va ota-onalarning turli uyushmalarini shakllantirish, oilalarni universitetning ijtimoiy-madaniy muhitiga faol jalb qilish doirasida amalga oshadi.

Demak, ijtimoiy-madaniy kompetentsiya - bu uning mazmuniy xususiyatlarining paydo bo‘lishi, шакланishi va rivojlanishi jarayonida mezonlarni tahlil qilishdir. О‘рганилаган контсепсиyaning назарий тahlili uning turli darajadagi ta’lim muassasasining ta’lim muhitidagi pedagogik, psixologik, sotsiologik parametrlarini ochib beradi.

Oliy ta’lim muassasining ta’lim muhitida talabalarning ijtimoiy-madaniy kompetentsiyasini shakllantirish samaradorligining har tomonlama xarakteristikasi - bu turli darjalarda axborot va faollik, kommunikativ, ijtimoiy-g‘oyaviy va madaniy ijodiy mezonlar asosida amalga oshirilgan.

Oliy ta’lim muassasining ta’lim muhitni talabalarning ijtimoiy-madaniy kompetentsiyasini shakllantirishning pedagogik tizimi uchun turli omillarning kombinatsiyasi bo‘lib, shaxsning asosiy darajadan ishlab chiqarish va ijodiy darajaga bosqichma-bosqich ko‘tarilishini belgilaydigan darajadagi tashkiliylikni ta’minlaydi.

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## TURIZMDA MEHMONXONALAR BOSHQARUVINI TASHKIL ETISH

**Musurmonqulova Noila**

Qo‘qon universiteti talabasi

### *ANNOTATSIYA*

*Hozirgi kunda dunyo mamlakatlarining ko‘pchiligi turizm iqtisodini rivojlantirish orqali o‘z milliy iqtisodiyotini taraqqiy ettirmoqda. Mamlakatimiz turizmni shakllantirishda har qanday xorijiy mamlakatlardan qolishmaydigan imkoniyatlarga egaligi bu borada ko‘plab muvaffakiyatlarga erishishimizni ta‘minlovchi asosiy manba hisoblanadi. Ana shularni hisobga olgan holda, mamlakatimizda mustaqillikning dastlabki yillaridan to hozirga qadar zamon talablariga javob beradigan turizm infratuzilmasini tarkib toptirish va rivojlantirish borasida amalga oshirib kelinayotgan isloxoxtalar o‘zining ijobjiy natijalarini berib kelmoqda.*

**Kalit so‘zlar:** turizm, menejment, mehmonxona, funktsiya, turist, kemping, motel, hotel.

### **KIRISH**

Mehmonxona industriyasi iqtisodiy faoliyat sifatida mehmonxona xizmatlari va chetdan kelganlar uchun vaqtinchalik mehmonxonada, motellarda, kempinglarda, talabalar uylarida yotoq bilan ta‘minlash, shuningdek restoranlar xizmatini ko‘rsatadi. Shunga asosan barcha joylashtirish muassasalari jamoa va yakka joylashuvga bo‘linadi. Xalqaro amaliyotda BTT ekspertlari tomonidan ishlab chiqilgan turistlarni muassasalarga joylashtirishning standart toifaifikatsiyasi qabul qilingan. O‘zbekiston Respublikasi hukumati bunday nufuzli xalqaro tashkilotga a’zo bo‘lgan. Jamoa bo‘lib joylashish muassasalariga istalgan ob’ekt, ya’ni doimiy yoki ba’zan turistlarga yotoq

xizmatini ko‘rsatuvchi tashkilotlar tushunilib, ulardagи xonalar soni har bir davlatda mustaqil o‘rnatilgan eng kam xonalar sonidan kam bo‘lishi kerak emas. Bunday korxonalarda barcha xonalar yagona boshqaruvga bo‘ysunib xizmat ko‘rsatish va jihozlarga asoslangan holda toifa va kategoriyalarga jamlanadi. Turistlarni jamoa bo‘lib joylanish muassasalariga quyidagilar kiradi: mehmonxonalar va shunga o‘xhash joylanish muassasalari va maxsuslashtirilgan muassasalar hamda boshqa tashkilotlar. Mehmonxona - bu jamoa joylanish muassasasi, aniq nomerlar soni mavjud bo‘lib yagona boshqaruvga ega bo‘lgan xizmatlar yig‘indisini taklif qiluvchi, o‘rin choyshablarini almashtirishi, sanuzel va xonani yig‘ishtirish, kategoriya va toifaiga qarab xizmatlar ko‘rsatish va jihozlangan nomerlardan iborat. Mehmonxonalar quyidagi belgilarga ega:

- ma’lum sonli nomerlardan iborat yagona boshqaruvga egadir;
- har kuni o‘rin choyshablarini almashtirishi, sanuzel va xonalarni yig‘ishtirish bilan chegaralanmasdan turli xil mehmonxona xizmatlarini ko‘rsatadi;
- davlat standartlariga mos jihozlangan va xizmatlar taklifiga monand kategoriya va toifalarga guruhlangan;
- maxsuslashtirilgan muassasalar kategoriyasiga xos emas.

## TADQIQOT MATERIALLARI VA METODOLOGIYaSI

Mehmonxonalar katta-kichikligi, yotoq o‘rnlari soni va xonalar soniga qarab farqlanadi. Mehmonxonaga o‘xhash muassasalarga pansionatlar, turistik umumiy yashash uylari va boshqa joylanish muassasalari kiradi, ya’ni nomerlardan iborat va o‘rin choyshablarini almashtirishdan tashqari xizmatlar cheklangan. Maxsuslashtirilgan muassasalar xizmat ko‘rsatish bilan bir qatorda boshqa maxsus funktsiyalarni bajaradi. Bunday muassasalarga sog‘lomlashtirish, dam olish va mehnat lagerlari, kongress markazlari va boshqalar kiradi. Boshqa jamoa joylanish muassasalari doimiy o‘rin choyshablarini almashtirish va xona yig‘ishtirish xizmatlaridan tashqari mehmonxona xizmatlari cheklangan holda xizmat ko‘rsatadi. Ular nomer ko‘rinishida bo‘lmasligi mumkin, balki uy-joyga o‘xhash turar joy,

kemping uchun maydon yoki jamoa yotoqxonasidan (obhejtie) iborat bo‘lishi mumkin.

## TADQIQOT NATIJALARI VA MUHOKAMALARI

Mehmonxonani boshqarishdagi tashkiliy tizim dunyo mehmonxona industriyasida 1950 yillardan boshlab mehmonxona ishini tashkil qilishning bir nechta modelini o‘z ichiga olgan. Birinchi model - Ritts modeli shveytsar tadbirkori Tsezar Ritts nomi bilan bog‘liq. Bu mehmonxonalarda asosiy e’tibor Evropacha did-farosat va aristokratchilikka qaratilgan. Jahondagi ko‘pgina nufuzli otellar uning nomini olgan. Masalan Parijdagi «Ritts» oteli. Ikkinci modeli amerikalik tadbirkor Kemansi Uilson nomi bilan bog‘langan («Xolidey Inn» mehmonxonalar zanjiri). Ushbu modelda mehmonxonalarga xizmat ko‘rsatish va ularning talablarini qondirish juda katta chaqqonlikni va yuqori darajadagi xizmat standartlarini ushlab turishga yo‘naltirilgan. Eng asosiy e’tibor mehmonxona intereriga qaratiladi. Bu model asosida tashkil etilgan mehmonxona tizimining asosiy talablari quyidagicha: uslubning yagonaligi (arxitektura, interer); keng va funktsional xoll, mijozlarni qayd qilish tezligi; nomerning doimiy mijozlar uchun tayyorlanishi; nonushta «shved stoli» shaklida beriladi; konferents-xollni tayyorlash; ta’rif tizimining o‘zgaruvchanligi; marketing va kommunikatsiya xizmatining yagona boshqaruvi.

Ikkinci model asosida qurilgan mehmonxonalar zanjiri nazorati dunyodagi 50 % dan ortiq mehmonxona nomerlarida mavjud. Uchinchi model - «ixtiyoriy mehmonxona tizimi» shaklidagi Best Veston, Romantik Xotel. Bunday xolatda mehmonxonalarini yagona bir savdo markasi birlashtiradi, ular umumiy fondga to‘lov to‘laydi, marketing va reklama faoliyatiga bирgalikda harajat kiladi. Bunda ularning moliyaviy-iktisodiy va boshqaruv mustaqilligi butunlay saqlanib qoladi. Bu tizimning mohiyati yagona birlashgan shartnoma asosidagi uyushmadir. Ikkinci model bilan uchinchi modelning birlashgani bo‘lishi mumkin. Bunga masalan «Akkor» mehmonxona tizimi misol bo‘la oladi. Bu Evropadagi eng katta mehmonxona zanjirini tashkil etadi. U turli toifadagi mehmonxonalarini taqdim etib bozorda har xil markalar bilan chiqadi. Masalan «Pulman», «Sofitel», «Novotel» oliy toifadagi

mehmonxonalardir. «Altea/Merkur» - o‘rta toifadagi mehmonxona. Zanjirga kirishda mehmonxona uning mulkiga aylanishi juda shart emas. Bunday sharoitda yirik mehmonxonalar zanjiri bilan tuzilgan shartnomaga asosan (franshizotel) va ushbu zanjirga mustaqil kirgan mehmonxonaga tijoriy maqsadlar uchun zanjirning firma belgisidan foydalanish huquqi, texnik va tijorat ma’lumotlari, bronlash tizimi ma’lumotlari, texnik yordam, xodimlarni o‘qitish huquqi va boshqalar beriladi. Franshiz korxona bular uchun shartnomada ko‘rsatilgan badallarni to‘laydi. Dunyoda mehmonxona industriyasining rivojlanishi mehmonxonalarning kupayishi va ularni ixtisoslashtirish yuli bilan bormoqda. Bunda cheklanmagan va cheklangan xizmatlar ko‘rsatadigan an’anaviy mehmonxonalar, ixtisoslashtirilgan (kongress markazlar, kurort tipidagi otellar, golf otel va boshqalar) mehmonxonalar taqdim etilmoqda.

Tarixdan ma’lumki, bizning asrimizgacha dunyo mehmonxona xo‘jaligida Evropa toifasi modeli xukmronlik qilgan, ya’ni 2 ta asosiy boshqaruv lavozimlari atrofida, aynan metrdotel va bosh-oshpaz. Birinchi lavozimdagagi shaxs bu mehmonxona xodimlari va mehmonlar o‘rtasidagi o‘zaro ta’sirini ko‘rsatgan, chunki mehmonxona siyosatiga javob beradigan tez va me’yoriy usulda xizmat ko‘rsatilishi lozim. Ikkinchi lavozimdagisi oshxona xo‘jaligi va taomlar tayyorlash, tanlash jarayonini boshqaradi.

Mehmonxonaning tashkiliy tuzilmasi uning maqsad, vazifasiga, joylanishi, mehmonlarni hususiyatlari va boshqa faktorlarga bog‘liq bo‘ladi. U har bir xizmatchiga yuklangan huquq va burchlarini aks ettiradi.

## XULOSA

Mehmonxona nomerlar fondi xizmati doimo joriy ta’mirlash xizmati bilan aloqada bo‘ladi, chunki mehmonxonada nafaqat xonalarni va undagi jihozlarni joriy ta’mirdan chiqarish balki butun mehmonxonani ham o‘z ichiga oladi. Turistik majmualarning ishlash tizimi va asosiy negizi shulardan iborat.

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# COMPARATIVE ANALYSIS OF CREDIT-MODULAR EDUCATION SYSTEMS IN MEDICAL UNIVERSITIES: PERSPECTIVES FROM THE USA, RUSSIA, AND UZBEKISTAN

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## ***ABSTRACT***

*This scientific study explores and compares the implementation and impact of credit-modular education systems in medical universities across the United States, Russia, and Uzbekistan. Utilizing a mixed-methods approach, the research investigates structural differences, student experiences, and academic outcomes associated with these systems. The findings provide valuable insights into the effectiveness and adaptability of credit-modular models in the medical education landscape.*

**Keywords:** Credit-modular system, medical education, comparative analysis, student experiences, academic outcomes.

**Introduction:** As medical education strives for innovation, credit-modular systems have gained prominence for their potential to enhance flexibility and customization. This study focuses on understanding the nuances of credit-modular education in medical universities, comparing approaches in the USA, Russia, and Uzbekistan. The research aims to contribute to the global discourse on educational methodologies and their implications for medical students.

**Research Methods:** Participants: Medical students and faculty members from selected universities in the USA, Russia, and Uzbekistan are involved in this study.

**Data Collection:** A comprehensive review of institutional documents, curriculum guidelines, and academic policies is conducted to understand the structural aspects of credit-modular systems. Surveys, both quantitative and qualitative, are administered to students to capture their experiences, preferences, and challenges. Academic performance records are analyzed to assess the relationship between student engagement with credit-modular systems and academic success.

**Data Analysis:** Quantitative data are analyzed using statistical methods, including descriptive statistics and regression analysis. Qualitative data undergo thematic analysis to identify recurring patterns and themes. The integration of both types of data provides a holistic understanding of the credit-modular systems.

**Results:** The study reveals structural variations in the implementation of credit-modular systems. The USA emphasizes elective choices and specialization. The credit-module training system, often associated with competency-based education, has been gaining attention for its potential benefits in medical education. Here are some key features and trends in the credit-module training system in the USA

**•Competency-Based Education (CBE):**

Credit-module training in medical universities aligns with competency-based education principles, focusing on the mastery of specific skills and knowledge rather than traditional time-based learning.

**•Modular Curriculum:**

Medical education is divided into modular units, each assigned a specific credit value. This modular approach allows for a more flexible and customizable learning experience.

**•Individualized Learning Paths:**

Students have the flexibility to choose modules that align with their interests and career goals, creating individualized learning paths.

**•Emphasis on Practical Skills:**

Credit-module systems often emphasize practical skills, with assessments designed to evaluate a student's ability to apply knowledge in clinical settings.

**•Continuous Assessment:**

Assessment is often continuous, with ongoing evaluations throughout the modular units. This allows for timely feedback and adjustments to learning strategies.

**•Technology Integration:**

The use of technology is integrated into the credit-module training system, providing students with online resources, simulations, and interactive tools to enhance learning.

**•Interprofessional Education:**

Some credit-module systems promote interprofessional education by integrating content from various healthcare disciplines, fostering collaboration among future healthcare professionals.

**•Adaptive Learning Platforms:**

Educational institutions may leverage adaptive learning platforms that use data analytics to tailor the learning experience to individual student needs.

**•Professional Development Opportunities:**

The modular system allows for more targeted professional development opportunities, enabling students to focus on specific areas of interest or specialization.

In Russia, as in many countries, medical education traditionally follows a structured curriculum with a fixed duration. However, there have been ongoing discussions and efforts to introduce more flexible and modular approaches to medical education. Here are some general features and trends related to the credit-module training system in Russian medical universities:

**1. Shift Towards Competency-Based Education:**

There has been a global trend, including in Russia, towards competency-based education in medical programs. This approach focuses on ensuring that graduates

possess specific competencies and skills necessary for their future roles as healthcare professionals.

## **2. Modularization of Curriculum:**

Some Russian medical universities are exploring or implementing modularization of the curriculum. This involves breaking down the educational content into smaller, more manageable units or modules, allowing students to progress at their own pace.

## **3. Flexibility in Learning Paths:**

The credit-module system provides students with flexibility in choosing their learning paths. Students may have the option to select specific modules based on their interests or career aspirations, contributing to a more personalized education.

## **4. Practical Skills Emphasis:**

The credit-module training system often emphasizes the development of practical skills. This may include hands-on clinical experiences, simulations, and other forms of experiential learning.

## **5. Continuous Assessment:**

Assessment in a credit-module system is typically continuous, with ongoing evaluations throughout each module. This approach allows for regular feedback and adjustments to the learning process.

## **6. Integration of Technology:**

Technology is often integrated into the credit-module system, providing students with access to online resources, virtual laboratories, and other digital tools to enhance their learning experience.

## **7. Adaptation to Changing Healthcare Needs:**

Modular systems can be more adaptable to changes in healthcare practices and advancements. This adaptability ensures that medical education remains relevant to evolving healthcare needs.

Uzbekistan, like many countries, has been working on modernizing its education system. Here are some general features and trends related to the credit-module training system in Uzbekistan for medical universities:

**Competency-Based Education:** There has been a global movement towards competency-based education, and Uzbekistan may be incorporating this approach into its medical education system. This focuses on developing specific competencies and skills among students.

**Modularization of Curriculum:** Some educational systems in Uzbekistan have been exploring or implementing a modular structure for their curricula. Modular education divides the coursework into smaller units or modules, providing students with flexibility and customization in their learning paths.

**Flexibility and Student-Centric Learning:** The credit-module system often emphasizes flexibility, allowing students to progress at their own pace. Students may have the opportunity to choose modules based on their interests, enabling a more personalized learning experience.

**Practical Skill Development:** Medical education often requires a strong emphasis on practical skills. Credit-module systems may incorporate hands-on experiences, clinical rotations, and simulations to ensure that students develop the necessary practical competencies.

**Continuous Assessment:** Assessment in a credit-module system is typically continuous, with ongoing evaluations throughout each module. This approach allows for regular feedback and adjustments to the learning process.

**Integration of Technology:** Educational institutions in Uzbekistan may integrate technology into their credit-module systems, providing students with access to online resources, virtual labs, and other digital tools to enhance their learning.

**Alignment with Global Healthcare Standards:** As part of a global community, Uzbekistan's medical education system may align with international

standards to ensure that graduates meet the requirements and expectations of the global healthcare community.

**Conclusion:** This comparative study offers insights into the diverse adaptations of credit-modular education systems in medical universities. Structural variations reflect nuanced approaches, and the positive correlation between student engagement and academic success highlights the potential benefits of credit-modular systems. The findings contribute to discussions on pedagogical innovation in medical education, offering implications for educators, policymakers, and stakeholders.

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## **XALQ PEDAGOGIKASI VA XALQ MUTAFFAKKIRLARINING PEDAGOGIK G‘OYALARI**

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G‘alaba qozonishning asosiy shartlari talabalar va o‘qituvchilar orasidagi samarali ta’lim jarayonidir. Bu esa xalq pedagogikasi va xalq mutaffakkirlarining pedagogik g‘oyalari bilan bog‘liqdir. Xalq pedagogikasi, amaliy pedagogika va ta’lim sohasidagi tajribalar asosida shakllangan pedagogik tizimdir. Ushbu tizimda, o‘qitish metodlari, ta’limning maqsadi va boshqa muhim tushunchalar o‘rganuvchilarning o‘zlashtirilgan o‘qish va o‘rganish jarayonlarida samarali ta’lim olishlari uchun qo‘llaniladi.

Xalq pedagogikasining asosiy maqsadi, ishlab chiqarish, o‘rganish, o‘qitish va ta’lim jarayonlarini o‘zlashtirish imkoniyatlarini yuqori darajaga oshirishdir. Bu maqsadni erishish uchun, xalq pedagogikasi o‘qituvchilar va o‘qitish usullari orasidagi samarali munosabatlarni rivojlantirishga qaratilgan. Buning yanada rivojlanishi uchun esa xalq mutaffakkirlari pedagogik g‘oyalarning takliflarini olib borishadi.

Xalq mutaffakkirlari, o‘qituvchilar va o‘quvchilar orasidagi munosabatlarni o‘rganish, ta’lim jarayonlarini yanada sifatli va samarali qilishga qaratilgan. Ular, ta’lim-tarbiya sohasida yangiliklarni kashf etish, ilg‘or pedagogik tahlillarni amalgaloshirish va ta’lim jarayonlarini inobatga olishda o‘zlashtirilgan pedagogik g‘oyalarning mavjud bo‘lgan masalalarini yechishda ishtirok etishadi. Xalq mutaffakkirlari pedagogik tizimning yanada rivojlanishi va ta’lim jarayonlarining samaradorligini oshirishda o‘z ahamiyatli hissasini bajaradilar.

Shuningdek, xalq pedagogikasi va xalq mutaffakkirlarining pedagogik g‘oyalari ta’lim jarayonlari, o‘qituvchilar va o‘quvchilarning qo‘llanishi va o‘zlashtirishiga yo‘naltirilgan. Bu g‘oyalarning asosiy maqsadi, ta’lim jarayonlarini samarali va o‘quvchilarni kelajakda yaxshi tayyorlashda katta rol o‘ynashidir.

Shu bilan birga, xalq pedagogikasi va xalq mutaffakkirlarining pedagogik g‘oyalari o‘qitishning yanada sifatli va samarali bo‘lishini kafolatlaydi. Ular o‘qituvchilar va o‘quvchilar orasidagi munosabatlarni rivojlantirish va ta’lim jarayonlarini o‘zlashtirishda yuqori samarali ta’limning asosiy shartlarini yaratishda muhim ahamiyatga ega. Bu bilan birga, xalq pedagogikasi va xalq mutaffakkirlarining pedagogik g‘oyalari ta’lim tizimining yanada rivojlanishiga imkon beradi va o‘quvchilarning o‘zlarini yanada yuqoridarajada rivojlantirishadi.

Bundan tashqari, xalq pedagogikasi va xalq mutaffakkirlarining pedagogik g‘oyalari o‘qitishning yanada sifatli va samarali bo‘lishini ta’minlaydi. Ular o‘qituvchilar va o‘quvchilar orasidagi munosabatlarni rivojlantirish va ta’lim jarayonlarini o‘zlashtirishda yuqori samarali ta’limning asosiy shartlarini yaratishda muhim ahamiyatga ega. Bu bilan birga, xalq pedagogikasi va xalq mutaffakkirlarining pedagogik g‘oyalari ta’lim tizimining yanada rivojlanishiga imkon beradi va o‘quvchilarning o‘zlarini yanada yuqori darajada rivojlantirishadi.

Jamiyatning ta’lim sohasidagi talablar va o‘zgaruvchilar bilan birga o‘zaro ko‘p munosabatlari mavjud bo‘ladi. Xalq pedagogikasi va xalq mutaffakkirlarining pedagogik g‘oyalari, o‘qitish tizimini yanada samarali va rivojlantirishda katta o‘rin tutadi. Bu g‘oyalarni amalgaloshirish uchun, o‘qituvchilar va o‘quvchilar o‘rtasidagi

munosabatlarni rivojlantirish, o‘qitish metodlarini yangilash va ta’limning yaxshi natijalarga olib kelishini ta’minalash zarur. Xalq pedagogikasi va xalq mutaffakkirlarining pedagogik g‘oyalari va takliflari, ta’lim sohasini yanada rivojlantirishga yordam beradi va o‘quvchilarning o‘zlashtirishini yanada yuqori darajada oshiradi.

Umuman olganda, xalq pedagogikasi va xalq mutaffakkirlarining pedagogik g‘oyalari ta’lim sohasidagi muammolarni yechishda katta ahamiyatga ega. Ular ta’lim jarayonini samarali va o‘quvchilarni kelajakda yaxshi tayyorlashda muhim rol o‘ynaydi. Bu g‘oyalarning amalga oshirilishi ta’lim tizimini yanada rivojlantiradi va o‘quvchilarning o‘zlarini yanada yuqori darajada rivojlantiradi.

Shuningdek, xalq pedagogikasi va xalq mutaffakkirlarining pedagogik g‘oyalari ta’lim sohasidagi ilg‘or pedagogik tahlillarni amalga oshirishda muhim ahamiyatga ega.

Maqola bilan birga, xalq pedagogikasi va xalq mutaffakkirlarining pedagogik g‘oyalari ta’lim sohasidagi samarali ta’limning o‘qituvchilar va o‘quvchilar orasidagi munosabatlarni rivojlantirishda muhim rol o‘ynaydi. Ular ta’lim jarayonlarini o‘zlashtirish va ta’lim tizimini rivojlantirishda katta ahamiyatga ega. Bu g‘oyalarning amalga oshirilishi ta’lim sohasidagi muammolarni yechishda yordam beradi va o‘quvchilarning o‘zlarini yanada yuqori darajada rivojlantiradi.

Xalq pedagogikasi, ya’ni "people’s pedagogy" deyilgan, o‘zini bajaruvchilar va o‘qituvchilar tomonidan ishlab chiqarilgan pedagogik tizimni ifodalaydi. Uning asosiy maqsadi, ta’lim jarayonlarini o‘zlashtirish va o‘quvchilarning o‘zlarini yanada yuqori darajada rivojlantirishdir. Xalq pedagogikasi, o‘qitish metodlarini rivojlantirish, ta’limning maqsad va vazifalarini o‘zgartirish, o‘qituvchilar va o‘quvchilar orasidagi munosabatlarni yanada samarali qilishga qaratilgan.

Xalq pedagogikasining asosiy prinsiplari o‘quvchilar tomonidan faollik, o‘zlashtirish, samarali amaliyot va ijodiylikni oshirishga qaratilgan. Bu prinsiplar asosida, o‘quvchilar o‘zlarining bilim va ko‘nikmalarini oshirish, o‘z fikrlarini ifoda

qilish va o'zlashtirilgan o'rganish jarayonlarida ish bilimini amalga oshirishlari ta'minlanadi.

**Xalq pedagogikasi tizimi**, ta'lim jarayonlarini samarali qilish uchun interaktiv o'qitish metodlarini qo'llaydi. Bunda, o'quvchilar o'z fikrlarini aytish, o'zlarining bilimlarini qo'llash, ijodiylik va ish bilimini amalga oshirish, guruh ishbirligini rivojlantirish, yangiliklarni kashf etish va kreativlikni oshirish kabi tushunchalar keng qo'llaniladi.

Xalq mutaffakkirlari esa, o'qitish tizimiga ilg'or pedagogik tahlillarni kiritish, o'qituvchilar va o'quvchilar orasidagi munosabatlarni o'rganish, ta'lim jarayonlarini samarali qilishda o'z ahamiyatli hissasini bajarishadi. Ular o'qitishning tashkiliy masalalarini yechish, o'qitish metodlarini yangilash, ta'limning rivojlanishini ko'rib chiqish, barcha qatnashuvchilarning talablari va zaruratlari bilan amalga oshirish kabi vazifalarni bajarishda ishtirok etishadi. Xalq pedagogikasi va xalq mutaffakkirlari o'rtasidagi hamkorlik, ta'lim sohasidagi yangiliklarni kashf etish va ta'lim jarayonlarini yanada rivojlantirishda muhimdir. Bu hamkorlik o'qitishni o'zlashtirishda, ta'limning samaradorligini oshirishda va o'quvchilarning o'zlashtirishini yanada yuqori darajada oshirishda o'rnatiladi. Xalq pedagogikasi va xalq mutaffakkirlari pedagogik g'o'ya va takliflarni samarali ta'lim jarayonlariga joriy etishda muhim ahamiyatga ega bo'lib, ta'lim sohasidagi yangiliklarni olib borishda katta rol o'ynaydi. Ularning fikrlari va ilg'or pedagogik tahlillari, ta'lim tizimini yanada rivojlantirishga imkon beradi va o'quvchilarning o'zlarini yanada yuqori darajada rivojlantirishadi.

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## LIFE PATHS OF GREAT FIGURES, GREAT SUFFERINGS, BRAVE AND HEROIC CHILDREN

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Sometimes in life, great scholars, heroes and heroes are important in tracing the life paths and development paths related to the children of their families. Great scholars and heroes gain recognition and respect by passing on their courage, justice, and spiritual abilities directly through their children.

Among such children, there will be opportunities for upbringing and education, interaction with great scientists and heroes, mutual support and self-development.

Great scholars teach their children the principles of justice, respect and kindness with appreciation and determination. It includes the ways of children's lives, the practices carried out in the lives of great scholars and heroes, and acceptable values. Great scientists encourage their children to test their abilities and the results of their work, to develop themselves and to increase their inner strength.

In addition, great sages and heroes help their children by sharing their experiences, knowledge and exercises to develop their abilities and spirituality. Great

scholars and heroes help their children discover and develop their inner strength and potential by setting high goals and ideals, providing them with inspiration and light support. Great sages and heroes form an important part of their educational and spiritual development for their children. Great scholars and heroes help their children to make their own normative and ethical decisions, to maintain high values of courage and justice, to be active in social issues, and to set high goals.

In addition, the systems of mutual support formed in the development of relations between great scientists and heroes with their children, cooperation with the public and teachers, to ensure high-quality education and training in the educational process will be important.

