

**ҚОРАҚАЛПОҒИСТОНДА
ФАН ВА ТАЪЛИМ**

**ҚАРАҚАЛПАҚСТАНДА
ИЛИМ ҲӘМ ТӘЛИМ**

**НАУКА И ОБРАЗОВАНИЕ
В КАРАКАЛПАКСТАНЕ**

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SOME PHYSICOCHEMICAL ANALYSES OF GUM ISOLATED FROM *Elaeagnus L.*

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Summary: The paper presents the results of a study of obtaining a polysaccharide from the gum of the *Elaeagnus L.* bush, which grows on the territory of Uzbekistan. The results of a spectroscopic study of the obtained polysaccharide from *Elaeagnus L.* gum are presented. The monomeric composition of the polysaccharide and some physicochemical properties of the gum are studied, and the results of the hydrolysis of an aqueous solution of the polysaccharide under relatively mild conditions depending on temperature are presented.

Keywords: gum of *Elaeagnus L.* bush, polysaccharide, viscosity, IR spectroscopy, polysaccharide molecular weight, monomeric composition.

Introduction

Today, the paint and varnish industry produces a wide range of varnishes, enamels, varnishes, primers, putties and other auxiliary materials. They are widely used in various sectors of the economy, including construction, fine arts, transport and everyday life. They are used to protect various products and equipment, cars, agricultural machines and mechanisms from corrosion, improve their weather resistance, give products a decorative look, create masterpieces of art, and for other purposes [1,2].

Today, when natural resources are intensively used all over the world, as a result of their processing, not only the main product is produced, but also thousands of tons of secondary products appear. The abundance and reserves of such secondary products highlight the problems of processing them as the main raw material, obtaining useful products and, as a result, solving a number of environmental and social issues. In order to solve these problems, that is, to create cheap, energy-efficient technologies for the production of necessary and high-quality materials from secondary industrial products, one of the most important tasks facing scientists determines the need for research work in this direction [4].

The intensive development of all sectors of the national economy, heavy industry, mechanical engineering, chemical industry, energy, construction industry, fine arts and others lays the foundation for the further development of the paint and varnish industry. Because all industries use the products of the paint industry [5,6]. Particular attention is paid to renewable resources for the production of the paint and varnish industry.

Result and discussion

One of the renewable products is gums (resins) of plant origin. They are mainly polysaccharides. The resources of polysaccharides are very large and they can be produced by plants, fungi, algae and bacteria through photosynthesis. At the cellular level, polysaccharides are responsible for storage components in the cytoplasm (eg. starch) or components of the membranes or cell walls of organisms (eg. cellulose). The main structure of polysaccharides derived from natural products is extremely complex and varied, but the main structure of the macromolecular chain is composed of glucose, fructose, xylose, mannose, galactose and others, and it can also be a polymer composed of two or more monosaccharides (for example, galactomannan, pectin). The fact that the branched chain structure of polysaccharides is different indicates their diversity. Although studies of polysaccharides began later than proteins, nucleic acids or lipids, they are of increasing

interest to researchers due to their important physiological functions and wide application in various fields of the national economy [7-9].

In this work, we use the gum of the *Elaeagnus L.* bush, which grows on the territory of our Republic, as an object of study, which will later be used as one of the components of the composition of paint and varnish products.

On Figure 1 shows photographs of the original and purified samples of *Elaeagnus L.* gum. The original gum is a transparent, hard and brittle mass from light yellow to dark brown. The original and purified gum of *Elaeagnus L.* has no taste or smell. The output of the product (polysaccharide), purified from the gum content, is 89% by weight. The gum is soluble in cold and hot water, insoluble in alcohol, acetone, chloroform, ethyl acetate and hydrocarbons.



original



*Fig. 1.
Photographs of the
(1) and purified (2)
Elaeagnus L gum*

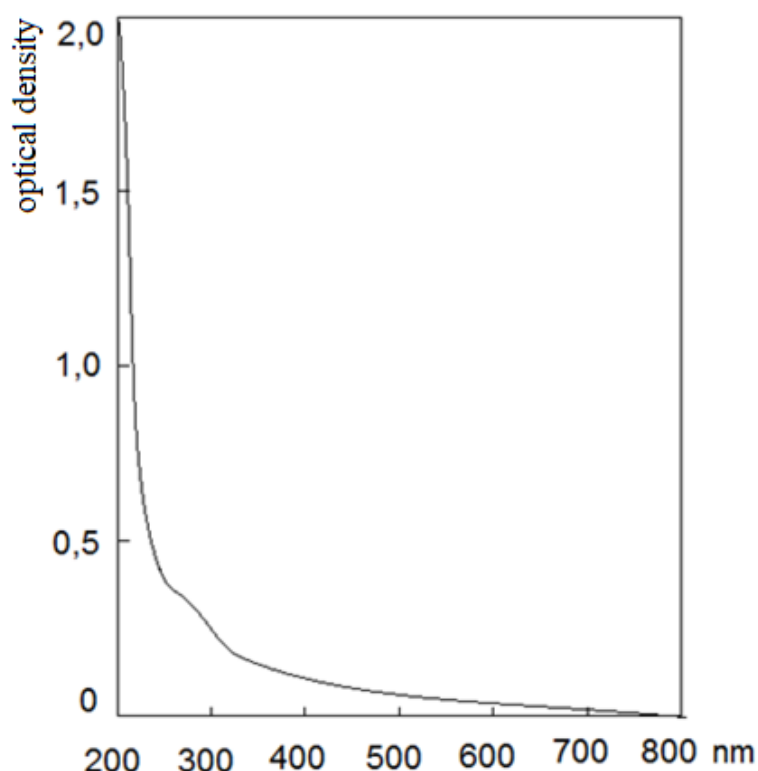
samples.

The technology for obtaining a polysaccharide from the gum of a bush consists of the following stages [10,11]:

1. drying,
2. grinding
3. sifting,
3. dissolution,
4. filtration,
5. discoloration,
6. centrifugation,
7. precipitation,
8. washing with precipitant,
9. vacuum drying.

To record the UV spectrum of the obtained sample, we used its solution in bidistilled water.

The UV spectrum of an aqueous solution of a polysaccharide obtained from *Elaeagnus L.* gum is shown in Figure 2.



2-fig. UV spectrum of an aqueous solution of *Elaeagnus L. polysaccharide*.

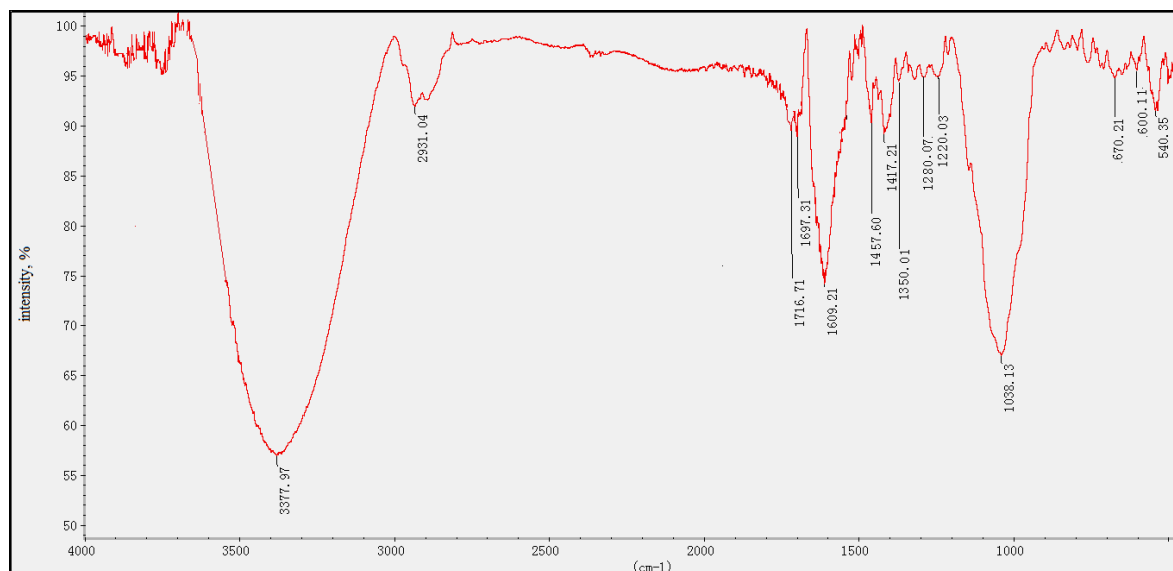
According to the results of UV spectroscopy, it can be said that the purified polysaccharide does not contain proteins, which is consistent with the results of Table 1.

Table 1.

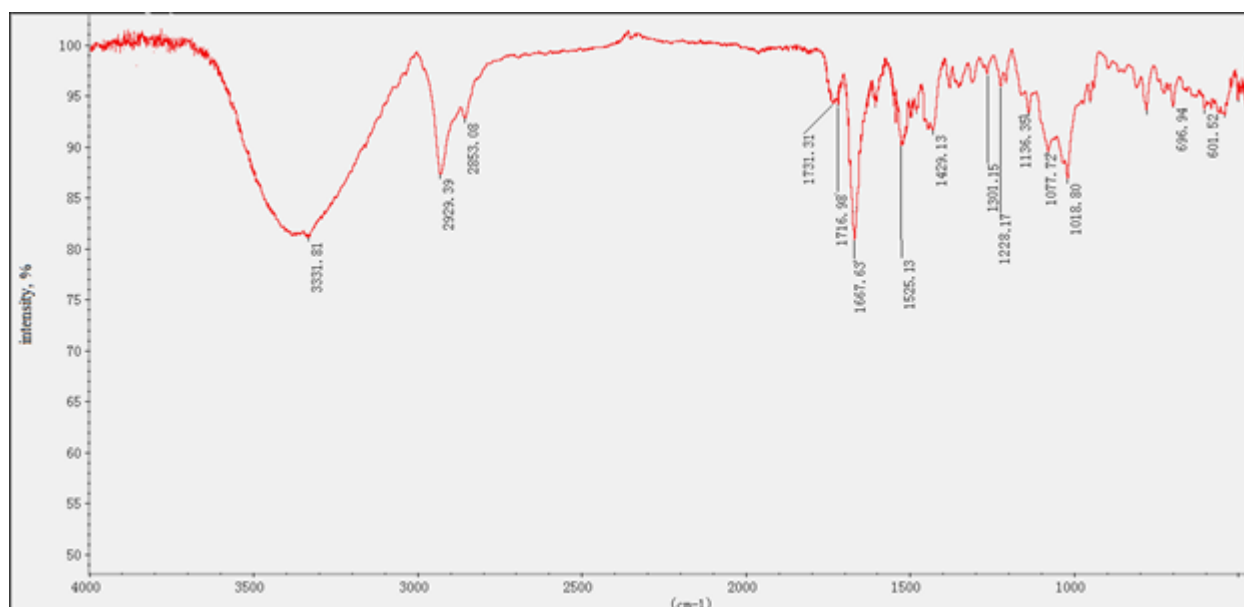
Some physical and chemical properties of the original gum

Parameters	Properties
Colour	From light yellow to dark brown
Smell	Odorless
Taste	no taste
pH (25 °C)	6,8-7,0
Output (% , w/v)	89
swelling	4,2-4,8
Solubility in cold water	dissolves
Solubility in hot water	dissolves
Acetone	Does not dissolve
Chloroform	Does not dissolve
ethyl acetate	Does not dissolve
hydrocarbons	Does not dissolve
Salinity	00
The melting temperature (°C)	170-183
Nitrogen (%)	0,32
Ash (%)	0,37
Humidity (%)	11,63
Fiber (%)	00
Carbohydrates (%)	88

An aqueous solution of *Elaeagnus L.* gum is considered to be a fairly stable system. Only after 8-10 days, gel-like bubbles begin to appear in the composition of its aqueous solution. But if a small amount of a biocidal substance is added to its composition, its stability will be extended. When a polysaccharide solution is heated in an acidic medium, it undergoes changes, which is observed by a decrease in the viscosity of the solution. This, of course, is due to the destructive processes that can occur in the polysaccharide macromolecule. The changes occurring in such macromolecules can be explained by differences in their spectra in the IR region (Fig. 3, 4).

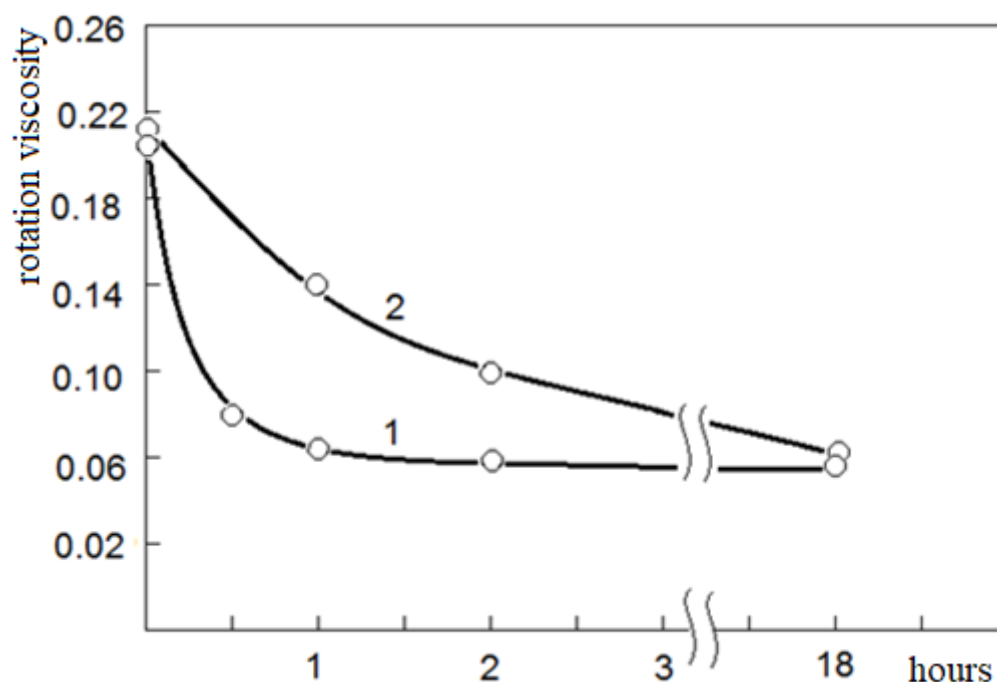


3-fig. IR spectrum of *Elaeagnus L.* gum polysaccharide.



4-fig. IR spectrum of *Elaeagnus L.* gum polysaccharide after acid hydrolysis.

The hydrolysis process was carried out at pH =2.2 and a temperature of 30-37.5°C. Increasing the temperature from 30 to 37.5°C showed a significant acceleration of the hydrolysis process, and the reaction was almost completely completed within an hour. Since the viscosity of the polysaccharide solution did not change during further hydrolysis reaction for 18 hours (Fig. 5).



5-fig. Change in rotational viscosity during hydrolysis,
1-37.5 °C, 2-30°C.

In the IR spectrum of the samples, characteristic absorption spectra characteristic of polysaccharides are observed. Thus, the vibrational motion of the OH group is observed at 3377 cm^{-1} . The band visible at 2931 cm^{-1} represents the stretching vibrations of the CH bond related to the methyl group. Also, the peaks at 597 and 670 cm^{-1} correspond to the CH group.

Peaks of bending vibrations related to the carbonyl group C=O of the acetyl group appear at 1716 , 1240 and 1130 cm^{-1} .

The characteristic absorption lines for the carboxylate groups of galacturonic acid appear as peaks at 1609 and 1038 cm^{-1} [12].

The other functional groups identified, CH_2 , have rotational vibrations at 1350 cm^{-1} and bending vibrations at 1417 cm^{-1} for the OH group of the carboxylic acid.

After the hydrolysis of the polysaccharide, additional vibrational spectra appear at 3331 cm^{-1} for the OH groups. Shifts are observed in the absorption spectra of other groups, peaks appear at 2929 cm^{-1} , 601 and 696 cm^{-1} for CH bonds of the methyl group and at 1716 , 1298 and 1136 cm^{-1} for the carbonyl group of the C=O bond of acetyl groups. Rotational vibrations of the CH_2 group are observed at 1301 cm^{-1} , and bending vibrations of the OH bonds of the carboxyl group - at 1429 cm^{-1} .

Due to hydrolysis, the intense absorption lines characteristic of carbonyl groups weaken and appear at 1667 and 1018 cm^{-1} with a slight shift. This may indicate the partial removal of carbonyl-containing components from the macromolecule.

Conclusion

1. Based on the above and other additional studies of molecular weight, viscosity, solubility in various media, the following conclusions can be drawn:

2. The monomeric composition of the gum of the *Elaeagnus L.* bush was analyzed, which mainly (89% by weight) consists of polysaccharides. The polysaccharide consists of 22.7% D-galactose, 41.8% L-arabinose, 8.7% L-rhamnose, 3.5% D-glucuronic acid and 1.2% D-mannose included. The carboxyl group of glucuronic acid is apparently not in a free state.

3. *Elaeagnus L.* gum is very similar in composition to gum arabic gum and has a low content of glucuronic acid in its composition. The gum is non-toxic, colorless and odorless, which can help expand the scope of its application.

4. The molecular weight of the polysaccharide gum of the bush *Elaeagnus L.* was determined by high performance liquid chromatography. Using a viscometric study, the absence of a polyelectrolyte anomaly in a dilute aqueous gum solution was found, which indicates the absence of free carboxyl groups in the polysaccharide molecule.

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Rezyume: Maqolada O'zbekiston hududida o'suvchi *Elaeagnus L.* butasining yelimidan polisaxarid olish bo'yicha o'tkazilgan tadqiqot natijalari keltirilgan. *Elaeagnus L.* yelimidan olingan polisaxaridni spektroskopik tekshirish natijalari ko'rsatilgan. Polisaxaridning monomer tarkibi va yelimning ba'zi fizik-kimyoviy xossalari o'rganilib, polisaxaridning suvli eritmasining turli haroratda, nisbatan yumshoq sharoitda gidrolizlanish natijalari bayon etilgan.

Резюме: В работе представлены результаты исследования получения полисахарида из камеди лоха кустарникового *Elaeagnus L.*, произрастающего на территории Узбекистана. Представлены результаты спектроскопического исследования полученного полисахарида из камеди *Elaeagnus L.* Изучен мономерный состав полисахарида и некоторые физико-химические свойства камеди, представлены результаты гидролиза водного раствора полисахарида в относительно мягких условиях в зависимости от температуры.

Kalit so'zlar: *Elaeagnus L.* butasining yelimi, polisaxarid, qovushqoqlik, IQ spektroskopiyasi, polisaxaridning molekulyar og'irligi, monomer tarkibi.

Ключевые слова: камедь лоха обыкновенного, полисахарид, вязкость, ИК-спектроскопия, молекулярная масса полисахарида, мономерный состав.

METHODS OF SEPARATION AND IDENTIFICATION OF BIOLOGICALLY ACTIVE SUBSTANCES CONTAINED IN “TARAXACUM OFFINALE” (DANDELION)

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Summary: Nowadays a lot of attention is paid to the identification and study of biologically active substances in plants because they are widely used in the food, perfumery, cosmetic and pharmaceutical industries. As a result of natural renewal and adaptation to environmental conditions, the composition of plants, depending on its geographical location and climate, is a natural raw material for the production of biologically active substances.

This study was mainly carried out to investigate the biological and phytochemical properties of *Taraxacum officinale* leaf and root extracts in order to identify new natural agents with antibacterial activity.

It was found that the root contains taraxacin and taraxacerin, glycosides, taraxerol, taraxosterol, β -amyrin and other triterpene compounds, up to 24% inulin, 2-3% oil and other substances. Carotene amount was determined on a spectrophotometer NACH LANGE DR 3900 (Germany) (spectral wavelength range, nm 320–800). Vitamins B₁ (47858), B₂ (47864), B₆ (80823-50MG), B₁₂ (PHR1234-1), C (47863) and PP (47865-U) in dried dandelion (from Sigma Aldrich Germany) on the basis of the given standard samples, quality and quantity indicators were determined by a YSSX LC 2030 C 3D Plus device manufactured in Japan (Shimadzu) using a PDA detector in the selected state of wavelengths of 260, 290 and 361 nm.

Keywords: *Taraxacum officinale* leaf, potassium dichromate, triterpenoids, phenolic compounds

Introduction

Nowadays, due to the fact that different viruses cause different colds and the resistance of these viruses to antibiotics increases, and different antibiotics cause other related diseases in the human body, it shows that the use of natural medicines against various diseases is more effective, and it is time to reconsider the treatment methods. During the continuous research on new antibacterial extracts, we selected the medicinal plant *Taraxacum officinale* (dandelion). *Taraxacum officinale*, commonly known as dandelion, has been found to have chemical composition and antibacterial properties.

Taraxacum officinale is a perennial herbaceous plant belonging to the Asteraceae family. The plant can be found a lot in temperate regions of the world, on roadsides, lawns, and hills. *Taraxacum officinale* leaves are used for a salad. The plant *Taraxacum officinale* has traditionally been used for indigestion, water retention, and liver disorders (hepatitis)[1].

It is reported that the chemicals extracted from the root of the plant have a hepatoprotective effect in mice [2]. Dandelion is also used in herbal medicine as a mild digestive laxative, that is, it increases appetite and improves digestion [3].

It has been reported in the literature to have many antioxidant, anti-inflammatory, anti-diabetic, anti-microbial, and anti-cancer properties [4, 5]. There are references to its use in several preparations for the treatment of bacterial infections [6-8]. These properties are due to the presence of a large number of bioactive compounds in their tissues and several scientific studies have investigated the presence of a wide range of compounds, including terpenes, flavonoids, and phenolic compounds, that exhibit medicinal activity in various plants. [9,10]. Few studies of *Taraxacum* for its antimicrobial properties have considered the chemical identification of extracts,

and often this identification is qualitative (e.g., using colorimetric methods to indicate the presence or absence of Taraxacum). The authors report the presence of terpenoids, triterpenoids, steroids, coumarins, phenols, saponins, flavonoids, flavones, flavonols, chalcones, phlobatannins and cardiac glycosides in antimicrobial extracts [11-13]. Therefore, based on the above considerations and observations, the purpose of the research was to study the phytochemical composition of n-hexane and ethyl acetate extracts of Taraxacum officinale plant.