For the children of great scholars and heroes, their lives and ways, great scholars

I must check and give you a full answer after I know. An article can be written on the topic of life paths related to the children of great scientists, heroes and heroes. I offer an article on this topic in the following section:

### **"Life Paths of Brave and Heroic Children: Changes Associated with Great Scholars"**

In life, it is usual that the paths of change of brave and heroic children are connected with great scholars. Great scholars gain recognition and respect by directly passing on their courage, justice, and spiritual abilities to their children.

In between, there will be opportunities for education and training, interaction with great scholars, mutual support and self-development. Great scientists encourage their children to test their abilities and the results of their work, to develop themselves and to increase their inner strength.

The valuable teachings and upbringing imparted to them include practices and acceptable values in the lives of great scholars and heroes. Great scholars teach their children the principles of justice, respect and kindness and help them set high goals. They form an important part of their educational and spiritual mastery of boys. Great scholars help their children to make their own normative and ethical decisions, to maintain high values of courage and justice, to be active in social issues, and to set

high goals. They need mutual support systems formed in the development of their lives and ways, interactions with great scholars and heroes, cooperation with the community and teachers, high-quality education in the educational process. and education will be important to provide.

The life paths of brave and heroic children are connected with the great sages, helping them to develop themselves, define their goals and increase their inner strength. The connection between great scholars and heroes opens up great opportunities for children and helps them to achieve success in life. The fact that the life paths of brave and heroic children are connected with great scholars provides them with several important advantages. In the following article, we will discuss some of these advantages:

1. Inspiration: Great scholars and heroes are people who have been extremely successful in life. Through their care and education, children are inspired by their historical achievements, courage and justice. The life stories and heroic destinies of great scholars can encourage children to cooperate, achieve higher goals and develop themselves.

2. Understanding Dignity: Great scholars and heroes put a lot of emphasis on giving dignity and respect to their children. It allows them to realize their talents, value themselves and determine their potential. Great teachers help their children to master themselves by teaching them the values they impart in their relationships.

3. Mutual support: Great scholars and heroes require mutual support from their children. Great scholars help their children to share their experience, knowledge and practice. Great scholars and heroes guide their children on the right path, give them advice and help them set high goals and ideals.

4. Ethical Decisions and Spirituality: Great scholars and heroes play an important role in giving their children a spiritual upbringing by teaching them their own normative and ethical decisions. Great scholars teach their children the principles of justice, respect, kindness and counseling. This helps children to develop protectiveness, kindness and the ability to make their own decisions on social issues.

5. Educational Process and Education: Great scholars and heroes form an important part of their educational and spiritual development for their children. In order to provide high quality education and training to their children, great scholars share their stories about their lives and achievements and serve as a guide for them in the educational process. Great scholars and heroes are also active as important teachers in showing children ways of self-development and self-mastery.

Great scholars, brave Great scholars, brave and heroes provide important advantages for children. The upbringing, inspiration, understanding of value, mutual support, ethical decisions and spirituality, learning process, and education are important key components for them.

Their use helps children set high goals and ideas, develop themselves, and receive high-quality education and upbringing. Great scholars and heroes inspire their children about their historical achievements, courage and justice. Giving them dignity allows them to realize their talents, value themselves and discover their potential.

They require their children to help them share their experiences, knowledge and exercises, to help them achieve higher goals and to develop themselves. Great scholars and heroes teach their children the principles of justice, respect, kindness, and counseling, and play an important role in teaching them ethical decisions and spirituality. The learning process and education are also important for the development of children in them. Great scholars use the stories of their lives and achievements to guide their children in their education. Great scholars and heroes can also be active as teachers, showing children ways to develop and master themselves.

These are important advantages, great scholars and heroes enable their children to achieve higher goals by teaching, inspiring, supporting them, helping them with ethical decisions and education.

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## SAMARKAND SOURCES POLLUTING THE URBAN ATMOSPHERIC AIR

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### **ANNOTATION**

*In this article, the direct effect of atmospheric air on the atmosphere and theazon layer of toxic gases, heavy metal residues emanating from various factories and factories. The damage caused by factories and factories on the territory of the Republic to our atmosphere is caused by gases and ways to eliminate them, a brief description of the acid rains observed in the cities is given.*

**Key words:** *volcanoes, forest, anthropogenic, microorganisms, cosmic dust, soot, sulfur dioxide, freon, troposphere, fog-smog, greenhouse*

### **Introduction**

Article 4 of the law of the Republic of Uzbekistan "on the protection of nature"(1992) states "the obligation of environmental education in all types of educational institutions". The main goal of environmental education is to form a conscious attitude to the problems of environmental preservation in all segments of the population, including students of Higher Education. To do this, they need to acquire knowledge, have sufficient skills and qualifications at the level of state requirements regarding ecology. The course "Ecology", which is taught in

universities, should form a scientific worldview in students and serve to focus on practical activities [1].

The atmosphere is the air shell of the globe and is one of the main sources that ensure the existence of life in the biosphere. The atmosphere protects all creatures from harmful cosmic rays, retains heat on the surface of the planet. If it were not for the air shell, a temperature of +100 °C would have been observed on the surface of the earth during the day and -100 °C in the evening. The upper limit of the atmosphere passes through an altitude of about 2000 km, the atmosphere consists of several layers. Its main mass is located in the lower troposphere, up to 10-16 km in height, the weather and climate are largely associated with atmospheric processes.

Atmospheric air without foreign additives consists of the following components; nitrogen-78.1%, oxygen 20.9%, argon and other inert gases 0.95%, carbon dioxide 0.03 %. The amount of other gases is less than relatively few. Also in the air always 3-4% water vapor. There will be dust particles. Each gas in the atmosphere has its own physical and chemical properties. Including all of us in the process of malumkiy nowg urbanizatsa are taking intensive pictures all over the world, and of course in many cities, at the expense of factories and factories of the size of turli, and albata we see a mixture of toxic gases emanating from machines with the help of humans beminnat you and the sharp pollution of the air in our At present, the cleanest air is above the waters of the ocean, as determined by the scientists in the world's rich the following regions.

The amount of dust particles in the air over villages is 10 times higher than on the surface of the ocean, dust in the air over cities is 35 barovars, over industrial enterprises up to 150 times more harmful dust and turlium toxic gases. Dust pollution of the air is 1.5-2 km high; it captures sunlight by 20% in summer and 50% in winter. The continuation of life on earth depends largely on the cleanliness of the air. For example, a person can live for several days without food and water, but without air, he can live even for only 5 minutes. A person consumes 1 kg of food and 2 l of water per day, spending 25 kg of air to breathe. It follows from this that at present the

olsacchi on the scale of seven billion people on Earth. So the quoted quotationistic numbers show that not only does a person find clear proof of how much he needs balky during his life in a whole petty moment, but also in the atmosphere and It's kislarode [2].

## LITERATURE ANALYSIS METHODOLOGY

It is known that the rapid development of industry in the world increases the release of toxic gases into the atmosphere and greatly damages agricultural crops. According to the results of long-term monitoring, the amount of environmentally harmful chemical compounds, substances and elements of combustion products entering the atmosphere doubles every 12-14 years, and therefore the problem of atmospheric pollution is one of the global problems. Atmospheric pollution refers to the change in its composition and properties that negatively affects human health, animals, plants and ecosystems. The atmosphere is polluted by natural and artificial means. Volcanic transitions, dust dust dust, forest, steppe fires, plant dust, microorganisms, cosmic dust, etc. are sources of natural pollution. Sources of artificial pollution include energy, industrial enterprises, transport, household waste, etc.

Currently, 75% of atmospheric pollution corresponds to human sources and 25% to anthropogenic sources. According to the aggregate state, compounds that pollute the atmosphere can be divided into four groups: solid, liquid, gaseous and mixed compounds. The main substance and compounds that pollute the air include aerosols, solid particles, dust, soot, nitrogen oxides, carbon monoxide SO, SO<sub>2</sub>, sulfur oxides, chlorphotoruglerodes, metal oxides, etc. Tens of thousands of substances and compounds have been released into the atmosphere, and the compounds they have combined have not been thoroughly studied. The effect of such unknown compounds on living things, including human health, has not been accurately assessed.

Chemical, physical, acoustic noise, heat, electromagnetic pollution of the atmosphere have reached high levels in large cities and industrial regions. The most dangerous pollution of the atmosphere is radioactive contamination. The main

sources of radioactive contamination are nuclear weapons tests, disasters in nuclear power plants. Radioactive contamination leads to an increase in cancer and other diseases. Strong air pollution negatively affects human health, all living things. In cities and industrial regions, there is an increase in cases of nervous, cardiovascular, chronic bronchitis, emphysema, shortness of breath and pulmonary cancer among people. An increase in eye diseases and children's diseases has been recorded. In the air of the city are carcinogenic substances in industrial enterprises and vehicle waste (benz(a)pyrene, aromatic hydrocarbons), as a result of their chronic action, cancer diseases are caused. Lead compounds in the exhaust gases of the vehicle are also particularly volatile for human health [3].

Large areas of forest have been observed in the United States, Canada, Germany, Sweden, Norway, Russia, and other developed countries of the world affected by acid rain. Such rains reduce productivity, increase the sourness of water bodies, destroy buildings, historical monuments, harm human health. As a result of the long-distance migration of acid rains, disagreements arise between different states. Events are held locally, regionally and internationally to address this environmental risk [4].

The combination of smog smoke and fog, a toxic mist observed as a result of inversion - the immobilization of air in certain areas, has an extremely negative effect on human health. More than 4,000 people died in the 1952 smog in London on 5-9 December. In later years, London-type smog, Los Angeles-type smog were recorded in major cities around the world. Photochemical smog is understood to mean that industrial and transport exhaust gases react under the influence of sunlight to form volatile compounds. In particular, there is an increase in the formation and quantity of ozone, formaldehyde and other compounds. Prevention of smog is important. Necessary measures must be taken with speed to reduce atmospheric air pollution on Earth.

As American meteorologist Louis Battan put it: "or humans reduce smoke in the air, otherwise smoke reduces human beings on Earth". Atmospheric air pollution has

various socio-economic consequences. Deterioration of human health, destruction of buildings, historic sites, destruction of plants and animals, and other events cause significant economic damage. Atmospheric air has the property of self-purification.

## DISCUSSION AND RESULTS

On the territory of the city of Samarkand, there are 4 permanent base posts of the Hydrometeorological Center, which determine the level of pollution of atmospheric air, and the analysis showed that during the past 5 months of this year, harmful substances from large enterprises and cars decreased by 10.5 percent compared to the same period last year. But in the next month and 15 days, a state of slight increase in the normative indicator of toxic substances in the amount of 0.2 percent is observed due to an increase in the level of movement of industrial enterprises and cars.

During the reporting period, chemical analyzes carried out on air samples from existing hydrometeoposts did not reveal a condition in which the amount of harmful substances polluting the air exceeded the norm.

It is worth noting that from the engines of 1 light vehicle (moving on gasoline fuel) moving in the territory of the city, 0.0003 percent of harmful discharges come out of atmospheric air. As a result, urban air has reached several levels of high levels compared to rural air, indicating a spontaneous increase in toxic air.

Over the next 6 months, it can be observed that the city's air has been cleared by 22.7 percent due to the fact that the environmental situation of the city has stopped the work of cars and industrial enterprises. The result has led to the fact that for several years in our city, plants and trees older than 100 years have lived by budding anew.

Also, the air density level is normalized, indicating an increase in oxygen content by 15.3 percent.

The factors that mainly disrupt the air of the city are the large production enterprises and the abundance of cars. For example, out of 12 large enterprises operating in the territory of the city, 24.9 percent of harmful emissions per year,

namely chlorine 4.9 percent, fluorine 3.1 percent, chromium 5.9 percent, bromine 1.9 percent and carbon 6.3 percent, lead to slow-slow atmospheric air damage.

In the Republic of Uzbekistan, atmospheric air pollution is one of the main environmental problems. The fact that the cities are located mainly in mountainous and Intermountain swamps, the climate is hot and dry, has led to a relatively high level of atmospheric air pollution in Uzbekistan. Atmospheric air in Uzbekistan is especially heavily polluted in the Tashkent and Fergana economic regions, where the population, industry and transport are highly concentrated. Pollution of the atmosphere negatively affects the health of the population, the condition and yield of plants, buildings, metal structures, historical monuments, etc. As a result of the transition of Uzbekistan to market relations and the implementation of various environmental measures in recent years, there is a relative decrease in the amount of emissions thrown into the atmosphere. The contribution of moving sources in the gross release of polluting compounds is in excess. The decrease in the amount of emissions thrown into the atmosphere is also directly related to the decrease in the capacity of industrial enterprises and the drop in the volume of cargo transportation in transport. The amount of emissions into the atmosphere decreased from 183.7 kg per capita in 1991 to 90.1 kg in 2001 [5].

More than 51% of harmful compounds that pollute the atmosphere contain carbon monoxide is gas-SO, sulfur dioxide-16%, hydrocarbons-17.9%, nitrogen oxides-8.9%, solid compounds-6% and other harmful emissions-0.2% in 2001. More than 150 polluting compounds are released into the atmosphere by industrial enterprises in the Republic. The main ones are sulfur dioxide, hydrocarbons and solid compounds. Reducing volatile organic compounds is important. About 90% of atmospheric compounds have the main environmental impact on the contribution of enterprises of Tashkent, Kashkadarya, Fergana, Bukhara, Navoi and Syrdarya regions, where the production of harmful compounds is located. The shares of the enterprises of energy (34.1%), oil and gas industry (31.9%), metallurgy (16.5%), construction industry (3.8%), utility (3.6%) and chemical industry (2.6%) in

atmospheric pollution were the size of 2001. The contribution of other enterprises does not exceed 7.4%.

In the main industries of the Republic, the capture and neutralization of harmful compounds is not at the level of demand. In enterprises, the supply of dust-gas cleaning devices is 85%, and the efficiency of their work is 70-86%, and 77% of devices are outdated and do not work well.

## CONCLUSION

Currently, the sun of the atmosphere the level of pollution is increasing .local, regional and global atmosphere pollution is observed. Compounds that pollute the atmosphere according to the aggregate state it can be divided into four groups; solid, liquid, gaseous and mixed compounds, aerosols, solid particles to the main substance and compounds that pollute the air, curum, nitrogen oxides, carbon oxides, sulfur oxides, chlorphotorug, which includes hydrocarbons, metal oxides, etc., ten in the atmosphere thousands of tons of substances and compounds are released, which are combined the resulting mixtures are not completely beaten. Of such unknown compounds the effect on human health, including on living things, has not been accurately assessed.

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## CLIMATIC TESTING OF WOOD-POLYMER COMPOSITES

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### ABSTRACT

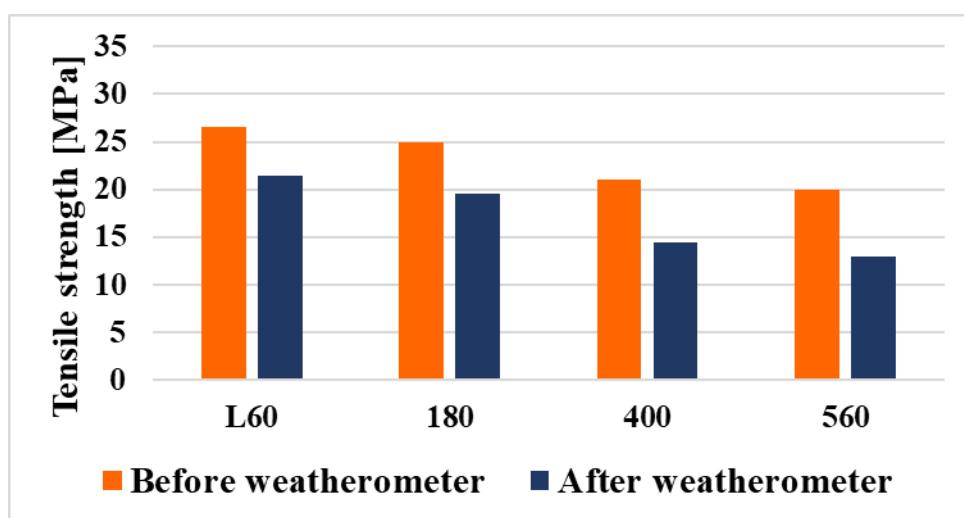
In this study, wood polymer composites were obtained using local poplar and paulownia tree flours and their physical and mechanical properties were analyzed. In addition, the effect of composite composition on the strength of composites was studied and analyzed. That is, the role of chemical bonds was studied and the results were presented.

**Keywords:** poplar, paulownia, tree filler, wood, poplar, polymer, secondary polyvinyl chloride, wood polymer composites, chipboard, fiberboard

**Introduction.** One of the promising areas of modern chemical technology is the creation of composite materials, where thermoplastics (polyethylene, polypropylene, their copolymers, etc.) are used as a binder. Recently, special attention has been paid to the development of building materials based on cheap plant waste and environmentally friendly binders or without them, because Due to stricter environmental requirements, the use of particle boards (chipboards) containing toxic binders is limited. This niche is successfully occupied by wood-polymer composites (WPC). They are distinguished by a high degree of filling combined with environmental friendliness. The use of wood fillers is especially important, since the Russian woodworking industry annually produces about 780-800 thousand m<sup>3</sup> of

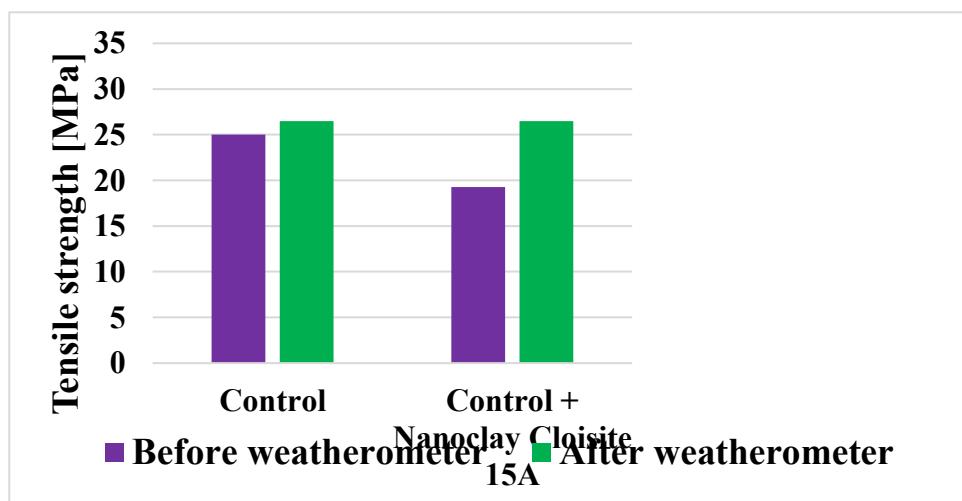
crushed wood waste. Despite the large number of studies devoted to WPC, there remain a number of unresolved issues related to formulation and technological parameters of the process. An important role in formulation development is played by the type of polyolefin, the type and size of filler particles, and the introduction of special additives to improve final characteristics of WPC. Obtaining competitive products from WPC is possible only with a comprehensive study of the influence of these factors on the properties of WPC.

**Experimental part:** For the consumer, in addition to the strength characteristics, the behavior of the products during operation is of utmost importance. Warping and fading are the main defects that appear during use. To assess the overall durability and behavior of finished products under real operating conditions, tests were carried out in special artificial weather apparatus (weatherometers). In laboratory conditions, intensive exposure to sunlight, rain, condensation formation and temperature changes were simulated, assessing the light resistance of coatings, materials and products under the influence of sun, rain and temperature changes.



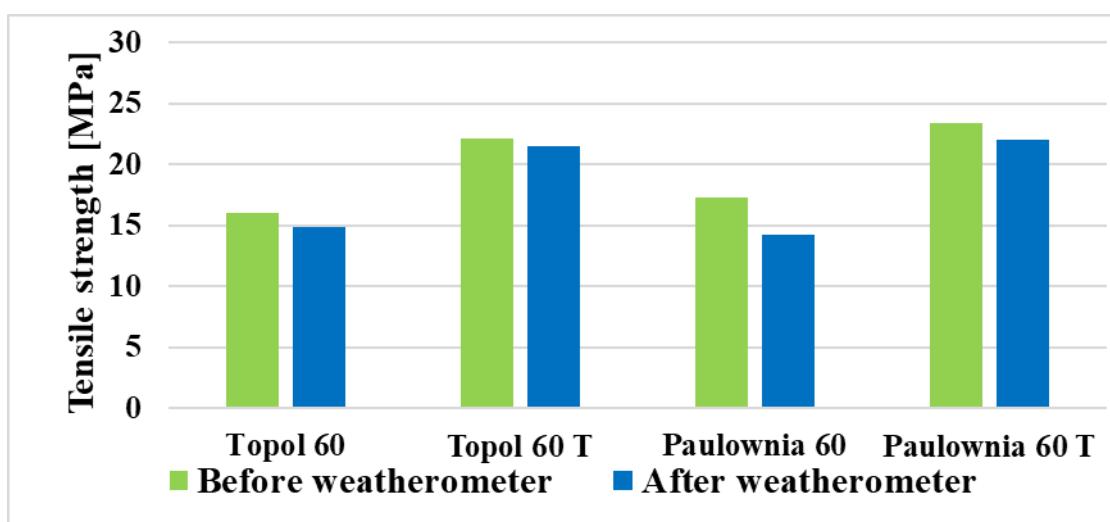
**Figure 1 – Tensile strength of compositions with different types of wood flour containing 50% wt.**

For research, samples filled with different types of wood flour with a dosage of 50 and 60% wt, as well as compositions modified with nan additives, were selected.



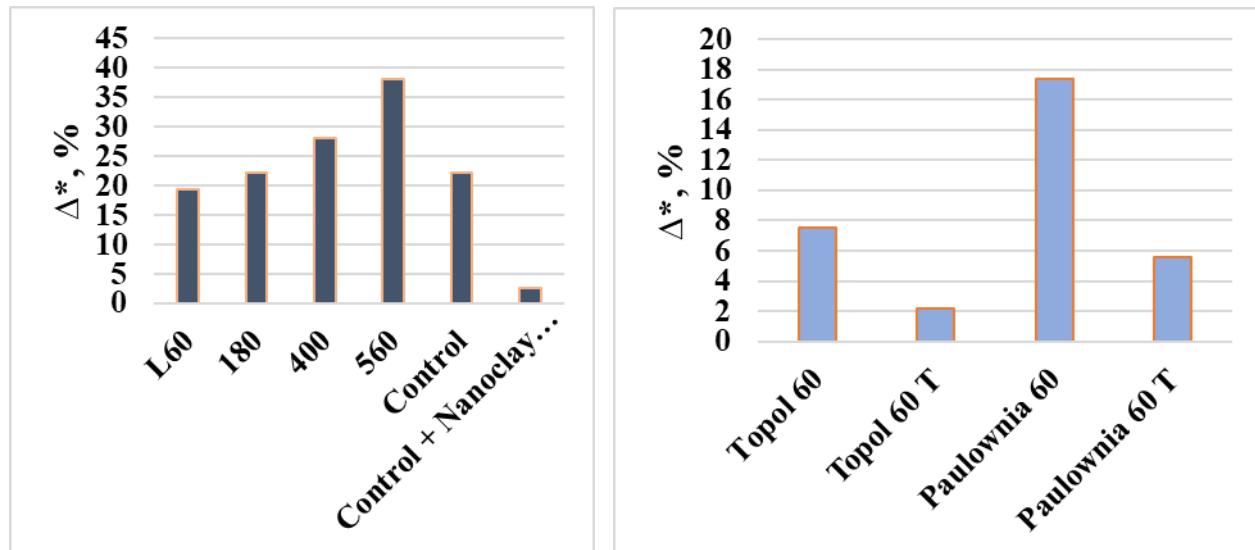
**Figure 2 – Tensile strength of compositions modified with nanoclay containing DM 180 50% wt.**

Tests were carried out in accordance with ISO-4892, ASTM-D4587, D4799, SAE-J2020, GOST 9.401 standards. The test conditions for light fastness and weather resistance of the samples corresponded to operation in rain and sun. The results of physical and mechanical tests of samples are presented in Fig. 1.



**Figure 3 – Tensile strength of compositions with wood flour of coniferous and hardwood (60% wt.) original and thermally modified**

The indicators of changes in the strength of compositions with different types of wood flour, modified with nanoadditives, compositions with wood flour of coniferous and deciduous species (original and thermally modified) after testing in an artificial weather apparatus are given.



**Figure 4 – Change in tensile strength after the compositions are in an artificial weather apparatus.**

From figure 4. It follows that the larger the particle size of wood flour, the greater the percentage reduction in strength after climatic tests. At the same time, modification of the compositions makes it possible to maintain the strength properties of WPC after climatic tests.

**Conclusion.** Thus, mechanochemical modification of wood flour makes it possible to increase the physical and mechanical properties of WPC by 30% and reduce the degree of water absorption by 17%. Thermal modification of poplar and paulownia wood flour does not have a significant effect on the change in the viscosity properties of the compositions under consideration.

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## HOZIRGI KUNDA KIBER HUJUMLAR VA KIBER QONUNLAR

**Davronova Sevinch**

Muhammad al-Xorazmiy nomidagi TATU  
Qarshi filiali AKT yo‘nalishi talabasi

### *ANNOTATSIYA*

*Kiberhujum tizimga ruxsatsiz, buzib kirish orqali mo‘ljallangan nishonni o‘g‘irlashi, o‘zgartirishi yoki yo‘q qilishi mumkin. Bu turdagи hujumlar shaxsiy kompyuterga josuslik dasturlarini o‘rnatishdan tortib, biror davlat infratuzilmasini butkul yo‘q qilishga urinish kabi maqsadlarda sodir etilishi mumkin. Yuridik ekspertlar atamani jismoniy shikastlanish hodisalari bilan cheklab qo‘yishga moyil bo‘lib, odatiy ma’lumotlar buzilishi va kengroq xakerlik harakatlaridan ajratishga intilishadi.*

**Kalit so‘zlar:** axborot texnologiyalari, kiberhujumlar, kiberqonunlar, hakkerlar, kiberterrozm.

So‘ngi yillarda mamlakatimizda ijtimoiy-iqtisodiy, sog‘liqni saqlash, ta’lim, huquqni muhofaza qilish va boshqa sohalarga zamonaviy informatsion texnologiyalar keng tadbiq etilmoqda. Bu esa kundalik hayotimizda o‘ziga xos qulayliklar yaratishi bilan birgalikda “Kiberjinoyat” tushunchalarini hayotimizga olib kirdi. Bugungi kunda ijtimoiy injiniring yordamida va virusli fayllarni pochta orqali jo‘natish orqali qilinadigan kiberhujumlar keng tarqalgan.

**Kiberhujumlar** — kompyuter axborot tizimlari, kompyuter tarmoqlari infratuzilmalar yoki shaxsiy kompyuter qurilmalariga qaratilgan har qanday hujum. Hujumni amalga oshiruvchi shaxs ma’lumotlarga, funksiyalarga yoki tizimning boshqa kirish cheklangan

joylariga ruxsatsiz, potensial ravishda yomon niyatda kirishga harakat qiladi. Kontekstga qarab, kiberhujumlarm kiberurush yoki kiberterrorizmning bir qismi sifatida tavsiflanishi mumkin. Kiberhujum suveren davlatlar, shaxslar, guruhlar, miyatlar yoki tashkilotlar tomonidan qo'llab-quvvatlanishi yoki anonim manba asosida yuzaga chiqishi mumkin. Kiberhujum paytida foydalanimuvchi qurol-asboblar kiberqurollar deb ataladi. So'nggi bir necha yil ichida kiberhujumlar soni yuqori hajmda tashkil etilmoqda.

Kiberhujumlar, hozirda, tobora murakkab va xavfli tusga egadir.Ushbu hujumlarning oldini olish uchun foydalanuvchi xatti-harakatlari tahlili va Xavfsizlik ma'lumotlari va hodisalarни boshqarish mumkin hisoblanadi. So'nggi yillarda esa kiberhujumlarning ko'لامи va chidamliligi tez sur'atlar bilan oshib keldi. Jahon Iqtisodiy Forumi 2018-yilgi hisobotida ta'kidlaganidek: „Kiberhujumlar soni biz ularga qarshi kurashish qobiliyatimizga qaraganda tezroq rivojlanmoqda“.