Experimental part and used methods

Vitamins B₁ (47858), B₂ (47864), B₆ (80823-50MG), B₁₂ (PHR1234-1), C (47863), and PP (47865-U) in dried dandelions (from Sigma Aldrich Germany) on the basis of the given standard samples, quality and quantity indicators were determined by a YSSX LC 2030 C 3D Plus device manufactured in Japan (Shimadzu) using a PDA detector in the selected state of wavelengths of 260, 290 and 361 nm. A C18 250x4.6 mm 5 µm Precisely (Perkin Elmer) USA column was used as a stationary phase.

Extraction of vitamins in the sample is carried out as follows: The sample was dried, crushed and weighed with an accuracy of 0.001 mg on an analytical balance of 1 g (FA220 4N). Then, 10 ml of 0.1 N chloride acid solution was added and mixed in a magnetic stirrer for 15 min at room temperature, and for vitamin C at 6°C for 20 min. The resulting solutions were centrifuged at 12,000 rpm for 10 minutes and filtered through a 0.45 µm filter, analyzed and the following results were obtained.

	Vitamin B ₁ mg/ml	Vitamin B ₂ mg/ml	Vitamin B ₆ mg/ml	Vitamin B ₁₂ mg/ml	Vitamin PP mg/ml
Dried plant	0	0	0,02	0	0,03

The following method was used to qualitatively and quantitatively determine the flavonoids contained in the dry and finely ground sample.

We used 96% ethyl alcohol as a solvent to extract the substances to be determined from the sample. For this purpose, the sample and alcohol were mixed in a ratio of 1:10 and extracted using a magnetic stirrer for 75 minutes at a temperature of 30°C. As a stationary phase, the amount of rutin, gallic acid, and quercetin in the samples was determined using an Agilent Zorbax 4.6 mm ID x 12.5 mm cartridge and a Perkin Elmer C18 250x4.6 mm 5 µm C₁₈ (USA) column. For this, a 0.5% solution of acetic acid in a ratio of 35:65 and standard solutions in acetonitrile with different concentrations: 0.025 mg/ml and 0.05 mg/ml were prepared, the flow rate was 1 ml/min, the temperature of the thermostat was 40°C, and a calibration curve was created at 10 µl of injection sample.

In order to determine the amount of β-carotene in laboratory conditions, a dried dandelion was taken. The sample for analysis (accurately weighed AF 2204N, accuracy level 0.1 mg) 5 g was taken, crushed to a size of 1 mm in diameter, and placed in a flask with a capacity of 100 ml. It was extracted with 25 ml of hexane (C₆H₁₄ chemically pure, TU 2631-003-) as a solvent. Extraction was performed on a magnetic stirrer (MSH-300 BIOSAN, Latvia) for 90 min. After the extraction process is completed, the solution is filtered. 1 ml of the filtrate was taken into a 25 ml volumetric flask and diluted with a solvent to the mark of the flask.

Carotene content was determined on a spectrophotometer NACH LANGE DR 3900 (Germany) (spectral wavelength range, nm 320–800).

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Carotene content was determined on a spectrophotometer NACH LANGE DR 3900 (Germany) (spectral wavelength range, nm 320–800).

Obtained results and analysis

In the analysis of vitamins, a 0.5% solution of acetic acid was used as a mobile A phase, and acetonitrile B was carried out on the basis of the phase change mode.

Time	A phase % a 0.5% solution of acetic acid in water	B phase % Acetonitrile
1	96	4
4	90	10
8	85	15
12	60	40
14	Stop	

At a flow rate of 1 ml/min, at a thermostat temperature of 40⁰C, the injected sample volume was 10 µl, the analysis time was 14 minutes, and the chromatograms were obtained as follows.

Vitamin C analysis was carried out using 0.8 ml/min, 0.5% solution of ACN/CH₃COOH in water/H₂O in the ratio of 60/30/10 as the mobile phase based on the parameters of the above device.

<Chromatogram>

mAU

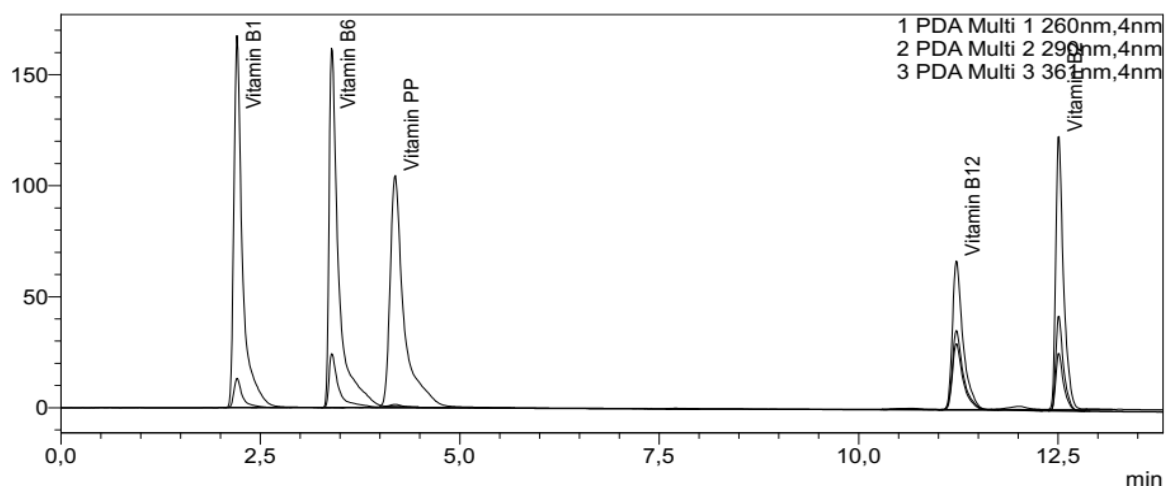


Figure 1 Chromatogram of standard samples of vitamins B₁, B₂, B₆, B₁₂ and PP

PDA Ch1 260nm

Peak	Time	Area	Height	Concentration	Unit of measur e	Mark	Name
1	2,208	1258987	167577	0,026	mg/ml		Vitamin B ₁
3	4,190	1272815	104629	0,034	mg/ml	v	Vitamin PP

8	12,507	834121	122917	0,010	mg/ml		Vitamin B ₂
Total		3365923	395123				

PDA Ch2 290nm

Peak	Time	Area	Height	Concentration	Unit	Mark	Name
2	3,396	1379091	161911	0,032	mg/ml	S	Vitamin B ₆
Total		1379091	161911				

Parallel to the process of determining the number of carotenoids, a 0.04% solution of potassium dichromate (K₂Cr₂O₇) was prepared for comparison and its optical density was determined.

The optical density (0.04%) of potassium dichromate (GOST 4220-75 chemical pure) RSO solution was measured in parallel with purified water (BIOSAN, Latvia). The total amount of carotene in dried plant raw materials was calculated according to the formula mg % of β-carotene.

$$X = \frac{D_1 \times 0.00208 \times 25 \times 25 \times 100 \times 100}{D_0 \times m \times 1 \times (100 - w)}$$

Here; D₁ - optical density of the tested solution, D₀ - optical density of the standard sample solution of potassium dichromate, 0.00208 - the amount of β-carotene in the solution corresponding to the standard sample solution of potassium dichromate in mg, m - raw material sample gr.

Raw material name	Solvent	Sample to solvent ratio	Grinding degree (mm)	Extraction time (min)	Amount of β – carotene in composition (mg)
A plant example	Hexane	1: 5	1	90	16,1

The following method was used to qualitatively and quantitatively determine the flavonoids contained in the dry and finely ground sample.

Based on the standard samples, the following chromatogram was obtained on the HPLC device (LC 2030 C 3D Plus Shimadzu Japan) in 2.5 min of gallic acid, 3.6 min of rutin and 16 min of quercetin.

<Chromatogram>

mAU

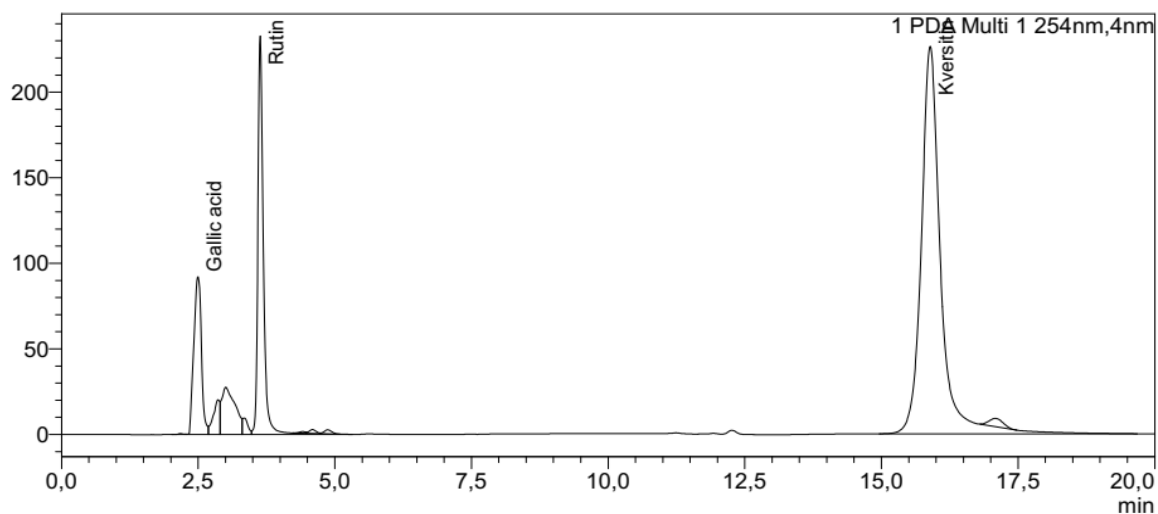


Figure 2 Chromatogram of flavonoids from standard samples

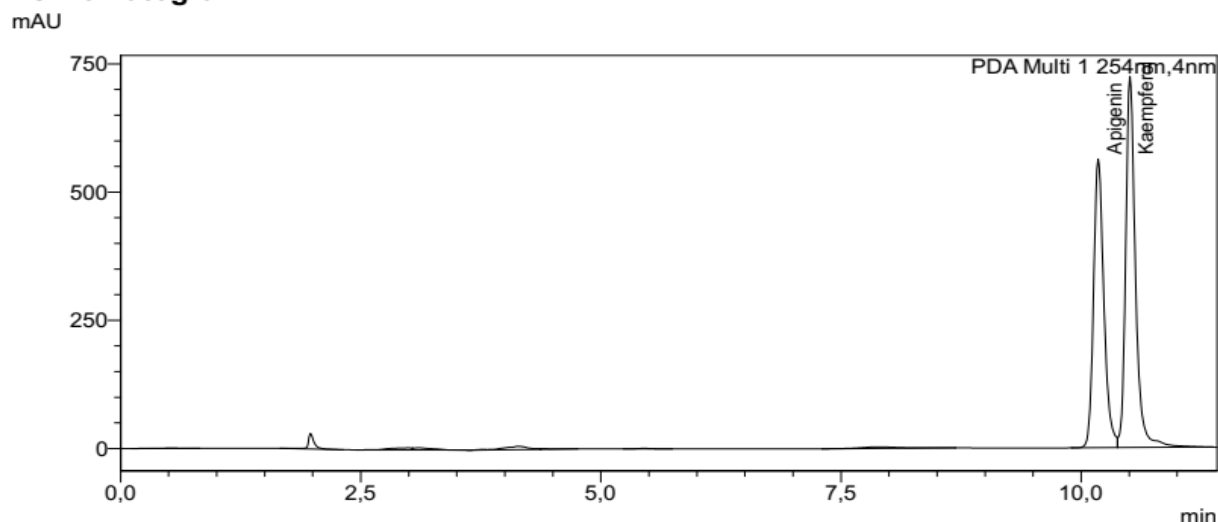
PDA Ch1 254nm

Peak	Time	Area	Height	Concentration	Unit of measure	Mark	Name
2	2,493	898349	92205	0,050	mg/ml	V	Gallic acid
6	3,635	1616920	232739	0,050	mg/ml	SV	Rutin
10	15,891	5600155	226403	0,050	mg/ml	S	Quercetin
Total		8115424	551347				

When performing the analysis of apigenin and kaempferol, based on the parameters of the above device, a chromatogram was obtained in the following gradient mode in 12 min at a flow rate of 0.75 ml/min.

Time	C phase % a 0.5% solution of acetic acid in water	B phase % Acetonitrile
1	60	40
3	70	30
6	55	45
10	80	20
12	Stop	

<Chromatogram>



<Peak Table>

PDA Ch1 254nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
11	10,178	4214421	562744	0,125	mg/ml		Apigenin
12	10,508	5142342	723819	0,125	mg/ml	V	Kaempferol
Total		9356762	1286563				

PDA Ch1 254nm

Peak		Time	Area	Height	Concentration	Unit of measure	Mark	Name
11		10,178	4214421	562744	0,125	mg/ml		Apigenin
12		10,508	5142342	723819	0,125	mg/ml	V	Kaempferol
Total			9356762	1286563				

The amount of flavonoids in the extracted sample is presented in the table below.

	Gallic acid	Rutin	Quercitin	Apigenin	Kaempferol
Dried leaf	0	0,04	0	0,01	0

Conclusion

Based on the obtained results, the components of the extracts obtained from the leaves and roots of *Taraxacum officinale* were studied in order to identify new natural agents with antibacterial activity. Carotene content was determined on a NACH LANGE DR 3900 spectrophotometer and was found to be 16.8 mg. (spectral wavelength range, nm 320–800). Vitamins B₁ (47858), B₂ (47864), B₆ (80823-50MG), B₁₂ (PHR1234-1), C (47863) and PP (47865-U) in dried dandelions (from Sigma Aldrich Germany) on the basis of the given standard samples, quality and quantity

indicators were determined by a YSSX LC 2030 C 3D Plus device manufactured in Japan (Shimadzu) using a PDA detector in the selected state of wavelengths of 260, 290 and 361 nm. B₁₂ was found to be 0.02% mg/ml. In future experiments, the obtained results are determined with the plant dried, and the components of the plant harvested in early spring will be analyzed in a comparative manner.

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Rezyume: O'simliklar tarkibidagi biologik faol moddalarni aniqlash va o'rganishga hozirgi kunda oziq - ovqat, parfumeriya, kosmetika va farmatseftika sanotida keng qo'llanilganligi uchun katta e'tibor berilmoqda. Tabiiy yangilanish va atrof – muhit sharoitlariga moslashish natijasida o'simliklar tarkibi uning geografik joyi, iqlimiga bogliq holda, biologik faol moddalar ishlab chiqarish uchun tabiiy xom ashyo hisoblanadi.

Ushbu tadqiqot asosan antibakterial faollikka ega yangi tabiiy vositalarni aniqlash maqsadida *Taraxacum officinale* barglari va ildizidan olingan ekstraktlarning biologik va fitokimyoviy xususiyatlarini o'rganish uchun olib borildi

Ildizi tarkibida taraksatsin va taraksatserin, glikozidlari, tarakserol, taraksosterol, β -amirin va boshqa triterpen birkmalari, 24 % gacha inulin, 2 - 3 % gacha yog' va boshqa moddalar borligi aniqlandi. Karotin miqdorini NACH LANGE DR 3900 (Germaniya) spektrofotometrida aniqlandi (spektral to'lqin uzunligi diapazoni, nm 320–800). Quruq holdagi qoqio't tarkibidagi B₁ (47858), B₂ (47864), B₆ (80823-50MG), B₁₂ (PHR1234-1), C (47863) va PP (47865-U) katalog raqamdagi vitaminlari (Sigma Aldrich Germaniya)dan keltirilgan standart namunalar asosida sifat va miqdor ko'rsatgichlarini Yaponiyada (Shimadzu) ishlab chiqarilgan YSSX LC 2030 C 3D Plus

qurilmasi PDA detektori yordamida 260, 290 va 361 nm to'liq uzunligi tanlangan holatda aniqladi.

Резюме: В настоящее время большое внимание уделяется выявлению и изучению биологически активных веществ в растениях, так как они широко используются в пищевой, парфюмерно-косметической и фармацевтической промышленности. В результате естественного обновления и приспособления к условиям окружающей среды состав растений в зависимости от его географического положения и климата является природным сырьем для производства биологически активных веществ.

Это исследование было в основном проведено для изучения биологических и фитохимических свойств экстрактов листьев и корней *Taraxacum officinale* с целью выявления новых природных агентов с антибактериальной активностью.

Установлено, что корень содержит тараксацин и тараксацерин, гликозиды, тараксерол, тараксостерол, β -амирин и другие тритерпеновые соединения, до 24% инулина, 2-3% масла и другие вещества. Количество каротина определяли на спектрофотометре NACH LANGE DR 3900 (Германия) (спектральный диапазон длин волн, нм 320–800). Витамины B1 (47858), B2 (47864), B6 (80823-50MG), B12 (PHR1234-1), C (47863) и PP (47865-U) в сушеном одуванчике (от Sigma Aldrich Germany) на основе заданных стандартных образцов качественные и количественные показатели определяли на приборе YSSX LC 2030 C 3D Plus производства Японии (Shimadzu) с использованием детектора PDA в выбранном состоянии длин волн 260, 290 и 361 нм.

Kalit so'zlar: *Taraxacum officinale* bargi, kaliy dixromati, triterpenoidlar, fenolik birikmalar.

Ключевые слова: лист *Taraxacum officinale*, дихромат калия, тритерпеноиды, фенольные соединения.

AMORPHOUS PHASES-DOPED CONTACTS TO SILICON SEMICONDUCTOR DEVICES

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Summary: *Contacts to both n^+ - and p^+ -type diffusion barrier silicon structures based on titanium boride and nitride have been studied. It has been established that the specific contact resistance of ohmic contacts with a diffusion barrier does not virtually change as a result of quick thermal treatment (QTT) in the temperature range $T=400, 500, 600^\circ\text{C}$.*

Keywords: *ohmic contact, boride of titan, diffusion barrier, rapid thermal annealing.*

INTRODUCTION

Silicon is a widely used semiconductor material for the manufacture of microelectronic devices and was sufficiently studied over the past decade. However, the problem of layering heat-resistant contacts onto the silicon surface still remains unresolved. One of the most effective ways to improve contact stability is the use of anti-diffusion layers based on nanocrystalline refractory compounds. Producing such nanocrystalline materials designed for solid-state microwave electronics and improving their properties has been the target of study for many researchers [1–3].

This is due to the fact that this class of nanomaterials, due to its robust thermal, chemical and radiation resistance, can improve the quality of contacts, and therefore could perform as diffusion barriers in contact metallization. Amorphous phases-doped alloys such as borides and nitrides of refractory materials [4] are in this series. In the present paper, we have studied how the process of QTT influences the electrical properties of diffusion barrier-based ohmic contacts based on titanium boride and nitride layers to heavily doped silicon layers.

$Si-n^+-Ti-TiB_2-Ti-Au$ and $Si-n^+(p^+)-TiSi_2-TiN_x-Au$ -type contact systems were investigated. Test (benchmark) structures were used to measure ρ_c by applying Transmission Line Method (TLM) before and after QTT for 60 seconds at temperatures of 400 and 600°C. To measure ρ_c , we have used the previously described reference method [5].

Single crystal Si (111) with concentration of the dopant (phosphorus $\sim 2 \cdot 10^{19} \text{ cm}^{-3}$) produced by the CZ technology was used as a reference substrate material. On preliminarily cleaned surface of Si that was heated to 150°C, Ti (60 nm), TiB_2 (100 nm), Ti (60 nm) and Au (100 nm) layers were sequentially deposited by applying the technique of thermal evaporation of metals in vacuum. The first deposited layer of Ti was the contact-forming layer, the second one TiB_x - is the diffusion barrier, and the following Ti layer is the diffusion barrier and adhesive layer at the same time that in turn ensures reliable contact of Au.

The TiB_2 -based diffusion barrier ensures high thermal stability of “metal-Si” contact system thus improving anti-degradation parameters of the relevant contact systems in the temperature range of 700°C in QTT temperature mode. This is due to the characteristics of TiB_2 chemical bonds, which are featured by high heat resistance, chemical inertness and melting point with properties that are inherent in metals.

The additional Ti layer also acts as a diffusion barrier and enhances better adhesion of TiB_2 and Au. The method of magnetron sputtering is a promising method for obtaining metal borides, which makes it possible to control the change in the morphology, electronic and atomic structure of the deposited layers.

Preheating of Si substrate to $T=100\div 150^\circ\text{C}$ is done with the aim to boost adhesion of the contact metallization surface with the Si surface as well as for silicide formation. Although this

temperature is comparatively low, however it is sufficient for silicide to be formed in (inside) films. This is confirmed by the well-known phenomenon that in thin-film systems the processes of phase transformations are believed to occur more intensively than in bulk materials [6]. The schematic diagram of *Au-Ti-TiB₂-Ti-n-Si* -contact system is shown on Fig.1.

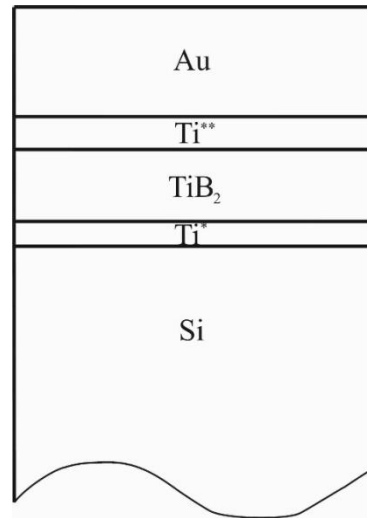


Fig.1. Au-Ti-TiB₂-Ti-n-Si-type contact system structure

Si - silicon sample doped with phosphorus;

Ti - contact-forming layer of titanium;*

TiB₂ - diffusion barrier layer;

*Ti** - additional diffusion barrier layer;*

Au - outer contact layer of aurum

The specific contact resistance of *Si-n⁺-Ti-TiB₂-Ti-Au* and *Si-n⁺(p⁺)-TiSi₂-TiN_x-Au* contact systems was measured before and after thermal treatment at T=400, 500 and 600°C. The measurements were carried out on reference structures that used to represent massive samples of heavily doped *n*-type silicon with $N_D \approx 2 \times 10^{19} \text{ cm}^{-3}$ and samples of *p⁺-Si* with a layer of $p^+ \sim 10^{20} \text{ cm}^{-3}$. The measurement results are shown in Table 1.