- “Internet kundan-kunga hayotimizning ajralmas qismiga aylanib bormoqda. Fuqarolar, korporatsiyalar, hukumatlar bir-biri bilan internetda aloqa qiladi. Kommunikatsiya, tijorat, hamkorlik global tarmoq bilan bog‘liq. Bugungi kunda jinoiy niyatdagilar uchun imkoniyatlar bisyor”, - deydi AQSh Ichki xavfsizlik vazirligidan Jonatan Xoumer.

Internetga qaramlik hamda raqamli informatsiya jinoyatchilar uchun ko‘proq moliyaviy daromad degani. Ular fayllarni qulflab, egasidan pul talab qiladi.“Shantaj qilish oson bo‘lib qoldi, chunki kompyuter sistemalariga buzib kirish uchun kerakli programmalar qora bozorda muhayyo”, - deydi informatsion texnologiyalar bo‘yicha mutaxassis Klifford Nyuman. **Kiberqonunlar.** Qonun (huquq) — inson, jamiyat va davlat manfaatlari nuqtai nazaridan eng muhim hisoblanadigan ijtimoiy munosabatlarni mustahkamlash, rivojlantirish va tartibga solish vositasi. Qonunning nima maqsadga qaratilganini u yo‘naltirilgan munosabatga qarab aniqlash mumkin. Shu bois qonunlar turli sohaga oid maqsadlarga ega bo‘lishi mumkin. Umumiy nomda kiberjinoatchilikni tartibga solishni maqsad qilgan qonunlar kiberqonunlar deb ataladi. Qonunni ishlab chiquvchilar va uni himoya qiluvchilar

butun dunyo bo‘ylab kiberjinoyatchilikni aniq belgilaydigan va kiber dalillarni qabul qilishni to‘liq madadlovchi kiberqonunlar zarurligi haqida ogohlantirib keladilar. Xususan, Respublikamizda ham “Ilm, ma’rifat va raqamli iqtisodiyotni rivojlantirish yili”da amalga oshirishga oid davlat dasturi to‘g‘risida”gi O‘zbekiston Respublikasi Prezidenti Farmoni loyihasi va 2020 yil Davlat dasturi loyihasida 2020–2023 yillarga mo‘ljallangan kiberxavfsizlikka doir milliy strategiya va “Kiberxavfsizlik to‘g‘risida”gi qonun loyihasi ishlab chiqish rejalashtirilgan. Hujjatga asosan xavfsizlikni, millatlararo totuvlik va diniy bag‘rikenglikni ta’minalash, shuningdek, tashqi siyosat sohasida: 2020 yil 1 sentyabrga qadar kiberxavfsizlikning huquqiy asoslarini shakllantirish bo‘yicha choralar ko‘riladi, shu jumladan 2020–2023 yillarga mo‘ljallangan kiberxavfsizlikka doir milliy strategiya va “Kiberxavfsizlik to‘g‘risida”gi qonun loyihasi ishlab chiqiladi; Kiberqonunlar har bir davlatning milliy qonun me’yorlari asosida shakllantiriladi yoki ularning bir qismini tashkil qiladi. Quyida Respublikamizdagি qonun hujjatlarida kiberjinoyatni oldini olish va tartibga solishga aloqador bo‘lgan bandlar keltirilgan.

**Milliy qonunlar.** 2002 yil 12 dekabrda O‘zbekiston Respublikasining 439-II – sonli “Axborot erkinligi prinsiplari va kafolatlari to‘g‘risida”gi qonuni qabul qilindi. Ushbu qonun 16 moddadan iborat bo‘lib, unda xususan, quyidagilar belgilangan: Ushbu Qonunning asosiy vazifalari axborot erkinligi prinsiplari va kafolatlariga rioya etilishini, har kimning axborotni erkin va moneliksiz izlash, olish, tekshirish, tarqatish, foydalanish va saqlash huquqlari ro‘yobga chiqarilishini, shuningdek axborotning muhofaza qilinishini hamda shaxs, jamiyat va davlatning axborot borasidagi xavfsizligini ta’minalashdan iborat.

**Axborot erkinligi** O‘zbekiston Respublikasining Konstitutsiyasiga muvofiq har kim axborotni moneliksiz izlash, olish, tekshirish, tarqatish, undan foydalanish va uni saqlash huquqiga ega. Axborot olish faqat qonunga muvofiq hamda inson huquq va erkinliklari, konstitutsiyaviy tuzum asoslari, jamiyatning axloqiy qadriyatlari, mamlakatning ma’naviy, madaniy va ilmiy salohiyatini muhofaza qilish, xavfsizligini ta’minalash maqsadida cheklanishi mumkin.

**Xulosa qilib shuni ta'kidlab o'tish zarurki:** XXI asr “Axborot texnologiyalari asri” da deyarli har bitta inson internet tarmoqlari, mobil qurilmalar va kompyuterlardan foydalanishadi. Afsuski, hammasi ham ishlatayotgan qurilmasidagi funksiyalarning 90%ini ishlatishni bilishmaydi. Bu esa juda og‘ir vaziyatlarga olib keladi. Hozirgi kunda esa buning oldini olishini uchun turli xil tadbirlar olib borilmoqda. Misol uchun: Toshkent Axborot Texnologiyalari Universiteti Qarshi Filialida **cyber102** tadbiri olib borildi. Tadbirning asosiy maqsadi shundan iboratki, odamlar o‘rtasida kiberxavfsizlik nima? Kiberhujum nima? Ular hakkerligini qanday bilish mumkin? Va shu kabi savollarga javob topildi. Va yana shuni ta'kidlab o'tish lozimki, hech kim login parollaringizni, bank karta raqamalaringizni bermasligingiz kerak. Zero, hammamizni o‘zimizni o‘zimiz himoya qilishimiz kerak. Chunki kiberjinoyatchilarni topish ham oson ish emas.

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**TEXNALOGIK JARAYONLARNI AVTOMATLASHTIRISH VA ISHLAB  
CHIQARISHNI BOSHQARISHDA PYTHON  
DASTURINING AHAMIYATI**

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***ANNOTATSIYA***

*Python ko‘p qirrali va kuchli dasturlash tili bo‘lib, u ko‘plab sohalarda, jumladan, texnologik jarayonlarni avtomatlashtirish va ishlab chiqarishni boshqarishda ham o‘z yo‘lini topdi. Ushbu dasturlash tili ko‘plab vositalar va kutubxonalarini taklif etadi, bu esa ishlab chiqarish jarayonlarini optimallashtirish va yaxshilashga intilayotganlar uchun ideal tanlovidir. Bizning maqolada nima uchun Python dasturlash tili texnologik jarayonlarni avtomatlashtirish va ishlab chiqarishni boshqarishda muhim rol o‘ynashi keltirib o‘tilgan.*

**Kalit so‘zlar:** Texnologik jarayonlar, Python dasturlash tili, Sanoat avtomatizatsiyasi, Ishlab chiqarish samaradorligi, Integratsiya, Ishlab chiqarish tizimlari uchun dasturlash.

**Kirish** Python dasturlash tili tez rivojlanayotgan texnologiya va ishlab chiqarish dunyosida samaradorlik va avtomatlashtirish muvaffaqiyatining asosiga aylandi. Raqobatbardosh bo‘lishni istagan kompaniyalar uchun biznes jarayonlarini optimallashtirish uchun zamonaviy yechimlarni joriy etishning ajralmas qismi hisoblanadi. Shu nuqtai nazardan, Python dasturlash tili jismoniy mexanizmlarga ega bo‘lmasada, muhandislar, ishlab chiquvchilar va ishlab chiqarish mutaxassislari qo‘lida kuchli vositaga aylanadi desak mubolag‘a bo‘lmaydi. Python-bu soddaligi, moslashuvchanligi va asboblarning boy ekotizimi bilan e’tiborni tortadigan dasturlash tili. Ushbu maqolada biz Python nima uchun ishlab chiqarishni avtomatlashtirishda hal qiluvchi rol o‘ynashini va uning faoliyatini optimallashtirishga intilayotgan kompaniyalarga qanday foyda keltirishini ko‘rib chiqamiz. Biz Python kodining soddaligi va o‘qilishi, apparat va bulutli integratsiya imkoniyatlariga qadar turli jihatlarni ko‘rib chiqamiz. Python - bu o‘zaro platforma tili hisoblanib, Windows, macOS va Linux kabi turli xil operatsion tizimlarda ham ishlashi mumkinligini yana bir ustuvor imkoniyatlaridan biri hisoblanadi.

Guido van Rossum 1980-yillarning oxirida ABC dasturlash tilining davomchisi sifatida Python ustida ishlay boshladi va birinchi marta 1991-yilda Python 0.9.0 versiyasini ommaga e’lon qildi [1]. Python dasturlash tilida asosiy e’tibor dasturni soddaligi, o‘quvchanligiga qaratilgan va bu esa dasturchiga dasturlarni tez fursatlarda yaratish imkoniyatini beradi.

Yuqori darajali dasturlash tillari juda ham ko‘p, shulardan C, C++ va Java dasturlash tillarini keltirishimiz mumkin. Yaxshi jihat shundaki, barcha dasturlash tillari bir-biriga juda ham o‘xshash. Asosiy farqi ularning sintaksisi, kutubxonalarining mavjudligi va bu kutubxonlarga murojat qilish yo‘llarida ko‘rishimiz mumkin. Python dasturlash tiliga bo‘lgan talab yildan yilga oshib bormoqda. CodingDojo[2] portalining tadqiqotlariga ko‘ra, 2020—2021-yillarda

aynan Python tilida dasturlovchi mutaxassislarga eng ko‘p talab bo‘lgan[3]. Python dasturlash tili Lua tiliga o‘xshab, bir vaqtning o‘zida bir nechta o‘zgaruvchiga qiymat berish mumkin. Shuningdek, yangi o‘zgaruvchi kiritmasdan turib, ikkita o‘zgaruvchining qiymatlarini almashtirish mumkin [4].

### **Python dasturlash tilini ishlatajigan kompaniyalar**

- Kosmik teleskop instituti
- NASA
- Google
- DreamWorks
- Industrial Light & Magic
- Firaxis Games
- Apple Computer
- CCP

Python kuchli va moslashuvchan dasturlash tili bo‘lib, u turli sohalarda keng qo‘llaniladi, ammo har qanday dasturlash tili singari uning afzalliklari va kamchiliklari mavjud.

### **Python dasturlash tilining Afzalliklari:**

- ✓ Kodning soddaligi va o‘qilishi bilan mashhur bo‘lib, uni boshlang‘ich dasturchilar uchun ideal qiladi va jamoaviy hamkorlikni osonlashtiradi.
- ✓ Python ulkan ishlab chiquvchilar jamoasiga ega, ya’ni deyarli har qanday vazifa uchun har doim ko‘plab kutubxonalar, ramkalar va yechimlar mavjud.
- ✓ Python turli xil operatsion tizimlarda ishlaydi, bu esa uni platformalararo dasturlarni ishlab chiqish uchun ko‘p qirrali vositaga aylantiradi.
- ✓ Python boshqa tillar bilan osongina birlashadi, bu esa boshqa tillarda yozilgan kutubxonalar va komponentlardan foydalanishga imkon beradi.

✓ Ma'lumotlarni qayta ishlash va tahlil qilish. Python Pandas, NumPy, Matplotlib kutubxonalarini va boshqalarni o'z ichiga olgan ma'lumotlarni tahlil qilish imkoniyatining mavjudligi.

### **Python dasturlash tilining Kamchiliklari:**

✓ Nisbatan sekin ishlash: Python odatda C++ yoki Rust kabi past darajadagi tillarga nisbatan sekinroq. Bu yuqori ishlashni talab qiladigan ba'zi ilovalar uchun juda muhim bo'lishi mumkin.

✓ Global Lock GIL: CPython-da (Python standart ilovasi) Global Interpreter Lock (GIL) mavjud bo'lib, u ko'p funksiyali ilovalarda vazifalarni cheklaydi. Bu ko'p funksiyali ilovalarda muammo bo'lishi mumkin.

✓ Ba'zi sohalarni o'zida qamrab olmaganligi.

✓ Python mobil ilova ishlab chiqish uchun asosiy til emas.

✓ Python ba'zi boshqa tillarga qaraganda ko'proq xotira joyini egallaydi .

Ushbu kamchiliklarga qaramay, Python soddaligi, ko'p qirraliligi va boy ekotizimi tufayli eng mashhur va talab qilinadigan dasturlash tillaridan biri bo'lib qolmoqda.

Python dasturlash tili yordamida texnologik jarayonlarni avtomatlashtirish va ishlab chiqarishni boshqarish uchun ko'plab kutubxonalar va vositalar mavjud. Quyida asosiy kutubxonalar ro'yxati keltirilgan.

Texnologik jarayonlarni avtomatlashtirish va ishlab chiqarishni boshqarish uchun to'liq dasturni yaratishda batafsil ma'lumotlarni va muayyan vazifalar va uskunalarga moslashishni talab qiladi. Biroq, ushbu maqolada ishlab chiqarish jarayonlarini avtomatlashtirishning asosiy tushunchalarini namoyish etadigan Python dasturlash tilining umumiy namunasini keltirib o'tilgan. Ushbu misolda biz ma'lumotlarni qayta ishlash uchun Pandas va NumPy kutubxonalaridan va matematik hisob-kitoblarni amalga oshirishda SymPy kutubxonasidan foydalanilgan.

```
import pandas as pd
import numpy as np
from sympy import symbols, Eq, solve
# Ma'lumotlarni manbadan yuklab olish (masalan, ma'lumotlar bazasidan)
data = pd.read_csv("ma'lumotlarni_ishlab_chiqarish.csv")
# Ma'lumotlarni qayta ishlash qismi (filtrlash, saralash, konvertatsiya qilish)
filtered_data = data[data['status'] == 'amalga oshirilmoqda']
sorted_data = filtered_data.sort_values(by='prioritet')
# Statistikani hisoblash va ma'lumotlarni tahlil qilish qismi
mean_value = np.mean(sorted_data['qiymat'])
std_dev = np.std(sorted_data['qiymat'])
# Qaror qabul qilish uchun matematik tahlil
x, y = symbols('x y')
equation = Eq(x + y, mean_value)
solution = solve(equation, (x, y))
# Ishlab chiqarish jarayonlarini boshqarish
if solution[x] > solution[y]:
    print("X Mahsulot ishlab chiqarishni ko'paytirish ")
else:
    print("Y Mahsulot ishlab chiqarishni ko'paytirish ")
# Boshqarish tizimiga yechimlarni yuborish mumkin
# Kodning ushbu qismida sanoat uskunalarini bilan integratsiyani amalga oshirish
mumkin, masalan, mahsulot ishlab chiqarishni ko'paytirish uchun buyruqlar
yuboriladi.
# Ma'lumotlar va hisobotlarni saqlash mumkin.
# Bu yerda tahlil va yechim natijalarini ma'lumotlar bazasida yoki faylda saqlash
mumkin.
```

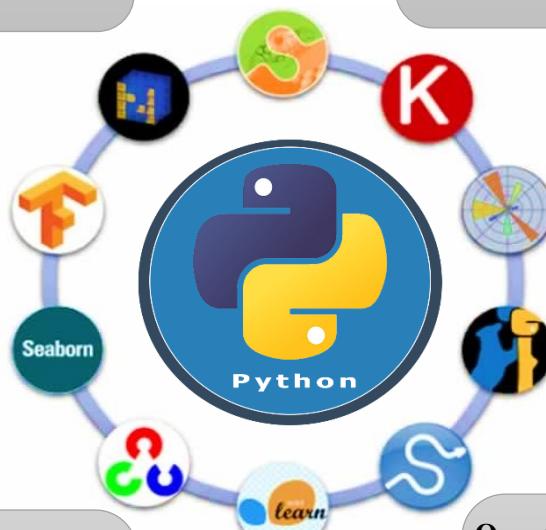
**NumPy:** NumPy-bu ko'p o'lchovli massivlar va matritsalar bilan ishlash uchun kutubxona. Matematik operatsiyalarni bajarishda yuqori samaradorlikni ta'minlaydi, bu ma'lumotlarni tahlil qilish va texnologik jarayonlarni modellashtirish uchun zarur.

**Pandas:** pandas-ma'lumotlarni qayta ishlash va tahlil qilish uchun kutubxona. U dataframe kabi ma'lumotlar tuzilmalarini va ma'lumotlarni filtrlash, saralash, yig'ish va vizualizatsiya qilish uchun ko'plab vositalarni taqdim etadi.

**Scipy:** Scipy-bu ilmiy hisoblash kutubxonasi. U optimallashtirish, statistika, interpolatsiya va boshqa ko'plab muammolarni hal qilish uchun ko'plab modullarni o'z ichiga oladi.

**OpenCV:** OpenCV-bu tasvirni qayta ishlash, ob'ektni aniqlash va videoni tahlil qilish uchun ishlab chiqarishni avtomatlashtirishda keng qo'llaniladigan kompyuterni ko'rish kutubxonasi.

**MQTT:** IOT qurilmalari va MQTT sensorlari bilan ma'lumot almashish uchun paho-mqtt kabi kutubxonalar foydali bo'lishi mumkin. Texnologik jarayonlarda asosiy kutubxonalarda biri hisoblanadi.



**PyQt yoki Tkinter:** ushbu kutubxonalar avtomatlashtirilgan tizimlar va ishlab chiqarish jarayonlarini boshqarish bilan o'zaro aloqani osonlashtiradigan grafik foydalanuvchi interfeyslarini (GUI) yaratish uchun ishlatiladi.

**RESTful API vositalari:** agar siz tizimlaringizni tashqi xizmatlar bilan birlashtirishingiz kerak bo'lsa, requests kabi RESTful API kutubxonalari foydali bo'lishi mumkin.

**OpenCV:** OpenCV-bu tasvirni qayta ishlash, ob'ektni aniqlash va videoni tahlil qilish uchun ishlab chiqarishni avtomatlashtirishda keng qo'llaniladigan kompyuterni ko'rish kutubxonasi.

**Matplotlib va Seaborn:** Matplotlib va Seaborn ma'lumotlarni vizualizatsiya qilish uchun kutubxonalardir. Ular ishlab chiqarish jarayonlarini kuzatish va tahlil natijalarini ko'rsatish uchun foydali bo'lgan grafiklar va diagrammalarini varatishga imkon beradi.

**SQLAlchemy:** SQLAlchemy - bu ma'lumotlar bazalari bilan ishlash uchun kutubxona. Bu ma'lumotlar bazalari bilan o'zaro aloqada bo'lishga va ishlab chiqarish ma'lumotlarini saqlash va tahlil qilish uchun muhim bo'lgan so'rovlarni bajarishga imkon beradi.

## 1-rasm. Python dasturining xususiyatlari

## Xulosa

Python dasturlash tili zamonaviy dunyoda texnologik jarayonlarni avtomatlashtirish va ishlab chiqarishni boshqarishda muhim va markaziy rol o‘ynaydi. Python dasturlash tili yordamida muntazam operatsiyalarni avtomatlashtirish, ishlab chiqarish jarayonlarini optimallashtirish, ma’lumotlarni to‘plash va tahlil qilish, sanoat uskunalarini boshqarish va mahsulot sifatini nazorat qilish mumkin. Python dasturlash tili shuningdek, IOT tizimlarni uskunalari va qurilmalari bilan birlashtirishga imkon beradi, bu esa monitoring va boshqarish uchun yangi imkoniyatlarni ochadi. Shuni ta’kidlash kerakki, Python dasturlash tili nafaqat jarayonlarni avtomatlashtirishga yordam beradi, balki xarajatlarni kamaytirishga, ishlab chiqarish samaradorligini oshirishga va mahsulot sifatini yaxshilashga yordam beradi.

Python dasturlash tili texnologik jarayonlarni avtomatlashtirish sohasida rivojlanishda davom etmoqda va dolzarb bo‘lib qolmoqda, bu esa uni zamonaviy sanoat va biznesning ajralmas qismiga aylantiradi. Python bilan birgalikda kompaniyalar va tashkilotlar avtomatlashtirish muammolarini muvaffaqiyatli hal qilishlari, samaradorlikni oshirishlari va tez rivojlanayotgan ishlab chiqarish va texnologiya dunyosida raqobatbardosh bo‘lib qolishlari mumkin.

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### *ANNOTATSIYA*

*Mikro va optoelektronikada qo'llaniladigan elektr o'tkazuvchan qoplamlar yetarlicha yuqori shaffoflikka ega bo'lishi kerakligi sababli, biz olingan ftorid ionli qoplamaarning uzatish spektrlarini o'lchash, ftorid-ionli va super-ionli qoplamaarni o'rganish.*

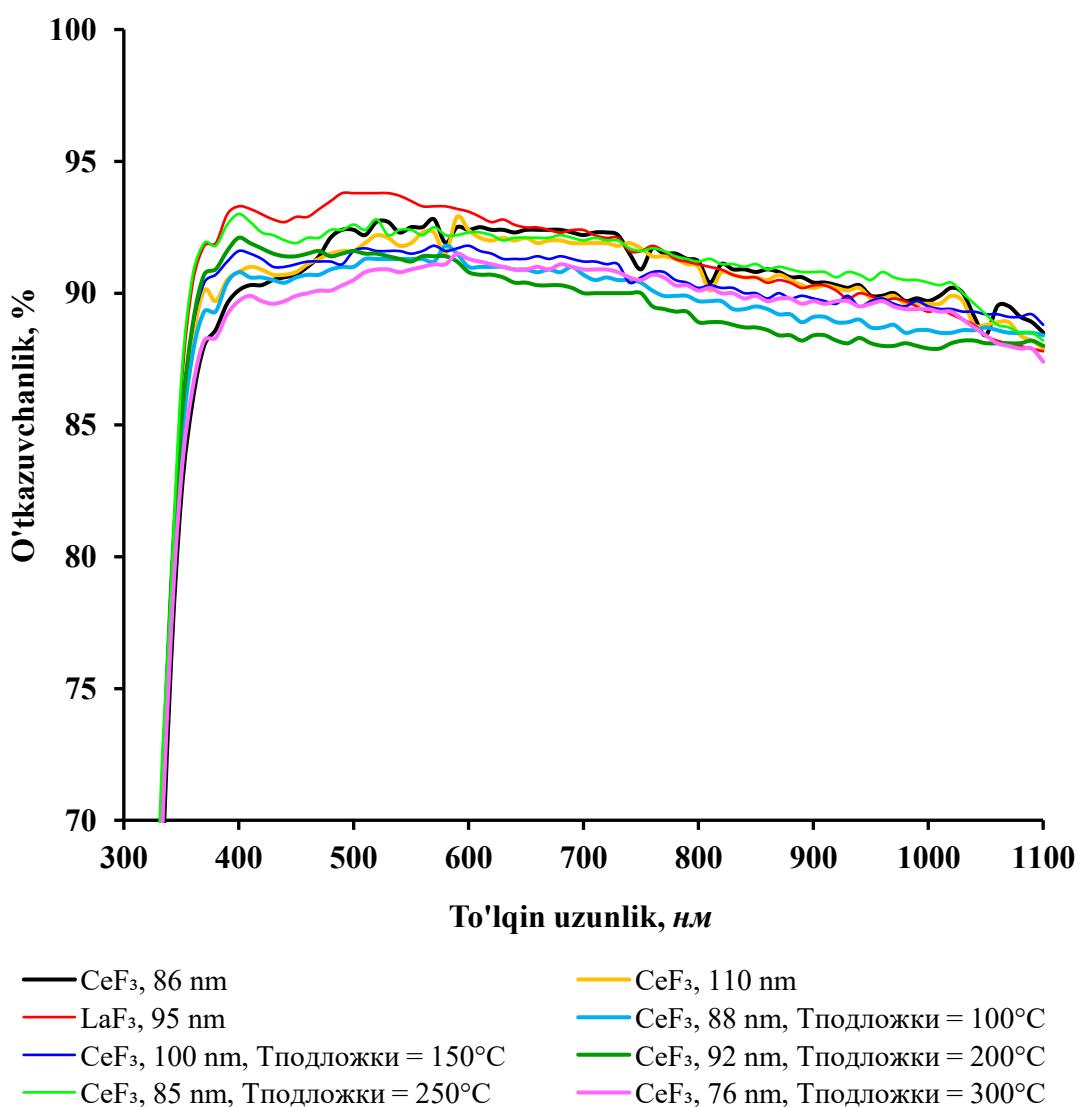
**Kalit so'zlar.** *CeF<sub>3</sub>, elektr o'tkazuvchan qoplamlar, spektr, ftoridli birikmalar, radiatsiya, izolyator, optoelektronika, mikroelektronika, o'tkazuvchan qoplama, shaffofjism.*

Ftorid birikmalaridan CeF<sub>3</sub> va LaF<sub>3</sub> elektr o'tkazuvchan qoplama sifatida sinovdan o'tkazildi. CeF<sub>3</sub> va LaF<sub>3</sub> qoplamlari 60 dan 300 °C gacha bo'lgan har xil haroratida shisha tagliklarga yotqizilgan. Taglikning harorati oshishi bilan, yotqizilgan materialning cho'kish tezligi pasayadi. Ftoridli qoplamaarning cho'kish tezligi 60 °C, 100 substrat haroratida 7 ÷ 8 nm / min, 6,6 ÷ 7 nm / min, 6 ÷ 6,6 nm / min, 4,6 nm / min, 4,2 nm / min, 3,8 nm / min edi, 60 °C, 150 °C, 200 °C, 250 °C, 300 °C. Qoplamaning qalinligi mos ravishda 76-100 nm edi. Mikro va optoelektronikada qo'llaniladigan elektr o'tkazuvchan qoplamlar yetarlicha yuqori shaffoflikka ega bo'lishi kerakligi sababli, biz 1-rasmida ko'rsatilgan, olingan ftoridli qoplamaarning uzatish spektrlarini o'lchadik.

LaF<sub>3</sub> qoplamasini va T = 250 °C gacha qizdirilgan substratga yotqizilgan CeF<sub>3</sub> qoplamasini alohida qiziqish uyg'otadi. 370 - 1100 nm spektral mintaqada bu qoplamaarning shaffofligi ~ 92% ni tashkil qiladi. Ma'lumki, CeF<sub>3</sub> va LaF<sub>3</sub> qoplamlari ma'lum bir harorat yukida ion o'tkazuvchanligini ko'rsatadi; superionga aylanadi. CeF<sub>3</sub> va LaF<sub>3</sub> qoplamarining fizik xususiyatlari juda kam o'rganilgan.

Ishlar [1], [2] tarkibiy va morfologik o‘zgarishlarni taglik haroratining funktsiyasi sifatida, shuningdek, haroratga qarab elektr o‘tkazuvchanligining o‘zgarishini ko‘rib chiqadi. CeF<sub>3</sub> va LaF<sub>3</sub> birikmalari juda keng tarmoqli bo‘shlig‘iga ega, bu ularni amalda izolyatorga aylantiradi. Yutish koeffitsienti 250 – 300 nm radiatsiya spektrining ultrabinafsha mintaqasida joylashgan [2]. Yutish miqdori ishlab chiqarish texnologiyasiga bog‘liq.

CeF<sub>3</sub> plynokalarining strukturaviy tahlili shuni ko‘rsatdiki, CeF<sub>3</sub> qatlamlari taglikkaga vertikal yo‘naltirilgan olti burchakli fazaning donalaridan iborat. Vertikal yo‘nalish taglikning yuqori haroratida sodir bo‘ladi. Natijalar shuni ko‘rsatadiki, mukammal donalarning o‘sishi uchun optimal harorat 230 - 280 °C oralig‘ida.