Study of the parameters of ohmic contacts with a diffusion barrier based on TiB and TiN on Si showed the stability of contact structures at QTT at T=400, 500, and 600°C due to the absence of bonds with neighboring metallization layers. This effect remains after QTT at T=800°C, however, the relaxation of internal stresses during cracking enhances the mass transfer between the metallization layers, metallic layers, and semiconductor, which leads to an increase in ρ_c . It also turned out that the mechanism of current flow in ohmic contacts towards heavily doped semiconductors ($N_B \geq 10^{18} \text{ cm}^{-3}$ for Si) is determined (in a wide temperature range), largely by tunneling charge carriers.

Table 1

Contacts	Specific contact resistance, Ohm·cm ²			
	исх.	400 °C	500 °C	600 °C
Si-n ⁺ -TiSi ₂ -Au	10 ⁻⁵	10 ⁻⁵	8·10 ⁻⁶	5·10 ⁻⁴
Si-n ⁺ -TiSi ₂ -TiN-Au	10 ⁻⁵	10 ⁻⁵	10 ⁻⁵	10 ⁻⁵

Si-p ⁺ -TiSi ₂ -Au	4·10 ⁻⁶	4·10 ⁻⁶	10 ⁻⁵	7·10 ⁻⁴
Si-p ⁺ -TiSi ₂ -TiN-Au	5·10 ⁻⁶	5·10 ⁻⁶	5·10 ⁻⁶	5·10 ⁻⁶
Si-n ⁺ -TiSi ₂ -TiB ₂ -Au	2,1·10 ⁻⁶	2,1·10 ⁻⁶	1,3·10 ⁻⁶	8·10 ⁻⁶

CONCLUSION

The above experimental data show that films of titanium nitrides and borides are promising materials for use in contact metallization systems as diffusion barriers in silicon semiconductor devices. It is also important to note that further comprehensive study aimed at increasing the thermal and radiation resistance of diffusion barriers based on the doped phases will be required.

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Rezyume: Titan boridi va nitridi asosidagi diffuzion bareriga ega n⁺ va p⁺ kremniyga olingan kontakt tizimlari o'rganildi. T=400, 500, 600°C harorat oralig'ida tezkor termal kuydirish ta'sirida diffuzion bar'eriga ega omik kontaktlarning solishtirma kontakt qarshiligi o'zgarmasligi aniqlangan.

Резюме: Исследованы контактные системы к n⁺ и p⁺ кремния с диффузионным барьером на основе борида и нитрида титана. Установлено, что удельное контактное сопротивление омических контактов с диффузионным барьером не изменяется в результате БТО в интервале температур T=400, 500, 600°C.

Kalit so'zlar: omik kontakt, titan boridi, diffuzion barer, tezkor termal kuydirish.

Ключевые слова: омический контакт, борид титана, диффузионный барьер, быстрый термический отжиг.

**THE CURRENT ECOLOGICAL CONDITION OF WATER BODIES IN THE
CONDITIONS OF THE SOUTHERN ARCHIPELAGO (DOVUTKOL, MEJDURECHE
AND JILTIRBAS)**

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Summary: *The article presents the results of the analysis of the distribution of biogenic elements in the aquatic ecosystems of the Aral Sea region by the method of principal components. The analysis performed shows that, in general, the studied system of characteristics of the state and distribution of biogenic elements in the studied water body does not differ in the stability of correlations; in certain periods of observation, correlations between the studied indicators weaken or even are absent.*

Keywords: *Aral Sea Area, monitoring, biogenous elements, water ecosystems, eutrophication.*

In the world, large-scale research is being carried out to determine the cases of the reduction of the recreational potential of water bodies due to the processes of change occurring in natural water ecosystems under the influence of severe environmental factors, in particular, the increase in the eutrophication processes of water bodies under the influence of anthropogenic factors and the degradation processes in the hydrosphere. In this regard, studying the ecological condition of natural water bodies, determining the quantitative distribution of biogenic elements in water bodies, monitoring water ecosystems, determining their trophic level and developing new innovative methods of bioindication, as well as conducting research on the effective use of water bodies, are becoming an important priority.

Protection of water resources and their rational use on the basis of program documents on monitoring and sustainable development of water ecosystems in the republic, determining the general laws of the processes of anthropogenic degradation of water bodies, analyzing the main components that determine changes in water quality, scientifically based methodologies for researching degradation processes and freshwater ecosystems measures to implement the mechanisms of formation of anthropogenesis in the conditions of water scarcity are being developed and certain scientific results are being achieved. issues of influence of various anthropogenic factors on the state of water bodies in the region were considered.

Studying the laws of processes affecting water resources is one of the priorities in ecology and environmental protection, but it should be recognized that currently the concept and methodology of restoration of water ecosystems is just developing. Due to the fact that the hydrological regime of the Amudarya basin is characterized by extreme variability, there is a strong need for up-to-date information, including information on the composition of biogenic elements, for the development of prospective water management measures. The abundance of biogenic elements is typical for the surface flow of water catchments developed in the agricultural sense and is the result of anthropogenic influence on the water ecosystems of the region.

Davutkol. The Davutkol lake system, located at the beginning of the "former" delta of the Amudarya, is the largest and oldest water ecosystem in the Amudarya basin. It is marked on the map as Davutkol reservoir. The study of this system is of great importance, because, on the one hand, it helps to establish internal connections in lakes, on the other hand, it helps to observe the transformation of ecosystems exposed to anthropogenic influence, and, on the third hand, it gives an opportunity to develop a strategy for the rational use of freshwater ecosystems in the conditions of acute shortage of fresh water in the Amudarya basin. .

The Davutkol system is located along the river, 41 km north of the city of Nukus, and was established in 1931. At that time, the water fell into the lakes through the Davutkol system, and fed

them to the lakes located in its valley, namely, to the Kuskhanatau hill. The water level is variable and is characterized by significant fluctuations, often depending on the filling of the river with water. The area of the system was constantly changing, ranging from 1770 to 2250 ha. The largest depth of 5-7 meters in the system was recorded in the Kuksu boundaries, and unlike other boundaries, its boundaries were well defined. In the lake, some moons are separated from each other by reeds 0.7-1.5 m high.

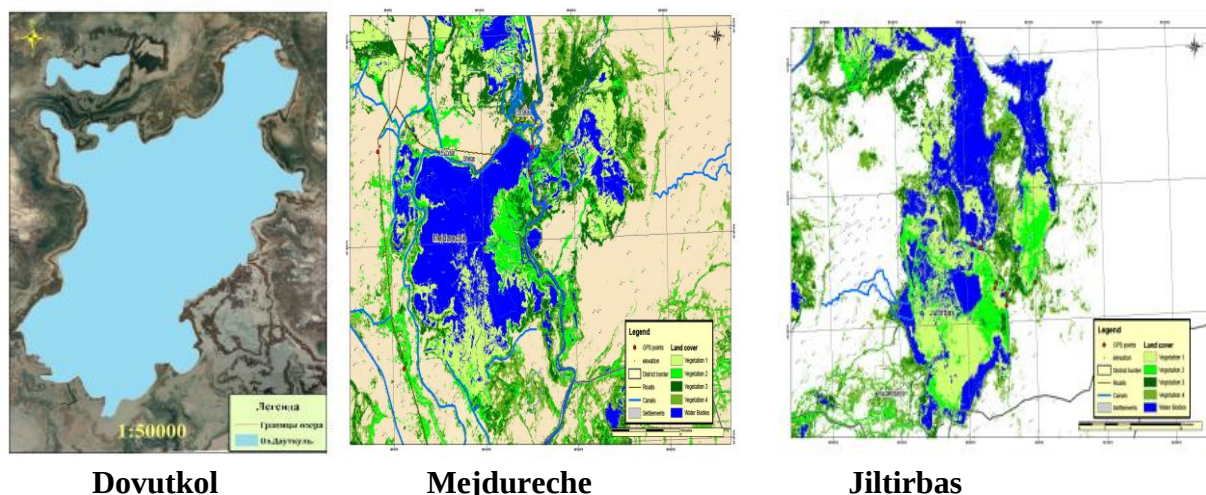


Figure 2. Geographical location of water bodies on the island coast

A change in the hydrological situation in the region, a sharp decrease in the total Amudarya water flow into the delta, and a transition to another source of water supply led to the transformation of the lake system into a basin with the deepest water borders with a single water surface. Irrigation is carried out by pumping water from the Erkindarya channel and the tributaries of the Saranko'l Birkulok system of lakes.

Lake Mejdureche is located in the northwestern part of Mejdureche water body, between Kipchakdarya and Akdarya. The water source is Amudarya. The total area of the water body is 3000 ha, the length is 9-10 km, the width is 2-3 km. The maximum depth is 3.5 m, the deepest place is 1.3-1.8 m. The waters of Amudarya flowing into the lake are characterized by high mineralization and general pollution, which increases along the entire river due to collector-drainage and industrial water discharge. Water clarity in Mejdureche varies depending on the season and is 0.50-0.80 m. Water mineralization in Mejdureche undergoes drastic changes, minimum as well as maximum values were recorded during all periods of observations during the warm time of the year. In summer it is 1274-2124 mg/l, and in autumn it is 1240-1270 mg/l. The concentration of dissolved substances in the water area of the lake is different and changes depending on the season. The content of dissolved substances in the summer season was 0.012-0.556 mg/l, in autumn - 0.310 mg/l (1998), in spring (1999) 0.104-0.671 mg/l, in summer from 0.0093 mg/l to 0.568 mg/l. It should be noted that the maximum amount of seston was recorded in the hypolimnion part of the water layer of the lake.

Lake Jiltirbas originated in the bay of Aral Sea, which is shallow and consists of several borders and reed groves. Lake Jiltirbas is very important for many terrestrial animals. It is a large body of water. Its area is -15,000 ha. Water sources are KS-1,2,3. Maximum depth - 4 meters, minimum - 1m. Lake Jiltirbas is located 50 km from the center of Chimbay district.

The lake receives water from the Kazakh Darya and several thermal artesian wells. Thanks to the construction of the dam, the water level in it was stabilized a few years ago, and this water body was the most important wetland and area used for fishing against the background of the catastrophic drying of the Aral Bay lakes. But during the water shortage of 2007-2009, the water level dropped sharply. The State Forestry and Hunting Farm is located on the lake, and fishing and

hunting are actively conducted. It is quite difficult to reach the lake, the nearest settlement Kazokdarya is 30 km away, but during the period of high water level, the detours stretch to 80-90 km.

Table 1

General characteristics of the current state of the island lakes

	Names of lakes	Field, hectares			Depth, m			Food source
		A lot of water	Average	Low water	A lot of water	Average	Low water	
	Mejdureche	49600	16000	110	2,10	1,80	0,5	River
	Jiltirbas	28500	13500	4000	3,2	1,6	0,9	A mix
	Davutkol	17000	1380	920	7,0	6,8	-	River

Depending on the volume of water supply, changes in the morphometric parameters of the studied lakes are occurring. For example, when looking at the dynamics of the total area of the studied lakes in the period from 2013 to 2019, it is possible to observe the cyclic characteristics of the filling and silting of the lakes (Fig. 3). The dynamics of the water surface of water bodies in the Amudarya delta shows that the surface of water bodies is not very stable in the period of 2003-2014 and is mainly determined by the wetness of the year. The maximum conservation of water surface to 115,200 ha in 2010 and 100 ha in 2009 and 2005 coincided with the ten percent project filling of water bodies in 2011, 2013 and 2014. The composition of some forms of nitrogen in water bodies changes greatly depending on the season and depends on the development of plankton and the intensity of biochemical processes controlling the dissolution of nitrogen in the water bodies themselves. It was found that the composition of biogenic elements also depends on the source that supplies the water bodies: the composition of biogenic elements is lower in lakes fed by river flow than in lakes fed by collector-drainage water. Primary productivity and destruction values have high variability and depend on internal processes of water bodies and many other factors (Table 2).

Studies show that the intensity of formation of organic matter in different types of water bodies is quite high and varies from 0.7 to 4.2 g s/m². The maximum values were recorded only in the lakes where collector-drainage waters are discharged (Dovutkol - 4.2 g s/m² and Lake Kuktosh 1.6 g s/m²). Despite the fact that Mejdureche Lake and Muynok, Saribas Bay are supplied from the same source, the formation of organic matter is different and the clarity is not the same. The destruction of organic matter takes place at different intensities (from 3.2 to 1.1 g s/m). But, in general, its value is much greater, especially considering that the destruction occurs throughout the entire depth of the lakes. The maximum degradation of organic matter was recorded in Lake Davutkol, where the waste water of irrigation networks falls (3.2 g s/m²).

Table 2

Comparative analysis of the level of eutrophication of water bodies

Names of water bodies	Years	Field (hectares)	Clarity (m)	O ₂ mg/l	BOD ₅ mgO ₂ /l	A	D	A:D	Trofikligi zhikhatidan uchta suv ombori
Mejdureche	1982*	150	0,7	6,8	2,2	1,7	2,5	0,86	oligotroph
	1995**	230	0,7	8,7	4,2	1,2	1,2	1,0	mesotroph
	2020#	200	0,6	7,2	4,0	1,2	1,2	1,0	mesotroph
Davutkol	1982*	650	0,8	7,7	3,4	5,6	4,8	1,10	eutrophic
	1995**	3500	0,6	7,6	4,7	4,2	3,2	1,31	eutrophic

	2020#	760	0,5	6,8	3,0	5,2	4,5	1.0	eutrophic
Jiltirbas	1982*	2300	1,2	7,3	4,0	5,2	3,9	1,40	eutrophic
	1995**	2400	0,8	7,4	3,1	1,3	1,4	0,92	mesotroph
	2020#	2100	0,9	6,8	3,4	1,3	1,5	0,9	mesotroph

Note: *- Data from O.V.Babanazarov (1982),**- K.M. Data from Atanazarov (1995),
- our data

Thus, the different composition of biogenic elements in the water of streams and water bodies leads to a change in the level of bioproductivity in them: with an increase in productivity, the total number of bacteria increases, and the most productive one reaches the maximum value in Lake Davutkol; morphological indicators of microflora change. Biochemical activity of microorganisms is related to formation of organic substances, transformation of biogenic elements and water flow and oxygen regime in water bodies. The self-cleaning ability of water flow and water bodies is largely determined by the rate of microbiological destruction of organic matter. Water environmental factors leading to the degradation of water ecosystems are formed depending on the intensity and amount of biogenic elements entering water bodies and create certain conditions at the level of a specific biological regime and production and destruction processes that lead to their accumulation in lakes.

Rezyume: Maqolada biogen elementlarining Orol dengizining suvi ekosistemalarida asosiy komponent metodi sifatida joylashgan analiz natijalari keltirilgan. O'tkazilgan analiz natijasi ko'rsatgichi bo'yicha umumiy o'rganilayotgan xarakteristik vaziyat sistemasi va biogen elementlarining joylashishi o'rganilayotgan suv ob'ekti korrelyatsion aloqalar barqarorligi bilan ajralmaydi, ayrim muddat kuzatuvlarida korrelyatsion aloqalar o'rganilayotgan ko'rsatgichlar orasida kuchsizlanadi yoki umuman yo'q bo'lib ketadi.

Резюме: В статье приведены результаты анализа распределения биогенных элементов в водных экосистемах Приаралья методом главных компонент. Проведенный анализ показывает, что в целом изучаемая система характеристик состояния и распределения биогенных элементов в исследуемом водном объекте не отличается стабильностью корреляционных связей, в отдельные сроки наблюдений корреляционные связи между изучаемыми показателями ослабевают или даже отсутствуют.

Kalit so'zlar: Orolbo'yi, kuzatish, biogen elementlar, suv ekosistemi, evtrofikatsiya jarayoni.

Ключевые слова: Приаралье, мониторинг, биогенные элементы, водные экосистемы, эвтрофикация.

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THE SCHROEDINGER EQUATION WITH A SINGULAR SOURCE

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Summary: *In this paper, we obtain a solution to a specific Schrödinger equation with a singular source in the space of generalized Schwartz functions.*

Keywords: *space of generalized Schwartz functions, Schrödinger equation and operator, Green's function, convolution of generalized functions.*

INTRODUCTION

It is known that the Green function of the one-dimensional Schrodinger operator

$$L \equiv i \frac{\partial}{\partial t} + a^2 \frac{\partial^2}{\partial x^2}, \quad t \in \mathbb{R}, \quad x \in \mathbb{R}, \quad (1)$$

that is, the function $E(t, x) \in S'(\mathbb{R}^2)$, satisfying the equation

$$LE(t, x) = \delta(t, x), \quad (2)$$

the carrier of which $\text{supp } E \subset \{t \geq 0, x \in \mathbb{R}\}$ has the form:

$$E(t, x) = -i \frac{e^{-i\frac{\pi}{4}\theta(t)}}{\sqrt{4a^2\pi t}} e^{i\frac{x^2}{4a^2t}}. \quad (3)$$

A real $a > 0$ is a fixed numeric parameter.

Now consider the Schrodinger equation with a source

$$Lu(t, x) = \delta(x)h(t), \quad u(t, x) \in S'(\mathbb{R}^2), \quad (4)$$

where $h(t)$ – is the slow growth function to the right of zero, i.e. when $\forall t \geq 0$

$$|h(t)| \leq C_h(1+t^p), \quad C_h > 0, \quad p \in \mathbb{R},$$

and $h(t) = 0$ with $t < 0$.

The solution of this equation is given by the convolution of the source $\delta(x)h(t)$ with the known Green function $E(t, x)$ of the operator L , i.e.

$$u(t, x) = (\delta(x)h(t)) * E(t, x).$$

Let's start calculating the convolution. By the definition of convolution, for any main function $\varphi(t, x) \in S(\mathbb{R}^2)$ and for any 1-st cutoff $\eta(t, x) \in D(\mathbb{R}^2)$, the equalities are true

$$\langle (\delta(x)h(t)) * E(t, x), \varphi(t, x) \rangle =$$

$$= \lim_{R \rightarrow +\infty} \left\langle \delta(x)h(t), \quad \eta\left(\frac{t}{R}, \frac{x}{R}\right) \langle E(\tau, y), \varphi(t + \tau, x + y) \rangle \right\rangle.$$

Let's find out if there is a limit on the right side of the equality, and see if this limit depends on the choice of 1-st cutoff $\eta(t, x)$.

$$\begin{aligned} & \lim_{R \rightarrow +\infty} \left\langle \delta(x)h(t), \quad \eta\left(\frac{t}{R}, \frac{x}{R}\right) \langle E(\tau, y), \varphi(t + \tau, x + y) \rangle \right\rangle = \\ & = \lim_{R \rightarrow +\infty} \int_{-\infty}^{+\infty} \eta\left(\frac{t}{R}, 0\right) h(t) dt \int_0^{+\infty} d\tau \int_{-\infty}^{+\infty} \frac{-i e^{-i\frac{\pi}{4}}}{\sqrt{4a^2\pi\tau}} e^{i\frac{y^2}{4a^2\tau}} \varphi(t + \tau, y) dy. \end{aligned} \quad (5)$$

Let us make the estimates necessary for applying Lebesgue's theorem on bounded convergence and Fubini's theorem. To do this, we introduce the function

$$\psi(t) = \eta\left(\frac{t}{R}, 0\right) h(t) \int_0^{+\infty} d\tau \int_{-\infty}^{+\infty} \frac{-i e^{-i\frac{\pi}{4}}}{\sqrt{4a^2\pi\tau}} e^{i\frac{y^2}{4a^2\tau}} \varphi(t + \tau, y) dy$$

and check the modulo estimate, i.e. $|\psi(t)|$. Due to $\lim_{R \rightarrow +\infty} \eta\left(\frac{t}{R}, 0\right) = 1$, as well as the finiteness and continuity of the 1-st cutoff, there exists $M > 0$ such that the estimate

$$\left| \eta\left(\frac{t}{R}, 0\right) \right| \leq M.$$

Also, by virtue of embedding $\varphi(t, x) \in S(\square^2)$, there is such a constant $C > 0$ that

$$|\varphi(\alpha, \beta)| \leq \frac{C}{(1 + \alpha^2)^s (1 + \beta^2)}, \quad \forall \alpha \in \square, \quad \forall \beta \in \square.$$

Therefore, for $t \geq 0$ and for $s = p + 2$ we get:

$$\begin{aligned} |\psi(t)| & \leq C_h (1 + t^p) \int_0^{+\infty} d\tau \int_{-\infty}^{+\infty} \frac{|\varphi(t + \tau, y)|}{\sqrt{4a^2\pi\tau}} dy \leq \\ & \leq M C_h (1 + t^p) \int_0^{+\infty} d\tau \int_{-\infty}^{+\infty} \frac{C}{\sqrt{4a^2\pi\tau} (1 + (t + \tau)^2)^s (1 + y^2)} dy \leq \end{aligned}$$

$$\leq \frac{MC_h C}{\sqrt{4a^2\pi}} \cdot \frac{(1+t^p)}{(1+t^2)^{p+1}} \int_0^{+\infty} \frac{d\tau}{\sqrt{\tau}(1+\tau^2)} \int_{-\infty}^{+\infty} \frac{dy}{1+y^2}.$$

Due to the fact that the improper integrals on the right side of the inequality converge

$$\int_0^{+\infty} \frac{d\tau}{\sqrt{\tau}(1+\tau^2)} < +\infty, \quad \int_{-\infty}^{+\infty} \frac{dy}{1+y^2} < +\infty,$$

and function

$$\frac{(1+t^p)}{(1+t^2)^{p+1}} = O\left(\frac{1}{t^{p+2}}\right), \quad \text{и} \quad \frac{1}{t^{p+2}} \rightarrow 0 \quad \text{при} \quad t \rightarrow +\infty,$$

is absolutely integrable on the half-line $t \geq 0$, it follows that the function $\psi(t) \in L_1(t \geq 0)$ and does not depend on R . Therefore, both Lebesgue's theorem on bounded convergence and Fubini's theorem on a rearrangement of the order of integration can be applied to the integral in formula (5).

Thus, by the Lebesgue bounded convergence theorem, we get:

$$\begin{aligned} \lim_{R \rightarrow +\infty} \int_{-\infty}^{+\infty} \eta\left(\frac{t}{R}, 0\right) h(t) dt \int_0^{+\infty} d\tau \int_{-\infty}^{+\infty} \frac{-i e^{-i\frac{\pi}{4}}}{\sqrt{4a^2\pi\tau}} e^{i\frac{y^2}{4a^2\tau}} \varphi(t+\tau, y) dy = \\ = \int_{-\infty}^{+\infty} h(t) dt \int_0^{+\infty} d\tau \int_{-\infty}^{+\infty} \frac{-i e^{-i\frac{\pi}{4}}}{\sqrt{4a^2\pi\tau}} e^{i\frac{y^2}{4a^2\tau}} \varphi(t+\tau, y) dy. \end{aligned}$$

Further, according to the Fubini theorem, we can rearrange the order of integration in the iterated integral in any order, we have:

$$\begin{aligned} \int_{-\infty}^{+\infty} h(t) dt \int_0^{+\infty} d\tau \int_{-\infty}^{+\infty} \frac{-i e^{-i\frac{\pi}{4}}}{\sqrt{4a^2\pi\tau}} e^{i\frac{y^2}{4a^2\tau}} \varphi(t+\tau, y) dy \stackrel{(\xi=t+\tau)}{=} \\ = \int_{-\infty}^{+\infty} dy \int_0^{+\infty} h(t) dt \int_t^{+\infty} \frac{-i e^{-i\frac{\pi}{4}}}{\sqrt{4a^2\pi(\xi-t)}} e^{i\frac{y^2}{4a^2(\xi-t)}} \varphi(\xi, y) d\xi = \\ = \int_0^{+\infty} d\xi \int_{-\infty}^{+\infty} \varphi(\xi, y) dy \int_0^{\xi} \frac{-i e^{-i\frac{\pi}{4}} h(t)}{\sqrt{4a^2\pi(\xi-t)}} e^{i\frac{y^2}{4a^2(\xi-t)}} dt. \end{aligned}$$

Thus,

$$\begin{aligned} & \langle (\delta(x)h(t)) * E(t, x), \varphi(t, x) \rangle = \\ & = \left\langle \frac{-i e^{-i \frac{\pi}{4}} \theta(t)}{\sqrt{4a^2 \pi}} \int_0^t \frac{h(\zeta)}{\sqrt{\zeta}} e^{i \frac{x^2}{4a^2 \zeta}} d\zeta, \varphi(t, x) \right\rangle \end{aligned}$$

convolution found, i.e. we obtain the desired solution in the form:

$$u(x, t) = \frac{-i e^{-i \frac{\pi}{4}} \theta(t)}{\sqrt{4a^2 \pi}} \int_0^t \frac{h(\zeta)}{\sqrt{\zeta}} e^{i \frac{x^2}{4a^2 \zeta}} d\zeta.$$

The last integral is not calculated in elementary functions and is mainly of purely theoretical interest.

CONCLUSION

The results obtained can be used in the theory of linear differential operators, in mathematical physics when integrating nonlinear equations, and also in quantum mechanics.

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Rezyume: Ushbu maqolada Shvarts umumlashgan funksiyalar fazosidagi birjinsli bo'lmagan singulyar manbali Shryodinger tenglamasining yechimi topil-gan.

Резюме: В данной работе получено решение конкретного уравнения Шрёдингера с сингулярным источником в пространстве обобщенных функций Шварца.

Kalit so'zlar: Shvarts umumlashgan funksiyalar fazosi Shryodinger operatori tenglamasi Grin funksiyasi umumlashgan funksiyalar o'ramasi.

Ключевые слова: пространство обобщенных функций Шварца, уравнение и оператор Шрёдингера, функция Грина, свертка обобщенных функций.

INVESTIGATION OF THE PROBLEM OF INTEGRAL GEOMETRY ON SPECIAL CURVES

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Summary: *In the present paper, we study problems of integral geometry of Volterra type on a family of special curves. Analytic representation of the solution in the class of smooth finite functions is obtained.*

Keywords: *Problems of integral geometry, · inversion formula, · ill-posed problem.*

I. INTRODUCTION

Integral geometry is one of the major directions in the theory of ill-posed problems of mathematical physics and analysis [1, 2]. This topical and rapidly developing area of modern mathematics is closely related to the theory of differential equations and mathematical physics, geometric analysis and has numerous applications in the mathematical study of seismic exploration problems, interpretation of geophysical and aerospace observation data, and in solving inverse problems of astrophysics and hydroacoustics [2–3]. Of particular interest to the problems of integral geometry was the discovery of their importance for solving problems of computed tomography.

In [4] the problems of integral geometry of the Volterra type on a family of broken lines in a strip are studied. Analytic representations of the solution in the class of smooth finite functions are obtained. Estimates of the solution of the problem in Sobolev spaces are presented, from which its weak uncorrectness follows.

In [5–7] linear problems of integral geometry in a strip with a given weight function were considered. An analytic representation of the solution in the class of smooth finite functions was obtained, and the singularity theorems of the solution of the problem were proved. An estimate of the stability of the solution in Sobolev spaces is given, from which it follows that the solution is weakly uncorrelated.

In this paper, we study a new class of weakly ill-posed problems of integral geometry on special curves with given weight functions. Such problems of integral geometry are related to the problems of restoring the internal structure of an object from boundary data. The uniqueness of the solution of the problem in the class of smooth finite functions is shown, an inversion formula is given, and a stability estimate is obtained.

II. INVERSION FORMULA

Let us introduce the notations that we will use below:

$$(x, y) \in R^2, \quad (\xi, \eta) \in R^2, \quad \lambda \in R^1, \quad \mu \in R^1,$$

$$L_H = \{(x, y): x \in R^1, y \in [0, H], H < \infty\}$$

$$\Gamma(x, y) = \{(\xi, \eta): |x - \xi| = y^2 - \eta^2\}.$$

Statement of the problem. Determine $u(x, y)$ if (x, y) integrals of a function $u(x, y)$ on a family of broken lines $\{\Gamma(x, y)\}$ with a weight function are known for all

$$g(x, \xi) = \begin{cases} 1, & \xi > x, \\ 0, & \xi < x \end{cases} \text{ of the strip } L_H$$

$$\int_{\Gamma(x,y)} g(x,y;\xi,\eta)u(x,y)d\xi = f(x,y). \quad (1)$$

If the weight function

$$g(x,\xi) = \begin{cases} 1, & \xi > x, \\ 0, & \xi < x \end{cases},$$

then equation (1) can be written as

$$-2 \int_0^y \eta u(x+h,\eta) d\eta = f(x,y) \quad (2)$$

Let's apply the Fourier transform with respect to the variable x :

$$-2 \int_0^y \eta \hat{u}(\lambda, \eta) e^{i\lambda(y^2-\eta^2)} d\eta = \hat{f}(\lambda, y). \quad (3)$$

Here and everywhere below, through $\hat{u}(\lambda, \eta)$ and $\hat{f}(\lambda, y)$ the Fourier transforms with respect to the variable x of the functions $u(x, y)$ and, $f(x, y)$ respectively.

Let us differentiate both parts of equation (3) with respect to the variable y :

$$-4y\lambda i \underbrace{\int_0^y \eta \hat{u}(\lambda, \eta) e^{i\lambda(y^2-\eta^2)} d\eta}_{\hat{f}(\lambda, y)} - 2y\hat{u}(\lambda, y) = \hat{f}'_y(\lambda, y)$$

or

$$\hat{u}(\lambda, y) = -\frac{1}{2y} (2y\lambda i \hat{f}(\lambda, y) + \hat{f}'_y(\lambda, y))$$

Apply the Inverse Fourier Transform on λ :

$$\begin{aligned} u(x, y) &= \frac{1}{\sqrt{2\pi}} \int_0^{+\infty} \hat{u}(\lambda, y) e^{-i\lambda x} d\lambda = -\frac{1}{2y} \frac{1}{\sqrt{2\pi}} \int_0^{+\infty} (2y\lambda i \hat{f}(\lambda, y) + \hat{f}'_y(\lambda, y)) e^{-i\lambda x} d\lambda = \\ &= \frac{1}{2y} (2y f'_x(x, y) - f'_y(x, y)) \end{aligned}$$

As a result, we obtain the following solution of equation (1)

$$u(x, y) = \frac{\partial}{\partial x} f(x, y) - \frac{1}{2y} \frac{\partial}{\partial y} f(x, y)$$

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Rezyume: Ushbu maqolada Volterra tipidagi integral geometriya masalalarini maxsus egri chiziqlar oilasida qaraymiz. Yechimning silliq funksiyalar sinfidagi analitik ko'rinishi olinadi.

Резюме: В настоящей работе изучаются задачи интегральной геометрии типа Вольтерра на семействе специальных кривых. Получены аналитические представления решения в классе гладких конечных функций.

Kalit so'zlar: integral geometriya masalasi, inversiya formulasi, korrekt qo'yilmagan masala.

Ключевые слова: задачи интегральной геометрии, формула обращения, некорректная задача.

UDC 004.056

DETERMINE THE PERFORMANCE OF INFORMATION PROTECTION TOOLS IN THE INFORMATION SECURITY INCIDENT MONITORING SYSTEM

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Summary: *This article analyzes the logs of operations of the functioning of the main banking system of large banks by the method of operational assessment of the reliability of information security tools (according to their current activities). On the basis of the obtained data on the reliability of means representing discrete and continuous means of information protection, the processes of choosing a mathematical apparatus were analyzed, characterizing the exclusion of random processes associated with changes in the working state of information protection means as a result of violations in their work or specified violations.*

Keywords: *information protection tools, automated banking system, information security event monitoring system, content analysis tools, antivirus software tool.*

I. INTRODUCTION

During the operation of the automated banking system, it is necessary to timely assess the impact of various factors on the efficiency of the system itself and its separate subsystems. Evaluating the performance of the information security event monitoring system, which is one of the subsystems of the automated banking system, requires a lot of intellectual effort from the security administrator (administrator) and is associated with certain time costs. Due to the occurrence of violations in any of the components of the information security incident monitoring system, the effectiveness of monitoring may decrease, but work experience shows that the most negative impact occurs when errors occur in the operation of information protection tools that are part of the monitoring system. At the same time, in the case of inaction or malfunction, additional threats appear to miss information security incidents, the implementation of which will negatively affect the operation of the automated banking system. In this regard, it is necessary to quickly identify and eliminate the causes of violations in the operation of information protection tools, which is often very difficult for the security administrator. This is explained by the fact that there are many factors that affect the operation of the information security incident monitoring system and the decision-making process by the administrator, causing a high level of uncertainty for him, which are difficult to take into account. Therefore, it is important to ensure more effective monitoring of information security incidents by reducing the uncertainty caused by not being aware of the current state of the reliability of protection tools included in the information security incident monitoring system during the decision-making process by the administrator.

II. MAIN PART

During the operation of the automated banking system, it is necessary to timely assess the impact of various factors on the efficiency of the system itself and its separate subsystems. In this work, special attention is paid to the methods of increasing the efficiency of the information security incident monitoring system, as this ensures the reliability of information about information

security incidents compared to existing analogues. First of all, it is about taking into account the current reliability of information protection tools more fully.

Note that this work considers the case of discrete and continuous Information Security tools, for which content analysis tools and antivirus software are selected, most of which are implemented against content analysis tools.

The selection of content analysis tools as a representative of discrete working information protection tools is primarily due to their important role in identifying information security incidents related to the copying of confidential information to data carriers, there are several errors in its operation, the occurrence of which according to experts, the probability is very high [1,2].

The most common violations reported as errors in content analysis tool component logs are [3,4]:

1. Unauthorized cleaning of the content analysis tools index from the data received from the input/output port management tools database to the content analysis tools database;
2. Content analysis tools do not react to indexing server management actions;
3. unable to copy files from the input/output port management tools database to the content analysis tools database due to the lack of access to the network drive where the data store is located;
4. Unable to copy files from the input/output port management tools database to the content analysis tools database due to failed authentication of the broker-module in the database.

A fragment of the job logs containing information about these errors is provided in Appendix E. In addition, each of the errors listed corresponds to a specific case of the operation of the content analysis tools described in the third chapter.

Existing violations, their types and records of elimination of these violations (automatically or by the administrator) in the performance logs of the content analysis tools components are a source of information for further determination of the reliability indicators of these components [5,6].

In Figure 1: $h^{KTQV}(t)$ – normal operation of content analysis tools;

$h_j^{KTQV}(t)$ - the state of failure of the content analysis tools due to the i -th $i = \overline{1, k}$ error

that occurred in the form of the j -th $j = \overline{1, 4}$;

t_i^j - the moment of appearance of the i -th error of the j -th type obtained from the first record of the i -th error of the j -th type in the log;

t_{ni}^j — the moment when the administrator finished searching (detected) the i -th error of the j -type and began to eliminate it, it is taken from the last record of the i -th error of the j -type in the log;

t_{bi}^j - completion moment of j -type i -error elimination from the record describing component recovery after j -type i -error;

T_i^j — random runtime between $(i-1)$ -th and i -th errors of type j , $T_i^j = t_i^j - t_{b(i-1)}^j$ is equal to;

τ_i^j - time of random search (detection) of i -th error of type j , $\tau_i^j = t_{ni}^j - t_i^j$ is equal to;

θ_i^j - time of random elimination of the i -th error of type j , $\theta_i^j = t_{bi}^j - t_{ni}^j$ is equal to;

ξ_i^j – Random recovery (error search and elimination) time of the component after the i -th error of j -type, $\xi_i^j = t_{bi}^j - t_i^j$ is equal to.

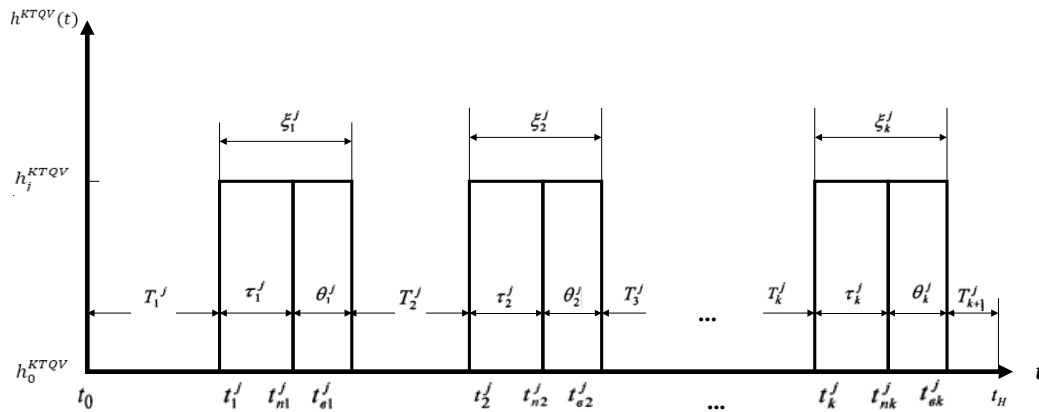


Figure 1. The possible trajectory of the time change of the $h^{KTQV}(t)$ working state in the selected observation interval $[t_0, t_H]$ due to the appearance or elimination of the error of type j of the content analysis tools.

The methodology for obtaining the reliability indices of the components of content analysis tools is presented below.

Due to the occurrence or elimination of a certain type of error, the trajectory of the time change of the working state of the content analysis tools for the selected observation interval $[t_0, t_H]$ can be depicted as shown in Fig. 1

Knowing the probability that information protection tools will detect different operating conditions allows you to predict their behavior over a certain period of time and identify the most likely cases, which allows the security administrator to focus on less reliable components of information protection tools and prevent possible violations. help make better decisions about elimination [7,8,9].

Various mathematical methods are used to determine the probability of operation of various information protection devices, which use information about the reliability of their components. In this case, the choice of a particular method depends, first of all, on the type of information protection tools under consideration: discrete or continuous-time [10, 11].

The occurrence of an error in the operation of the content analysis tools or its elimination causes the content analysis tools to move from a certain state of operation, characterized by the operation of its components, to another state at some point. Each of them is characterized on the basis of the fact that content analysis tools work with some efficiency when the main task is performed to a certain extent. There are also cases where this function is not performed, which are called failure cases [12, 13].

A set of possible cases for content analysis tools has the following form:

$$H_{KTQV} = \{h_0^{KTQV}, h_1^{KTQV}, h_2^{KTQV}, h_3^{KTQV}, h_4^{KTQV}, h_{13}^{KTQV}, h_{14}^{KTQV}, h_{23}^{KTQV}, h_{24}^{KTQV}, h_{31}^{KTQV}, h_{32}^{KTQV}, h_{41}^{KTQV}, h_{42}^{KTQV}\}$$

Content analytics tools change their state at random times while this security tool is performing its function. Functional failure and troubleshooting can be done both with and without human intervention [8,9].

Using the H_{KTQV} package, the behavior of content analysis tools can be represented as an object with a discrete runtime, in the form of a directed graph shown in Figure 2. The vertices of the graph describe the possible states of the content analysis tool, the corresponding probability of transition from one state to another state for a certain time interval Δt , which defines the discrete (cyclic) mode of operation of the graph as the weights of the arcs shown. The rectangles in the

graph show the states corresponding to the two possible failures of each of the content analysis tools components - the mediation module and the indexing server.

Here $P_{q,q}$, $q = 0,1,2,3,4,13,14,23,24,31,32,41,42$ - Δt in time $h_0^{KTQV}, h_1^{KTQV}, h_2^{KTQV}, h_3^{KTQV}, h_4^{KTQV}, h_{13}^{KTQV}, h_{14}^{KTQV}, h_{23}^{KTQV}, h_{24}^{KTQV}, h_{31}^{KTQV}, h_{32}^{KTQV}, h_{41}^{KTQV}, h_{42}^{KTQV}$ probability of saving cases;

$P_{q,r}$, $q, r = 0,1,2,3,4,13,14,23,24,31,32,41,42, q \neq r$ - Δt in time h_q^{KTQV} from h_r^{KTQV} transition probability.

The specific shape of the transition probability graph is related to the limited service mode of the content analysis tools in the process of emerging disturbances, that is, in practice, a single responsible person serves this device.

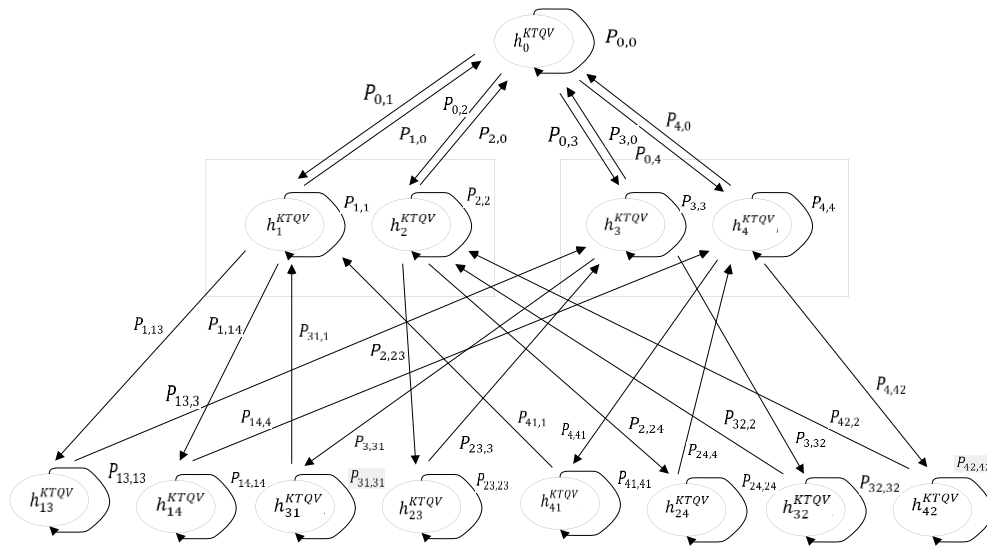


Figure 2. A graph of the probability of transitions between the behavior states of the content analysis tool

Since the content analyzer is a discrete-time system, we use the transition probability method to analyze its reliability in terms of the probability of finding the content analyzer in different operating states $h^{KTQV} \in H_{KTQV}$, which in some time content analysis tools require knowledge of the probability of transition from one state to another.

The purpose of the following analysis $h_q^{KTQV} \in H_{KTQV}$, $q = 0,1,2,3,4,13,14,23,24,31,32,41,42$ is to determine the probability vector function $p(m)$ describing the change of states in a cycle.

$$p(m) = p(m)_0, p(m)_1, p(m)_2, p(m)_3, p(m)_4, p(m)_{13}, p(m)_{14}, p(m)_{23}, p(m)_{24}, p(m)_{31}, p(m)_{32}, p(m)_{41}, p(m)_{42}, m = 0,1,2, \dots,$$

$\bar{p}$, set value $m \rightarrow \infty$ is a vector of stationary probabilities when:

$$\bar{p} = \bar{p}_0, \bar{p}_1, \bar{p}_2, \bar{p}_3, \bar{p}_4, \bar{p}_{13}, \bar{p}_{14}, \bar{p}_{23}, \bar{p}_{24}, \bar{p}_{31}, \bar{p}_{32}, \bar{p}_{41}, \bar{p}_{42}.$$

The use of this method involves knowing the transition matrix corresponding to the transition probability graph between the content analysis tools (Figure 2):

It is a square matrix (13x13), the number of rows and columns of which is determined by the number of possible cases of operation of the content analysis tools that make up the set H_{KTQV} . The column determines the probability of saving the q th state and transitioning to it from other

states when running from (m-1) to m in one cycle. The string defines the probability distribution of each of the states of the content analysis tools, that is, the probability of maintaining the q-th state and the probability of transitioning from the q-th state. The sum of the members of each row is equal to 1, that is, the matrix M is stochastic.