## 1-rasm. Turli xil haroratlarda shisha tagliklarga yotqizilgan ftoridli qoplamlarning uzatish spektrlari.

Haroratga qarab  $\text{CeF}_3$  va  $\text{LaF}_3$  qoplamlarining qarshiligini o‘lhash uchun biz [2] da tasvirlangan dizaynga o‘xhash kontakt elektrodlari dizaynini tanladik. Elektr maydonida  $\text{CeF}_3$  va  $\text{LaF}_3$  dielektriklarining qutblanishi sodir bo‘ladi, lekin doimiy maydonda o‘tkazuvchanlik yo‘q. Qoplamani ishlab chiqarish texnologiyasiga qarab, ma’lum bir haroratda o‘tkazuvchanlikning ion komponenti oshishi kerak, chunki  $\text{CeF}_3$  va  $\text{LaF}_3$  superionik materiallardir. Ion o‘tkazuvchanligi yuqori bo‘lgan hududni aniqlash uchun o‘tkazuvchanlikning haroratga bog‘liqligini tadqiq qilish kerak.  $\text{CeF}_3$  va  $\text{LaF}_3$  qoplamlarining qarshiligini vakuumli o‘rnatishdagi harorat yukiga qarab o‘lhash yaxshiroqdir, chunki kislorod yuqori haroratda havo atmosferasida ftor va lantan ionlariga ta’sir qiladi, natijada seriyning yangi oksiftorid birikmalari va lantan hosil bo‘ladi. Ion va yuqori ionli materiallarning elektr o‘tkazuvchanligi va optik shaffofligi uchun mas’ul bo‘lgan texnologik rejimlar bo‘yicha tadqiqotlarni davom ettirish kerak.

$\text{CeF}_3$  и  $\text{LaF}_3$  asosidagi elektr o‘tkazuvchan ftoridli qoplamlarni tekshirish boshlandi. Ftoridli qoplamlar shisha tagliklarga 60 dan 300  $^{\circ}\text{C}$  gacha bo‘lgan haroratlarda va har xil cho‘kish tezligida 3,8 dan 8 nm / min gacha cho‘ktiriladi.  $\text{CeF}_3$  и  $\text{LaF}_3$  qoplamlari ma’lum bir harorat yuki ostida ion o‘tkazuvchanligini ko‘rsatadi; superionga aylanadi. Mikro va optoelektronikada qo‘llaniladigan elektr o‘tkazuvchan qoplamlar etarlicha yuqori shaffoflikka ega bo‘lishi kerakligi sababli, biz olingan ftoridli qoplamlarning uzatish spektrlarini o‘lchadik, shundan  $\text{LaF}_3$  qoplamasи va  $\text{CeF}_3$  qoplamasи  $T = 250$   $^{\circ}\text{C}$  ga qizdirilgan tagliklarga yotqizilganligini ko‘rish mumkin. 370 - 1100 nm spektral mintaqada ushbu qoplamlarning shaffofligi  $\sim 92\%$  ni tashkil qiladi. Ion o‘tkazuvchanligi yuqori bo‘lgan hududni aniqlash uchun o‘tkazuvchanlikning haroratga bog‘liqligini tadqiq qilish kerak. Ion va yuqori ionli materiallarning elektr o‘tkazuvchanligi va optik shaffofligi uchun aloqador bo‘lgan texnologik rejimlar bo‘yicha tadqiqotlarni davom ettirish kerak.

Ion bog‘langan kristalllarning sirtga yaqin zonalarining elektron tuzilishi nazariy

jihatdan o‘rganiladi. Ion bog‘lanishga ega bo‘lgan nanozarrachalarning sirt hududlariga ketma-ket qo‘llaniladigan umumlashtirilgan Zeyts-Madelung modelida ion kristallarida  $E_{gs/b}$  bog‘liqligi uchun biz tarmoqli bo‘shlig‘ining darajali bo‘shliq holatini olishimiz ko‘rsatilgan va bu variatsiya-bo‘shliqning chuqurligi  $E_{gs/b}$  sharti bilan aniqlanadi ( $x,y=\text{const},z=\text{const}$ ).

O‘xhash nanozarrachalar sirtining mahalliy holatlarining elektron tuzilishi ularning elektronlarining energiya diapazoniga qarab uch turdagи mumkin bo‘lgan sirt holatlarini ko‘rsatadi: tarmoqli, oralig‘ ichida va diapazon oxiri energiyasidan yuqori. Bu local holatlarning xususiyatlari. Lokal holatlar Tamm darajalaridan aslida farq qilmaydi, oraliq energiya mintaqasi esa (sirt o‘tkazuvchanlik zonasining pastki qismidan varizonallikning yuqori chegarasigacha Tamm holatlariga xos bo‘lmagan yangi xususiyatlarga ega).

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## YADRO MODELLARI HAQIDA TUSHUNCHА

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### *ANNOTATSIYA*

*Ushbu maqola Yadro fizikasi bo‘limi “Yadro modellari” mavzusida nazariy ko‘nikma hosil qilishga bag‘ishlangan. Unda “Yadro modellarining” ikki xil turi, Tomchi hamda Qobiqsimon modeli to‘g‘risida ma’lumot berib o‘tilgan.*

**Kalit so‘zlar:** *Yadro modellari, atom yadrosi, yadroning tomchi modeli, yadroning qobiqsimon modeli, magik sonlar.*

Yadro modellari atom yadrosining asosiy xossalari o‘rganish uchun tuziladigan tasavvurlar. Shu vaqtgacha olimlar tomonidan tavsiya etilgan modellarning birortasi ham yadroning xossalari to‘liq yoritib bera olmaydi. Yadro kuchlarining tabiatini va qonuniyatlarini tushuntirib beradigan qat’iy nazariya mavjud emas. Shu sababli atom yadrosining turli xossalari yadro modellari yordamida o‘rganiladi.

Barcha mavjud yadro modellaridan tomchi va qobiqsimon modellar samarali foydalilanildi.

Yadroning tomchi modelini 1938- yilda Ya.I.Frenkel ishlab chiqgan, N.Bor va Veyzekkerlar tomonidan rivojlantirilgan. Frenkel nazariyasiga ko‘ra atom yadrosini zaryadlangan suyuqlik tomchisiga o‘xshatish mumkin. Suyuqlik tomchisidagi molekulalar o‘zaro molekulyar tutinish kuchlari bilan bog‘langani singari yadroni tashkil qiluvchi nuklonlar ham o‘zaro yadro kuchlari bilan bog‘langan. Bu model yadro fizikasidagi bir qator muhim hodisalarni tushuntirishga imkon beradi, xususan butun yadro reaksiyalarini, shu jumladan, yadroning bog‘lanishini tushuntirib beradi.

Tomchida yadroga o‘xshashlik dalillari: yadro zichligi juda katta bo‘lib, siqilmaydi, yadro hajmining undagi nuklonlar soniga proporsionalligi va turli yadrolarda nuklonlar o‘rtacha energiyasining taxminan doimiyligi, yadro moddasi bilan suyuqlik tomchisining o‘xshashligi. Bunda yadro kuchlari ham suyuqlik molekulalari orasidagi ta’sir kuchlariga o‘xshash to‘yinish qobiliyatiga ega ekanligi kelib chiqadi. Tomchi modelida yadro zichligi bir xil ekanligi to‘g‘risidagi eksperimental ma’lumotlarga asoslangan Bor yadrodagи nuklonlarning harakati suyuqlikdagi atom va molekulalarning harakatiga o‘xshaydi deb faraz qiladi. Suyuqlikning tashqi ta’siriga uchramagan tomchisi sirt taranglik tufayli sfera shaklida bo‘ladi.

Tomchi modeli yadroning massasi va bog‘lanish energiyasining yarim empirik formulasini chiqarish , yadrolarning zarralarini nurlanish va bog‘lanishiga turg‘unligini aniqlash va shuningdek, bu jarayonlarda ajraladigan energiyalarni hisoblash imkoniyatlarini beradi. Model yadroning neytronlar, protonlar va alfa zarralar bilan ta’sirlashuvida yuzaga keladigan ayrim xususiyatlarni tushuntiradi. Xususan bu model yordamida neytron yadro bilan to‘qnashib, yadroga yutilib gamma-kvantlar chiqishini tushuntiradi. Nuklonlarning yadro ichida nihoyatda katta zichlikka ega bo‘lishini va yadro yadro ta’sirlarining kuchliligi tufayli neytron o‘z energiyasini boshqa nuklonlarga beradi, ya’ni izotop hosil bo‘ladi, neytron energiyasi yadroda taqsimlanadi. Yadro nuklonlarining tezligi oshadi, uyg‘ongan holatga o‘tadi. Shuning uchun uyg‘ongan yadroni qizdirilgan tomchi deyish mumkin.

Qator o‘tkazilgan tajribalarda yadroning eng pastki qo‘zg‘algan holati energiyasining massa soniga davriy bogliqligini aniqladi. Yadro spinlari va kvadrupol momentlarni o‘lchash ularning yadroni tashkil etuvchi nuklonlar soniga ham bog‘liqligini ko‘rsatadi. Prtonlar yoki neytronlar soni 2,8,20, 50,82, 126 ga teng bo‘lgan yadrolar barqaror bo‘lib, tabiatda ko‘proq tarqalganligi ma’lum bo‘ldi. N va Z zarralar 2, 8, 20, 50, 82, 126 ga teng bo‘lganda yadroning qator xossalaring o‘zgarishi shunchalik kuchli bo‘ladiki, fiziklar bu sonlarni “sehrli sonlar” deb atadilar. Atom strukturasida bu kabi qonuniyatlar allaqachon ma’lum edi.

Yadroning qobiqsimon modeli atom yadrosining eng tasamarali zamonaviy modellaridan biri hisoblanadi. Yadro qobiqlari haqidagi g‘oyani birinchi bo‘lib 1932-yilda D.D.Ivanenko shakllantirgan, X.Yensen va M.Geppert –Mayer tomonidan rivojlantirilib, atom yadrosining qobiqsimon modeli yaratilgan. Bu modelga ko‘ra yadroda ularning o‘zi hosil qilgan maydonda deyarli bir-biridan mustaqil harakatlanadi. Yadroda ham xuddi atomdagidek diskret energetik sathlar bo‘lib, ular nuklonlar bilan to‘ldiriladi. Energetik sathlari bir-biriga yaqin bo‘lgan nuklonlar yadro qobiqlarini hosil qiladi.

Hozirgi vaqtida yadroning qobiqsimon modeli oxirigacha yetkazilmagan bo‘lsada, ko‘p olimlar tomonidan tan olingan. Yadro qobiqlarining mavjudligi atom xossalardagi davriylik kabi yadro xossalaring davriyligiga sabab bo‘ladi. Masalan, yadrolar ham uyg‘ongan holatda bo‘lishi mumkin, ular gamma-kvantini chiqarib, normal holatga o‘tadi. Tajriba natijalari atom yadrosidagi nuklonlar holati haqida taxminan atomning elektron qobig‘idagi elektronlar holati haqidagi tasavvurga o‘xshash tasavvur hosil qiladi. Amalda yadrolarning 2, 8, 14, 20, 28, 50, 82, 126 ta nuklonlar bilan to‘ldirilgan qobiqlar topilgan. Berk yadro qobig‘idagi nuklonlarning bu sonini ‘magik sonlar’ (sehrli sonlar) deb ataladi. Aniqlanishicha nuklonlar (proton yoki neytronlar) soni magik sonlarga teng bo‘lgan yadrolar boshqalariga qaraganda turg‘unroq bo‘lar ekan.

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# PSYCHOLOGICAL FACTORS OF PROFESSIONAL PROGRESS OF INTERNAL AFFAIRS PERSONNEL WORKING IN THE FIELD OF LAW ENFORCEMENT

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## **ANNOTATION**

*In the article the right protection representatives of the executive body especially internal affairs organs employees professional fade away of cases psychological in terms of emperic analysis and their professional ability psychological in terms of raise according to researcher by done increased analysis and research about word goes \_ In the article given analysis and results today's of the day current in matters important basis being service does*

**Key words:** psychological service, professional fading, social mind, psychological environment, progress, asthenic accentuation, misanthropy

## **INTRODUCTION**

Last in years right and him protection employees of the executive body psychological support support and they are between healthy psychological environment to stabilize directed one how much remedy events in practice work coming out app is being done . Especially after 7 years during this field activities deep again work and app to do as a result employees between healthy psychological the environment has also improved is going This from organs Internal affairs organs employees and their activities developing a regular attitude to go and psychological support support one for \_ how much affairs done increasing , i.e at the time our

research for representatives of this body professional in the activity fade away progress emperic analysis to do for small experience being service does \_

Initially collected data through internal affairs organs employees professional progress to know in order to young choose to get decision done . Opposite in the IIB department of the city activity walking 1, 3, and 10 years from employees to the experience have different young 10 people in the category from employees scientists **K. Maslach and S. Jackson of Professional burnout diagnosis to do** methodology was transferred . Methodology during to the respondents of methodology purpose and in it given to questions where in order answer to give directed instructions giving passed .

**Below held methodology for the respondent given answers page app will be :**

*Answers form*

*FIO* \_\_\_\_\_

*Age* \_\_\_\_\_ *Gender* \_\_\_\_\_ *Date* \_\_\_\_\_

| T/ r | None<br>when | Very<br>rarely<br>less | Rarely | Sometimes | Frequently | The<br>majority<br>cases | Every<br>day |
|------|--------------|------------------------|--------|-----------|------------|--------------------------|--------------|
| 1    | 0            | 1                      | 2      | 3         | 4          | 5                        | 6            |
| 2    | 0            | 1                      | 2      | 3         | 4          | 5                        | 6            |
| 3    | 0            | 1                      | 2      | 3         | 4          | 5                        | 6            |
| 4    | 0            | 1                      | 2      | 3         | 4          | 5                        | 6            |
| 5    | 0            | 1                      | 2      | 3         | 4          | 5                        | 6            |
| 6    | 0            | 1                      | 2      | 3         | 4          | 5                        | 6            |
| 7    | 0            | 1                      | 2      | 3         | 4          | 5                        | 6            |
| 8    | 0            | 1                      | 2      | 3         | 4          | 5                        | 6            |
| 9    | 0            | 1                      | 2      | 3         | 4          | 5                        | 6            |

|  |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|
| <b>10</b>  | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>11</b>  | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>12</b>  | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>13</b>  | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>14</b>  | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>15</b>  | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>16</b>  | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>17</b>  | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>18</b>  | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>19</b>  | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>20</b>  | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>21</b>  | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>22</b>  | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Emotional fatigue _____ Depersonalization _____ Personal achievements reduction<br>_____ |   |   |   |   |   |   |   |

In most cases, the socially conditioned characteristics of the human personality embody the direction of his volitional activity. Social orientation is expressed in persistence, which is considered to be a motivational and volitional characteristic of a person. Volitional processes, situations, characteristics of the human personality arise as a specific way of realizing the motives and purpose of the activity. In mental activity, volitional processes are visible within the course of volitional behavior, that is, in the interval from setting a goal to its implementation.

As for the analysis of the applied methodology, 2 of the 10 respondents who participated in it were employees with 1-year experience, 4 with 3-year experience, and the remaining 4 with 10-year experience. The career progression is at the lowest level and almost 94.5% of the employees who have not yet developed have a strong professional inclination, and the indicator is 64.3% of employees with 3 years of experience, that is, the progress of fading is quite strong, on the contrary, employees

with 10 years of experience have more. It was estimated that the indicator can be raised again and be influenced by adaptation, equal to 89.2%. In the process of analysis, it was thought that the employees are facing various problems and shortcomings in the emotional sphere, and it is a clear tool in the professional field as well.

## CONCLUSION

In conclusion, it can be said that the early detection of the main emotional and psychological problems and the implementation of countermeasures is an important factor for the employees of the field operating in each field, especially the employees of the law enforcement agency. In other words, it can be said that it is important to assess the current situation in advance and to professionally identify the progress of fading and psychologically support it in the necessary situation. It is not a problem of providing psychological services to law-enforcement bodies, in particular to representatives of public agencies, but psychological services to people in general, as one of the leading directions of scientific psychology, is a source of many discussions.

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## FRAZEOLOGIK BIRLIKLARNI TARJIMA XUSUSIYATLARI ARAB TILIDAN O'ZBEK TILIGA

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### *ANOTATSIYA*

*Maqolada arab tilidagi frazeologik birliklarni o'zbek tiliga tarjima qilish xususiyatlari batafsil ochib berilgan. Frazeologik birliklarning ekvivalentligini aniqlash uchun strukturaviy-tipologik va funksional-semantik yondashuvlardan foydalilaniladi, bu bizga quyidagi tillararo xususiyatlarni aniqlash imkonini beradi:*

*lingvistik munosabatlar: to'lliq va qisman ekvivalentlar, analoglar, ekvivalent bo'lмаган birliklar.*

*Ekvivalent bo'lмаган birliklarni tarjima qilish uchun quyidagilar qo'llaniladi: kuzatish, tarjimaning tavsif usuli, tarjimaning leksik usuli va qo'shma tarjima.*

**Kalit so'zlar:** tarjima, frazeologik birliklar, ekvivalentlik, tillararo munosabatlar.

### *АННОТАЦИЯ*

*В статье подробно описаны особенности перевода фразеологизмов с арабского языка на узбекский язык. Для определения эквивалентности фразеологизмов используются структурно-типологический и функционально-семантический подходы, что позволяет выявить следующие межъязыковые особенности:*

*языковые отношения: полные и частичные эквиваленты, аналоги, безэквивалентные единицы.*

*Для перевода безэквивалентных единиц используются: наблюдение, описательный метод перевода, лексический метод перевода и комбинированный перевод.*

**Ключевые слова:** перевод, фразеологизмы, эквивалентность, межъязыковые отношения.

### ***Annotation***

*The article describes in detail the features of translating phraseological units from Arabic into Uzbek. Structural-typological and functional-semantic approaches are used to determine the equivalence of phraseological units, which allows us to identify the following cross-linguistic features:*

*linguistic relations: full and partial equivalents, analogues, non-equivalent units.*

*To translate non-equivalent units, the following are used: observation, descriptive method of translation, lexical method of translation and combined translation.*

**Key words:** translation, phraseological units, equivalence, interlinguistic relations.

Frazeologik birliklar tarjima qilishda eng qiyin birliklardir. Frazeologik birliklar kontekstga bog‘liq bo‘lib, ularning ma’nosini ular qo‘llanilgan vaziyatga qarab o‘zgarishi mumkin. Tarjimonlar boshlang‘ich tildagi frazeologik birlikning kontekstini ko‘rib chiqishlari va ko‘zda tutilgan tilda bir xil kontekstga mos keladigan tegishli ekvivalentini topishlari kerak. Shuning uchun frazeologik birliklarning tarjimasi frazeologik birlik tarkibining turli tarkibiy qismlarini har tomonlama tahlil qilish orqali amalga oshiriladi. Frazeologik birlikni tarjima qilishda o‘zbek tilida o‘xshash iborani topib, frazeologik birlikning stilistik funksiyasini yo‘qotmasdan, uning ma’nosini yetkazish va tasvirini aks ettirish kerak. Agar o‘zbek tilida bir xil tasvir bo‘lmasa, tarjimon ‘“taxminiy moslikni” qidirishga majbur bo‘ladi.

Frazeologik tarjima matnida chet tilining bir birligi bilan o‘z tilining tegishli birligi o‘rtasida turli darajadagi yaqinlikdagi barqaror birliklardan – to‘lliq va mutlaq ekvivalentdan taxminan iboraga qadar foydalanishni o‘z ichiga oladi. Madaniy va

lingvistik farqlar: arab va o‘zbek tillari turli xil madaniy kelib chiqishiga ega ikki xil tildir. Frazeologik birliklarni tarjima qilish ko‘zlangan ma’noni to‘g‘ri yetkazish uchun ikkala tilni va ularning madaniyatini chuqur tushunishni talab qiladi. Frazeologik birliklar ko‘pincha muayyan mintaqasi yoki jamoaning so‘zlashuv tilini aks ettiradi. Tarjimonlar arab va o‘zbek tillarida qo‘llaniladigan so‘zlashuv so‘zlarini va jarangli so‘zlarini yaxshi bilishlari, bu birliklarni to‘g‘ri tarjima qilishlari va ularning asl mazmunini saqlab qolishlari kerak.

Frazeologik yozishmalar. Biz ushbu maqolani tayyorlashda “Al-Qomus” Arabcha-o‘zbekcha qomusiy lug‘at kitobidagi arab tilidagi frazeologik birliklarning o‘zbek tiliga tarjimalariga tayandik<sup>1</sup>.

Arab tilining frazeologik birliklarini o‘zbek tiliga tarjima qilishda, bizningcha, strukturaviy-tipologik va funksional-semantik jihatlarga tayanish maqsadga muvofiqdir. frazeologik birliklarning ekvivalentligini aniqlashga yondashuvlar. Bu bizga quyidagi tillararo munosabatlarni aniqlash imkonini beradi:

- 1) to‘lliq ekvivalentlar;
- 2) qisman ekvivalentlar;
- 3) analoglar;
- 4) ekvivalent bo‘lmagan birliklar

Ekvivalent bo‘lmagan birliklarni tarjima qilish uchun quyidagi usullar qo‘llaniladi: kuzatish, tavsifiy tarjima, leksik tarjima va qo‘shma tarjima.

Keling, tillararo yozishmalarning har birini alohida ko‘rib chiqaylik.

## 1. To‘lliq frazeologik ekvivalentlar

To‘lliq frazeologik ekvivalentlar arab va o‘zbek tillarining semantik, leksik va stilistik jihatdan bir-biriga mos keladigan frazeologik birliklaridir. Ammo strukturaviy va grammatik xususiyatlarning bunday mos kelishi bilan biz tipologik xususiyatlarning o‘ziga xos xususiyatlarini hisobga olishni nazarda tutamiz. Bir tilga xos, boshqa tilga xos emas. Funksional va uslubiy xususiyatlariga ko‘ra to‘lliq ekvivalentlar uslublararo yoki kitobiydir. Adabiy va so‘zlashuv frazeologik birliklar

1. “Al-Qomus” Arabcha-o‘zbekcha qomusiy lug‘ati

judä kam uchraydi. To‘lliq ekvivalentlik hodisasi arab tilining stilistik jihatdan qisqartirilgan frazeologik birliklari uchun xos emas.

Arab va o‘zbek tillarida to‘lliq frazeologik ekvivalentlar quyidagi iboralar bilan ifodalanadi:

|                                  |  |
|----------------------------------|--|
| بَئُو آدَمْ                      | Odam Atoning o‘g‘illari  |
| فِي الْبَرِّ وَالْبَحْرِ         | Quruqlikda va dengizda   |
| أَفْحَمَ فَمَهُ فِيَ             | U burnini menga qaratdi.   |
| لَا يَرَى أَبْعَدَ مِنْ أَنْفِهِ | U burnidan narini ko‘ra olmaydi  |
| فِي لَمْحٍ الْبَصَرِ             | Ko‘z ochib yumguncha, bir zumda  |
| تَحْمَدَ الدَّمْ فِي عُرُوقِهِ   | Tomirlarida qon muzlab qoldi (qo‘rqib ketdi, yuragi tushdi)  |
| يَسْقِفُ الدِّمَاءَ              | U qon to‘kadi  |
| فِي اللَّيْلِ وَالنَّهَارِ       | Kechasi va kunduzida   |
| لَقِ حَثْفَةٍ                    | O‘lim bilan yuzlashdi, vafot etdi  |
| حَطَمَ الْأَعْلَانَ              | U kishanlarni parchaladi, ozodlikka erishdi  |
| بَعَثَ الْحَيَاةَ فِي ...        | Biror narsa yo‘lida jon berdi  |
| خَرِيفُ الْعُمَرِ                | Hayotning kuzi, keksalik   |
| حَيْمَ الظَّلَامُ عَلَى ...      | Ustiga zulmat cho‘kdi, qorong‘u tushdi   |
| ذَرَ الرَّمَادَ فِي الْعَيْوَنِ  | – Ko‘zlarga kul sepdi (Ishlarni chiroyli qilib ko‘rsatdi, ko‘z bo‘yadi, laqillatdi, ko‘ra-bila adashtirdi) |
| تَدُورُ أَعْيُّهُمْ              | Ularning ko‘zlari (qo‘rquvdan) ola-kula bo‘lmoqda  |
| يَرَوْنَهُمْ رَأْيَ الْعَيْنِ    | Ularni o‘z ko‘zlari bilan ko‘rishadi   |
| قَطَعَ دَابِرَهُمْ               | Ularni bitta qo‘ymay, oxirigacha qirib tashladi  |

## 2. Qisman frazeologik ekvivalentlar

Qisman frazeologik ekvivalentlarga arab va o‘zbek tillaridagi frazeologik birliklar kiradi, ular frazeologik birliklarning semantik-stilistik farqlanishini to‘lliq ifodalaydi, lekin tarkibiy va grammatik tashkil etilishi va komponent tarkibi bilan farqlanadi.

Arab va o‘zbek tillarining frazeologik birliklari orasidagi qisman frazeologik ekvivalentlarni ikki guruhgaga bo‘lish mumkin:

1) ma’nosi, uslubiy yo‘nalishi bo‘yicha mos keladigan va tasviriy jihatdan o‘xhash (grammatik tuzilish mos kelishi yoki mos kelmasligi mumkin), lekin leksik tarkibida bir oz farq qiluvchi frazeologik birliklar.

Masalan, arab tilining frazeologik birliklaridan **عَضْ عَلَى آنَمِلَه** va o‘zbek tilining frazeologik birliklaridan **tirsagini tishlash** (umidsizlikdan), ma’nosi, uslubiy yo‘nalishi va tasviriy jihatdan o‘xhashligi, bu yerda faqat **آنَمِلَه** (barmoq uchlari) va **tirsak** qismlari farqlanadi.

Biz quyida arab va o‘zbek tillaridagi frazeologik ekvivalentlarni keltiramiz:

|                                |  |
|--------------------------------|--|
| يَوْمُ الدِّين                 | Din kuni (qiyomat kuni)  |
| يَوْمُ الْقِيَامَةِ            | Qiyomat kuni   |
| الْفَلَبْ عَلَى عَقْبِيَّهِ    | Orqaga (eski holiga) qaytdi; fikrida qaytdi, aqidasidan voz kechdi |
| حَجَرُ الزَّاوِيَّةِ           | Burchak tosh (mas. qurilishda)                                     |
| وَضَعَ حَجَرَ الْأَسَاسِ       | Poydevor toshini qo‘ydi  |
| مَوْقِفٌ لَا يُحْسَدُ عَلَيْهِ | Havas qilinmaydigan pozitsiya                                      |
| حَصَدَ مَا زَرَعَهُ            | Nima ekkan bo‘lsa, shuni o‘radi                                    |

2) ma’nosi, tasviri, uslubiy yo‘nalishi bo‘yicha bir-biriga mos keladigan, ammo otning paydo bo‘lish soni bilan farq qiladigan frazeologik birliklar.

Demak, arab va o‘zbek tillari frazeologik birliklarida **اَفْتَنَعَ الشَّيْءَ مِنْ جُذُورِهِ** va biz ko‘rib turgan narsani ildizdan yulib tashlash, arab misolida ko‘plik qo‘llangan **جُذُورِهِ** (ildizlar) ot, o‘zbek tilidan olingan misolda esa otning birlik soni **ildiz** hisoblanadi.

Arab va o‘zbek tillaridagi qisman frazeologik birliklarning ushbu turiga misol sifatida quyidagi iboralarni ko‘rib chiqamiz:

|                             |   |
|-----------------------------|---|
| منْ يَدِ لِيٰدِ /إِلَى يَدِ | Qo‘ldan-qo‘lga, to‘g‘ridan-to‘g‘ri, bevosita    |
| تَعْيِيرٌ جُذْرِيٌّ         | Tub, keskin o‘garish                            |
| لَمْ يَغْمُضْ لَهُ جَفْنُ   | U hech ham uxlamadi (Bir qovog‘i ham yumilmadi) |

### 3. Frazeologik analoglar

Frazeologik analoglar - arab va o‘zbek tillarining semantikasi va uslubiy yo‘nalishi bo‘yicha bir-biriga mos keladigan, ammo tasviriyligi jihatdan farq qiluvchi frazeologik birliklar (grammatik tuzilish mos kelishi yoki mos kelmasligi mumkin). Analoglar taqqoslanayotgan tillarning milliy o‘ziga xosligini tashkil etuvchi noyob tasvir va tushunchalarni beradi.

Masalan, arab va o‘zbek tillari frazeologik birliklarida **انْشَقَتِ الْعَصَا بَيْنَهُمْ** (o‘rtalarida tayoq yorilib ketdi) va qora mushuk yugurdi (o‘rtasida). Bu tasvirlar (yoriq tayoq va qora mushuk), frazeologik birliklar semantika va stilistik yo‘nalishda mos keladi.