Since M is a stochastic matrix, this allows us to treat it as the transition probability matrix of a Markov chain with discrete time and a finite set of states.

Working conditions that describe the possibility of finding content analysis tools at the initial moment of time m=0 in any case $h_q^{KTQV} \in H_{KTQV}$ of $M(0)$ the initial probability distribution is usually

$$M(0) = \|p(0)_0, p(0)_1, p(0)_2, p(0)_3, p(0)_4, p(0)_{13}, p(0)_{14}, p(0)_{23}, p(0)_{24}, p(0)_{31}, p(0)_{32}, p(0)_{41}, p(0)_{42}\|$$

defined by the row vector.

For example, if at the initial point in time all components of the content analysis tools are running and, accordingly, the content analysis tools are in a normal operating state h_0^{KTQV} if at, then it will be $M(0) = \|1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\|$.

m after successive beats h_q^{KTQV} the probability of finding content analysis tools in the case is $p(m)_q$ usually determined by the formula $p(m)_q = M(0) * M^m * D_q, q = 0, 1, 2, 3, 4, 13, 14, 23, 24, 31, 32, 41, 42$.

Here D_q - is a vector-column, the elements of which are "0" and "1". "1" corresponds to the analyzed case h_q^{KTQV} . $D_1 = \|0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\|^t$

Here t — transposition symbol.

The j-th error occurs or it is resolved:

$$Q_j(\Delta t) = 1 - e^{-\lambda_j \Delta t}, P_j(\Delta t) = 1 - e^{-\mu_j \Delta t}, j = \overline{1, 4}. \quad (1.1)$$

By setting initial state vector M(0) and vectors D_q for states $h_q^{KTQV} \in H_{KTQV}$, $q=0,1,2,3,4,13,14,23,24,31,32,41,42$ is $p(m)_q$ with the formula $m=1,2,\dots$ to determine the probability of finding content analysis tools in each of these cases after an arbitrary number of tacts, and as a result $p(m)$ of the probability of cases of the form $q(m)$ vector function can be defined.

III. CONCLUSION

Based on the results of the above calculations, the following conclusions were drawn:

1. Means of information protection - methods of transition probability and transition intensity are chosen to describe random processes that describe changes in discrete and continuous states of operation, as a result of disturbances in the operation of their components or elimination of these disturbances. Each method, in turn, is based on a Markov random process apparatus with a finite number of discrete or continuous-time states.

2. As a result of processing the data obtained from the operation logs of the content analysis tools components over a certain period of time, the values of the reliability characteristics of these components required by the transition probability and transition intensity methods were calculated.

3. An approach designed to determine the probability of cases of operation of Information Protection Tools (for example, content analysis tools and anti-virus software) that are part of the Information Security Incident Monitoring System and, if implemented, provide the administrator

with maintenance of Information Protection Tools allows to make more informed decisions, because it receives more complete information about the availability of information protection tools (according to the information collected and systematically filled in the information security incident monitoring system).

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Rezyume: Ushbu maqolada axborotni himoyalash vositalari ishonchlilik ko'rsatkichlarini operativ baholash (ularning joriy faoliyatiga ko'ra) uslubiyotiga ko'ra yirik banklarning asosiy bank tizimi faoliyatining ish jurnallarining tahlili amalga oshirildi. Diskret va uzluksiz axborotni himoyalash vositalari vakillari bo'lgan vositalarning ishonchliligi to'g'risida olingan ma'lumotlarga asoslanib, ularning ishlashidagi buzilishlar yoki bu buzilishlar natijasida axborotni

himoyalash vositalari ish holatining o'zgarishi bilan bog'liq tasodifiy jarayonlarni bartaraf qilinishini tavsiflovchi matematik apparatni tanlash jarayonlari tahlil qilindi.

Резюме: В данной статье проведен анализ журналов операций функционирования основной банковской системы крупных банков по методике оперативной оценки показателей надежности средств защиты информации (по их текущей деятельности). На основе полученных данных о надежности средств, представляющих собой дискретные и непрерывные средства защиты информации, были проанализированы процессы выбора математического аппарата, характеризующие исключение случайных процессов, связанных с изменением рабочего состояния средств защиты информации в результате нарушений в их работе или указанных нарушений.

Kalit so'zlar: axborotni himoyalash vositalari, avtomatlashtirilgan bank tizimi, axborot xavfsizligi hodisalarini monitoring qilish tizimi, kontentni tahlil qilish vositalari, antivirus adasturiy vositasi.

Ключевые слова: средства защиты информации, автоматизированная банковская система, система мониторинга событий информационной безопасности, средства контент-анализа, антивирусное программное обеспечение.

FEATURES OF THE PROFESSION OF A DESIGNER

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Summary: *This article discusses the fact that the profession of a designer is associated with a creative rethinking of the objective world, transforming it into new forms that create a harmonious environment for human life.*

Keywords: *profession designer, arts, design, science, culture, education, color science, design activity.*

Despite the fact that the profession of a designer became truly popular and in demand only in the 20th century, the name itself has a long history. Its origins date back to the Italian Renaissance, when the word "disegno" denoted the drawings and designs that underlay the idea.

With many private definitions of design developed in the literature, the most clear is the definition adopted in 1964 by the international seminar on design education in Bruges: "Design is a creative activity in the development (design) of the formal qualities of industrial products. These qualities include the external features of the product, but mainly those structural and functional relationships that turn the product into a single whole, both from the point of view of the consumer and from the point of view of the manufacturer.

Due to the fact that design has become a global phenomenon in modern society, the demand for the training of professionally competent designers is increasing. The professional activity of a designer is largely associated with the ability to develop forms of industrial products and organize space by means of a graphic image, and the main indicator of competence is knowledge of the laws of various types of perspectives used in the development of projects and professional possession of an arsenal of artistic means - graphics and design graphics, compositions, chiaroscuro, color and color, plastics and dynamics

Visual-figurative thinking is of great importance in the profession of a designer. In addition to designers, people of "creative" professions - architects, designers, artists, directors - should have developed visual-figurative thinking. In their activities, they often have to present "both what was, and what will be, and what has never been and never will be." Without figurative thinking, our perception of reality would not be so versatile and deep, rich in various shades. However, with all the variability of the forms of fine arts within a particular period, there have always been relatively stable artistic features - compositional, plastic, coloristic, rhythmic and others that determine the style of a particular time.

Depending on the type of activity of a design specialist, there are several main branches of this profession:

- industrial (design and creation of household appliances, vehicles, tools, furniture);
- design of the environment (creation of interiors, decoration of buildings, sites);
- graphic (creation of trademarks and signs, commercials using computer graphics);
- 3D design (creation of animations, presentations, layouts using special computer programs);
- landscape (works related to the design of land plots, parks, gardens);
- design of clothes, footwear and accessories.

The listed areas of design art are just the tip of the iceberg. Today, the field of activity of a graphic designer is simply huge, so every year new areas of this art appear (phytodesigner, puppeteer, color corrector, stained glass artist, etc.).

Design objects are present everywhere and in everything that surrounds us. In addition to the now popular specialists in the creation of clothing and interiors, designers of jewelry, accessories,

dishes, furniture, etc. are in great demand in the modern world. In a word, anything can become an object of design, from a needle to an airplane.

The profession of a designer is associated with a creative rethinking of the objective world, transforming it into new forms that create a harmonious environment for human life. This profession requires non-standard thinking, able to freely vary the spatial connections of formally figurative structures. To improve the professional skills of specialists in the field of industrial design, continuous improvement of theoretical and methodological knowledge, pedagogical skills and abilities is required.

One of the ways to achieve this goal is to create the necessary didactic conditions that contribute to the formation of students' compositional thinking.

Currently, views on the content and structure of such important components of the social infrastructure as science, culture and education are fundamentally changing. The growing role of aesthetic education in the system of art education, the transition of pedagogical education to a humanistic paradigm necessitates a new approach, the creation of a new program and a new methodological system that could ensure the successful training of a generalist who knows various types of fine and applied arts, as well as modern technologies.

From the first days of independence, the Republic of Uzbekistan has been consistently reforming the education sector as a key link in the renewal of society, as an important condition for democratic reforms and sustainable development.

State educational standards and new curricula have been developed. The teaching of a number of new subjects has been introduced, and a new generation of educational literature enriched with national content is being created. New technologies of teaching and control over the quality of education are being introduced.

New social guidelines in the education system suggest the need to train a well-educated, creatively thinking specialist capable of working in various branches of industrial design in a secondary special school.

In a complex relationship with existing normative methods, not excluding, but supplementing them, the method of teaching the discipline "Fundamentals of Composition. Color Science", breaks stereotypes, meets the actual emerging needs of the future.

Discipline "Fundamentals of composition. Color Science" is the basis for the formation of professional skills in the field of artistic design of the subject-spatial environment and to a large extent determines the level and direction of further creative activity. The problems of composition, their patterns, techniques, means of expression and harmonization have always been and remain relevant for specialists in any creative profession. Systematic studies of various types of industrial design, the study of the category of composition and the creation of a composition, actively influence the process of forming the aesthetic taste of students. In the process of educational and creative activities in the workshop, students of the department of "industrial design" receive theoretical knowledge and practical skills in the basics of composition, get acquainted with its techniques and categories.



According to many applicants who choose interesting and creative work, every talented artist can become a designer. However, professionally important qualities and skills should not be underestimated. After all, a real designer is the creator of a good product, a picky perfectionist who is able to concentrate not only on the external side of the object, but also on describing its details, internal essence and functionality.

To become a specialist in this field and have a stable financial income, you must possess such qualities and skills as:

- observation;
- creative thinking;
- developed imagination;
- sociability;
- ability to work with a large amount of information;
- patience;
- ability to work in a team;
- sense of tact in dealing with clients.

Education

Contrary to the belief of many self-taught designers, this art requires a special education. To become a real professional, you need not only to have good taste, developed imagination and drawing skills, but also to be able to work in modern programs for designing interiors, landscapes, etc. The art of design does not stand still. Every year there are new materials, techniques and methods for creating masterpieces. Therefore, in order to stay on the crest of the wave, both a beginner and a professional designer must constantly learn, improve their skills and keep abreast of all trends.

Today, there are many specialized schools and educational institutions that teach the art of this activity. However, as practice shows, private courses are not always effective.

When choosing an educational institution, it is important to remember that there are no universal designers. Each graphic designer can be a professional in only one direction of art.

Advantages and disadvantages of the profession

Unlike many other professions on the labor market, design craft can bring not only pleasure, but also good financial returns. A specialist works to order, therefore, unlike an artist, he can always be sure that his work will be paid.

However, on the other hand, the designer cannot afford to create only when there is inspiration. Sometimes the order must be completed as soon as possible, because the client is not

ready to wait. Well, if creativity, as they say, is in the blood of a graphic designer. But, if creative thinking requires excessive efforts, then the constant search for new ideas often leads to moral exhaustion and depression.

Another problem may be the internal disharmony of the designer. The tastes of the client do not always coincide with the tastes of the graphic designer, and then you have to do work that is not to your liking.

Of course, the art of design is not an easy craft, but it has many advantages. Design activity brings a good income, which increases with the growth of professionalism.

Another indisputable advantage of working is the ability to work from home. You can generate ideas and create projects not only in the office, but also in your room, since only the result is important for the client.

Thus, the profession of a designer can become a real vocation for creative people who are not used to monotonous and routine work, but dream of creating, making the world more beautiful and getting a good financial income.

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Rezyume: Ushbu maqolada dizaynerlik kasbi ob'ektiv dunyoni ijodiy qayta ko'rib chiqish, uni inson hayoti uchun uyg'un muhit yaratadigan yangi shakllarga aylantirish bilan bog'liqligi haqida gap boradi.

Резюме: В данной статье рассматривается тот факт, что профессия дизайнера связана с творческим переосмыслением предметного мира, преобразованием его в новые формы, создающие гармоничную среду для жизнедеятельности человека.

Kalit so'zlar: kasb dizayner, san'at, dizayn, fan, madaniyat, ta'lim, rang fan, dizayn faoliyati.

Ключевые слова: профессия дизайнер, искусства, дизайн, наука, культура, образование, цветоведение, дизайнерская деятельность.

MASTERPIECES OF FURNITURE DESIGN BORN IN POP ART STYLE

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Summary: *This article discusses and analyzes pop art style furniture created in the 50-60s of the twentieth century on the example of the works of famous European architects and designers. The purpose of this work is to identify the reasons for the "longevity" of the studied furniture masterpieces.*

Keywords: *pop art style, furniture design, armchair, industrial design, art object, plastic chairs.*

Pop art style appeared in the 50s and 60s. XX century in the USA and Europe - initially it was a direction of art opposite to abstract expressionism. Literally, "pop art" is translated as natural art, which is as utilitarian and understandable as possible, in contrast to expressionism and abstractionism, which were the leading styles of art in the middle of the twentieth century. By the mid-1960s, designers in the US and UK were turning to short-lived, disposable items. Drawing inspiration from modern to futurism, surrealism, kitsch, psychedelic and cosmic styles, pop artists have had a huge impact on the world of art and design.

Pop art furniture is characterized by simplicity of design - clear lines, a minimum of decor, affordable materials. It can be plastic, light shelving made of chipboard, fashionable pear chairs - such an environment is very functional and practical, it does not require special care and is very unpretentious in everyday life. Thanks to the cheapening of materials, samples of the furniture industry and decor have become available to everyone. There were sofas with artificial leather, chairs with synthetic covers, chairs made of plastic. The chemical industry in the 1960s introduced strong plastics and polypropylene, which were easy to shape and made into unusual, streamlined shapes. Furniture production took the new materials with a bang: the market was immediately flooded with ergonomic semicircular chairs, odd-looking tables and space lamps.

The outstanding American architect Eero Saarinen (1910-1961) entered the history of post-war design forever. During his short life, he not only formed a new architectural language of the country, but also significantly influenced the world design practice. Saarinen is known as the creator of popular icons of modernism - the most recognizable and often copied furniture in the world. (Fig.1, Fig.2, Fig.3).



Fig.1. Organic Chair. 1940. Fig. 2. Grasshopper Chair.1946. Fig.3. Womb Chair.1948.

His Tulip chair, created in 1957, has become one of the most popular and copied chairs in the world. (Fig.4). Later, the designer developed the Tulip furniture series, consisting of a chair, an armchair, a stool and a table. (Fig.5).



Fig.4. Tulip chair. 1957.



Fig.5. Tulip furniture.

Verner Panton (1926-1998) was a Danish industrial designer who created furniture and interior classics in the 1960s and 1980s. A real classic is not necessarily something that was invented before the 20th century. Any work can become a classic if it finds its buyer for many decades and manages to organically fit into the changing realities. Perhaps one of the brightest classics of furniture design can be called the Dane Verner Panton. Many of his creations have confidently overcome half a century of fame and continue to enjoy incredible popularity.

In 1953, prestigious furniture manufacturer Fritz Hansen launches Panton's Bachelor Chair into series production. (Fig.6). It is a collapsible chair which consists of a chromed tubular steel N-shaped base connected by two bars, upholstered in fabric or suede with or without cushion. Even then, products in different colors were launched into the series - chairs were produced with turquoise, blue, red, yellow, brown and black upholstery. And another serial chair - Tivoli, designed for the restaurant of the same name in Copenhagen. (Fig.7). In it, the back and seat form a single whole with the base of a tubular steel profile, connected to it by vertical bridges. The seat and back cover was made of rattan or synthetic thread. The chair was taken out of production only in the 1970s, but in 2003 it was put back into series and received the classic Beau Bedre award.



Fig.6. Bachelor Chair. 1953.



Fig.7. Tivoli Chair.



One of the most recognizable, spectacular and indisputable works of Verner Panton in terms of aesthetics is the Cone Chair, which became a sensation. (Fig.8). And it was created in 1958 for the Guest House restaurant. The chair is made of a metal frame in the form of a cone, which rotates on a metal leg in the base, made in the shape of a cross. The cone, seat and back cushions are upholstered in red fabric. However, Werner not only designed these magnificent chairs, he created the entire interior - in five different shades of red.

Finally, in 1965, Werner managed to realize his long-standing idea - chairs made from a single element. These fluid molds were made by Thonet. And they were made of plywood.

Fig.8. Cone Chair. 1958.

And only in 1967 the "Panton chair" was finally presented to the public. (Fig.9). And then he was waiting for multiple changes. Originally, in 1967-68, the chair was made from multicolored polyester resin reinforced with fiberglass. From 1968 to 1971 - made of rigid polyurethane foam, also painted in different colors. From 1971 to 1979 - from thermoplastic polystyrene. The Panton chair, as well as the "System 1-2-3" and "C-1" models created on its basis, have been produced since 1968 and still! Undoubtedly, these chairs are classics of furniture design. (Fig.10), (Fig.11).



Fig.9. The Panton Chair. 1967.



Fig.10. Chair «Система 1-2-3».



Fig.11. Chair «C-1»



Another furniture masterpiece is the Ball Chair. (Fig.12) Made by designer Eero Aarnio in 1963 for his own home, the Ball Chair has become an outstanding piece of European furniture design of the 20th century, seamlessly combining extravagant form and maximum comfort of privacy. The first serial Ball chairs were presented at a furniture exhibition in Cologne in 1966, where they made a splash.

The frame is made of fiberglass. Soundproofing is provided by the use of foam filler. The possibility of rotation on the entire axis is achieved thanks to a strong metal leg with a rotating base.

Fig.12. Ball Chair. 1963.

The upholstery is made of red woolen pillows contrasting with the main white color. Modern models provide for the possibility of embedding a telephone and audio speakers in the Ball chair.

Despite the fact that more than half a century has passed since the release of the model, the ball chair remains a favorite piece of designer furniture. It can be seen in the interior of trendy lobby bars, conceptual cafes, fashionable restaurants, and clubs.

Designed by renowned Danish architect and designer Arne Jacobsen, the Egg Chair (Fig.13) and Swan Chair (Fig.14) are sculpted in molded fiberglass molds and are hailed as style icons and timeless masterpieces. Jacobsen was looking for the shape of the future egg chair for a long time. He dreamed of creating something new and revolutionary, but at the same time stylish and comfortable. According to one version, the inspiration for the search for form was the famous (Womb Chair) Eero Saarinen. Both armchairs were designed for the SAS Royal Hotel between 1956 and 1960. (now called The Radisson Blu Royal Hotel). In fact, it was the world's first designer hotel, because everything here was author's - from architecture to door handles, faucets and ashtrays.



Fig.132. Egg Chair.



Fig.14. Swan Chair.

The famous armchairs look like sculptures, because they were created exactly like sculptures: Jacobsen sculpted numerous prototypes from clay, and only after the ideal shape was found, the Fritz Hansen factory recreated them from fiberglass reinforced plastic. An egg-shaped armchair could be seen not only in expensive hotels and offices, but also on TV screens. The Egg Chair appears alternately in two cult films about space exploration - in Andrei Tarkovsky's *Solaris* and Stanley Kubrick's *A Space Odyssey*.

And of course, when talking about pop art furniture, it is impossible not to recall its most striking and outrageous embodiment - sofas in the form of parts of human bodies. This is, first of all, the Lips Armchair (Fig.15), created by the Spanish furniture designer Oscar Tusquets Blanca in the 1970s according to a sketch by Salvador Dali. The prototype was Dali's painting "The Face of Mae West, which can become a surreal apartment", written by him in 1935. As well as Chair Donna (Fig.16) by Italian designer Gaetano Pesce in the form of a prehistoric female fertile figure.

These and other similar furniture forms immediately became iconic, especially in creative circles, and continue to be popular to this day. However, not as much as the previous masterpieces of Saarinen, Paton or Jacobsen, apparently, because elegance gives way to outrageousness in them.



Fig.15. Armchair Lips. 1970



Fig.16. Chair Donna. 1967.

And in conclusion. It would seem that initially pop art furniture, like everything that was created in this style and philosophy of mass consumption, momentary and fragility, were doomed to a bright but short life. However, all the masterpieces of furniture design we have considered have gained a long and glorious life of more than half a century, and continue to not only be popular today, but are also leaders in mass industrial production.

The reason for this "longevity", according to the author of the article, is a deeply and comprehensively thought-out design, which uses classical proportional relations and modern developments in the field of ergonomics, combined with the use of advanced manufacturing technologies and materials.

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Rezyume: Ushbu maqolada 20-asrning 50-60-yillarida mashhur Evropa me'morlari va dizaynerlari asarlari misolida yaratilgan pop-art uslubidagi mebellar muhokama qilinadi va tahlil qilinadi. Ushbu ishning maqsadi o'rganilgan mebel durdonalarining "uzoq umr ko'rish" sabablarini aniqlashdir.

Резюме: В данной статье рассматривается и анализируется мебель стиля поп-арт, созданная в 50-60 годы XX века на примере произведений известных европейских архитекторов и дизайнеров. Целью данной работы является выявление причин «долгожительства» изучаемых мебельных шедевров.

Kalit so'zlar: pop-art uslubi, mebel dizayni, kreslo, sanoat dizayni, art ob'ekt, plastik stullar.

Ключевые слова: стиль поп-арт, дизайн мебели, кресло, промышленный дизайн, арт-объект, стулья из пластика.

THE GOALS AND OBJECTIVES OF COMPOSITION IN THE FINE ARTS

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Summary: *This article discusses the brief notation of the concept of composition and highlights the goals and objectives of composition in the visual arts.*

Keywords: *Composition, perspective, proportion, character, line, object, effect, angle, dimension.*

In order to improve professional skills of specialists in the field of fine arts, constant improvement of theoretical and methodological knowledge, pedagogical abilities and skills is required. One of the directions of achieving the goal is to create the necessary didactic conditions, contributing to the formation of students' compositional thinking.