Arab va o‘zbek tillaridagi frazeologik analoglar quyidagi misollar bilan ifodalanadi:

|                                  |  |
|----------------------------------|--|
| ذَاتُ صُنْدُورٍ /نُفُوسٍ         | O‘y-fikrlar, tuyg‘ular, kechinmalar, sirlar, niyatlar  |
| فُرَةُ الْعَيْنِ                 | Ko‘z qorachig‘i; farzand; ko‘zlar quvonchi, shodlik, xursandchilik   |
| وَبَلَعْتَ الْقُلُوبَ الْخَاجِرَ | “Yuraklar tomoqlarga tiqildi”  |
| سُقْطَ فِي يَدِهِ                | Afsus qildi, attang qildi;   |
| وَلَمَّا سُقْطَ فِي أَيْدِيهِمْ  | “Qachonki attang qilganlarida...” (Qur. 7:149); 2) xato qildi, adashdi; 3) hayron bo‘lib qoldi, nima qilishni bilmay qoldi |

### 4. Ekvivalent bo‘limgan frazeologik birliklar

Ekvivalent bo‘lman frazeologik birliklar - boshqa tilning frazeologik tizimida mos kelmaydigan iboralar. Bu birliklar psixologiyaning xususiyatlarini, fikrlash usullarini, ona tilida so‘zlashuvchilarning moddiy va ma’naviy hayotini rivojlantirishning o‘ziga xos shartlarini aks ettiradi.

Arab tilining ekvivalent bo‘lman frazeologik birliklarini tarjima qilish usullari orasida biz quyidagilarni ajratamiz: kuzatish, tavsifiy tarjima, leksik tarjima usuli va qo‘shma tarjima.

#### *a) kuzatish*

E.M. Soloduxoning ta’kidlashicha, “idiomatik kuzatishlar o‘zlashtirilgan til orqali chet tili prototiplarining (odatda idiomatik birliklar) to‘lliq yoki o‘zgartirilgan tuzilishi va ma’nosi natijasida vujudga keladigan frazeologik birliklardir.<sup>1</sup> Idiomatik va so‘z shakllanishi monitoringi mexanizmida umumiyl bo‘lgan narsa, odatda, diktatsiya qilingan sxemalar bo‘yicha, lingvistik tuzilish sifatini darhol egallamaydigan tushunchalar shaklida xorijiy prototiplar mazmunini dastlabki idrok etishdir.

R.A.Yusupov “boshqa til modeli asosida ilgari noma’lum bo‘lgan tushunchani belgilash” deb ta’riflaydi.<sup>2</sup>

Ekvivalent bo‘lman frazeologiyani tarjima qilishda, iborani boshqa tarjima turlaridan foydalanib tarjima qilish mumkin bo‘maganda yoki boshqa tilda bir xil ma’noga ega frazeologik birlik mavjud bo‘lsa, lekin undan foydalanish iboraning buzilishiga, uning to‘lliqligiga olib kelganda tarjima o‘z mazmunini yo‘qotadi.

Shunday qilib, arab va o‘zbek tillarida idiomalarning burilishlari **الضوء الأخضر** va **yashil yorug‘lik** idiomatik kuzatish turlaridandir.

<sup>1</sup> Soloduxo E.M. Frazeologiyalar nazariyasi. – Qozon. 1989. – 265 b.

<sup>2</sup> Yusupov R.A. Rus va tatar tillarining leksik va frazeologik vositalari. – Qozon: Tatar. 1980. – 255 b.

Arab va o‘zbek tillarining frazeologik kuzatishlari juda ko‘p va keng tarqalgan:

|                                    |  |
|------------------------------------|--|
| عَلَى الْأَبْوَابِ ....            | eshikda  |
| إِرْتَقَعَتْ أَسْهُمَةُ            | Uning aksiyalari ko‘tarildi  |
| تَصِيبُ الْأَسَدِ                  | Arslonning ulushi, eng katta ulush   |
| بُرْجٌ عَاجِيٌّ                    | Fil suyagi minorasi (real hayotdan uzoq, o‘z qobig‘iga o‘ralib olgan kishiga nisbatan ishlataladi) |
| تَجْمِيدُ الْأَسْعَارِ             | Narxlarni muzlatish, narxlarni ushlab turish, ko‘tarilmaslik chorasini ko‘rish                     |
| سَبَحَ ضِدَّ النَّيَارِ            | Oqimga qarshi suzdi, qarshi chiqdi   |
| اِنْجَرَفَ مَعَ النَّيَارِ         | Biror narsaga qarshilik ko‘rsatishga ojizlik qildi, oqim bo‘ylab suzdi, tan berdi                  |
| صِرَاعٌ حَيَاةً أَوْ مَوْتٍ        | Yo hayot, yo mamot kurashi (jangi, olishuvi)   |
| شَرِيكٌ حَيَاةً / عُمْرٌ           | Umr yo‘ldoshi  |
| خَطَّ النَّارِ                     | Olov chizig‘i; <i>harb.</i> Oldingi pozitsiyalar   |
| أَذَارَ دَفَّةَ الْحُكْمِ          | Boshqardi, hukmronlik qildi  |
| دَقَّ مِسْمَارًا فِي نَعْشِهِ      | Halokatiga “yordam” berib yubordi, muvaffaqiyatsizlikka duchor etdi                                |
| دُمُوغُ التَّمَاسِيْحِ             | Timsoh ko‘z yoshlari, yolg‘on yig‘i  |
| سَفِينَةُ الصَّرْخَاءِ / الْبَرِّ  | Sahro kemasi, tuya   |
| الْجِنْسُ النَّاعِمُ / الْلَّطِيفُ | Nozik jins (ayol jinsi)  |
| آخِرُ صَيْحَةٍ                     | Oxirgi qichqiriq; eng so‘nggi (moda)   |

### b) Tarjimaning leksik usuli

Ayrim hollarda arab tilidagi frazeologik birliklarni tarjima qilishda bitta so‘zdan foydalanish mumkin.

Misol tariqasida frazeologik birlikni ko‘rib chiqamiz Qur’ondan arabcha سراج مُنير. O‘zbek tiliga tarjima qilganda yorqin nur, yorqin chiroq, istilohda esa payg‘ambar so‘zi sifatida ishlatilgan.

Leksik usul arab tilining bir qator frazeologik birliklarini o‘zbek tiliga tarjima qilishda qo‘llaniladi:

|   |                                       |
|---|---------------------------------------|
| غَلِيظُ الْقُلُوبِ  | Qalbi qattiq, toshbag‘ir              |
| الْقَاسِيَةُ فِلُوْبُهُمْ   | Qalblari qattiq                       |
| هَبَاءً مُنثُرًا  | Sochilgan to‘zon, bekordan-bekorga    |
| أَخْضَرُ /رَطْبٌ وَيَابِسٌ  | Ho‘lu quruq                           |
| إِبْنُ السَّبِيلِ   | Musofir, yo‘lda qolgan kishi          |
| صِرَاطٌ مُسْتَقِيمٌ   | To‘g‘ri yo‘l                          |
| عَلَى حَرْفٍ  | (Biror narsaning) chetida, omonatgina |
| اِنْتَقَلَ إِلَى جَوَارِ رَبِّهِ /دَعَاهُ اللَّهُ إِلَى جَوَارِهِ | U vafot etdi                          |

### c) Qo‘shma tarjima

Qo‘shma tarjima asl frazeologik birlikning boshqa tildagi ma’nosini to‘lliq yetkazish va uni tarjima qilish uchun barcha mavjud imkoniyatlarni taqdim etish uchun zarurdir.

Odatda, qo‘shma tarjimadan foydalanilganda frazeologik birlikni tushuntiruvchi tavsifiy tarjima beriladi.

Shunday qilib, Qur’on matnidan arab frazeologik birligining ma’nosini yetkazish uchun أهل الْكِتَابِ qo‘shma tarjima ishlatilgan: ahli kitob (yahudiy va nasroniyalar)

Binobarin, arab frazeologik birliklarini o‘zbek tiliga tarjima qilishda lug‘atni majburiy bilish, kontekstni tahlil qila bilish, tarjima qilinayotgan xalqning tarixi, madaniyati, turmushi va urf-odatlarini chuqr o‘rganish, shuningdek frazeologik birlik tiliga tarjima qila olish lozim.

**ADABIYOTLAR RO‘YXATI**

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## JINOYAT PROTSESSIDA TINTUV: SHAXS HUQUQLARI VA QONUNIY MANFAATLARINI KAFOLATLASH

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### *ANNOTATSIYA*

*Ushbu maqolada jinoyat protsessida tergov harakati hisoblangan tintuv o'tkazish tushunchasi va tintuv o'tkazishda shaxs huquqlari va qonuniy manfaatlarining protsessual kafolatlari masalalari atroficha tahlil qilingan. Bunda tintuv tushunchasi bo'yicha jinoyat-protcessual qonunchiligidagi belgilangan normalar, soha mutaxassislari va olimlarning bu boradagi qarashlari o'rganilib, mualliflar tomonidan ushbu tushuncha ta'rifi ishlab chiqilgan.*

**Kalit so'zlar:** Tintuv, olib qo'yish, tergovchi, xolislar, tintuv bayonnomasi.

Tintuv ish uchun ahamiyatga ega bo'lgan ashylar va hujjatlarni qidirib topish va olib qo'yish, shuningdek qidirilayotgan shaxslar va murdalarni izlab topish maqsadida bino, inshoot, transport, joy hududi yoki ayrim fuqarolarni majburiy tekshirishdan iborat bo'lgan tergov harakati hisoblanadi. Tintuv har doim nomuayyan xususiyatga ega bo'ladi, ya'ni aynan qaysi narsalar va hujjatlar topilishi va olib qo'yilishi u boshlangunga qadar aniq bo'lmaydi. Bundan xulosa qiladigan bo'lsak, ushbu jarayon mavzuning dolzarb ekanligini anglatadi desak mubolag'a bo'lmaydi. Sababi, bu eng og'ir va sermashaqqat tergov harakatlaridan biri bo'lib, uni o'tkazish tergovchidan ko'p mehnat va keng bilimlarni, yetarlicha tajriba hamda mazkur ishni jinoyat-protcessual qonunchilik normalariga muvofiq tashkil etish va o'tkazish uchun tegishli qobiliyatlarni talab qiladi.

Tintuv o‘tkazishda shaxs huquqlari va qonuniy manfaatlarini ta’minlashga tergovchi faoliyati qaratiladi. U tintuv o‘tkazishda shaxs huquqlari va qonuniy manfaatlarini himoya qilish bo‘yicha tegishli huquqlar va majburiyatlarga ega bo‘ladi va ularga muvofiq harakat qiladi. Mazkur faoliyat shaxs huquqlari va qonuniy manfaatlarini kafolatlash uchun zarur.

Tintuv o‘tkazishda shaxs huquqlari va qonuniy manfaatlarining protsessual kafolatlarini ta’minlashda tergovchining protsessual mustaqilligi ulkan rol o‘ynaydi. Tergovchi tintuv va olib qo‘yishning asosiy subyekti hisoblanadi, binobarin, u shaxsning mazkur huquqlari va qonuniy manfaatlarini ta’minlovchi asosiy subyekt sifatida ham maydonga chiqadi. Tergovchi – davlat vakili bo‘lib, u tergovni o‘tkazish jarayonida qonunga qat’iy muvofiq ravishda harakat qilishi lozim. Tergov o‘tkazishda ayblanuvchilarning huquqlari va qonuniy manfaatlariga og‘ishmay rioya qilish uning burchidir.

Maqolaning asosiy maqsadi tintuv tushunchasi va uni o‘tkazishda shaxs huquqlari va qonuniy manfaatlarinining protsessual kafolatlarini aniq yoritish, uni bat afsil ochib berishdan iborat. Ushbu mavzuni tahlil qilish va yoritishda boshqa mualliflar va olimlarning ham fikrlarini atroflicha o‘rganib chiqdik. Ko‘plab mualliflar tomonidan berilgan tintuvning tergov harakati sifatidagi ta’riflari umumiy mohiyatga ega bo‘lsa-da, ularda farqli jihatlarni kuzatish mumkin. G‘.Abdumajidov ta’kidlaganidek, “Surishtiruvchi va tergovchi biror turar joy, xizmat, ishlab chiqarish binosida yoki o‘zga joyda yoxud biror shaxsda ish uchun ahamiyatli bo‘lgan narsa yoki hujjatlar bor deb o‘ylash uchun yetarli ma’lumotga ega bo‘lgan taqdirda tintuv o‘tkazishga haqlidir” [1, 16-b.]. O‘zbekiston yuridik entsiklopediyasida esa, tintuv va olib qo‘yishga JPK normalari mazmunidan kelib chiqqan holda ta’rif beriladi [2, 347-348-b.].

O‘zbekiston Respublikasi Jinoyat-protsessual kodeksi “Protsess ishtirokchilari” tushunchasini keng ma’noda talqin qilib, mazkur tushunchaga jinoyat ishini yuritishda ishtirok etuvchi barcha shaxslarni kiritadi.

Tintuv – mazmuni daliliy va yo‘naltiruvchi ma’lumotlar manbalarini (jinoyat qurollari, jinoyat yo‘li bilan topilgan yoki ish uchun ahamiyatli bo‘lgan narsalar, qimmatli va boshqa ashyolarni), shuningdek qidirilayotgan shaxslar va murdalarni yoki ularning qayerda joylashganligi haqidagi ma’lumotlarni topish va olish maqsadida turar-joylar, yer maydonlari, muayyan shaxslar va ularning narsa va buyumlarini majburiy tekshirishga qaratilgan tergov harakatidir. Jinoyat protsessi ishtirokchilari tushunchasi va klassifikatsiyasiga doir masala ham munozaralidir. Maxsus adabiyotlar va 1959-yilda qabul qilingan Jinoyat-protsessual kodeksida jinoyat protsessi ishtirokchilari tushunchasiga jinoyat ishida o‘z huquq va manfaatlarini himoya qiluvchi shaxslar kiritilgan. Bu borada boshqa olimlarning fikrlarini o‘rganadigan bo‘lsak, V.V.Mozyakova ta’kidlashicha, olib qo‘yish – jinoyat ishi uchun ahamiyatga molik narsa va hujjatlarning aynan kimda va qayerda ekanligi ma’lum bo‘lib, ularni qidirishning hojati bo‘lman Hollarda surishtiruvchi, tergovchi va sud tomonidan qo‘llanadigan chora hisoblanadi. Tintuv doimo majburlov xarakteriga ega bo‘lgan tergov harakati bo‘lib, uning vazifalari jinoyat ishiga dahldor bo‘lgan narsa va hujjatlarni, tirik shaxslar va murdalarni, jinoyat yo‘li bilan topilgan pullar va boshqa qimmatliklarini binolardan, yoki ularni yashirgan deb taxmin qilingan shaxslarga tegishli joylardan qidirib topish va olingan natijalarni bayonnomada qayd etishdan iboratdir [3, 259-b.]. R.S.Belkin esa tintuv tushunchasiga boshqacha yondashgan. Uning fikriga ko‘ra, tintuv ish bo‘yicha haqiqatni o‘rnatish uchun ahamiyatli bo‘lgan ob’ektlarni, jinoyat qurollarini, jinoiy yo‘l bilan topilgan boyliklarni, shuningdek, ish uchun ahamiyatli boshqa narsa va hujjatlarni topishdan iborat bo‘lgan tergov harakatidir. U yashiringan shaxslar va murdalarni topish uchun ham o‘tkazilishi mumkin [4, 47-b.]. A.R.Ratinov tomonidan berilgan ta’rif umume’tirof etilgan bo‘lib, unga ko‘ra, tintuv mohiyati bu, yashiringan shaxslarni, shuningdek ish uchun ahamiyatli narsalarni topish va olib qo‘yish maqsadida turar-joylar, binolar, yer maydonlari va alohida shaxslarni majburiy kuzatishdan iborat bo‘lgan tergov harakatidir [5, 7-b.]. Tintuv va olib qo‘yish shaxsning kostitutsiyaviy huquq va erkinliklarini cheklash bilan bog‘liq harakat

bo‘lganligi uchun huquqni muhofaza qilish organlari xodimlari (ayniqsa jinoyat-qidiruv xodimlari) qonun talablari asosida harakat qilishlari kerak [6, 38-b.].

Ayrim manbalarda yuqorida keltirilgan ikki ta’rifning uyg‘unlashgan mazmundagi izohlarini ham kuzatishimiz mumkin. Misol uchun V.A.Obraztsov va I.F.Panteleyevlar “Tintuv - jinoyat qurollari, jinoiy yo‘l bilan topilgan boyliklar, shuningdek, tergov qilinayotgan jinoyat ishi uchun ahamiyatli bo‘lgan boshqa narsa va hujjatlarni topish va olish maqsadida turar joylarni, binolar va boshqa ob’ektlarni, shuningdek alohida fuqarolarni majburiy tekshirishda ifodalanadigan tergov harakatidir” degan ta’rifni bergenlar [7, 331-b.]. Shaxsni tintuv qilishda uning buyumlari (sumka, jomadonlari) va kiyimlari ham nazarda tutilganligi bois, yuqorida keltirilgan tintuv qilinadigan ob’ektlar doirasini kengaytirilgan hollarini kuzatish mumkin. Mazkur holat A.A.Zakatov va S.G.Lyubimchevlar tomonidan berilgan quyidagi ta’rifda o‘z ifodasini topgan: “Tintuv – ish uchun ahamiyatli bo‘lgan narsalarni, shuningdek yashiringan shaxslar va murdalarni topish va olish maqsadida turar joylarni, yer maydonlari, transport vositalarini, fuqarolar yoki ularning kiyimlarini majburiy tartibda tekshirishdan iborat bo‘ladigan tergov harakatidir” [8, 269-b.]. G‘.Shodiyev ta’biri bilan aytganda, “tintuv o‘tkazish jarayonida, yuqorida qayd etilgan kamchiliklar yuzasidan jinoyat-protsessual qonunchilikka o‘z vaqtida o‘zgartirish va ko‘shimchalar kiritilsa, shaxsning huquq va qonuniy manfaatlari kafolatlanishiga imkon yaratiladi” [9, 120-121-b.].

Bir qarashda yuqorida keltirilgan ta’riflar tintuv tergov harakatining asosiy belgilarini yoritib berganga o‘xshasa-da, qidiriladigan ob’ektlarning doirasini yetarlicha ko‘rsatib berilmagan. Tergov amaliyotida ko‘p hollarda tintuv tergov harakati narkotik moddalarni topish maqsadida ham o‘tkaziladi. Bunday moddalarni topish va olib qo‘yish ushslash vaqtida shaxsiy tintuv, turar-joy va hududlarda tintuv o‘tkazish bilan amalga oshirilishi mumkin. G‘.Shodiyev bu haqda shunday yozadi: “tintuv olib qo‘yishdan o‘z maqsadi va o‘tkazish tartibiga ko‘ra farqlanadi: 1) tintuvda qanday ob’ektlar qidirilayotganligi, ular qayerdaligi noma’lum bo‘lsa, olib qo‘yishda predmetning individual belgilari, uning qayerda (kimda) ekanligi ma’lum

bo‘ladi; 2) olib qo‘yishni o‘tkazish uchun (faktik) asos sifatida faqat dalillar tan olinsa, tintuvda – hatto tezkor-qidiruv tadbirlari davomida olingan ma’lumotlar ham asos bo‘lishi mumkin; 3) olib qo‘yishda qidiruv harakatlari man qilinadi, tintuvda esa, aynan ular ko‘zda tutiladi” [10].

Yuqorida aytib o‘tilgan ta’riflardan kelib chiqib tintuv tushunchasiga quyidagicha ta’rif berish mumkin:

“Tintuv – mazmuni daliliy va yo‘naltiruvchi ma’lumotlar manbalarini (jinoyat qurollari, jinoyat yo‘li bilan topilgan yoki ish uchun ahamiyatli bo‘lgan narsalar, qimmatli va boshqa ashyolarni), shuningdek qidirilayotgan shaxslar va murdalarni yoki ularning qayerda joylashganligi haqidagi ma’lumotlarni topish va olish maqsadida turar-joylar, yer maydonlari, muayyan shaxslar va ularning narsa va buyumlarini majburiy tekshirishga qaratilgan tergov harakatidir”.

Shaxs huquqlari va qonuniy manfaatlariga rioya qilish talablari tintuv o‘tkazish bilan bog‘liq har bir holatda o‘z-o‘zidan qo‘llanishi mumkin emas, chunki ularni qo‘llashga yuzaki yondashish oxir-oqibat teskari samara beradi – qonuniylikning buzilishiga olib keladi. Shu bois, bunga yo‘l qo‘ymaslik uchun, tergovchilarga tintuv o‘tkazishni tartibga soluvchi huquqiy normalarni qo‘llashga ijodiy yondashish imkoniyati ta’milanishi lozim. Mazkur imkoniyat “tergovchining protsessual mustaqilligi” deb ataladigan huquqiy institut yordamida ta’milanadi. Bu institut tintuv o‘tkazishda shaxs huquqlari va qonuniy manfaatlarini ta’minalashning muhim kafolati hisoblanadi.

Shu o‘rinda tabiiy bir savol tug‘iladi: tintuv o‘tkazishda shaxs huquqlari va qonuniy manfaatlarini ta’minalash tergovchi uchun asosiy va yetakchi funksiya hisoblanadimi? Bu savolga faqat bitta javob bo‘lishi mumkin: tintuv o‘tkazayotgan tergovchi uni shunday o‘tkazishi lozimki, bunda shaxs huquqlari va qonuniy manfaatlarini buzilishiga yo‘l qo‘yilmasin. Tergovchi tintuv yoki olib qo‘yish o‘tkazishda shaxs huquqlari va qonuniy manfaatlarini ta’minalashi shart. Uning bu vazifalari ahamiyati shu bilan belgilanadiki, fuqaro protsessual huquqni amalga oshirish yo‘li bilan intilayotgan maqsadga erishish ayni holda ko‘rsatilgan tergov

funktsiyalarini bajaruvchi tergovchining tegishli harakat orqali amalga oshiriladi. Faqat shu mansabdor shaxs o‘z vakolatlari doirasida mazkur tergov funksiyalarining mohyati bo‘yicha qaror qabul qilish huquqiga ega bo‘ladi.

Tergovchining aytib o‘tilgan vazifalari shaxs huquqlari va qonuniy manfaatlari bilan bevosita bog‘liq. Bu aloqa sxemasi quyidagi ko‘rinishga ega: shaxs huquqi – tergovchining majburiyati. Shaxsning har bir huquqi bilan tergovchining uni ta’minalashga qaratilgan majburiyati mos keladi.

Tintuv o‘tkazishda tergovchining mustaqilligi fuqarolarning turar joy daxlsizligiga bo‘lgan huquqini so‘zsiz va har tomonlama ta’minalashiga erishish ayniqsa muhimdir. Biz yuqorida ta’kidlab o‘tganimizdek, bu shaxsning barcha ma’rifatli davlatlar tomonidan e’tirof etilgan va kafolatlanadigan asosiy huquqlaridan biri hisoblanadi. Inson huquqlari umumjahon deklaratsiyasining 12-moddasida quyidagi qoida mustahkamlangan: “Hech kimning shaxsiy va oilaviy hayotiga o‘zboshimchalik bilan aralashish, uy-joyi daxlsizligiga, uning yozishmalaridagi sirlarga yoki uning nomus va sha’niga o‘zboshimchalik bilan tajovuz qilinishi mumkin emas. Har bir inson xuddi shunday aralashuv yoki tajovuzdan qonun orqali himoya qilinish huquqiga ega”.

Yuqorida qayd etib o‘tilganidek, tergovchi tintuvni xolislar va boshqa shaxslar ishtirokida o‘tkazadi. Xolislar sifatida u shunday shaxslarni taklif qilishi lozimki, tintuvda ularning ishtiroki biron-bir ma’lumotlar oshkor etilishiga olib kelmasin. Xolislar sifatida titilayotgan shaxsni tanimaydigan va u bilan qo‘shti xonadonlarda yashamaydigan fuqarolar taklif qilinsa, ayni muddao bo‘ladi.

## Xulosalar

Mazkur mavzuni yoritishda ko‘plab adabiyotlarga va olimlarimizning fikrlariga murojaat etdik. Ularning ilmiy izlanishlarini o‘rgangan holda o‘z yondashuvimiz bo‘yicha metodlar asosida mavzuni yoritishga harakat qildik. Izlanishlar natijasida quyidagi xulosa va takliflarimizni keltirib o‘tishni joiz deb topdik. Tintuv o‘tkazilayotgan shaxsning protsessual majburiyatlarini tahlil etishda bizda qator savollar paydo bo‘ldi. Jumladan, tintuv o‘tkazilayotgan shaxs qidirilayotgan mulk

yoki ashyoni berishga majburmi va tergovchi talabini bajarishdan bosh tortganligi uchun unga nisbatan qandaydir choralarni qo'llash mumkinmi? Yuqorida ta'kidlanganidek, tintuv majburiy xarakterga ega va odatda ayblovga doir dalillarini toplashga qaratilgan. Ya'ni, tintuvning maqsadlaridan biri shaxsning jinoyat sodir qilganini fosh etish hisoblanadi. Buni amalga oshirish esa protsessual majburlashni qo'llash imkoniyati bilan ta'minlanadi. Biroq, bunday majburlash qandaydir huquqbuzarlik uchun jazo chorasi hisoblanmaydi, balki qidiruv tadbirlarini ta'minlash hamda tintuv maqsadiga erishish vositasi bo'lib xizmat qiladi.

Bizning fikrimizcha, ko'tarilgan mazkur dolzarb masalani yechishda aybsizlik prezumpsiyasidan ham kelib chiqish lozim. Uning mazmuniga ko'ra, gumon qilinuvchi (ayblanuvchi) o'zining aybsizligini isbot qilishga majbur emas. Shuning uchun shaxsga ularni fosh qiluvchi ma'lumotlarni taqdim etish majburiyatini yuklashga yo'1 qo'yilmaydi. Bu O'zbekiston Respublikasi Konstitutsiyasining 26-moddasi hamda JPKning 23-moddasiga zid bo'lib, jumladan unda shunday deb belgilab qo'yilgan: "Gumon qilinuvchi, ayblanuvchi yoki sudlanuvchi o'zining aybsizligini isbotlab berishi shart emas". Shuningdek, amaldagi qonunchilikda hech kim o'ziga qarshi guvohlik berishga majbur emasligi belgilangan. Nazarimizda, ko'rib chiqilayotgan vaziyatda "guvohlik berish" tushunchasi so'zma-so'z talqin etilishi kerak emas. O'ziga qarshi ko'rsatma berishdan bosh tortish imkoniyati bilan birga u o'zini-o'zi ayblastashga qarshi boshqa kafolatlarni, jumladan, ayblov dalillarini yig'ishga xizmat qilmaslik, shuningdek shaxsni jinoyat sodir etishda fosh qiluvchi ashyolarni taqdim etishdan bosh tortish huquqini o'z ichiga olishi lozim. Yuqorida qayd etilganlarni hisobga olgan holda o'zida yoki uyida tintuv o'tkazilayotgan shaxsga ish uchun ahamiyatli bo'lgan narsa yoki hujjatlar taqdim etish bilan bog'liq majburiyat yuklatilishi mumkin emas degan xulosaga kelish mumkin. Bizning nazdimizda, tergovchi taklifiga ko'ra qidirilayotgan ashyolarni berish tintuv o'tkazilayotgan shaxsning xohishi yoki xohlamasligiga bog'liq bo'lib, bu uning ixtiyoriga ko'ra amalga oshirilishi zarur.

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## SOLIH MAHDUM VA INOYAT OQSOQOL MUQOYASASI

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### ***ANNOTATSIYA***

*Ushbu maqolada o‘zbek adabiyotida o‘chmas iz qoldirgan Abdulla Qodiriyning „Mehrobdan chayon“ romanini qahramoni Solih mahdum va Said Ahmadning „Ufq“ trilogiyasi qahramoni Inoyat oqsoqolni tahlil etish va bu ikki obrazning o‘xshash va farqli tomonlarini aniqlash maqsad qilib olingan. Badiiy tahlilning genetik, tipologik, fuksional, psixologik, filologik kabi tahlil turlaridan foydalanildi.*

**Kalit so‘z :** „Mehrobdan chayon“, „Ufq“, Solih mahdum, Inoyat oqsoqol

### ***ABSTRACT***

*This article aims to analyze Solih Makhdum, the hero of Abdulla Qadiri’s novel „Mehrobdan Chayon“, who left an indelible mark in Uzbek literature Inoyat Aksaql, the hero of the „Ufq“ trilogy and to identify the similarities and difference between these two characters.*

**Keywords :** „Mehrobdan chayon“, „Ufq“, Solih makhdum, Inoyat aksaql.

„Mehrobdan chayon“ va „Ufq“ romanlari o‘z davrining, balki hozir ham minglab muxlislariga ega asarlar hisoblanadi. Bu asarlarda xalqimizning tarixi aijtimoiy hayoti ro‘yi-rost tasvirlangan. Bu ikki romandagi ba’zi obrazlar bir-biriga yaqin umumiyligi jihatlarga egadir. Masalan : „Mehrobdan chayon“ romanida Solih mahdum , „Ufq“ trilogiyasida esa Inoyat oqsoqol. Badiiy asardagi har bir obraz xoh to‘qima bo‘lsin, xoh hayotiy prototip asosida yaratilgan bo‘lsin unda, albatta,

turmushda uchrab turadigan insonlar haqida hikoya qiladi. „Tur mushning turli sohalarida ishlashim natijasida men o‘zbeklarning urf-odatlarini ular ichida uchrayturg‘on tiplarni o‘rganoldim “ [Qodiriy ,2017,436-bet] deb yozadi Qodiriy. Demak , o‘z-o‘zidan ma’lumki, Solih mahdum ham Inoyat oqsoqol han aynan yon atrofimizda uchratish mumkin bo‘lgan insonlarning badiiy asardagi aksidir.

„Solih mahdum – o‘z zamonasining istilosini bilan aytganda „maktabdor domla“ dir “[Qodiriy,1994,3-bet]. „ Oyni etak bilan yashirib bo‘lmaydir. Mahdumning xasislikka o‘xhash holatlari, albatta , bor edi. Mahdum topib tutmag‘an yillarda bu ishni yo‘qlikdan qiladur, desak-da keying vaqtarda ham shu odatini tark etmagan uchun tabiatida bir muncha xasislik bor ekan deymiz “[Qodiriy,1994,6-bet]. Yashash joyida maktabdorligi bilan tanilgan. Solih mahdumning ba’zi kamchiliklari ham ommaga ma’lum edi. „Ko‘ylak ishtoni aksar yeti-sakkiz qishdan beri guppichoponi yangilangani ma’lum emas, faqat qish kelib ketgan sayin yangidan – yangi yamoqlarga boyirdi, guppi umrida bir marotaba shunda ham mahdumdan beruxsat ammo Nigor oyimning zo‘ri bilan tog‘oraga tushgan. Mahalla kishilari mahdumning bu chponiga moltopar deb ism bergenlar, guppi kiyilib chiqilgan kun mahdumga sezdirmay „ moltopar “ savdodan qaytibti deb kulishar edi. Maxdum yuqoridagi ba’zi o‘rinlardan ma’lumki, xasis kamchiqim inson. U oilasini kiyim-kechak vajidan o‘zi kabi tutar edi, faqat keyim-kechak emas, oziq-ovqat to‘g‘risida ham shunday edi. U ro‘zg‘orning ayollarga oid qismida ham „ish o‘rgatar “ edi. „ Bir oy to‘lmasdan kir yuvishga ruxsat bermas, agar Nigor oyim bir oysiz kir yuvg‘onini ko‘rib qolsa – kiyimimni tog‘oraga churutarsan!“- deb g‘ovg‘a solar edi. Ikki haftasiz palovni ko‘rmaslar, Nigor oyimning qozoni yo‘qcha elcha go‘shtni faqat palov sharofati bilangina ko‘rar edi [Qodiriy,1994,7-bet]. Solih mahdumning moliyaviy imkoniyati yeta turib yeb-ichishga qattiqlik qilishi, „ Ufq “ romanidagi Inoyat oqsoqolni eslatib yuboradi. Xattoki , Inoyat oqsoqol Solih mahdumdan ham xasisroq tasvirlanadi. Inoyat oqsoqol aynan urush davrlarida, oilasi moddiy tomondan juda qiyalganda ham yashirincha yig‘ib yurgan mol-dunyosini ishlatmaydi, eng og‘ir vaqtida ham ayolini ingichka tilla bilakuzugini sotib o‘rniga ro‘zg‘orga kerakli narsalarni olib

kelgan bo‘ladi, aslida esa tilla buyumni sotmasdan yashirinchayiqqan pullaridan ro‘zg‘orga ul-bul olib keladi, bu holat uni vafotidan keyin o‘g‘li Nizomjonga a’yon bo‘ladi .

Inoyat oqsoqol Solih mahdumdan ayyorligi, quvligi, ko‘p muommolarga chap berib keta olishi bilan farq qiladi. Masalan, qishloq erkaklari urushga ketganda, ayollar esa dala ishlarida ishlayotgan bir vaqtida u ham ularga yordam berish o‘rniga vaziyatdan foydalanib qolish payida bo‘ladi,o‘rik pishgan vaqtida qishloqdoshlarining o‘rigin suv tekinga sotib olib pullashida ko‘rish mumkin. „ Sotib olgan o‘riklarini egalari qoqib yemayotganmikin deb mahallani maxsichan aylanib devor nahralaridan qarab yuradi (kalish kiyib yursa shaloplatib bildirib qo‘yishi mumkin )[S.Ahmad,2019,377-bet]. Uning bu harakati naqadar odamgarchilikdan chiqqanligini ko‘rsatadi, adar uning o‘rnida boshqa inson bo‘lsa shunday o‘g‘ir kunlarda dalaga chiqib xotin-xalajlarga yordam berardi yoki o‘riklarni terib oilalarga tarqatgan bo‘lardi. Inoyat oqsoqolning yana bir o‘ziga xosligi shundan iboratki, u har qanday vaziyatda faqat foydani ko‘zlaydi, xatto kata o‘g‘li A’zamjondan qoraxat kelganda ham uning bevasi yoshgina Dildorni kichik o‘g‘li Nizomjonga nikohlab bermoqchi bo‘ladi. To‘g‘ri, tarixda bunday holatlar ham uchrab turgan, lekin buning zamirida yetim qolgan bolalar boshqa begona erkak qo‘lida aziyat chekmasligi uchun qilingan yo‘ldir. Ammo Inoyat oqsoqol esa Dildorning otasiga tegishli hovli boshqa birovga qolmasligi uchun uy-joy, boylik vajidan bu ishni qilmoqchi bo‘ladi. „Oqsoqol hovliga, keksa tut shohlari engashib turgan tunuka tomga suqlanib birmabir qarab chiqdi. Ko‘nglidan, jindek remont qilsa ellik mingga ketadi degan o‘y o‘tkazdi “ [S.Ahmad.2019.379-bet].

Solih mahdum va Inoyat oqsoqol singari insonlarning bo‘lishi davr va sharoit talabidan kelib chiqqan bo‘lsa ajab emas. A. Qodiriy „ Mehrobdan chayon “ romanida Solih mahdum nega bunday bo‘lib qolganligiga ma’lum ma’noda izoh berib o‘tadi:, Yoshlik chog‘ida otasi o‘lib, qattiqlig‘da o‘sdi, uning ba’zi yarashmag‘on harakatlari balki o‘sha qattiqliqning ruhga singib qolgan yomon

ta'siridir<sup>1</sup>.'' Bu ikki obrazning ijtiomiy ta'sir kuchi judan yuqori. Ushbu asarlarni o'quvchi o'qir ekan Solih mahdumga ayniqsa Inoyat oqsoqolga nisbatan nafrat, jirkanish tuyg'ularini tuyadi. Asardagi qahramonlar tarbiyaviy ahamiyati ham shundadir, yozuvchi bu obrazlarni asarga olib kirishdan maqsadi ham jamiyat orasida uchraydigan bunday muommoli insonlardan to'g'ri xulosa chiqarishga va ulardek yo'l tutmaslikka chaqiradi. ,, Badiiy asarni to'g'ri anglash va ta'sirlanish fazilati adabiy asar o'qish bilan o'z-o'zidan paydo bo'lib qolmaydi. Badiiy asarning mohiyatini anglab yetish uchun har bir kishi muayyan darajada estetik tayyorgarlikka ega bo'lishi kerak.''<sup>2</sup> Yozuvchilar personajlar xarakterini ochiq oydin aytishdan qochadi, uni boshqa obrazlar orqali o'quvchiga yetkazishga harakat qiladi . , Chinakam badiiy asarning estetik jozibasi uning sirtida turmaydi. Matndagi yashirin nafosatni, zaiflikni anglash uning badiiy qatlamlarni kashf etish uchun muayyan adabiy bilim va estetik diddan tashqari go'zallikni kerakli joydan qidira bilish malakasi ham shakllangan bo'lishi kerak.<sup>3</sup>

Xulosa qilib aytganda, bu ikki asar qahramoni asarning badiiy mohiyatini ochishda, o'sha davr muhitini yoritishda beqiyos o'ringa ega. Ularning ba'zi yomon illatlari, hayotda mavzud insonlarning badiiy aksidir.

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## MULTIMEDIALI TA'LIM KORPUSINI ONA TILI DARSLARIDA QO'LLASHNING AHAMIYATI

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### ***ANNOTATSIYA***

*Ushbu maqolada ta'lism korpusini yaratish va uni ona tili darslarida qo'llashning ahamiyati o'r ganilgan.*

***Kalit so'zlar:*** *ta'lism korpusi, multimedia, rasmlı rebus, AKT, passiv o'quvchi*

### ***ANNOTATION***

*This article examines the importance of creating an educational corpus and using it in mother tongue classes.*

***Key words:*** *educational corpus, multimedia, pictorial rebus, ICT, passive reader.*

O'zbekistonda ta'lim tizimini, xususan, xalq ta'limi yangi bosqichga ko'tarish zamonaviy yondashuvlarni talab qiladi. Biz bugun o'quvchining qiziqish va ehtiyojlarini, o'qituvchilarning imkoniyatlarini hisobga olib istiqbolli rejalar tuzishimiz lozim. Bugungi o'quvchi 20 yil oldingi o'quvchidan ancha farq qiladi. Globallashuv tufayli axborot almashinushi shu qadar tezlashdiki, endi o'qituvchi sergakroq bo'lmasa, o'quvchidan orqada qolib ketishi mumkin. Ilgari o'quvchilar darslik va o'qituvchi bergen ma'lumotlar bilan kifoyalanar edi, bugun bu ma'lumotlar yetarli bo'lmay qoldi. Shu ma'noda, yaratilayotgan milliy til korpusi, xususan,

ta’limiy korpus mamlakatda ta’lim tizimini yanada rivojlantirish uchun katta qulaylikdir.

Multimedia («ko‘p muhitlik» degan ma’noni bildiradi) zamonaviy kompyuterlarning deyarli barchasida mavjud bo‘lgan imkoniyatlar majmuini, kompleks tushunchani anglatadi. Multimedia axborotning turli ko‘rinishlari – matn, jadval, grafika, ovoz, animatsiya (multiplikatsiya), videotasvir, musiqa yordamida axborotni yig‘ish, saqlash va qayta uzatish vazifalarini bajaradi. Multimedia «inson-kompyuter» interaktiv (dialogik) muloqotning yangi, takomillashgan pog‘onasi bo‘lib, bunda foydalanuvchi juda keng va har tomonlama axborot oladi.<sup>1</sup>

Bilimlarni qabul qilish va o‘zlashtirishda barcha sezgi a’zolarining faoliyatini to‘g‘ri uyushtirish katta ahamiyatga ega. Sezgi a’zolari qanchalik ko‘p ishtirok etsa, bilish shunchalik osonlashadi. Shunga ko‘ra, ta’lim sohasida multimedia dasturlaridan va umuman axborot kommunikatsiya tizimiga oid bilim va malakalarni kengaytirish va mazmunan boyitish muhim ahamiyatga ega.

Ta’lim har doim takomillashtirishga, yangilanishga muhtoj. Shu o‘rinda buyuk alloma Abu Rayhon Beruniyning ta’lim jarayoni to‘g‘risidagi quyidagi fikrlarini eslatib o‘tmoqchimiz: “*Bizning maqsadimiz o‘quvchini toliqtirib qo‘ymaslikdir. Hadeb bir narsani o‘qiyverish zerikarli bo‘ladi va toqatni toq qiladi. Agar o‘quvchi bir masaladan boshqa bir masalaga o‘tib tursa, u xuddi turli-tuman bog‘-rog‘larda sayr qilgandek bo‘ladi, bir bog‘dan o‘tar-o‘tmas, boshqa bog‘ boshlanadi. Kishi ularning hammasini ko‘rgisi, tomosha qilgisi keladi, har bir yangi narsa rohat bag‘ishlaydi*”.

Bundan 3500 yil oldin Konfutsiy “Eshitganimni yodimdan chiqaraman, ko‘rganimni eslab qolaman, mustaqil bajarsam tushunib olaman” degan ekan.

<sup>1</sup> Павлова О.Ю. Использование языковых корпусов в обучении иностранному языку. 2021-yil 15-aprel

Ta’limda informatsion hamda media ta’lim qo‘llanganda tinglovchi, o‘quvchi eshitish, ko‘rish, ko‘rganlari asosida mustaqil fikrlash imkoniyatlariga ega bo‘ladilar.

Ta’lim tizimida turli fanlar qatori ona tili darslarida ham multimedia texnologiyalaridan keng foydalanish mumkin. Ingliz tilini o‘rgatuvchi bir qancha turdag'i multimediali dasturlar ishlab chiqish keng yo‘lga qo‘yilgan. Biroq ona tilini o‘rgatuvchi bunday dasturlar soni sanoqli. Ta’lim jarayonini yangi mazmun va shaklda yo‘lga qo‘yish masalasi, eng avvalo, ona tili ta’limiga taalluqlidir. Chunki har qanday fanning mohiyati ona tili orqali ifoda qilinadi va ona tili orqali idrok etiladi. Maktablarda ona tili o‘qitishning noan’anaviy usullarini ishlab chiqish va axborot kommunikatsion texnologiya (AKT)lardan, media vositalardan foydalanish ona tili ta’limini yo‘lga qo‘yishda eng ahamiyatli sanaladi. Bu bitiruv malakaviy ishi mavzusining dolzarbligini ko‘rsatadi.

1-rasmida o‘quvchining hafta davomidagi ish qobiliyati ko‘rsatilgan. Unga ko‘ra o‘quvchi bir kunlik dars mashg‘ulotlarining 6-soatiga kelib toliqib qoladi. Haftaning shanba kunlarida esa butunlay passiv o‘quvchiga aylanadi. Multimediali ta’lim korpusidan shunday holatlarda foydalanilsa dars samarali bo‘ladi. Bundan tashqari jadvaldagi «U» harfi bilan belgilangan kataklar o‘quvchining o‘rta ish qobiliyatini ifodalaydi. Bunday holatda multimediali ta’lim korpusidan foydalanish keyingi dars mashg‘ulotlariga o‘quvchini tetiklashtirishda yordam beradi.

Hozirgi amaliyot shuni ko‘rsatmoqdaki, multimedia vositalari yordamida ta’lim sohasida o‘quvchilarni o‘qitish ikki baravar samarali bo‘lmoqda. Ma’lumki, eshitgan materialning to‘rtadan bir qismi xotirada qoladigan bo‘lsa, o‘quvchilarga berilayotgan materiallarni video orqali amalga oshirsak, axborotni xotirada saqlanib qolishi va tasavvur qilish imkoniyati 35-70% gacha oshadi. Shuningdek, mazkur o‘quv dasturlar audio va grafika ko‘rinishida mujassamlashtirilgan holatda o‘quvchilarga berilsa, materiallarni xotirada saqlab qolish 70-95%ga oshishi kuzatilmoqda.

| Hafta kunlari | Dars soatlari |   |   |   |   |   |
|---------------|---------------|---|---|---|---|---|
|               | 1             | 2 | 3 | 4 | 5 | 6 |
| Dushanba      | U             | U | U | U | U | K |
| Seshanba      | N             | N | N | N | U | K |
| Chorshanba    | N             | N | N | N | U | K |
| Payshanba     | U             | N | N | N | U | K |
| Juma          | U             | U | U | K | K | K |
| Shanba        | U             | U | K | K | K | K |

- N – Yuqori ish qobiliyati
- U – O'rtacha ish qobiliyati
- K – Past ish qobiliyati

**1-rasm**

4-ilova



Bir o'q bilan ikki quyonni otmoq

**JAVOB**

Achchig'i chiqdi

**JAVOB**

Yulduzni benarvon uradigan

**JAVOB**

Kapalagi uchdi

**JAVOB**

Multimedianing imkoniyatlari juda keng. Korpus tuzuvchilarning mahoratiga qarab multimediali ta’lim korpusni yuqoridaqgi kabi qiziqarli topshiriqlar bilan boyitish mumkin. Bunda rasmli rebuslar orqali yashiringan iboralarni topish lozim.

O‘zbek adabiyotining dahosi Alisher Navoiy o‘z asarlari va ilmiy qarashlarida o‘qituvchilik qobiliyati va uning obro‘sni, odobi yuzasidan ibratomuz mulohazalar yuritadi. Alloma fikricha o‘qituvchi faoliyatini ijodiy yondashuvsiz tasavvur qila olmaydi. U doimo o‘z ustida mukammal ishlashi, tajriba oshirib borishi zarur deydi. Ana shu boisdan uning asarlarida odob, axloq, ziyraklik, irodaviy kuch, poklik, samimiylit xislatlari asosiy o‘rinni egallaydi.

O‘qituvchi kasbining nozikligi, mas’uliyatliligi va murakkabligi hamda sharafligini to‘g‘risida mulohazalar, muallimning mahorati, ularga qo‘yiladigan talablar, fazilatlariga oid qarashlar, munosabatga kirishish mahorati, muomala madaniyati Sharq mutafakkirlarining asarlarida ham o‘z ifodasini topgan. Sharq pedagogikasi va pedagogik mahorati ming yillik tarixga ega. Buyuk mutafakkir Abdurahmon Jomiy o‘z asarlarida bola dunyoqarashining kamol topishida maktab va muallimning roliga katta baho beradi. Uning fikriga qaraganda, muallim aqlli, adolatli, o‘zida barcha yuksak fazilatlarni mujassamlashtirgan bo‘lishi kerak.

Xulosa qilib aytganda, jamiyat hayotiga kompyuterning keng miqyosda kirib kelishi fuqarolarga axborot olishga bo‘lgan imkoniyatlar eshigini ochib berdi. Ta’limda multimediali axborot-resurslaridan foydalanishda ularning eng samarali vosita va ta’lim mazmunini boyituvchi omil ekanligi yaqqol namoyon bo‘lmoqda. Multimedia vositalari asosida bilim olishda 30% gacha vaqtini tejash mumkinligi, olingan bilimlar esa xotirada uzoq muddat saqlanib qolishi aniqlandi. Rivojlangan mamlakatlarda muvaffaqiyat bilan qo‘llanilib kelinayotgan ta’lim texnologiyalarini puxta o‘rganib, xalqimizning milliy pedagogika an’analaridan hamda ta’lim sohasining shu kundagi holatidan kelib chiqqan holda, O‘zbekistonning milliy ta’lim texnologiyasini yaratish lozimligi bugungi kunning dolzarb vazifalaridan biridir.

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## TYPES AND ANALYSIS OF GRAVIMETRIC ANALYSIS

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**Abstract:** this article contains various opinions and information about the method of gravimetric analysis, its essence and methods of analysis, types of gravimetric analysis, their importance in the chemical industry and their wide use.

**Key words:** quantitative analysis, gravimetric analysis, analyte, precipitation, filtration.

Gravimetric analysis is one of the laboratory methods in which the mass and concentration of a substance is determined by measuring the change in its mass. The chemical being analyzed quantitatively is sometimes called the analyte.

There are 2 common types of gravimetric analysis. In both types, the analyte undergoes a phase change and separates from the mixture, which in turn causes a mass change.

Quantitative analysis is closely related to mineral exploration, metallurgy and chemical technology, biochemistry and agrochemistry, soil science, plant physiology, pharmacology, medicine and other fields.

Quantitative analysis allows to obtain information about the composition of plant and animal organs, to study the effect of certain elements on their growth, development and productivity.

At the present time, the development of industries such as modern production and electronic technology increases the focus on determining the minimum amount of impurities in substances. Quantitative analysis is the main method of controlling chemical processes, raw materials, intermediate and finished products in production.

In the gravimetric driving method, the substances in the mixture are separated by heating or chemically decomposing the sample. Heating or chemical decomposition releases any volatiles in the mixture, resulting in a change in the mass of the sample, and we measure that mass.

Gravimetric sedimentation method uses a reaction that leads to the formation of a precipitate, and the substance to be determined is precipitated as a solid compound and separated. In this case, a phase change occurs, i.e., the analyte passes from the liquid phase, reacting, to the state of solid precipitation. The precipitate is separated from the liquid phase by filtration. By calculating the mass of the precipitate, it is possible to determine the amount or concentration of ionic compounds in the solution.

Gravimetric analysis is a laboratory technique that uses mass change to calculate the amount or concentration of an analyte. One type of gravimetric analysis is the driving method, in which the mass change is measured after the volatile compounds have been expelled. For example, metal hydrate is heated and water is expelled. The mass change is then used to determine the amount or purity of the metal hydrate. Some useful tips for gravimetric analysis experiments and calculations:

- Double-check the stoichiometric ratios and make sure the equations balance.
- Ensure that the volatiles are dried to a constant mass when removing them from the sample.
- Always consider the mass of your container!

The main stages of gravimetric analysis are as follows:

1. The component to be detected is isolated and weighed. A sample is withdrawn on an analytical balance and ignited in a crucible. It is burned thoroughly until the mass of the ash does not change. Based on the specific mass of ash, its proportion in the sample is calculated.

2. The component to be detected is removed and the remainder is weighed. In this case, the sample of the test substance (g) is thoroughly dried to a constant weight. The mass of water is found from the difference between the masses before drying and after drying, and its content (in percent) is calculated.

3. The detected component turns into a chemical compound. The latter is isolated and transformed into a form with a fixed composition. Based on the mass of sediment in the form of weight, the composition of the identified component is calculated.

Precipitates obtained during the analysis should usually be dried, during burning they often undergo chemical changes. As a result, sedimentation and gravimetric forms are distinguished in gravimetric analysis.

Determining the amount of substances by the sedimentation method of tensile analysis consists of the following stages:

- Taking samples for analysis;
- Dissolving the obtained sample;
- Choosing the form of deposition;
- Choosing a precipitating substance (reagent);
- Selection of deposition conditions;
- Sedimentation separation (filtering), washing;
- Transferring the precipitate to a drying form;
- Calculation of analysis results;

Filtering and washing the precipitate. Depending on the type, the precipitate is filtered to separate it from the solution. Filters are different according to the material

they are made of (ash, ashless), density and size. The size of the filter is important in filtering. The filter is selected not according to the volume of the liquid to be filtered, but according to the amount of sediment. When the sediment is put into the filter, it should not be more than half of it, otherwise the sediment cannot be washed thoroughly. The purpose of washing the sediment is to remove foreign additives and sediment from its surface.

Drying the precipitate and transferring it to a drawable form. The washed precipitate is dried in a drying oven at 90-150 °C for a certain period of time.

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## RAQAMLI IQTISODIYOT TUSHUNCHASI, AFZALLIKLARI VA AMALIY AHAMIYATI

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### *ANNOTATSIYA*

*Ushbu tezisda raqamli iqtisodiyotining amaliy ahamiyati va jihatlari, va birinchi navbatda insonlarning turmush darajasini sezilarli darajada oshira olishi va bu uning asosiy foydasi ekanligi yoritib berilgan.*

*Kalit so‘zlar: raqamli iqtisodiyot, raqamli texnologiyalar, taraqqiyot, tizim, internet iqtisodiyoti, CRM, Fidbek, budget taqsimoti.*

Hozirgi kunda raqamli iqtisodiyot tushunchasi bir qator mamlakatlarning iqtisodiy nazariyasi va amaliyotida paydo bo‘ldi. Bu raqamli texnologiyalarning jadal rivojlanishi, axborot sohasida inqilob va iqtisodiyotning globallashuv jarayonlarini tezlashtirish bilan ajralib turdi. Ulardan foydalanish samaradorligi ortib borayotgan bilimga aylantirildi va ijtimoiy-iqtisodiy aloqalar tobora kengayib bormoqda.

Mamlakatimiz Prezidenti Shavkat Mirziyoyev ta’kidlaganidek, “Taraqqiyotga erishish uchun raqamli bilimlar va zamonaviy axborot texnologiyalarini egallashimiz zarur va shart. Bu bizga yuksalishning eng qisqa yo‘lidan borish imkoniyatini beradi”.

Raqamli iqtisodiyot – raqamli texnologiyalarga asoslangan elektron biznes va elektron tijorat bilan chambarchas bog‘liq iqtisodiy faoliyat, hamda shu faoliyat natijasida ishlab chiqariladigan va sotiladigan raqamli tovarlar, xizmatlar yig‘indisidir. Ba’zida u internet iqtisodiyoti, yangi iqtisodiyot yoki veb-iqtisodiyot degan terminlar bilan ham ifodalanadi.

Birinchi marta 1995 yilda amerikalik dasturchi Nikolas Negroponte “raqamli iqtisodiyot” terminini amaliyotga kiritgan bo‘lsa, hozirda bu istilohni butun dunyodagi siyosatchilar, iqtisodchilar, jurnalistlar, tadbirkorlar – deyarli barcha qo‘llamoqda.

Shuningdek raqamli iqtisodiyot – bu noldan boshlab yaratilishi lozim bo‘lgan qandaydir boshqacha iqtisodiyot emas. Bu yangi texnologiyalar, platformalar va biznes modellari yaratish, ularni kundalik hayotga joriy etish orqali mavjud iqtisodiyotni yangicha tizimga ko‘chirish deganidir.

Bu tizimning asosiy belgilari quyidagilardan iborat:

- yuqori darajada avtomatlashtirilganlik;
- elektron hujjat almashinuvi;
- buxgalterlik va boshqaruv tizimlarining elektron integratsiyalashuvi;
- ma’lumotlar elektron bazalari;
- CRM (mijozlar bilan o‘zaro munosabat tizimi) mavjudligi;
- korporativ tarmoqlar.

Qulayliklari esa:

1. To‘lovlar uchun xarajatlar kamayadi (masalan, bankka borish uchun yo‘lkira va boshqa resurslar tejaladi).
2. Tovarlar va xizmatlar haqida ko‘proq va tezroq ma’lumot olinadi.
3. Raqamli dunyodagi tovar va xizmatlarning jahon bozoriga chiqish imkoniyatlari katta.
4. Fidbek (iste’molchi fikri)ni tez olish hisobiga tovar va xizmatlar jadal takomillashtiriladi.
5. Tezroq, sifatliroq, qulayroq.

Raqamli iqtisodiyotining amaliy ahamiyati va jihatlari, bu birinchi navbatda, insonlarning turmush darajasini sezilarli darajada oshiradi, bu uning asosiy foydasidir.

Ikkinchidan, raqamli iqtisodiyot korrupsiya va “qora iqtisodiyot”ning asosiy kushandasidir. Chunki, raqamlar hamma narsani muhrlaydi, xotirada saqlaydi, kerak paytda ma’lumotlarni tez taqdim etadi. Bunday sharoitda biron ma’lumotni yashirish, yashirin bitimlar tuzish, u yoki bu faoliyat haqida to‘liq axborot bermaslikning iloji yo‘q, kompyuter hammasini namoyon qilib qo‘yadi. Ma’lumotlar ko‘pligi va tizimliligi yolg‘on va qing‘ir ishlarga yo‘l bermaydi, chunki tizimni aldash imkonsiz. Natijada “iflos pullarni” yuvish, mablag‘larni o‘g‘irlash, samarasiz va maqsadsiz sarflash, oshirib yoki yashirib ko‘rsatish imkonini qolmaydi. Bu esa iqtisodiyotga legal mablag‘lar oqimini oshiradi, soliqlar o‘z vaqtida va to‘g‘ri to‘lanadi, budget taqsimoti ochiq bo‘ladi, ijtimoiy sohaga yo‘naltirilgan mablag‘lar o‘g‘irlanmaydi, maktablar, kasalxonalar, yo‘llarga ajratilgan pullar to‘liq yetib boradi va hokazo.