Composition is a system of rules and techniques for the mutual arrangement of parts into a single harmonious whole. The ability to accurately and expressively place an image within the sheet format is an indispensable condition in a training drawing. The ability to compose compositions is also an art. Therefore, in order to master the art of layout, the development of compositional vision and flair will be required.

The mass of elements in the composition and the surrounding space are combined in such a way that the volume of the form itself prevails and, for all its complexity, it looks like a single object. Outer space surrounds the form without penetrating it.

In order to better understand the principles of shaping and learn how to solve complex compositional problems, students are offered the task of compiling three-dimensional compositions from geometric objects, also called insets. In the first versions of the compositions, the teacher can determine the type and number of objects, then the student himself decides which objects will be used. The peculiarity of the task is that everything - the image that makes up the composition, objects, their positions, sizes, angles are created in the student's imagination, based on creativity, knowledge of constructing geometric shapes and the ability to display their ideas on a sheet, which was studied in drawing classes geometric shapes. This important task is part of the drawing class program and is a key link in the transition from drawing geometric objects to more complex models.

Before starting work on the composition, it is necessary to determine the semantic content and objectives of this statement. Subjects for an educational production are usually selected in accordance with a certain plot or theme. By the way the educational setting is composed, it is possible to predetermine the future composition, because the setting itself, in a sense, is already a composition.

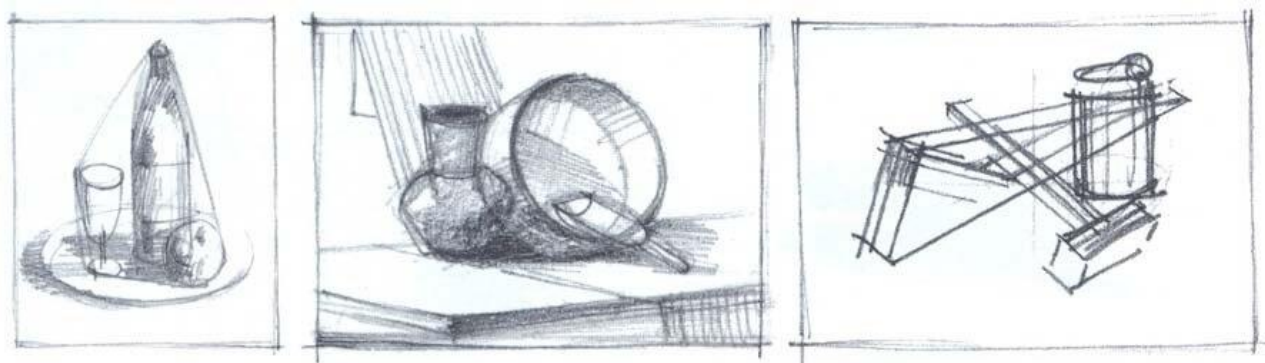


Fig.1

1. Determine the tasks and goals (the semantic content of the statement).
2. Study the setting and determine the point of view.
3. Determine the scale and nature of the object and correctly position the sheet of paper (vertically or horizontally, Fig.1).
4. Determine the center of the composition.
5. Construct objects taking into account perspective, proportion and character transfer.
6. Revealing the volume of objects by means of chiaroscuro.
7. Completion and generalization of work on the drawing, i.e. the drawing should be brought to a general subordination of all tones in accordance with the general visual impression and compositional integrity (Fig. 2).

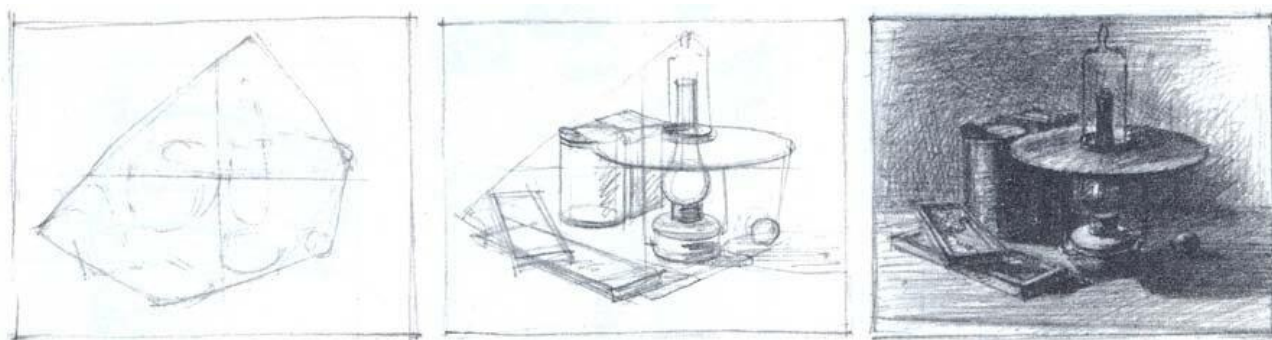


Fig.2

In the process of completing assignments, students learn the following:

- Imagine, then depict compositions from different geometric objects and their combinations.
- Ability to build complex geometric shapes from different angles
- Analyze the design of objects, display the intersection of lines, three-dimensional shapes and inserts in three-dimensional space.
- Build complex drop shadows on inclined planes.

There are also tasks where the student is invited to take 3-4 elements as the basis for the future composition, such as a cube or a parallelepiped, place and combine them proportionally, and then develop this combination by adding various bodies of rotation, such as a ball, cylinder, cone, in order to they organically entered and improved the existing group.

For a more effective drawing, it is more advantageous to place the inserts in space, without depicting the plane and the horizon line, imagine that objects are hanging in the air and you can draw them from any side, so the angles of the inserts and intersections look more impressive, and in some cases more clearly. Especially spectacular are the views from below, which are impossible to see in a normal production.

The compositional search in artistic design is aimed at giving the form properties that provide the consumer with useful effects.

Composition – “composition” – is understood in the field of art as a system for constructing a work of art. This concept is applicable to the design process, to the project and the product itself.

Everyone has an intuitive concept of composition to varying degrees. Otherwise it wouldn't make any sense. That is, people have a similar idea of harmony, integrity, unity ...

The means of composition are lines, hatching (stroke), spot (tonal and color), linear perspective, chiaroscuro, color, aerial and color perspective.

The line can certainly be considered as one of the main means of fine art in general. The line is used both in a long-term drawing and in short-term sketches and sketches of compositions. The line drawn by the drawing pen is the same throughout its length, but this drawing line is unsuitable for artistic purposes - it is monotonous, lifeless, inexpressive. The line lies with all its points on the surface of a sheet of paper and thus, as it were, keeps the image within the format, emphasizing the two-dimensionality of the plane.

Composition in design, composition in drawing, composition in painting, composition in photography are inseparable concepts. Composition in music and composition in literature also have much in common with the above, but the means of achieving it are different.

Artists pay special attention to finding the most expressive compositional schemes. Over the course of many centuries, works were created with various compositional solutions, including works of fine art.

The science of composition studies the general internal patterns of the structure of forms in art and design, as well as specific means of achieving their integrity and unity with the content of things.

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Rezyume: *Ushbu maqolada kompozitsiya tushunchasining qisqacha tavsifi muhokama qilinadi va tasviriy san'atda kompozitsiyaning maqsad va vazifalari yoritiladi.*

Резюме: *В этой статье рассматриваются краткие обозначения понятия композиции и освещаются цели и задачи композиции в изобразительном искусстве.*

Kalit soʻzlar: *Kompozitsiya, perspektiva, nisbat, xarakter, chiziq, ob'ekt, effekt, burchak, hajm.*

Ключевые слова: *Композиция, перспектива, пропорция, характер, линия, объект, эффект, ракурс, объем.*

THE ROLE OF SYMMETRY-ASYMMETRY IN COMPOSITION

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Summary: *This article discusses the fact that the composition is created using certain tools. Harmonious, proportional and correctly chosen use of instruments testifies to the creative approach to composition.*

Keywords: *Composition, symmetry, asymmetry, form, ravnovesie, elementi, tsvet, chasti.*

The concept of "basics of volumetric composition" is important, any composition is made of its own tools. The use of tools in harmony, proportionality and correctly found indicates a creative approach to the composition. The composition consists of specific laws and tools. Its basic laws include balance and generality. Balance is manifested differently in symmetrical and asymmetrical compositions. The balance is achieved by the harmony of the amount of elements, their shape, their interaction with the environment, color, textural solution. Compositional tools include descriptive compositional technique, proportion and scale, contrast and nuance, metrical repetition and rhythm, color, shading, and plasticity. The deterministic compositional method is an important organizational basis for working on the product form and determines the direction of creative research.

At the stage of the technical proposal or sketch project, after determining the main elements of the product and its permissible placement options that provide certain technical parameters, the designer should choose a decisive compositional method, define the idea of product composition. Knowing the options of the technical placement scheme, the designer creates his artistic-constructive options, determines the general appearance of the structure of the form (radial, patterned or flat small forms of the constituent surfaces, nuance or contrast solution of the form, material and junctions of the form elements). This single designator allows to indicate the unit of means of the composition of the given product or their groups in the compositional method.

Composition gives meaning to creation, composition. Composition is the interrelationship of different parts in accordance with an idea, which together form a certain form.

The term "composition" is used in two aspects; - purpose-oriented structure of an artistic work according to the conditions of its content, character and function; It is an important organizing element of the artistic form, which gives the work a whole harmony and integrity, and the subordination of the elements to the whole and to each other is manifested as an attribute of the artistic work. Compositional balance. A state of composition in which all elements are mutually balanced.

The structure of the material is intended to provide students with the sum of necessary knowledge on a certain topic, each of these topics is covered not only by the text of the lecture, but also by photographs

Paper differs not only in thickness and structure, but also in color, moisture resistance and strength. The number of species cannot be counted, it is constantly growing.

Paper is used in almost all areas of human activity. Paper is one of the most convenient materials and does not require a large set of tools to work with it. A very valuable quality of paper is its ability to retain the shape given to it, which allows us to make various crafts, toys, as well as things that we can use in our daily life.

This pair of tools determines the location of composition elements relative to the main axis. If it is the same, then the composition looks symmetrical, if it has a slight deviation in one direction or another - as asymmetric. With a significant deviation, it becomes asymmetric. Symmetry is one

of the important means of achieving unity and artistic expressiveness of composition in artistic design. Symmetry is found everywhere in nature and technology, and is widely used by architects.

Since ancient times, symmetry has been considered one of the conditions of beauty, because it ensures the balance of the composition. The ancient Greeks believed that the universe is symmetrical because symmetry is beautiful. The word "symmetry" means "proportion" in Greek.

There are three main types of symmetrical composition: mirror, axial and screw. Mirror symmetry is formed by the same arrangement of elements relative to the main axis passing through the center of a horizontal or vertical composite plane (graphic or plastic). For example, a square with a cross in the middle. Symmetry is central, as a rule, characteristic of a three-dimensional figure with a vertical axis of symmetry and the same arrangement of elements around this axis. A characteristic symmetric axial shape is a cylinder.

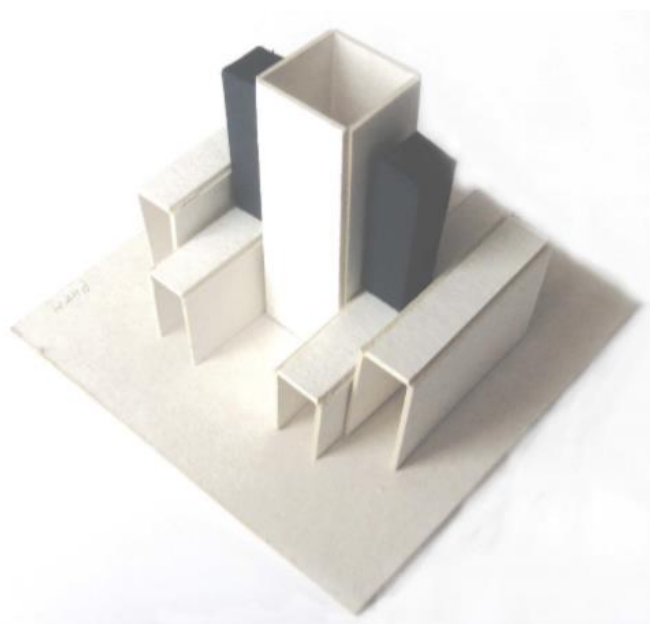
The symmetry of the screw is characteristic of a three-dimensional shape with the same central axis and the uneven development of elements in the longitudinal direction, their reduction and displacement relative to this axis. A typical example of this is a shell-like shape.

Symmetry provides a very clear visual balance of the compositional form. Any violation of it will cause this form to have an unbalanced character. However, a dissymmetric, as well as an asymmetric composition, will retain its integrity if their real disproportion is eliminated by the overall visual balance of the form. In this case, the axis of the form does not pass through its physical center (in the middle), but through the compositional center.

Asymmetry is also widely used, that is, the combination and arrangement of elements that do not have an axis or plane of symmetry. In such a composition, the visual balance of all its parts in terms of mass, structure, and color is especially important. Asymmetry is an organizational principle based on the dynamic balance of elements, the impression of their movement as a whole.

If the symmetrical form is easily and immediately accepted, the asymmetrical form is read gradually.

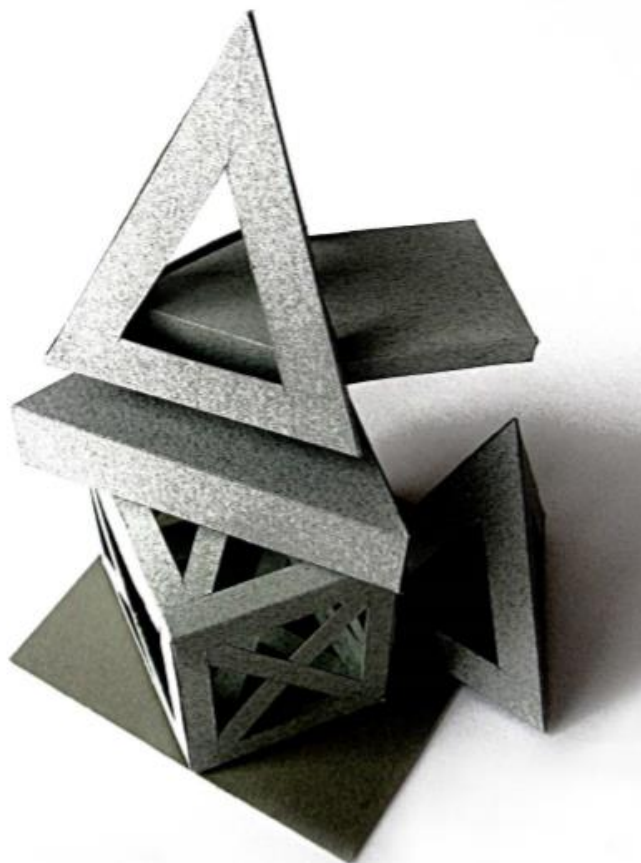
It should be noted that symmetry, like asymmetry, is often expressed in the comparison of several composite axes. The simplest case is the ratio of the main axis and subordinate axes that determine the position of the secondary parts of the composition. With a significant difference between the secondary axis and the main axis, the composition may collapse. To achieve its integrity, various methods are used: bringing the axes closer, combining them, adopting a common direction, etc.



Students' work on "Symmetry".

The composition can include symmetry and asymmetry at the same time. Then it is built on the basis of secondary, asymmetric parts and subordination of the main symmetrical form. With such subordination, the visual balance of the whole composition is established. This can be achieved when the main element is asymmetric with respect to the overall shape, and its parts are symmetrical and vice versa.

The most difficult situation is to establish a compositional balance between elements with axes of symmetry located in different coordinate directions. This is typical for building complex three-dimensional compositions. In order to give balance to these compositions, it is necessary to have a deep sense of harmonious form and to understand the laws of symmetrical formation.



Students' work on "Asymmetry".

In particular, it is important to take into account the specific characteristics of the perception of the plastic form from different points of view and from different angles. It is a perceptive, even almost symmetrical composition it can be visually perceived as asymmetric, and the task of its harmonic construction will have additional complexity in this case. Solving this problem requires increased attention and a deep sense of harmonious composition.

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Rezyume: Ushbu maqolada har qanday kompozitsiya o`ziga xos vositalardan tuziladi. Vositalar uyg`unligi, mutanosibligi me`yorida va to`g`ri topilgan holda qo`llanilishi kompozitsiyaga ijodiy yondashilganlikdan dalolat beradi.

Резюме: В данной статье рассматривается тот факт, что композиция создается с помощью определенных инструментов. Гармоничное, пропорциональное и правильно подобранное использование инструментов свидетельствует о творческом подходе к композиции.

Kalit so'zlar: Kompozitsiya, simmetriya, asimmetriya, shakli, muvozanat, elementlar, rangi, qismlari.

Ключевые слова: Композиция, симметрия, асимметрия, форма, равновесие, элементы, цвет, части.

UDC 691.1

OBTAINING ARBOLITA BY THE "NON-REMOVABLE FORMWORK" METHOD

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Summary: *The article presents the results of a study of the technology for obtaining arbolite-concrete mixtures by the method of "fixed formwork" based on liquorice root waste and substantiates the possibility of their use as a wall material in housing construction. The study of wood concrete samples with the introduction of various superplasticizers (PolyPlast, CenPlast and C - 3) in an amount of 0.5-1% and at 28 days. hardening made it possible to obtain reliable values for an increase in strength indicators (up to 5 MPa) using the "fixed formwork" method based on liquorice root waste. The results obtained make it possible to increase the strength characteristics of arbolite based on licorice root waste and use them in enclosing structures in housing construction in the conditions of the Republic of Karakalpakstan.*

Keywords: *wood concrete, fixed formwork, liquorice root, sawdust, cement.*

1. Introduction

One of the conditions for the economic and social development of the construction industry and products in the Republic of Karakalpakstan is the creation of energy-saving materials for construction from local raw materials with improved technical and mechanical properties.

These materials include wood concrete, which combines lightness, environmental friendliness, high thermal insulation qualities and may contain vegetable and agricultural waste, which are rich in regions of Karakalpakstan, which are almost never recycled, but it is advisable to use them as a filler instead of wood in the production of wood concrete (straw, cotton stalks, rice husks, licorice, etc.) [5].

At present, due to the development of the agricultural sector in the republic, at the end of the harvest, a lot of agricultural waste remains, such as cotton stalks, husks and husks of rice and other crops. Such plant wastes include licorice roots. Joint Uzbek-Chinese enterprises carry out work on processing licorice roots for various economic and medical purposes. From the roots of licorice with ammonia additives, raw materials for the pharmaceutical industry are obtained. After processing licorice roots with ammonia additives, a lot of solid waste remains. Thus, in the dump of this one enterprise, there are about 15 such enterprises in the republic, approximately 150 tons of waste are generated and are renewed every year. Utilization of these wastes as part of lightweight concrete is relevant for the economy of Uzbekistan. However, the increased requirements for the quality of wood concrete set the task of further improving its construction, operational, technological, physical and mechanical indicators. The Republic of Karakalpakstan is located in a sharply continental zone, in summer the temperature on the hottest days reaches 45-50°C, and in winter periods up to -20-25°C. Therefore, the use of heat-insulating materials, reducing the own weight of building structures through the use of waste from the processing of licorice roots, is of particular importance in construction, and is also one of the effective measures to improve the environmental quality and cheap construction [6,7].

The strength of the wood concrete is regulated by the average density, quality, type, granulometric composition, as well as the grain shape factor, the physical-mechanical and physico-chemical properties of the used binder and organic aggregate of plant origin. Blocks and slabs are made from wood concrete for the outer and inner walls of buildings, as well as structures made of monolithic lightweight concrete [3,4]. The average density of wood concrete from various raw

materials according to GOST 19222-84 is shown in Table 1.

Table 1 - Average density of wood concrete from various raw materials according to GOST 19222-84

Type of wood concrete	Strength class	Average density of wood concrete kg/m ³			
		shredded wood	cotton plant	Bun	Rice straw
Heat insulating	B0,35	400-500	400-450	400-450	500
	B0,75	450-500	450-500	450-500	-
	B1	500	500	500	-
Structural	B1,5	500-650	550-650	550-650	600-700
	B2,0	500-700	600-700	600-700	-
	B2,5	600-750	700-800	-	-
	B3,5	700-850	-	-	-

2. Literature review and problem statement

The technology for producing arbolite-concrete mixtures by the method of "fixed formwork" based on liquorice root waste is versatile, suitable for both low-rise private and multi-story construction. In the construction process, the use of a fixed frame is used for many purposes of construction, for example, for the construction of foundations, during the erection of building walls and also for finishing works [12].

Currently, this design allows pouring a wide variety of shapes and designs from concrete. Fixed formwork is used for the foundation, the construction of arches, columns. And the presence of a heater in the frame increases the thermal insulation of monolithic concrete walls and allows you not to carry out insulation during finishing work. To date, there are several types of fixed formwork, each of which has its own fundamental assembly features and functional characteristics [13].

Expanded polystyrene formwork is assembled from two parallel foam plates, the rows are superimposed on each other and fastened together with the help of spikes and grooves located along the edges of the panels. Additional structural strength is betrayed by iron fittings installed inside the structure. Currently, non-removable formwork for the foundation of expanded polystyrene is most often used, its price is usually low, which adds to its popularity [14]. Below in fig. 1 shows some types of non-removable polystyrene foam formwork for the manufacture of arbolite concretes.



Figure 1. Fixed formwork laboratory layout

Formwork for the production of arbolite-concrete mixtures involves the use of arbolite slabs for the frame (panels consisting of wood chips mixed with concrete mortar). This design has higher thermal insulation performance than the polystyrene frame, however, the price of such formwork is very high, so it is used less often than others. In table. 2 shows data on the advantages and disadvantages of fixed formwork.