Uchinchidan, davlatning raqamli iqtisodiyotni rivojlantirish yo‘lini tanlaganligi axborot texnologiyalari sohasida va umuman, elektron hujjatlar aylanmasi sohasida yangi yo‘nalishlar oolib beradi. “Raqamli texnologiyalar” tomon burilishga butun jahon internet tarmog‘i va sifatli aloqaning rivojlanishi sababchi bo‘ldi. Ta’kidlash joizki, bugungi kunda bu tizimdan foydalanuvchilar oziqovqat, turli parfyumeriya va zamonaviy kiyim-kechak mahsulotlariga buyurtma berish uchun Telegram botlaridan faol foydalanmoqdalar. Shuningdek, turli internet do‘konlar, elektron to‘lov tizimlari ham faol rivojlanib bormoqda. Demak, fuqarolarimiz elektron bitimlarni amalga oshirishga ishonyaptilar. Faqat hozirgi kungacha foydalanuvchilar katta xarajatlar talab qilmaydigan kichik bitimlarni amalga oshirmoqdalar, o‘rtacha xarid hajmini oshirishga esa unchalik tayyor emaslar. Endigi masala o‘rtacha va yirik iqtisodiy bitimlar va moliyaviy operatsiyalarni raqamli texnologiyalar orqali amalga oshirishni rivojlantirishdan iborat.

Xulosa qilib aytganda, “raqamli” atamasi barcha sohalarda axborot texnologiyalaridan faol foydalanishni anglatadi. Agar oddiy iqtisodiyotda moddiy

buyumlar asosiy resurs hisoblansa, raqamli iqtisodiyotda bu qayta ishlanadigan hamda uzatiladigan axborot – ma'lumotlar bo'ladi. Ularning tahlilidan so'ng esa to'g'ri boshqarish bo'yicha yechim ishlab chiqiladi.

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## NAMANGAN VILOYATI QISHLOQ XO‘JALIGI TARMOG‘INING RIVOJLANISH KO‘RSATKICHLARI

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NamDU tayanch doktoranti

### *ANNOTATSIYA*

*Maqolada O‘zbekiston respublikasi hududida hususan Namangan viloyatida agrobiznes tuzilmalarini rivojlanish ko‘rsatkichlari tahlili qilingan. Hususan Namangan viloyatida qishloq xo‘jaligi korxonalari tomonidan yetishtirilgan mahsulotlar hajmi hamda ularning yillar kesimida o‘sish ko‘rsatkichlari tahlili olib borilgan. Shuningdek qishloq xo‘jaligida band bo‘lgan aholi va ishsizlik ko‘rsatkichlari haqidagi ma’lumotlar keltirib o‘tilgan. Sh bilan birga mamlakatimiz hususan Namangan viloyatini qishloq xo‘jaligi tarmog‘ini rivojlanish ko‘rsatkichlari ushbu maqolamizda tavsiflab berilgan.*

**Kalit so‘zlar.** *Qishloq xo‘jaligi, yetishtirilgan mahsulot, o‘sish ko‘rsatkichi, rivojlanish imkoniyati, agrar tarmoq, bandlik ko‘rsatkichi.*

## **DEVELOPMENT INDICATORS OF THE AGRICULTURAL INDUSTRY OF NAMANGAN REGION**

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### *ANNOTATION*

*The article analyzes the development indicators of agribusiness structures in the territory of the Republic of Uzbekistan, especially in the Namangan region. In particular, in the Namangan region, the volume of products grown by agricultural*

*enterprises and their annual growth rates were analyzed. Also, information about the population employed in agriculture and unemployment indicators is given. The indicators of the development of the agricultural sector of our country, especially the Namangan region, are described in this article.*

**Keywords.** Agriculture, cultivated products, growth rate, development potential, agrarian sector, employment rate.

**Adabiyotlar tahlili.** Maqolada asosan o‘zbekiston respublikasi prezidenti huzuridagi davlat statistika agentligi ma’lumotlaridan foydalanilgan. Shuningdek statistika agentligining 2023-yilda nashrdan chiqarilgan ”O‘zbekiston qishloq xo‘jaligi” statistik to‘plamida keltirilgan ma’lumotlardan keng foydalanilgan. Hamda ushbu ma’lumotlar tahlil qilingan. Shu bilan birga jahondagi rivojlangan mamlakatlarda qishloq xo‘jaligining rivojlanish ko‘rsatkichlari o‘rganilib bizning mamlakatimizning qishloq xo‘jaligi ko‘rsatkichlari bilan taqqoslab ko‘rilgan hamda ularning rivojlanish bosqichlari ko‘rsatkichlariham tahlil qilingan. Shu bilan birga maqolada qishloq xo‘jaligini rivojlanish masalalari bilan shug‘ullanib kelayotgan bir qator xorijiy olimlar Dorosh Y., Doctor of Economics Sciences, Barvinskyi A., Candidate of Economic Sciences (Ph.D.), Cheong D., Jansen M., Peters M., hamda mahalliy olimlardan K.Sirojiddinov, K.Xomitov larning adabiyotlaridanham foydalanilgan.

### Kirish.

Qishloq xo‘jaligida asosiy foydalanganlik uchun haq to‘lanmaydigan, tabit inom etgan, tekin iqtisodiy resurs bo‘lgan hamda ma’lum bir hudud uchun ko‘plab oziq-ovqat mahsulotlari va sanoat tarmog‘i uchun xom ashyo vositalarini yetkazib beradigan asosiy resurs yer hisoblanadi. Qishloq xo‘jaligi yerkuni mamlakatimiz hududidagi barcha aholini oziq-ovqatga bo‘lgan birlamchi ehtiyojlarini qondirishda hamda qishloq hujudlaridagi aholini ish bilan ta’minlashda, hududimizdagi sanoat tarmog‘iga xom ashyo yetkazib berishda, malakatimizning eksport salohiyatini ta’minlashda asosiy resurs hisoblanadi. Chunki qishloq xo‘jaligi

boshqa tarmoqlarga xom ashyo yetkazib berish vazifasini bajaribgina qolmay bozorga to‘g‘ridan-to‘g‘ri istemol tovarlari hiblangan oziq-ovqat mahsulotlariniham yetkazib beradi. Shunday ekan mamlakatimizdagi qishloq xo‘jaligini rivojlantirish chora-tadbirlarini muntazam takomillashtirib borish lozim. Buning uchun esa qishloq xo‘jaligida ilmiy tadqiqod ishlarini olib borishni jadallashtirish zarur hisoblanadi.

### **Asosiy qism.**

Mamlakatimizda qishloq xo‘jaligida foydalaniladigan yer maydonlari tarmoq uchun fundamental resurs ekenligini hisobga oladigan bo‘lsak, mamlakatimizdagi umumiyligi yer maydonlari tarkibidagi o‘zgarishlarni muntazam kuzatib boorish hamda muvofiqlashtirib borish lozim. Buning uchun esa qishloq xo‘jaligidagi yer maydonlari hajmini doimo kuzatib borish maqsadga muvofiq hisoblanadi. Shu bilan birga qishloq xo‘jaligi maqsadida foydalaniladigan yerlarni foydalanish maqsadlariga qarab to‘g‘ri taqsimlab boorish zarur albatta. Statistikka qo‘mitasi ma’lumotlariga tayanib qishloq xo‘jaligida foydalaniladigan yer maydonlari o‘zgarishni 1-jadvalda keltirilgan ma’lumotlardan ko‘rshimiz mumkin:

**1-jadval. O‘zbekiston respublikasida qishloq xo‘jaligida foydalanilayotgan yer maydonlari xajmidagi o‘zgarish(ming hektar).<sup>1</sup>**

| Yillar                     | 2003   | 2006   | 2009   | 2012   | 2014   | 2016   | 2018   | 2020   | 2022   |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Yer<br>maydonlari<br>xajmi | 3790,1 | 3637,4 | 3608,6 | 3628,1 | 3678,2 | 3706,7 | 3396,0 | 3396,1 | 3353,3 |

1-jadvalda keltirilgan ma’lumotlardan respublikamizda qishloq xo‘jaligi maqsadlarida foydalanilayotgan yer maydonlari xajmi yillar kesimida kamayib borayotganligini ko‘rshimiz mumkin. Mamlakatimizdagi urbanizatsiya jarayoni rivojlanib borayotganligi hamda aholi sonidagi o‘sish bunga asosiy ta’sir qiluvchi omil hisoblanadi. Qishloq xo‘jaligi yerlarini qisqarib borishi hudud aholisini ish bilan

<sup>1</sup> <https://stat.uz/uz/rasmiy-statistika/agriculture-2>

ta'minlash, mamlakatda qishloq xo'jaligi mahsulotlarini yetishtirish xajmini qisqarishiga, qishloq xo'jaligi mahsulotlari tannarxini oshishiga, mamlakat eksport salohiyatini pasayishiga qolaversa hududning ekologik holatigaham salbiy ta'sir ko'rsatishi mumkin. Qishloq xo'jaligi yerlari maydonini qisqarib borishiga ulardan keladigan real yer rentasini qisqarib borishi asosiy sabab hisoblanadi. Ya'ni mamlakatimiz iqtisodiyotida noqishlloq xo'jaligi faoliyatidan keladigan daromad manbalarini ortib borayotgani hamda noqishlloq xo'jaligi faoliyatidan keladigan daromadlar qishloq xo'jaligi faoliyati bilan shug'ullanuvchilarning daromadlariga qarganda oshib borayotganligini ushbu holatni tavsiflab beradi. Ushbu daromadlar tengsizligi esa qishloq aholisini noqishlloq xo'jaligi faoliyati bilan shug'ullanishlariga undovchi asosiy omil hisoblanadi. Natijada qishloq xo'jaligiga kiritilayotgan hususiy investitsiyalarning qisqarishiga, tarmoqqa yangi innovatsiyalarni kirib kelishini qisqarishiga hamda tarmoqda band bo'lgan aholining daromad darajasini tushib kelishi boshqa salbiy oqibatlarga olib kelshi mumkin.

Namangan viloyatidagi qishloq xo'jaligi mahsulotlarini ishlab chiqarish xajmi itisodiyotimizda yaratilayotgan mahsulotlarning salmoqli qismini tashkil qiladi. Qishloq xo'jaligi mahsulotlariga barcha qishloq xo'jaligi faoliyati bilan shug'ullanuvchi korxonalarida yetishtirilayotgan dehqonchilik, chorvachilik, bog'dorchilik, baliqchilik mahsulotlari kiradi. Viloyatimizda yetishtirilayotgan qishloq xo'jaligi mahsulotlarining yillar kesimidagi o'sish sur'atini quyidagi 2-jadvalda keltirilgan.

**2-jadval. Namangan viloyatida qishloq, o'rmon va baliqchilik xo'jaligi mahsulot (xizmat) larining o'sish sur'atlari(o'tgan yilga nisbatan foizda)<sup>1</sup>.**

| Yillar         | 2012  | 2014  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| O'sish sur'ati | 106,3 | 106,8 | 106,7 | 103,4 | 102,2 | 102,5 | 104,0 | 106,6 | 105,0 |

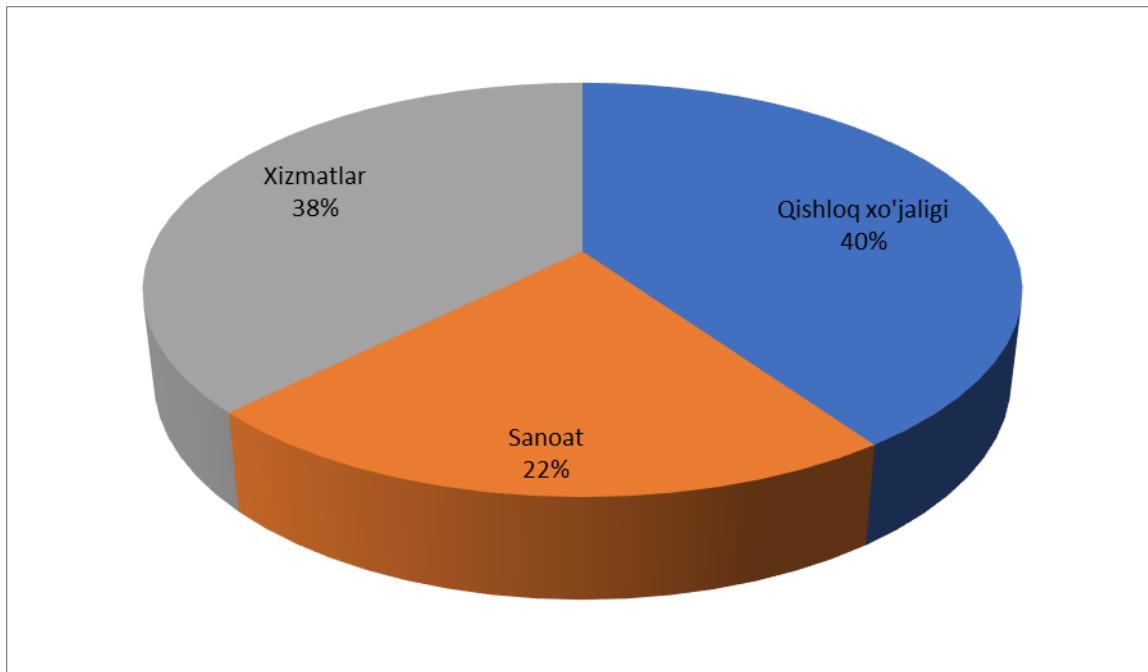
<sup>1</sup> <https://stat.uz/uz/rasmiy-statistika/agriculture-2>

Jadvaldagi ma'lumotlardan qishloq xo'jaligi mahsulotlarini yetishtirish xajmida o'sish sur'atlarini kuzatamiz. Bunga sabab bo'luvchi asosiy omil esa zamonaviy texnologik yutuqlardan foydalanish ishlarini keltirishimiz mumkin. Shu bilan birga qishloq xo'jaligida urug'chilik yo'nalishidagi yangi hosildor navlarning yaratilib borayotganligi, tarmoqning texnik qurollanish darajasini takomillashib borishi, tarmoqda mehnat unumdorligining ortib borishi hamda ilg'or xorijiy tajribalarni amaliyatga tadbiq qilib borilishi tarmoqning samaradorligini oshirishga sezilarli hissa qo'shib kelmoqda. Shu bilan birga qishloq xo'jaligida ishlatilayotgan mineral o'g'itlarning miqdoriham sezilarli darajada o'sib bormoqda. Bu ham qishloq xo'jaligida yetishtirilayotgan mahsuotlarning o'sish sur'atiga ta'sir qiluvchi omillardan biri hisoblanadi. Ammo mamlakatimiz qishloq xo'jaligi tarmog'i urug'chilik, qishloq xo'jaligi texnikalarini ishlab chiqarish, o'simliklarni himoya qiluvchi preparatlarni ishlab chiqarish va boshqa qishloq xo'jaligida foydalaniladigan texnika va texnologiyalarni amaliyatga joriy qilish borasida boshqa mamlakatlarga qaramlik darjasini yuqoriligidacha qolmoqda. Bu esa tarmoqda yaratilayotgan qo'shilgan qiymatni kamayishiga, shu bilan birga qishloq xo'jaligida boshqa mamlakatlarga qaram bo'lib qolish xavfini keltirib chiqaradi. Shu bilan birga ushbu holat mamlakatimizning oziq ovqat xavfsizligigaham salbiy ta'sir ko'rsatadi. Meyordan oshiq qo'llanilayotgan mineral o'g'itlar esa yerkarni tarkibiy tuzulishiga hamda kelgusidagi hosildorlik sifatiga salbiy ta'sir ko'rsatishiga sababchi bo'luvchi omil hisoblanadi.

O'zbekiston respublikasi qishloq xo'jaligi tarmog'i rivojlanishini yaqin yillardagi dinamikasini kuzatadigan bo'lsak uni tubdan o'zgarganiga guvoh bo'lishimiz mumkin. Hususan Namangan viloyati qishloq xo'jaligi tarmog'idaham tubdan o'zgarishlar kuzatildi. Dastlabki mustaqillik yillarida qishloq xo'jaligi mamlakat ishlab chiqaradigan mahsulotlarini asosiy qismini tashkil qilgan yetakchi tarmog'i hisoblangan hamda ushbu tarmoq asosan sanoat tarmog'iga xom-ashyo yetkazib berish vazifasini bajarib kelgan. So'ngi yillarda esa mamlakatda agrar davlat

maqomidan industrial davlat maqomiga o‘tib borish tendensiyasini kuzatishimiz mumkin. Bunga dalil sifatida 1-diagramma ma’lumotlarni keltirishimiz mumkin.

**1-diagramma. Namangan viloyatining 2022-yildagi yalpi ichki mahsulotining tarmoqlar bo‘yicha ulushi(ma’lumotlar yaxlitlangan holda berilgan).**



Mamlakatimiz iqtisodiyoti rivojlanib borgani sari unga mutanosib ravishda qishloq xo‘jaligi tarmog‘iham rivojlanib kelmoqda. Hususan Namangan viloyati hududida qishloq xo‘jaligi tarmog‘ining rivojlanib borayotganligini kuzatishimiz mumkin. Ammo qishloq xo‘jaligini maksimal darajada rivojlantirmay turib sanoat tarmog‘inham xizmatlar sohasiniham rivojlantirish mumkin emas. Shu o‘rinda yevropa olimlarining fikrlarini keltiradigan bo‘lsak past va o‘rtal daromadli mamlakatlarda qishloq xo‘jaligi sektori bandlikning asosiy manbai bo‘lib qoladi<sup>1</sup>. O‘zbekiston esa dunyo reytingida o‘rta daromadli mamlakatlar sirasiga kiradi. Shuni hisobga olib malakatimizda aholini ayniqsa qishloq hududlarida aholini ish bilan ta’minlash hamda ularga daromad manbai yaratishga asosiy omil qishloq xo‘jaligi hisoblanadi.

<sup>1</sup> [https://www.ilo.org/wcms5/groups/public/-/-d\\_emp/documents/genericdocument/wcms\\_212856.pdf](https://www.ilo.org/wcms5/groups/public/-/-d_emp/documents/genericdocument/wcms_212856.pdf)

Qishloq xo‘jaligi mamlakatimiz hususan Namangan viloyati hududi uchun iqtisodiyotining lokomativlaridan biri ekanligini hisobga oladigan bo‘lsak, iqtisodiy rivojlanishni ushbu tarmoqni rivojlantirish chora-tadbirlarini tartibga solmay tasavvur etish qiyin albatta. Bunga esa bir nechta sabablarni ko‘rsatishimiz mumkin. [www.stat.uz](http://www.stat.uz) ma’lumotlariga asoslanib aytadigan bo‘lsak mamlakat aholisining salmoqli qismi qishloq hududlarida istiqomat qiladi. Hozirgi kunda Namangan viloyatida qishloq hududlaridagi yashovchi aholi soni 1 milliondan oshiq kishini tashkil etadi. Bu ko‘rsatkich hududdagi umumiyligini aholi sonining 35% dan oshiq qismini tashkil qiladi. 2000-2023-yillar oralig‘idagi [www.stat.uz](http://www.stat.uz) ma’lumotlarining demografik ko‘rsatkichlariga kuzatadigan bo‘lsak Namangan viloyati umumiyligini aholi sonining qishloq hududlarida yashovchi qismi 63% dan 35% ga kamayganini kuzatishimiz mumkin. Hozirgi kunda Namangan viloyatida istiqomat qiluvchi doimiy shahar aholisi esa 2 millionga yaqin kishini tashkil etadi. 2000-yildan buyon 2023-yillarda shahar aholisi sonining umumiyligini aholi sonidagi ulushi 37% li ko‘rsatgichdan 65% lik pog‘onaga ko‘tarilganligini ko‘rshimiz mumkin.

### **3-jadval. Yillar kesimida qishloq xo‘jaligida band bo‘lgan aholi soni(ming kishi).**

| Yillar   | 2019    | 2020    | 2021    | 2022    |
|--|---------|---------|---------|---------|
| O‘zbekiston respublikasida qishloq xo‘jaligida band aholi soni | 3 544,6 | 3 499,2 | 3 414,7 | 3 429,6 |
| Namangan viloyatida qishloq xo‘jaligida band aholi soni        | 263,3   | 287,2   | 292,1   | 297,7   |

3-jadvalda keltirilgan ma’lumotlardan ko‘rshimiz mumkinki qishloq xo‘jaligi tarmog‘ida ishchi kuchi soni deyarli o‘zgarmagan. Hududimizdagi umumiyligini aholi soni qolaversa qishloq hududlaridagi aholi soni esa muntazam o‘sish sur’atiga ega. Jahondagi rivojlangan mamlakatlar tajribasiga nazar soladigan bo‘lsak, davlat rivojlanib bogan sari urbanizatsiya jarayoniham rivojlanish tendensiyasiga ega

bo‘ladi. Bizning mamlakatimizda agrar tarmoq iqtisodiyotda hanuzgacha salmoqli ulushga ega ekan ushbu tarmoqni qo‘llab quvvatlash chora tadbirlarini takomillashtirib borish lozim albatta. Namangan viloyatidagi agrar tarmoqning rivojlanganlik holatiga qaraydigan bo‘lsak yalpi ichki mahsulotda qishloq xo‘jaligi salmoqli ulushga egaligini ko‘rishimiz mumkin. Bunga ta’sir qiluvchi omillarni esa tahlil qilish orqali hududdagi aholi farovonigiga salbiy ta’sir qilayotgan muammolarni aniqlashimiz lozim bo‘ladi.

**Xulosa.** Yer va tabiiy resurslar cheklanganligi, miqdoran ularni inson qo‘li bilan ko‘paytirib bo‘lmasligi hamda sanoat yoki ishlab chiqarish usulida yaratib bo‘lmasligi va yerning miqdoriy jihatdan tabiiy ko‘payish hususiyatidan mosuvoligini hisobga olib aytadigan bo‘lsak qishloq hududlaridagi aholining birdan-bir daromad manbaiga fundamental omil bo‘lgan yerni aholi bandligini ta’minlashdagi o‘zagarmas manba hisoblanadi. Hududdagi aholi farovonligini oshirish, ularni yashash uchun zarur bo‘lgan moddiy resurslar billan ta’minlash, aholini doimiy va o‘sib boruvchi ish o‘rinlari bilan ta’minlash maqsadida qishloq xo‘jaligi tarmog‘iga qishloq xo‘jaligini rivojlantirish borasidagi chora tadbirlarni muntazam tadbiq etish borilishi lozim. Shu bilan birga mamlakat rivojlanishini faqatgina qishloq xo‘jaligi tarmog‘ini rivojlantirish bilangina ta’minlab bo‘lmaydi. Ya’ni qishloq xo‘jaligining qoshimcha qiymat yaratish zanjiri sanoat tarmog‘i kabi o‘sish suratiga ega emas. Yuqoridagi yer va tabiiy resurslarning xususiyatlari bunga asosiy sabab hisoblanadi. Mamlakatimizdagи dehonchilik faoliyatini yuritish madaniyatini uzoq yillik analalarga tayanib faoliyat ko‘rsatishiham tarmoqda yuqori qo‘shilgan qiymat zanjiri yaratuvchanligini hosil qilishga to‘sqinlik qilmoqda.

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## GRAVIMETRIK ANALIZ USULI BILAN KALSIY MIQDORINI ANIQLASH

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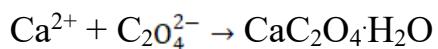
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### *ANNOTATSIYA*

*Maqolada ionni kalsiy oksalat shaklida cho‘ktirish orqali namunadagi kalsiy miqdorini aniqlash usuli izohlangan.*

**Kalit so‘zlar:** gravimetrik tahlil, filtrlash, eksikator, byuks, dekantatsiya

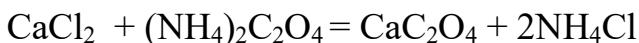
Namunadagi kalsiy konsentratsiyasini gravimetrik tahlil orqali aniqlash mumkin. Ushbu tajribada  $\text{Ca}^{2+}$  ni o‘z ichiga olgan noma'lum namuna  $\text{Ca}^{2+}$  ni oksalat yordamida cho‘ktirish orqali tahlil qilinadi:



Olingan cho‘kma kislotali eritma ishtirokida eriydi, chunki oksalat anioni kuchsiz kislotadir. Osonlik bilan filtrlanadigan yirik va nisbatan sof kristallar olinadi. Turli namunalar tarkibidagi kalsiyini aniqlash uni eritmaga o‘tkazish lozim bo‘ladi, masalan  $\text{CaCO}_3$  berilgan bo‘lsa:



Eritmadagi kalsiy ionini kalsiy oksalat shaklida cho‘ktirish:



Hosil qilingan cho'kmani kuydirib, kalsiy oksidi olishga asoslangan:



Hosil qilingan  $\text{CaC}_2\text{O}_4$  kristallari mayda bo'lgani uchun filtrdan o'tib ketishimumkin. Shuning uchun cho'ktirishni ehtiyyotlik bilan to'yingan eritmadan kislotali muhitda o'tkazish kerak. Bu vaqtida sodir bo'ladigan jarayonlarni quyidagicha izohlash mumkin:

Oksalat kislota iki bosqichda dissosialanadi. Eritmaga qo'shilgan  $\text{C}_2\text{O}_4^{2-}$  ionni teskari jarayon bo'yicha  $\text{HC}_2\text{O}_4^-$  va  $\text{H}_2\text{C}_2\text{O}_4$  bog'laydi, oqibatda eritmadagi oksalat ioni konsentratiyasi sekin kamayib borishi tufayli yirik kristall cho'kma hosil qilish va kalsiyning to'la cho'kishi uchun sharaot yaratiladi.

Eritmadagi  $\text{Ca}^{2+}$  amalda pH-3,3 bo'lganda to'la cho'kadi. Kalsiy oksalat cho'kmasi ancha yaxshi eriydi, shuning uchun cho'kmani yuvish uchun tarkibida oksalat ion bo'lgan disstillangan suvdan foydalaniladi. Cho'kmani yuvganda undagi  $\text{Cl}^-$  ioni yo'qotiladi, aks xolda cho'kma tarkibida kuydirish paytida uchib ketadi va xatoga olib keladi.

Cho'kmani kuydirganda hosil bo'ladigan  $\text{CaO}$ -kalsiy oksidi gigroskopik modda bo'lib, havodagi namlik va karbonat angidridni shiddat bilan yutadi. Shuning uchun kuydirish tugatilgandan so'ng qoldiqli sovuq tigel tezlik bilan eksikator ichidayoq byuksga joylanishi kerak.

Analizni bajarish uchun 250 ml hajmli stakanga tarkibida taxminan 0,1 g atrofida kalsiy bo'lgan tekshiriladigan modda namunasi tortimi solinadi. Analiz uchun  $\text{CaCO}_3$  olinan bo'lsa, u 4-6 ml distillangan suv bilan ho'llangandan so'ng ehtiyyotlik bilan unga 6 n xlorid kislota eritmasi stakan jo'mragi bo'ylab oz-ozdan quyiladi. Stakan chayqatilib, undagi moddalar aralashtirilib turiladi. Stakandagi namuna to'liq erigandan keyin eritmaga 100 ml distillangan suv qo'shib suyultiriladi va 70-80 °C gacha qizdiriladi. Issiq eritmaga 2 tomchi metilzarg'aldog'i eritmasidan tomizilgandan so'ng unga to'xtovsiz aralashtirib turgan holda tomchilatib, qizdirilgan 0,5 n li ammoniy oksalat eritmasi qo'shiladi. Cho'ktiruvchi miqdori cho'ktiruvchi ion

miqdordan taxminan 1,5 baravar ortiq bo‘lishi kerak. Zarur bo‘lgan barcha cho‘ktiruvchi qo‘shib bo‘lingandan keyin eritmaga indikator rangi pushtidan sariqqa o‘tguncha ammiak eritmasi tomchilab qo‘shiladi. Cho‘ktirish tugaganidan so‘ng cho‘kmali eritma qaynab turgan suv hammomida kamida 1 soat saqlanadi. Eritma tindirilishi bilan to‘la cho‘kish tekshiriladi. To‘la cho‘kishga erishilgandan so‘ng cho‘kma ustidagi eritma filtr qog‘ozga dekantatsiyalanib o‘tkaziladi. Cho‘kmani yuvish uchun cho‘ktiruvchi  $(\text{NH}_4)_2\text{C}_2\text{O}_4$  eritmasi 6-7 marta suyultiriladi va yuvish uchun ishlatiladi. Cho‘kma filtrga to‘liq o‘tkazilgandan so‘ng filtrda ham yuviladi. Cho‘kmani yuvish unda  $\text{Cl}^-$  ionlari yo‘qolguncha davom ettiriladi. Filtrlash va yuvish tugashi bilan voronka filtri bilan quritish shkafida quritiladi va cho‘kma filtr bilan birgalikda oldindan tayyorlab qo‘yilgan massasi aniq tigelga joylashtiriladi. Tigel gorelkaning past alangasida qizdirilib, filtr kulsizlaniriladi. Filtr kulsizlanib bo‘lganidan so‘ng tigel mufel pechida 120 °C da doimiy massagacha kuydiriladi. Doimiy massaga erishilgandan keyin tigel eksikatorda sovutiladi va sovuq tigel oldindan tayyorlab qo‘yilgan aniq massali katta byuksga joylanib qopqog‘i yopiq holda tortiladi. Keyin hisoblashlar yordamida  $\text{Ca}^{2+}$  miqdori hisoblanadi.