Table 2 - Advantages and disadvantages of fixed formwork

Advantages	Flaws
Ease of erection, the final result is less dependent on the skill of the workers (compared to self-made removable formwork).	In houses with fixed formwork, high humidity is often observed, which makes it necessary to equip a powerful ventilation system.
Good heat and sound insulation (compared to buildings made of brick and reinforced concrete slabs).	The impossibility of construction in the cold season, since a large mass of concrete hardens poorly at low temperatures.
Ease of carrying out finishing work due to the even surface of the formwork without cracks and differences in wall thickness.	The need for additional wetting of concrete during a hot period in order to prevent cracking of the walls.
Reduced construction period compared to houses made of brick, stone, gas blocks.	Buildings with a metal reinforcement cage must be grounded as quickly as possible so as not to expose people to the risk of lightning strikes.
The durability of buildings with reinforced concrete formwork is 300 years or more.	Difficulty in dismantling during alteration and reconstruction, especially if the filling was reinforced with metal rods.
The technology is suitable for the construction of buildings of any size and number of storeys, from summer houses to shopping malls.	In case of fire, the formwork material can release harmful substances.
Minimization of construction waste (compared	With insufficient or incorrect external processing

to construction technology with removable formwork).	of polystyrene foam blocks, water, insects, and small rodents can get into the walls.
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3. Goals and objectives of the study

To analyze and scientifically substantiate the technology for obtaining arbolite-concrete mixtures by the method of "fixed formwork" based on liquorice root waste and obtaining heat-insulating structural wood concrete based on mineral binders and organic aggregates for possible use in building envelopes and structures.

To achieve the goal, the following tasks were set:

1. To develop a technology for obtaining an arbolite mixture by the method of "fixed formwork" based on licorice root waste, and the possibility of their use as a wall material in housing construction is substantiated.

2. Research of the physical and mechanical properties of arbolite-concrete samples based on licorice root waste for their possible use in the construction industry.

4. Materials and research methods

Portland cement brand TITANCEMENT according to GOST 31108-2003 was used for the experimental study. Physical and mechanical properties and chemical and mineralogical composition of the above clinker minerals of Portland cement are given in table. 3 and 4

Table 3 - Physical and mechanical properties of Portland cement brand TITANCEMENT according to GOST 31108-200

Bulk density	Start grasping	End of setting	Compressive strength, MPa	Bending strength, MPa	blur cones, mm
1.082gr/cm ³	4 h 35 min	8 h 5 min	28.3 MPa.	10,2 MPa	110

Table 4 - Chemical composition of Portland cement, wt. %

CaO	SiO ₂	Fe ₂ O ₃	Al ₂ O ₃	MgO	SO ₃	R ₂ O	п.п.п	Σ
61,48	23,38	6,09	6,38	1,09	0,60	0,38	0,52	99,92

Portland cements were tested in accordance with GOST 310.1-76, 310.2-76, 310.3-76, 310.4-76, 25820-2000, 10060.3-95. According to the requirements of GOST 25820-2000, GOST 7473-94, portland cement should contain at least 40% silica, the amount of sulfuric anhydride should not exceed 3%, loss on ignition should not exceed 10%.

Various superplasticizers (PolyPlast, CenPlast and C-3) were used as binder additives in an amount of 0.5 to 1% by weight of the binder composition. Types, average density and strength characteristics of super plasticizers are given in Table. 5.

Table 5 - Types, average density of super plasticizers

Type of additive super plasticizers	Average density, ρm, kg/m ³
Without additives	0,866
Poly Plast	0,870
CemPlast	0,880
C - 3	0,923

For experimental work, crushed liquorice root waste was used as an organic filler. The physicochemical properties, chemical and fractional composition of the crushed licorice root waste were established empirically in accordance with the requirements of GOST 19222-84, GOST 25820-2000, as well as on the basis of reference and literature data [1-30] and they are given in table. 6. The type and bulk density of the licorice root are shown in fig. 2.

Table 6 - Chemical composition of crushed liquorice root waste

Shredded licorice root waste	Bulk density of licorice at fraction, kg/m ³			Content of components, %			
	At 0-5 mm	At 5-10 mm	At 10-20 mm	Cellulose	Lignin	Pentozes	Polysaccharides
	232	205	201	39,1	19,2	17,7	24

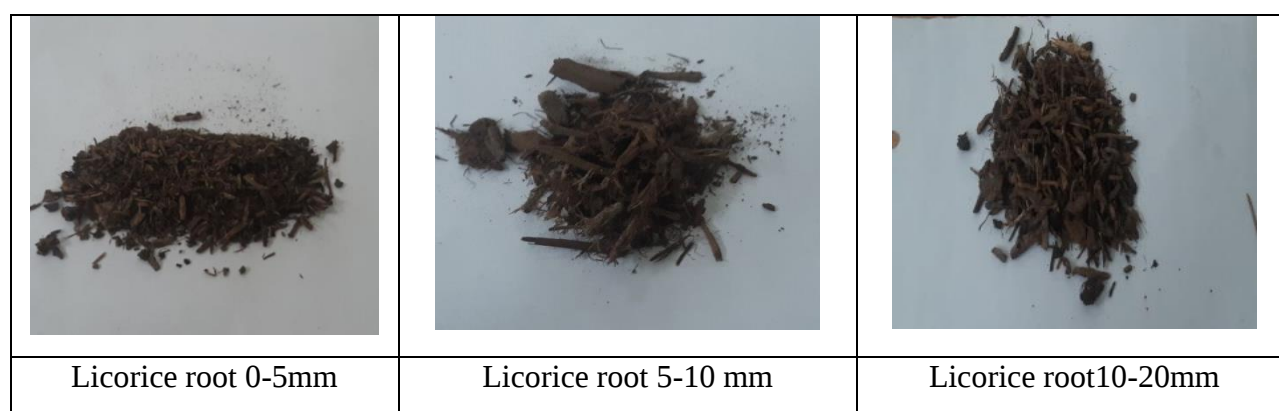


Figure 2. Types of liquorice waste roots with different fractional sizes

The strength of the binder was determined according to GOST 3476-74, GOST 7473-94. Normal density, setting time was determined according to GOST 25820-2000. The samples were compacted for 3 min on a vibration platform VS-1. The study was carried out on samples after steaming and after hardening in natural conditions.

In the research processes, the use of waste from the processing of licorice roots and cement binder for the production of wood concrete was studied. Accordingly, the technology for the preparation of wood concrete on various binders has its own characteristics, which must be taken into account when choosing a binder.

Therefore, in order to preliminarily extract the easily soluble substances of the aggregate, as well as to achieve the appropriate state of its chemical activity, which creates a favorable environment for sufficient hydration of the cement, the aggregate is subjected to special processing.

To remove easily soluble salts from the organic aggregate of plant origin, the method of soaking it at normal temperature is used, and in order to localize the harmful substances of the aggregate formed when mixed with cement, the soaked aggregate is subjected to mineralization with chemical additives. Arbolite mixture from licorice root was prepared by mixing in a standard concrete mixer for 10 minutes. After that, the arbolite mixture was placed in the form of a cube measuring 100 × 100 × 100 mm in two layers with a height of 5 cm and compacted by tamping with a steel blank of a sheet with a thickness of 4 cm, with a size of 95 × 95 cm and a handle height of 30 cm.

The finished arbolite mixture was laid in a polystyrene foam formwork and kept for 7 days. Additional structural strength is betrayed by iron fittings installed inside the structure.

Fixed formwork made of expanded polystyrene for the production of arbolite concrete is shown in fig. 3.



Figure 3. Fixed formwork made of expanded polystyrene for obtaining arbolitobeton

5. The results of the study according to the tasks

1. A technology has been developed for obtaining an arbolite mixture based on licorice root waste by the method. Such a technology for producing arbolite-concrete mixtures by the method of "fixed formwork" based on licorice root waste is more effectively suitable for the construction of low-rise housing construction.

2. It has been established that 0.5-1% superplasticizer grade C-3 introduced into the binder composition with additives improves the properties of the cement binder stone. Also introduced into the binder composition cellulose organic filler based on crushed licorice root fiber, which occupies up to 70% of the volume, significantly affects the nature of the structure formation. With the introduction of a porous organic filler, the solution part is adsorbed, the system becomes rigid, elasticity changes, the acoustic characteristics in this case will record both physical and physicochemical processes. This is also confirmed by the increase in the strength of wood concrete, which at the age of 3 and 7 days increases from daily 2.9 MPa, respectively, to 4.9 and 7.3 MPa. Thus, it is shown that the processes of structure formation are closely related to the increase in the strength of the binder composition of the formed arbolite concrete.

The developed arbolite-concrete structural materials and products based on licorice root waste can be used in the construction industry. Table 7 shows the average density and strength characteristics of the developed arbolites based on licorice root waste.

Table 7 - Average density and strength characteristics of the developed wood concrete based on licorice root waste

N ⁰ . p / p	Additive type	Average density, kg/m ³	Compressive strength, MPa
1	Without additives	0,866	1,91
2	Poly Plast	0,870	2,9
3	CemPlast	0,880	4,9

4	C - 3	0,923	7.3
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6. Discussion of results

The paper states that on the basis of theoretical studies, a new composition of the ash-alkali binder for the production of wood concrete has been scientifically substantiated. The purpose of this work is to develop an effective method for the mineralization of organic aggregate to obtain heat-insulating structural wood concrete, with an average density of up to 650 kg/m³, based on crushed rice straw [6,7]. Now we are discussing the study of the processes of structure formation of wood concrete based on crushed licorice root waste with activated cement binder with the addition of a super plasticizer. It should be noted that the nature of the formation of the structure of cement arbolite is largely due to the phenomenon and patterns observed on the interface "activated binder solution - organic aggregate". So, after mixing the mixtures with activated cement mortar, physical and chemical processes occur at the contact "arbolite - activated cement mortar", the nature of which is determined by the adhesive bonds between organic aggregates and a binder stone. At the same time, the porous structure of the arbolite is of great importance, causing moisture to be sucked out by the arbolite immediately after the preparation of the mixture, which leads to an increase in adhesive contacts between the binder and rough surfaces of the licorice root. As a result of chemisorption, mixed adhesive-cohesive contacts are formed on the contact.

7. Conclusions

1. Arbolit is an effective building material, therefore, when choosing raw materials for its manufacture, a necessary condition is its availability for organizing construction production on an industrial scale, low cost and ensuring the required performance characteristics of manufactured building products. Therefore, the study of obtaining an arbolite mixture based on licorice root waste using the "fixed formwork" method using local raw materials positively solves the problems of low-rise housing construction.

2. The compressive strength of the developed wood concrete based on liquorice waste in 28 days. age reaches from 2.9 MPa to 7.3 MPa. The developed arbolite-concrete structural materials and products based on licorice root waste can be used as a wall block for industrial and civil construction. Therefore, the study of building materials based on local raw materials and the search for the possibility of producing wood concrete based on them and identifying the features of their structure formation solves the environmental and economic problems of the country's economy.

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Rezyume: *Ushbu maqolada boyan tomir chiqindisidan tayyorlangan arbolit namunalarining mustaxkamligi keltirilgan, ularni qorg'ovchi konstrukciyada qo'llanish imkoniyati dalillangan. Boyan tomiri chiqindisidan foydalanib tayorlangan arbolitga 1% miqdorda har xil superplastifikatorlar qo'shilib 2-sutka davomida saqlangan namunalarni sinash orqali "Yechilmas opalubka" olish bo'yicha aniq natijalarga erishildi. Bu natijalarni Qoraqalpog'iston Respublikasi sharoitida qorg'ovchi konstukciya sifatida qo'llanishga bo'ladi.*

Резюме: *В статье представлены результаты исследования прочности арболитовых образцов из корня лакрицы и обоснована возможность их использования в ограждающей конструкции. Исследование образцов с введением различных суперпластификаторов в количестве 1% и при 28-суточном хранений позволило получить, достоверные значения прочностных характеристик арболита для несъемной опалубки из корня лакрицы. Полученные результаты позволяет повысить прочностные показатели арболита из корня лакрицы и использовать в ограждающих конструкциях в условиях Республики Каракалпакстан.*

Kalit so'zlar: *arbolit, yechilmas opalubka, boyan tomiri, yog'och qirindisi, cement.*

Ключевые слова: *арболит, несъемная опалубка, корень лакрицы, опилка, цемент.*

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METHOD FOR DETERMINING THE VISCOSITY OF N-METHYLDIETHANOLAMINE AQUEOUS SOLUTION

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Summary: *In this scientific work, the viscosities of an aqueous solution of N-methyldiethanolamine are considered. N-methyldiethanolamine in an aqueous solution was used as the object of study (raw material). The research methodology is to use a capillary viscometer VTL-4. The experiments were carried out at atmospheric pressure, and the temperature range varied from 20 to 150°C with an interval of 10°C. A laboratory stand was used to maintain the temperature of the test liquid. The concentration of N-methyldiethanolamine in an aqueous solution varied from 30% to 50% wt. Dynamic viscosity was determined by calculation and experiment using a formula from the available literature. The results showed that viscosity depends on temperature and amine concentration. The viscosity value at 50% mass content of N-methyldiethanolamine in the solution is higher than 30% and 40%. With an increase in temperature, the viscosity of 30%, 40% and 50% by weight of an aqueous solution of N-methyldiethanolamine decreased to 0.5765, 0.6764 and 0.7761 mPa*s, respectively. The viscosity value of all binary mixtures above 110°C is very low. The graph of the viscosity of binary mixtures, depending on the temperature, changes logarithmically. When calculating, the limiting values of the viscosity of binary mixtures were determined.*

Keywords: *Viscosity, laboratory stand, N-methyldiethanolamine, MDEA, viscometer.*

1. Introduction

Carbon dioxide is considered one of the main sources of global greenhouse gas emissions. Absorption-regeneration technology using various improved solvents is a promising approach to reduce carbon dioxide emissions. Conventional solvents such as monoethanolamine (MEA), diethanolamine (DEA) have various disadvantages, such as large losses and solvent decomposition, equipment corrosion and higher energy costs for regeneration, which makes the process inefficient and uneconomical [1,2]. Therefore, it is necessary to adapt this process in order to reduce the energy costs at the desorption stage.

Solvent-separators N-methyldiethanolamine were proposed as an option for capturing CO₂ to reduce energy consumption for absorbent regeneration. MDEA (tertiary amine), compared to MEA and DEA, is more selective for the removal of hydrogen sulfide, which is usually characterized by the amount of unabsorbed carbon dioxide [3].

Tertiary amines such as N-methyldiethanolamine (MDEA), dimethylethanolamine (DMEA), and diethylethanolamine (DEEA) have low heat of reaction, which reduces energy consumption in the stripping process [4–6]. MDEA has traditionally been used to remove CO₂ at high pressures. It is not usually used for removing CO₂ at atmospheric pressure [7]. MDEA solutions are used to selectively remove H₂S from gas streams such as natural gas, syngas from coal and heavy oil gasification, and tail gases from sulfur plants that contain both CO₂ and H₂S [8,9]. In addition to selective H₂S removal, some advantages of MDEA over primary and secondary amines have been reported, such as low vapor pressure, high CO₂ scavenging capacity, high resistance to degradation, and fewer corrosion problems [10,11].

Physical properties, such as the density and viscosity of solvents, are essential for engineering calculations when performing mathematical modeling and modeling for sizing process

equipment. Density and viscosity are required in many of the mass and heat transfer correlations that are used in the design of absorbers, absorbers, and desorbers in a process. Additional properties are useful in flow calculations for selecting material handling equipment such as pumps and valves. Data on the density and viscosity of some mixtures of MDEA + MEA + H₂O are given in the literature [12–14].

In this work, experiments were carried out to measure the kinematic viscosity of aqueous mixtures of tertiary amines at different temperatures from 20°C to 150°C using a laboratory bench to maintain the temperature environment of the test liquid: MDEA(1) + H₂O(2) at various amine concentrations and temperatures and according to the equation (2) calculated the dynamic viscosity of the mixtures.

2. Experimental part

2.1. Materials

Absorption liquid N-methyldiethanolamine (MDEA) was supplied from the Ustyurt Gas Chemical Complex plant in pure >99% form. Distilled water degassed by boiling was used to prepare amine solutions. The mass of liquid mixtures was measured using a CAS NWP-3000 analytical balance with an accuracy of ±0.05 g.

2.2. Methods

The widely used capillary method was chosen to determine the kinematic viscosity of mixtures of tertiary amines [15, 16]. The essence of the method is to measure the time of expiration of a certain volume of the test liquid (in seconds) between the marks M1 and M2 under the action of gravity at a constant temperature with a calibrated glass capillary viscometer. The kinematic viscosity is the product of the measured flow time and the constant of the viscometer.

The VTL-4 capillary viscometer consists of a reservoir for the test liquid, a thin capillary tube and a liquid receiver. The source of pressure is the weight of the test liquid column in the instrument (hydrostatic pressure) or the external pressure applied to the liquid meniscus in the viscometer, or a combination of both pressures.

In the course of experiments to determine the kinematic viscosity of the amine solution, a VTL-4 AKL 2.842.032 glass viscometer (no. 2129, capillary diameter $d = 0.82$ mm, instrument constant $K = 0.02880$ mm²/s²), a thermostat, a rubber tube, a rubber bulb, and a stopwatch were used.

The allowable discrepancy between successive determinations of kinematic viscosity values from its arithmetic mean value did not exceed ±1.2%.

The value of the kinematic viscosity of the studied raw material sample ν (mm²/s), measured using a VTL-4 viscometer, is calculated by the formula [16,17]:

$$\nu = \frac{g}{9.807} \cdot \tau_m K \quad (1)$$

where $g = 9.81$ m/s² - free fall acceleration; τ_m is the arithmetic mean of the raw material sample expiration time, s; $K = 0.0288$ mm²/s² - viscometer constant.

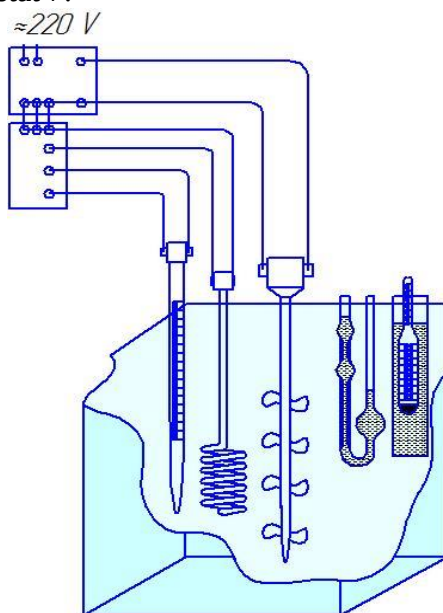
Dynamic viscosity μ (MPa•s) is calculated based on the obtained values of kinematic viscosity according to the formula [16]:

$$\mu = \nu \rho \cdot 10^{-3} \quad (2)$$

where ρ is the density of the raw material at the temperature for determining its kinematic viscosity, kg/m³; ν - kinematic viscosity, mm²/s.

Viscosity was measured at intervals of 10°C at temperatures from (20°C to 150°C). To maintain the temperature environment and measure the kinematic viscosity of the liquid under study, we assembled an experimental stand (Fig. 1), consisting of a glass water thermostat 7, an electric heater 3, a stirrer 6, a vessel 10 for the test sample, a hydrometer 9 of the ANT-1 type and a

viscometer 8 [17]. The unit is equipped with a contact thermometer 5 and a relay 2 for controlling the water temperature in the thermostat 7.



1 – laboratory autotransformer; 2 - temperature relay; 3 – electric heater; 5 - contact thermometer; 6 - mixing devices; 7 - glass container (thermostat) for water; 8 – viscometer VTL-4; 9 – hydrometer ANT-1; 10 - glass container for amine solution sample.

Fig. 1 Scheme of the stand for measuring the kinematic viscosity of the amine solution

The pilot plant works as follows. Prior to the start of the experiments, water is poured into the thermostat 7 and the electric heater 3 is turned on, the water is heated to the required temperature, which is controlled by the contact thermometer 5 and the temperature switch 2. laboratory autotransformer 1. After reaching the required water temperature, a viscometer 8 with a sample of the amine solution is placed in thermostat 7 for 20 minutes. The constancy of the temperature of the raw material in the viscometer is ensured by its mixing with the help of a "pear". After that, they begin to measure the viscosity of the raw material sample at a given temperature [17].

3. Results and discussions

Viscosities of binary mixtures MDEA+H₂O

Viscosity is one of the most important indicators of the quality of the absorbent. As is known, the viscosity of amines increases with increasing molecular weight and boiling point. The lower the viscosity of the solution, the easier it is to transport it through the pipeline and process it.

As can be seen from Table 1, with increasing temperature, the dynamic viscosity of binary mixtures gradually decreases according to a parabolic law. In the temperature range 20÷150°C, the dynamic viscosity of the binary mixture MDEA(30%)+H₂O(70%) varies within 6.6803÷0.5765 mPa*s, the viscosity of the mixture MDEA(40%)+H₂O(60%) has a limiting value of 8.9024÷0.6764 mPa*s, and the MDEA(50%)+H₂O(50%) mixture has a viscosity limit of 23.4694÷0.7761 mPa*s. As you can see, the viscosity of binary mixtures increases with a decrease in the proportion of distilled water in their composition. However, a comparison of the viscosity of all three mixtures with three different ratios of components shows that reducing the proportion of distilled water in the mixture from 70% to 50% does not lead to a significant decrease in their relative viscosity.

Calculations and experiments to determine the dynamic viscosity were carried out in the temperature range from 20°C to 150°C in different mass concentrations. These calculated and experimental values for determining the dynamic viscosity for binary mixtures of MDEA(1) + H₂O(2) at different mass concentrations are shown in Table 1.