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## YO‘QOTISH VA QAYG‘U TAJRIBASINI HIS QILISH AMALIYOTI

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### *ANNOTATSIYA*

*Yo‘qotish va qayg‘uni tushunish: hayotni o‘zgartiruvchi voqealar bo‘yicha qo‘llanma yo‘qotish va qayg‘u haqida keng qamrovli voqeadir. Eng muhimi, yo‘qotish va qayg‘uga egalik qilishdir. Yo‘qotish tajribangizga ega bo‘lish uchun yo‘qotish hayotningizni qanday kesib o‘tishini ko‘rib chiqish foydali bo‘lishi mumkin. Insonning holati biz yo‘qotish deb ataydigan hodisa bilan umrbod tajribani o‘z ichiga oladi. Yo‘qotish deyarli hamma joyda mavjud. Bu yo‘qotish bilan qilgan ishimiz qayg‘u deb ataladi. Agar yo‘qotish bizga yaqin bo‘lgan odamning qayg‘usini o‘z ichiga olsa, biz bu jarayonni ayyorlik deb ataymiz. Motam - bu bizning qayg‘umizni ifodalash vositalarini tasvirlaydigan so‘z. Misol uchun dafn marosimiga qora kiyim kiyish, yolg‘iz qolish va eshikka qora gulchambar qo‘yish. Men ushbu maqolani hamma madaniyatlar tomonidan o‘qilishi mumkin bo‘lgan va maqolaning asosiy qabul qilinishiga sodiq bo‘lgani kabi ochiq qilishga harakat qildim, buning natijasida yo‘qotish hayotning kundalik qismi sifatida qaraladi.*

**Kalit so‘zlar:** *Yo‘qotish, qayg‘u, ekstremal vaziyat, hissiy ozodlik, Depressiya, Vahima, aybdorlik , g‘azab, shok, ijtimoiy izolyatsiya, qabul qilish*

## ABSTRACT

*Understanding Loss and Grief: A Guide to Life-Changing Events is a comprehensive account of loss and grief. The most important thing is to own the loss and grief. To come to grips with your experience of loss, it can be helpful to consider how loss intersects with your life. The human condition involves a lifelong experience with what we call loss. Loss is almost everywhere. What we do with this loss is called grief. If the loss involves the grief of someone close to us, we call this process coping. Mourning is a word that describes the means by which we express our grief. For example, wearing black clothes to a funeral, staying alone, and putting a black wreath on the door. I have tried to make this article accessible so that it can be read by all cultures and be true to the basic acceptance of the article, whereby loss is seen as an everyday part of life.*

**Keywords:** *Loss, grief, extreme situation, emotional release, depression, panic, guilt, anger, shock, social isolation, acceptance*

## KIRISH:

**Yo‘qotish yoki qayg‘u** - bu biz yo‘qotish bilan shug‘ullanadigan jarayondir. Qayg‘u odatda biz bilgan odamning o‘limi bilan bog‘liq, ammo boshqa yo‘qotishlar bilan sodir bo‘lishi mumkin. Pensiyaga chiqish, cherkov yoki jamoat tashkilotlaridagi muhim lavozimlar, jismoniy sog‘ligimiz va imkoniyatlarimiz va uyga egalik qilish orqali yo‘qolgan ish majburiyatları - barchasi yo‘qolishi mumkin. Biz g‘amxo‘rlik qiluvchi sifatida kundalik mas’uliyatni baham ko‘rish uchun faol hamkorimiz yo‘qligidan xafa bo‘lishimiz mumkin. Hayotimiz davomida biz yo‘qotishning barcha murakkabliklarini boshdan kechirishimiz mumkin. Qayg‘uni his qilish tabiiydir va har birimiz qayg‘u chekishimiz uchun aniq vaqt yo‘q. Jarayonni qanday boshdan kechirishimiz biz kabi individualdir. Hayotiy tajribalarimiz, e’tiqodlarimiz va qo‘llab-quvvatlash tizimlarimiz qayg‘uga tushishimizga yordam beradi. Turmush o‘rtog‘ining o‘limi, ajralish yoki uy-joyning o‘zgarishi tufayli surunkali stress va

uzoq vaqt davomida ishlay olmaslik - mutaxassisdan yordam so‘rash uchun etarli sababdir.

## ADABIYOTLAR TAHLILI VA METODOLOGIYA.

**Qayg‘u bosqichlari va holatlari.** Qayg‘u va yo‘qotish o‘limdan ancha oldin boshlanishi mumkin, chunki hayotimiz biz rejalashtirganimizdan boshqacha o‘tadi. Quyida biz g‘amxo‘rlik qilish jarayonida qayg‘urishimiz mumkin bo‘lgan bosqichlar keltirilgan. Biror kishi har bir bosqichdan o‘tishi yoki uzoq vaqt davomida bir bosqichda qolishi mumkin. Muayyan tartib yo‘q va parvarish qiluvchining sog‘lig‘iga bog‘liq bo‘lishi mumkin, ammo bosqichlardan o‘tish odatiy jarayondir.

|   |
|---|
| Shok  |
| Hissiy ozodlik                              |
| Depressiya, yolg‘izlik va izolyatsiya hissi |
| Qiyinchilikning jismoniy belgilari          |
| Vahima                                      |
| Aybdorlik                                   |
| G‘azab                                      |
| Oddiy faoliyatda qatnasha olmaslik          |
| Umidni qaytarish                            |
| Qabul qilish                                |

G‘amxo‘rlik tajribasining har bir bosqichi yo‘qotishlar va qayg‘ularni o‘z ichiga oladi. Bu his-tuyg‘ularning barchasi normaldir va siz hech qachon boshdan kechirishni kutmagan quvonch va yaqinlik tuyg‘ularini o‘z ichiga olishi mumkin. Qanchalik ko‘p odamlar bilan uchrashsangiz, tajribangiz bilan o‘rtoqlashsangiz, ular sizning his-tuyg‘ularingiz bilan o‘rtoqlashayotganini ko‘rasiz.

## NATIJA

**Shok.** Agar siz sevgan odamga surunkali kasallik yoki yakuniy kasallik tashxisi qo‘ylgan bo‘lsa, siz birinchi navbatda haqiqatni inkor qilishingiz mumkin, bu test natijalari boshqa birov uchun bo‘lishi kerak. Sinovlarning boshlanishiga sabab bo‘lgan bo‘lsa ham, siz haqiqatdan hayratda qoldingiz. Siz sevgan odam nafaqat zarba, qo‘rquv va nima bo‘lishidan hayratda, balki g‘amxo‘rlik qiluvchi sifatida siz ham zarba, qo‘rquv va kelajagingiz qanday bo‘lishidan xavotirda bo‘lasiz. Hayotingizdagi hamma narsa to‘satdan ostin-ustun bo‘lib ketadi; qilgan har qanday rejalaringizni to‘xtatib qo‘yish kerak bo‘lishi mumkin. Siz rejalashtirishdan pensiya yillarida qanday yashashingizga, har kuni qanday yashassingizga o‘tasiz.

**Hissiy ozodlik.** Siz bilgan odam surunkali yoki yakuniy kasallik tashxisini qo‘yanida, miyangizdan ko‘p fikrlar o‘tishi mumkin. Agar o‘shalar sizning ongsizligingizda qayta-qayta o‘ynaladigan bo‘lsa, siz qanchalik qo‘rqayotganligingiz va hayotingiz qanday tez rejalashtirilmagan tarzda o‘zgarib borayotgani haqiqati o‘z zimmasiga oladi. Bularning barchasini qanday hal qila olasiz, degan tashvish juda katta. Jasoratli bo‘lishga harakat qilayotganingizda, har qanday vaqtida yig‘lashingiz mumkin - uydan ishga, kasalxonadan mакtabga ketayotganda, oziq-ovqat do‘konida, ishxonada va uyda. Odamlar yaxshi ma’noga ega, ko‘p savollar berishadi; siz qanchalik qo‘rqib ketganingizni hech qachon unutolmaysiz. Siz va sizning g‘amxo‘r oluvchingiz markaziy sahnadasiz, hamma siz bilan nima sodir bo‘layotganini bilishni xohlaydi. Bu qiyin vaqt.

**Depressiya, yolg‘izlik va izolyatsiya.** O‘rgangan yangilikning dastlabki zARBASIDAN so‘ng, siz qanday davom etishni rejalashtirishni boshlaysiz. Agar bu kasallik bo‘lsa, davolash rejasi boshlanadi. Davolash, odatda, na g‘amxo‘r, na parvarish qiluvchi uchun oson emas. Ko‘plab shifokorlarga tashrif buyurish, faoliyatni qayta rejalashtirish, muhim voqealarni o‘tkazib yuborish va shaxsiy vaqtini yo‘qotish mavjud. Kuchli bo‘lish va sheringizinga, oila a’zolaringiz yoki do‘stingizinga dalda berishga harakat qilish uchun bosim bor.

**Qiyinchilikning jismoniy belgilari.** Har birimiz hayotimizdagi stresslarni boshqacha tarzda engamiz. Ko‘pchiligidan hayotimiz davomida katta o‘zgarishlarni amalga oshirish imkoniyatiga egamiz. Boshqalar jarohatlar bilan cheklangan va nima qilishni bilmasligi mumkin. Stress sizni disfunktsiyaga olib kelishi mumkin. Jismoniy stress ko‘p jihatdan paydo bo‘lishi mumkin - uxlay olmaslik, ovqatlanish istagini pasayishi, qayg‘u yoki tushkunlik, normal faoliyat bilan shug‘ullana olmaslik, ishslash yoki diqqatni jamlashda qiyinchilik yoki har qanday vaqtda yig‘lash tuyg‘usining kuchayishi.

**Vahima.** Hayotingizni rejalashtirishda davom etar ekansiz, hikoyangizning ko‘plab yakunlari haqida o‘ylaysiz. Ishlar yaxshi bo‘lmaydi, deb o‘ylash oson. Ko‘p hollarda, agar sheringingiz, oila a’zolaringiz yoki do‘stingiz vafot etsa, nima qilasiz degan savol birinchi marta bo‘lishi mumkin. Siz boshdan kechirayotgan o‘zgarishlarning xayoliy yakunlari baxtli bo‘lmasligi mumkin; ular siz o‘ylashni istamaydigan juda umidsiz o‘zgarishlarni taqdim etishi mumkin.

**G‘azab.** Siz bilan yomon narsalar sodir bo‘lganda, umumiy reaktsiya - g‘azablanish. Siz umuman hayotdan g‘azablanasiz, hayotingiz o‘zgargani uchun g‘azablanasiz. Agar siz sheringingizga g‘amxo‘rlik qilsangiz, endi siz ikkalangiz baham ko‘rgan barcha mas’uliyatlarga egasiz. Sizning bo‘sh vaqtingiz yo‘q, siz ko‘proq ishlayapsiz va o‘zingizni juda charchagan his qilyapsiz. Ishda va uyda hamma narsani bajarish uchun bosim his qilasiz. Siz juda ko‘p voz kechishingiz kerak. va, siz sheringingizni yoki sevganiningizni yo‘qotganingiz uchun g‘azablanasiz.

**Yashash va qayg‘urish.** Har kuni o‘tayotganingizda, kelajagingizga e’tibor qaratishingiz kerakligini bilasiz. O‘tmish qulay va ba’zida taskin beruvchi bo‘lishi mumkin bo‘lsa-da, siz energiyangizni hozirgi va kelajakka yo‘naltirishingiz kerakligini bilasiz. Qayg‘u - bu vaqt chegarasi bo‘lmagan jarayon. Har birimiz boshqacha qayg‘uramiz; ba’zilari ozgina turtki bilan to‘liq yashashni boshlaydilar, ba’zilari bu jarayonni sekinlik bilan o‘tkazishi mumkin, boshqalari esa professional yordamga muhtoj bo‘lishi mumkin.

U sizdan quyidagilarni talab qilishi mumkin:

Yangi narsalarni o‘rganish uchun qadamlar qo‘ying,  
Siz allaqachon tanish bo‘lmagan odamlar bilan tanishing,  
Ish topish yoki yangisini topish,  
Odatdagi tartibingizni davom ettiring yoki  
Sizga ehtiroslarining tinglash va orzularingiz ortidan borish erkinligini bering.

## MUHOKAMA

Biz o‘zimizni sinab ko‘rganimizda, biz o‘zimizga o‘sishga va kuchliroq bo‘lishga imkon beramiz. Sizning qadamlaringiz dastlab kichik bo‘lishi mumkin - siz hayotingizda yangi bosqichni boshlaysiz. Hayotdagi hamma narsada bo‘lgani kabi, sizda ham muvaffaqiyatlar va muvaffaqiyatsizliklar bo‘ladi. Har bir harakatingiz uchun o‘zingiz bilan faxrlaning. O‘zingizni kashf qilish va oldinga intilish qayg‘u jarayonida muhim ahamiyatga ega. Ko‘p odamlar qo‘llab-quvvatlash guruhlarida tasalli topadilar. Yordam guruhlariga qo‘shilgan shaxslar odatda umumiylashtirish mumkin. Yordam guruhlari hamjamiyatdagi yangi dasturlar va xizmatlarni o‘rganish uchun ajoyib manbalardir. Guruhda sizdan ko‘ra o‘z yo‘qotishlarini engishning qiyin davrini boshdan kechirayotgan boshqalarga yordam va yo‘l-yo‘riq ko‘rsatishi mumkin. Yordam guruhlari hamjamiyatdagi yangi dasturlar va xizmatlarni o‘rganish uchun ajoyib manbalardir. Guruhda sizdan ko‘ra o‘z yo‘qotishlarini engish qiyinroq bo‘lishi mumkin bo‘lgan boshqalar borligini ko‘rishingiz mumkin. Ko‘plab marhumlik va qayg‘ularni qo‘llab-quvvatlash guruhlarini ijtimoiy ishchi, keksalik bo‘yicha menejer, shifokor, cherkov hamshirasi, hamshira, hospis dasturi va cherkov idoralari aniqlashi mumkin.

## XULOSA

Qayg‘u - bu yo‘qotishga tabiiy javobdir. Bu siz sevgan narsangiz yoki kimdir olib ketilganda his qiladigan hissiy azob. Ko‘pincha, yo‘qotish og‘rig‘i juda kuchli bo‘lishi mumkin. Siz shok yoki g‘azabdan ishonchsizlik, aybdorlik va chuqr qayg‘uga qadar har qanday qiyin va kutilmagan his-tuyg‘ularni boshdan

kechirishingiz mumkin. Qayg‘u og‘rig‘i jismoniy sog‘lig‘ingizni ham buzishi mumkin, uqlashni, ovqatlanishni yoki hatto to‘g‘ri o‘ylashni qiyinlashtiradi. Bu yo‘qotishga odatiy munosabatdir va yo‘qotish qanchalik muhim bo‘lsa, qayg‘u shunchalik kuchli bo‘ladi. Biror kishini yoki siz sevgan narsangizni yo‘qotish bilan kurashish hayotdagi eng katta qiyinchiliklardan biridir. Siz qayg‘uni yaqinlaringizning o‘limi bilan bog‘lashingiz mumkin - bu ko‘pincha qayg‘uning eng kuchli turiga sabab bo‘ladi - lekin har qanday yo‘qotish qayg‘uga olib kelishi mumkin.

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## KASR TARTIBLI HOSILA TUSHUNCHASI

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### ANNOTATSIYA

Maqolada kasr tartibli hisiblash rivojlanishining qisqacha tarixiy sharxi berilgan, butun sonli bo‘lmagan hosilalar bilan ishlash uchun matematik tahlilning maxsus funksiyalari qaralgan. Kaput ova Riman – Liovilning kasr tartibli hosilalari qaralgan.

**Kalit so‘zlar:** Kasr tartibli tenglama, Caputo kasr tartibli hosilasi, Rimann-Liovil kasr tartibli hosilasi, Gamma funksiya.

Kasr tartibli hosilalarni aniqlashga bo‘lgan birinchi urunishlar.  $f'(x)$  hosilasi tushunchasi paydo bo‘lishi bilanoq, darhol savol tug‘ildi:  $f^{(\frac{1}{2})}(x)$  ning hosilasini aniqlash mumkin-mi? 1695 yilda G. Leybnits (1646-1716) Lopitalga (Matquis de L’Hopital (1661-1704) yozgan maktublarida  $\frac{1}{2}$  tartibli hosilalarni ko‘rib chiqish imkoniyati haqida bir qancha fikrlarni bildirgan.

Kasr tartibli hosila va differensial tushunchalari ilk bora G. W. Leybnits qo‘l yozmalarida uchratish mumkin. Ya. Bernulli unga yozgan xatlarining birida ikkita funksianing ko‘paytmasining hosilasi haqidagi teorema agar hosila kasr tartibli bo‘lgan holda ham o‘rinli bo‘ladimi deb so‘ragan. G. W. Leybnits (G. W. Leibniz) 1695 yil 30 sentyabrdan G. Lopitalga va 1697 yil 28 mayda Wallisga yozgan xatlarida  $\frac{1}{2}$  tartibli differensial va hosilani olishning bir nechta usullari haqida aytib o‘tgani.

Birinchi qadamni 1739-yilda L. Eyler qo‘ydi va u darajali funksiyaning

$$(x^n)^{(k)} = \frac{n!}{(n-k)!} x^{n-k} \quad (1.1)$$

hosilasi butun bo‘limgan  $k$  uchun ma’noga ega bo‘lishini payqadi. Shu munosabat bilan u umumlashgan faktorialni kiritdi, biz uni hozir Eylerning gamma funksiyasi deb ataymiz:

$$\Gamma(s+1) = s\Gamma(s), \quad \Gamma(n) = (n-1)!.$$

1812 yil kasr tartibli hosilalarni

$\int f(t)t^{-x}dt$  integral ko‘rinishda hisoblash usuli P.S.Laplas tomonidan joriy qilingan. S.Lyakrua 1820 yil L.Eyler g‘oyasini takrorlab darajali funksiyalarning

$\frac{1}{2}$  kasr tartibli hosilalarni hisoblashning aniq formulasini keltirib chiqardi.

Funksiyalarning keng sinfini darajali qatorlar shaklida yozish mumkinligi sababli, bunday funksiyalar uchun kasr tartibli hosilalarni shu tarzda aniqlash mumkin.

Keyingi qadamni 1822 yilda J. Fury’e (1768-1830) qo‘yib, butun bo‘limgan tartibli hosilani aniqlash uchun quyidagi tenglikdan foydalanishni taklif qildi:

$$f(x) = \sum_{k=0}^{\infty} f_k e^{ikx}, \quad f_k = \frac{1}{2\pi} \int_{-\pi}^{\pi} f(y) e^{-iky} dy,$$

$$f^{(k)}(x) = \sum_{k=0}^{\infty} (ik) f_k e^{ikx}. \quad (1.2)$$

Bu har qanday musbat tartib va har qanday (yetarlicha “yaxshi”) funksiya hosilasining birinchi ta’rifi edi.

Yuqorida keltirilgan faktlar faqat kasr hisobning tarixidan oldingi davrdir. Haqiqiy hikoya N. Abel (1802-1829) va J. Liuvill (1809-1882) asarlaridan boshlangan. 1823 va 1826 yillarda nashr etilgan asarlarida N. G. Abel Tautoxon

muammosini o‘rganib chiqdi. Bu muammoni yechish uchun u integral tenglamani oldi:

$$A_\alpha \varphi(x) = \int_a^x \frac{\varphi(t)}{(x-t)^\alpha} dt = f(x), \quad x > a, \quad 0 < \alpha < 1, \quad (1.3)$$

bu yerda  $\varphi(t)$  Tautoxron masalaning yechimini beruvchi egri chiziq.

Abel bu tenglamani yechdi va  $A_\alpha$  ga teskari operatorni topdi:

$$\varphi(x) = R_\alpha f(x). \quad (1.4)$$

Keyinchalik ma’lum bo‘lishicha,  $A_\alpha$  bu  $1 - \alpha$  tartibli kasr integratsiya amali,

$R_\alpha$  esa kasr differensiallash amalidir. Biroq, bu ta’riflar keyinroq paydo bo‘ldi.

J. Liouville 1832 – 1837 yillarda uni kasr tartibli integral va differensiallar nazariyasini asoschisi deyishga haqli bir nechta maqlolar chop qildi.

J.Liouville 1832 yilda ko‘rsatkichli funksiyalar va  $f(x) = \sum_{k=0}^{\infty} c_k e^{a_k x}$

ko‘rinishda yozish mumkin bo‘lgan funksiyalar uchun kasr tartibli differensial tushunchasini quyidagicha aniqladi:

$$D^p f(x) = \sum_{k=0}^{\infty} c_k a_k^p e^{a_k x}, \quad (1.5)$$

bu yerda  $p$  – ixtiyoriy kompleks son

J.Liuvill asarlaridan keyin B. Rimann (1826-1866) asarini muhim o‘ringa qo‘yish kerak. B.Riman biz hozir qo‘llayotgan integro-differensiallash nazariyasini yaratdi: u kasr integral va hosilalarni aniqladi va ularning xossalari o‘rganadi. Bu asarlar turkumini 1847 yilda talabalik yillarida tugatgan, ammo ular vafotidan 10 yil o‘tib, 1876 yilda nashr etilgan.

Keyinchalik ko‘pgina matematiklar tomonidan kasr tartibli integral va differensial tushunchalari kiritildi. Ammo bu aniqlangan ta’riflar ichida X. Holmgren (Hj. Holmgren) va B. Rimann (B. Riemann) lar tomonidan aniqlangan kasr tartibli

integral tushunchalari Liouville tomonidan aniqlangan ta‘rifga yaqin bo‘lib, u quyidagi ko‘rinishda ifodalanadi:

$$\frac{1}{\Gamma(\mu)} \int_0^x \frac{\varphi(t)}{(x-t)^{1-\mu}} dt, \quad x > 0. \quad (1.6)$$

Kasr tartibli hosilalarning mashhurlik davri 1960 - 1970 yillarda tan olingan. 1974 yilda Nyu-Havenda Sobir Umarov tomonidan juda ko‘p ochiq muammolar ko‘rilgan. Oddiy hosilalarning jadvali mavjud, ammo kasr tartibli hosilalar uchun aniq jadval keltirilmagan.

Olimlarning kasr tartibli hisoblashga bo‘lgan qiziqishlarining yangi to‘lqini 1974 yilda “Kasr tartibli hisoblash” (K.B.Oldham, J.Spanier) kitobi nashr etilgandan so‘ng paydo bo‘lgan. Ushbu kitobda kasr tartibli hisoblash nazariyasi tizimli ravishda keltirilgan. Shu vaqtan boshlab turli xil jurnallarning tematik sohalari paydo bo‘la boshlagan, ular ilm-fan, texnika, tabiatshunoslikning turli sohalarida kasr tartibli hisoblashni qo‘llashga bag‘ishlangan. Hozirgi vaqtda kasr tartibli hisoblash nazariy jihatdan ham, amaliy jihatdan ham zo‘r rivojlanish bosqichida. Kasr tartibli differensial tenglamalar ko‘pgina matematiklar tomonidan o‘rganilgan. Bu haqda ma’lumotlar bilan S.G.Samko, A.A.Kilbas va O.I.Marichevlar ishida tanishishingiz mumkin.

Kasr sonlar haqida albatta o‘rta maktabning quyi sinflaridanoq ma’lumot beriladi. Bizda butun tartibli hosilalar haqida tushunchalar bo‘lgani uchun tartibi haqiqiy musbat son (kasr ham bo‘lishi mumkin) bo‘lgan holda hosila tushunchasini aniqlaymiz va differensial hisob haqidagi bilimlarni kengaytiramiz.

$D$  sifatida (klassik) differensiallash operatorini  $I$  sifatida (klassik) integrallash operatorini tushunamiz.

$$D = \frac{df}{dx}, \quad I = \int_0^x f(y) dy. \quad (1.7)$$

Bizda quyidagi ayniyat bor:  $DIf = f$ .

**Isbot .**

$$DIf = \frac{d}{dx} \int_0^x f(y) dy = f$$

Demak ,  $D$  operator  $I$  operatorning chap tomondan teskari operatori.

Shuningdek , ixtiyoriy  $\forall m \in N$  uchun:

$$D^m I^m = J$$

Ayniyat ham o‘rinli. Bu yerda  $J$  – birlik operator.

$m$ -tartibli differential operator, xuddi shunday tartibli integrallash operatoriga chapdan teskari operator ekan. Endi  $m$ -tartibli integral operatorni aniqlab olaylik, 1-tartibli integral:

$$I = \int_0^x f(y) dy,$$

2-tartibli integral esa quyidagicha aniqlanadi:

$$I^2 f(x) = I[I f](x) = \int_0^x [If](y) dy = \int_0^x \int_0^y f(t) dt dy.$$

Bu karrali integral bo‘ldi.

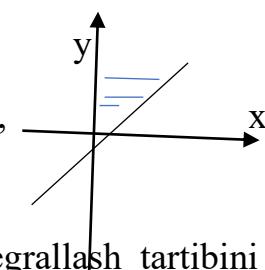
Integrallash sohasini chizamiz va integral chegaralari o‘zgartiramiz.

$$\int_0^x \int_0^y f(t) dt dy = \int_0^x f(t) \left[ \int_t^x (1) dy \right] dt = \int_0^x f(t)(x-t) dt. \quad 1\text{-rasm}$$

bu yerda  $0 < t < y < x$ .

1-rasmida tasvirlangan soha integrallash to‘plami bo‘lib, integrallash tartibini o‘zgartirildi. Xuddi shu usul

yordamida  $I^3$  ni ham hisoblaymiz. Unda ham integrallash tartibini 1-rasm asosida o‘zgartiramiz.



$$\begin{aligned} I^3 f(x) &= I \left[ I^2 f \right] (x) = \int_0^x \left[ I^2 f \right] (y) dy = \int_0^x \int_0^y f(t)(y-t) dt dy = \\ &= \int_0^x f(t) \left( \int_t^x (y-t) dy \right) dt = \int_0^x f(t) \frac{(x-t)^2}{2!} dt \end{aligned}$$

Shu yo‘l bilan  $I^4, I^5, \dots, I^m$  ... larni ketma ket hisoblab chiqilganda quyidagi umumiy formula hosil bo‘ladi:

$$I^m f = \frac{1}{(m-1)!} \int_0^x f(t)(x-t)^{m-1} dt. \quad (1.8)$$

Ana endi biz m-tartibli integral operatorning umumiy ko‘rinishini topib oldik. Bu yerda m albatta nomanfiy butun son. Shu yerda m ni biror haqiqiy musbat son bilan almashtirish mumkinmi? Agar mumkin bo‘lsa bu formula qanday ko‘rinishga ega? Ifodada m ni haqiqiy deb qarashda  $(m-1)!$  soni halaqt beradi. Bu muammoni hal qilishda Eyler ning xosmas integrallari yordam beradi.

Kasr tartibli hosilalar asosan pandimeya davrida karonavirus pragnozi uchun keng foydalanilgan. Sabablarining asosiysi karonavirus issiqlikda tezroq yoki sekinroq tarqalishi.

Hozirgi kunda rivojlanib kelayotgan yo‘nalish hisoblanadi.

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