Table 1

Calculation and experimental data for determining the dynamic viscosity of binary mixtures of MDEA(1) + H₂O(2) at different mass concentrations depending on temperature

№	MDEA(30%)/H ₂ O(70%)		MDEA(40%)/H ₂ O(60%)		MDEA(50%)/H ₂ O(50%)	
	t, °C	$\eta, \text{mPa} \cdot \text{s}$	t, °C	$\eta, \text{mPa} \cdot \text{s}$	t, °C	$\eta, \text{mPa} \cdot \text{s}$
1	20	6.6803	20	8.9024	20	23.4694
2	30	5.3171	30	7.3658	30	9.6341
3	40	4.1463	40	6.0488	40	8.1707
4	50	3.1219	50	4.878	50	6.9268
5	60	2.3171	60	3.8537	60	5.7561
6	70	1.2927	70	2.9024	70	4.6585
7	80	0.9483	80	2.0244	80	3.6341
8	90	0.8746	90	1.1463	90	2.7561
9	100	0.8156	100	0.941	100	1.878
10	110	0.7565	110	0.8819	110	1.1463
11	120	0.7049	120	0.8229	120	0.9484
12	130	0.6606	130	0.7713	130	0.8893
13	140	0.6164	140	0.7123	140	0.8333
14	150	0.5765	150	0.6764	150	0.7761

The results of measuring the viscosity of binary mixtures in the specified temperature range showed that at 20°C 30%, 40% and 50% aqueous solutions of the amine are respectively 6.6803, 8.9024 and 23.4694. This suggests that the more N-methyldiethanolamine in solution, the higher the viscosity of the binary mixtures at 20°C. During the experiments, it was observed that with increasing temperature, the viscosity of binary mixtures decreases in all mass ratios that we have studied. The experiments were carried out at atmospheric pressure. Table 1 also shows that at the beginning of the experiment at 20°C, the difference between the viscosity values of 30% and 40% binary mixtures is not more than 2.3 mPa*s, and 40% and 50% is not more than 14.6 mPa*s. At the end of the experiment at 150°C, the difference between the viscosity values of 30% and 40%, 40% and 50% binary mixtures is not more than 0.1 mPa*s. This means that as the temperature rises from 20°C to 150°C, the viscosity values of all binary mixtures approach each other. If in the future experiments are carried out above a temperature of 150°C, the viscosity values of binary mixtures can become equal to each other.

On fig. 2 shows a graph of the change in the value of viscosity from temperature.

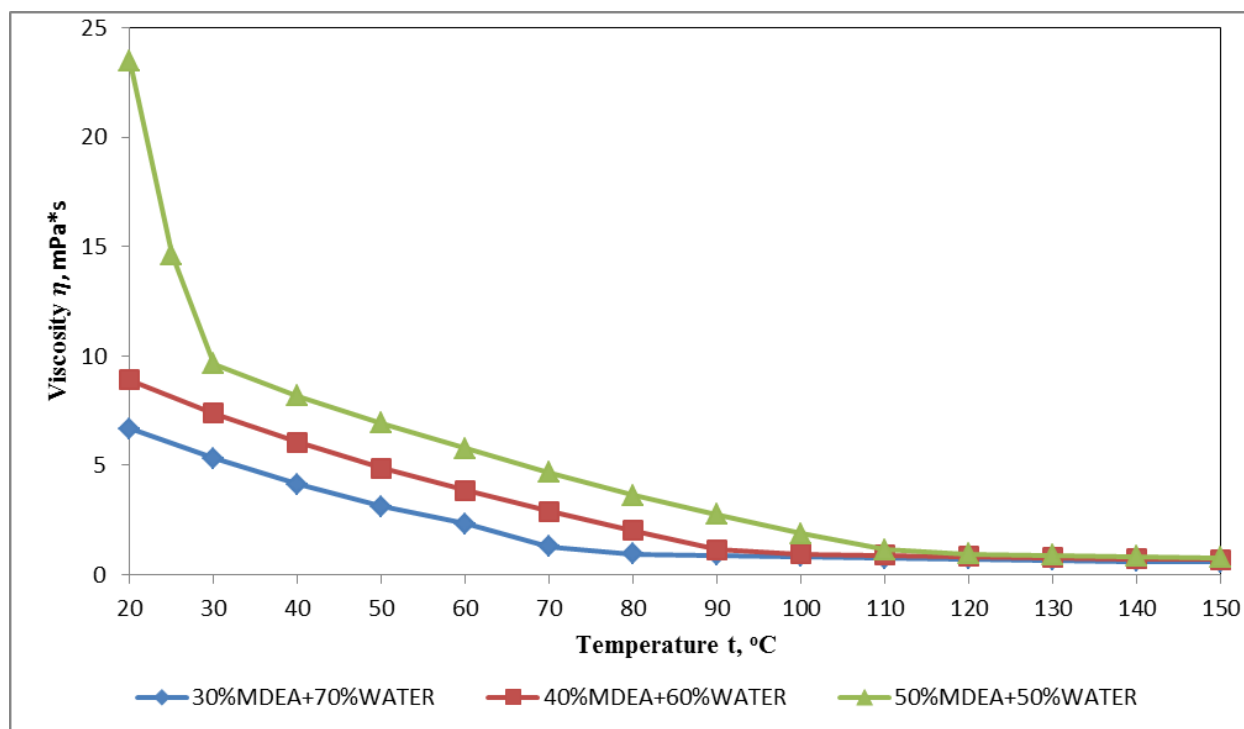


Fig. 2. Dependence of the viscosity of an aqueous solution of N-methyldiethanolamine on temperature

Fig. 2 show that the graph of the viscosity of an aqueous solution as a function of temperature varies logarithmically. As the amine concentration increases, the viscosity value increases. But at temperatures above 110°C, the difference in the viscosity of aqueous solutions is very small. At the beginning of the experiment at 20°C, the difference between the viscosity values of 30% and 40% binary mixtures is not more than 2.3 mPa*s, and 40% and 50% is not more than 14.6 mPa*s. At the end of the experiment at 150°C, the difference between the viscosity values of 30% and 40%, 40% and 50% binary mixtures is not more than 0.1 mPa*s. This means that as the temperature rises from 20°C to 150°C, the viscosity values of all binary mixtures approach each other. If in the future experiments are carried out above a temperature of 150°C, the viscosity values of binary mixtures can become equal to each other.

Conclusion

Studying modern literature, we came to the conclusion that the determination of the viscosity of an aqueous amine solution will help us for engineering calculations when performing mathematical modeling and in modeling for determining the size of absorption-desorption columns. The results of the experiment to determine the viscosity at temperatures of 20÷150°C showed that with increasing temperature, the value of the viscosity of the amine solution decreases. The viscosity value depends on the concentration of the amine in the solution. The more amine in the solution, the greater the viscosity value. But at temperatures above 110°C, the difference in the viscosity of the three binary mixtures is very small, more precisely, more than 0.1 mPa*s. Using the above equations, the limiting values of dynamic viscosity (mPa*s) of binary mixtures of MDEA+H₂O at temperatures of 20÷150°C are determined by calculation and experiment: 30%MDEA+70%H₂O – 6.6803÷0.5765, 40%MDEA+60%H₂O – 9.9024 ÷0.6764 and 50%MDEA+50%H₂O – 23.4694÷0.7761.

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Rezyume: Ushbu ilmiy ishda N-metildietanolaminning suvdagi eritmasining yopishqoqliklari ko'rib chiqiladi. Tadqiqot ob'ekti (xom ashyo) sifatida suvli eritmadagi N-metildietanolamin ishlatilgan. Tadqiqot metodologiyasi kapillyar viskozimetr VTL-4 dan foydalanishdan iborat. Tajribalar atmosfera bosimida o'tkazildi va harorat oralig'i 10° C oralig'ida 20 dan 150° C gacha o'zgarib turdi. Sinov suyuqligining haroratini ushlab turish uchun laboratoriya stendi ishlatilgan. N-metildietanolaminning suvli eritmadagi konsentratsiyasi og'irlikning 30% dan 50% gacha o'zgarib turadi. Dinamik yopishqoqlik mavjud adabiyotlardan formuladan foydalangan holda hisoblash va tajriba orqali aniqlandi. Natijalar shuni ko'rsatdiki, yopishqoqlik harorat va amin konsentratsiyasiga bog'liq. Eritmada N-metildietanolaminning 50% massa tarkibidagi yopishqoqlik qiymati 30% va 40% dan yuqori. Haroratning oshishi bilan N-metildietanolaminning suvli eritmasining og'irligi bo'yicha 30%, 40% va 50% yopishqoqligi mos ravishda 0,5765, 0,6764 va 0,7761 mPa * s gacha kamaydi. 110° C dan yuqori bo'lgan barcha ikkilik aralashmalarining viskozite qiymati juda past. Ikkilik aralashmalarining qovushqoqligi grafigi haroratga qarab logarifmik tarzda o'zgaradi. Hisoblashda ikkilik aralashmalarining yopishqoqligining chegaraviy qiymatlari aniqlandi.

Резюме: В этой научной работе рассмотрена вязкость водного раствора N-метилдиэтанолamina. В качестве объекта исследования (сырья) использован N-метилдиэтанолaмин в водном растворе. Методика исследования заключается в использовании капиллярного вискозиметра ВПЖ-4. Эксперименты проводились при атмосферном давлении, а диапазон температуры варьировалась от 20 до 150°С с интервалом 10°С. Для поддержания температуры исследуемой жидкости использовали лабораторный стенд. Концентрация N-метилдиэтанолamina в водном растворе варьировалась с 30% по 50% масс. Динамическая вязкость была определена расчётно-

экспериментальным путём с помощью формулы из доступной литературы. Результаты показали, что вязкость зависит от температуры и концентрации амина. Значение вязкости при 50%-ом массовом содержании N-метилдиэтанолamina в растворе выше, чем 30% и 40%-ом. С повышением температуры значение вязкости 30%, 40% и 50% масс водного раствора N-метилдиэтанолamina снижалось до 0.5765, 0.6764 и 0.7761 мПа*с соответственно. Значение вязкости всех бинарных смесей выше 110°C очень низкое. График вязкости бинарных смесей в зависимости от температур меняется логарифмически. При расчёте определены предельные значения вязкости бинарных смесей.

Kalit so'zlar: Yopishqoqlik, laboratoriya stend, N-metildietanolamin, MDEA, viskozimetr.

Ключевые слова: Вязкость, лабораторный стенд, N-метилдиэтанолamin, МДЭА, вискозиметр.

UDC 721

**ON THE IMPLEMENTATION OF RESEARCH RESULTS AND FEASIBILITY STUDY
OF THE EFFECTIVENESS OF THE DEVELOPMENT**

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Summary: *this article presents natijas of the composition and economic views of concrete mixtures in the framework of the enslavement of complex additives with M400-brand cement of the plants “Snow White Cement” and “Titan Cement”.*

Keywords: *cement, silica, polycarboxylate, superplasticizer, hydrophobizer, cement stone, modifying hydrophobizer, concrete.*

Introduction

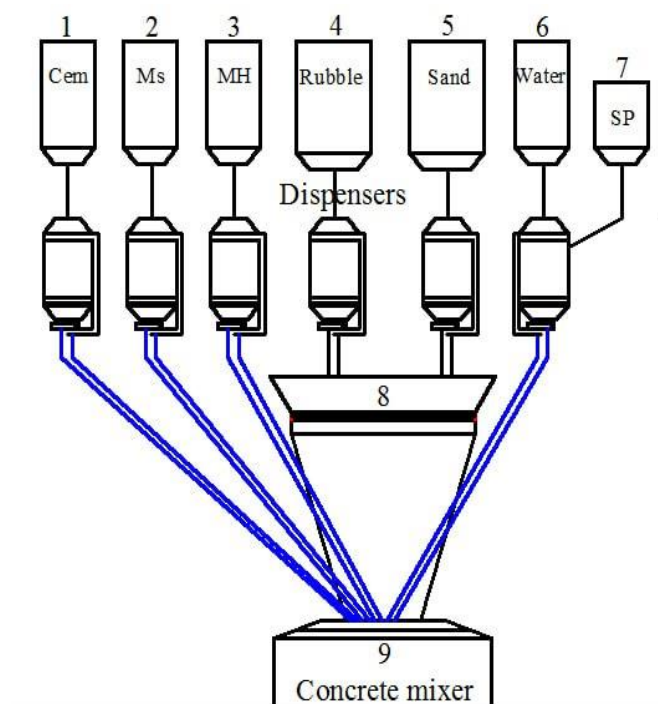
Protection of concrete and reinforced concrete structures from corrosion is the most important problem, the solution of which is aimed at increasing the service life of structures, buildings and structures for various purposes. In practice, the operation of various engineering concrete and reinforced concrete structures has been proven more than once that under the influence of various physico-chemical processes, gases and liquids, concrete tends to collapse.

The purpose of the work: to explore the problems of technology for the preparation of production compositions of waterproof concrete with a complex of modifying additives.

In this regard, we have developed compositions of water-resistant concrete, which require further development in the technology of preparing a concrete mixture. [1, 2] In this article, a technological scheme for the manufacture of concrete structures is proposed, and the economic effect of the manufacture and application of the developed concrete is calculated.

The conducted scientific research on the development of multicomponent concrete compositions was implemented at two plants for the production of reinforced concrete products: LLC RCP «Evro beton » and LLC «Takhiatash temir beton ».

According to the developed technological scheme fig.1. The introduction of an active mineral additive and a modified hydrophobizer is carried out in a semi-dry concrete mixture, then a liquid SP is introduced with the rest of the water. [3]



Drawings-1. Technological scheme for the production of concrete with a complex of modifying additives

1-7 - bunker of composite concrete mix components; 8 - sand and crushed stone distributor; 9 – concrete mixer. The results of experimental studies carried out in the construction laboratories of the plant are presented in Tables 1-2.

Table 1

**The rate of consumption of materials for the preparation of concrete mixtures
LLC«Evro beton»**

Concrete class	Product name	Material consumption per 1 m3 of concrete mix (nominal composition)				
		Cement kg	Dune sand	Rubble kg	Water l	Bulk weight. Solution. kg/m3
B7,5 П2 F200 W2 (100)	(1-4) ФБС 240406	260	480	1400	185	2325

Table 2

**The consumption rate of materials for the preparation of ready-mixed concrete.
LLC «Evro beton»**

Concrete brand	Consumption of materials per 1 m3 of concrete mixture (nominal composition)				
	Cement kg	Dune sand kg	Rubble kg	Water l	Bulk weight. Mortar mix kg/m3
M 200	420	380	1385	230	2405

Optimized compositions are given in table. 3-4.

Table 3

Optimized composition of the complexly modified concrete mixture LLC "Euro concrete"

Concrete class	Product name	Consumption of materials per 1 m ³ of concrete mixture (nominal composition)							
		Cement kg	Dune sand kg	Rubble kg	Water kg	SP kg	MK kg	MG kg	Volume . weight Solv. kg/m ³
B7,5 II2 F200 W6 (300)	(1-4) WFB 240406	221	450	1420	178	2,4	39	0,13	2375

Table 4

Optimized composition of complexly modified concrete mix for ready-mixed concrete OOO "Euro concrete"

Concrete brand	Consumption of materials per 1 m ³ of concrete mixture (nominal composition)							
	Cement kg	Dune sand kg	Rubble kg	Water l	SP kg	MC H kg	MG kg	Volume. weight. mixtures kg/m ³
M 200	357	385	1400	215	4,2	63	0,21	2435

For the preparation of concrete mixes, the Euro Concrete LLC plant used cement M 400 – Titanium.

Table 5

The rate of consumption of materials for the preparation of concrete mixtures LLC «Takhiatash temir beton»

Product name	Material consumption per 1 m ³ of concrete mix (nominal composition)			
	Cement t	Dune sand m ³	Rub. m ³	Water m ³
WFB 240406	0,162	0,25	0,51	0,104

The optimized compositions are shown in Table 6

Table 6

Optimized composition of a complex modified concrete mix of LLC "Takhiatash temir concrete"

Product name	Material consumption per 1 m ³ of concrete mix (nominal composition)						
	Cement tn	Dune sand m ³	Rub. m ³	Water m ³	SP kg	MK kg	MG kg
WFB 240406	0,138	0,253	0,52	0,103	1,6	24	0,08

After the completion of the heat and humidity treatment process, the cube samples were tested for compressive strength, water resistance and frost resistance according to the current GOST. The test results are shown in Table 7-8.

Table 7

The results of testing concrete samples for strength (R, MPa), water resistance (W) and frost

resistance (F) of the EURO CONCRETE LLC plant

Product name	Concrete composition	Concrete class	OK, sm	Indicators of concrete properties		
				R _{тбо} , МПа	W, mark	F, mark
WFB 240406	Production	B7,5	1-4	8,2	W2	F200
	Optimized	B7,5	5	8,7	W6	F400
Commercial concrete	Production	B15	5	19,6	W2	F200
	Optimized	B15	8	20,2	W4	F300

Table 8

The results of testing concrete samples for strength (R_{тво}, MPa), water resistance (W) and frost resistance (F) of the plant LLC "Takhiatash temir concrete"

Product name	Concrete composition	Concrete class	OK, sm	Concrete properties indicators		
				R _{тво} , МПа	W, mark	F, mark
WFB 240406	Production	B7,5	1-4	8,0	W2	F200
	Optimized	B7,5	5	8,5	W6	F400

As a result, it was released:

- at the plant of LLC "Euro concrete" FBS 240406 -50 pcs. and 30 m³ of ready-mixed concrete;

- at the plant of LLC "Takhiatash temir concrete" FBS 240406 -40 pcs.

According to the results of the implementation at the precast concrete plants, the relevant acts were received. Having considered the results obtained on the basis of the issued certificates, a certificate was received from the Ministry of Construction of the Republic of Karakalpakstan. (reference No. 01-07/01-1995 dated September 05, 2021).

Conclusion

Results of pilot-production implementation of optimal compositions and technologies of concrete with complex additives, they showed the high efficiency of the proposed developments in production conditions. The introduction of the compositions made it possible to achieve cement savings of 20% while simultaneously preserving and improving all the main indicators of the physical, mechanical and operational properties of concrete.

The economic efficiency of the introduction of the developed optimal compositions and technologies of concrete with a complex additive in the production of precast concrete and reinforced concrete is calculated. The expected annual economic effect from the introduction of optimal compositions and technology of concrete with a complex additive in the production of precast concrete and reinforced concrete at the Euro Concrete LLC plant will amount to 420.5 million sum., Takhiatash temir Concrete LLC. -265.8 million sum.

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Rezume: *Ushbu maqolada “Qoraqalpoq tsement” va “Titan tsement” zavodlarining M400 markali tsementlari bilan kompleksli qo'shimchalarni qullash asosoda beton qorishmalarining tarkibi va iqtisodiy ko'rsatkishlarining natijalari keltirilgan.*

Резюме: *в данной статье представлены результаты по составу и экономическим показателям бетонных смесей на основе растворов комплексных добавок с цеменами марки М400 Каракалпакского цементного и Титанцементного заводов.*

Kalit so'zlar: *tsement, mikrokremnez, polikarboksilat, superplastifikator, gidrofobizator, tsement toshi, modifikatsiyalavchi gidrofobizator, beton.*

Ключевые слова: *цемент, микрокремнезем, поликарбоксилат, суперпластификатор, гидрофобизатор, цементный камень, модифицирующий гидрофобизатор, бетон.*

УДК 628.81

METHODS FOR CALCULATING NATURAL GAS CONSUMPTION IN INCREASE OF RELIABILITY OF GAS SUPPLY

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Summary: *In this article the different methods of calculating of expenditure of natural gas are given and optimum ways of calculating of expenditure of natural gas are clearly proven.*

Keywords: *consumption, multi-storey, analysis, middle fee, poisoned.*

In the current period, gas fuel is used on a large scale in the daily life of the population, municipal and household enterprises and industrial enterprises. Gas fuel can be said to be a unique fuel without an exaggeration. This is due to the fact that compared to other types of fuels, gas has several amenities such as it is easy to deliver gas to consumers over long distances, it is convenient to start equipment running using gas fuel, the automation of the combustion process provides ease of use and so on.

Including the fact that in the autumn-winter season in apartment buildings, centralized heating systems worked unsatisfactory, and in some areas the houses were disconnected from centralized heating systems, so that the owners of the apartments used gas stoves installed for cooking to heat the apartments increased gas consumption, and in apartments where the gas meter is not installed, it creates excessive (burn out) gas consumption as a result of the inability to take into account the volume of the amount of gas consumption.

I-analysis. To make Analysis, a multi-storey house was taken, consisting of 80 apartments, in which 260 consumers live. Gas meters installed in these House Apartments (gas meter of the J-1.6 model) in failure to meet the standard requirements for the degree of uncertainty, the gas consumption account was transferred to the average payment i.e. the regulatory fee. Approved by the Ministry of Finance for consumers transferred to medium payment on July 1, 2017 №19-03-22-05-UzR-28-2017 Prices for natural gas supplied to the population and wholesale consumers in accordance with Preyscurants №19-03-22-05-UzRP-28-2017 retail prices have been introduced since July 15, 2017 1 m³ of natural gas 263.40 soums, Monthly payment for 1 person 5010.60 soums 1 person one month gas consumption is equal to $5010.60 / 263.40 = 19 \text{ m}^3$, a total of $260 \times 19 = 4940 \text{ m}^3$ of gas from 19 m³ per 260 inhabitants per month is taken to the report. it should be borne in mind that in this apartment for 8-10 hours a night they heated apartments using a gas stove. Based on the nominal regulatory hourly gas consumption of gas-consuming equipment and equipment approved by the general director of Uztransgaz JSC in 2008 (Nominal hourly gas consumption of gas-consuming equipment (compiled according to passports and technical parameters, as well as removed from the reference literature)) The hourly gas consumption of the Fergana PG-4 gas stove is 1,371 m³/h; $1,371 \text{ m}^3/\text{h} \times 10 \text{ hours} \times 30 \text{ days} \times 80 \text{ households} = 31,200 \text{ m}^3$ of gas is spent. But according to the norm established by the population, it pays gas for 3900 m³, however, the gas consumption, which in 1 month every day went from 10 hours to heating the apartment, is not taken into account, so the excess (burnout) gas consumption in between **27300 m³ worth 7801.4 thousand soums of natural gas are spent in excess.[1]**

II- analysis. In a number of apartment buildings obtained for analysis, in November, December 2022, the monthly gas consumption by the standards established for these months was calculated at 453.9 thousand m³, even if natural gas was used to heat rooms by apartments without centralized Heat Supply (Table 1), but in the above apartments in these months in October, Ham was

used to heat water from natural gas. However, additional gas consumption was not taken into account. If this is taken into account:

- For cooking on gas stoves in houses connected to the Central (single) hot water supply system, the gas consumption of 11 m³/month per inhabitant is set;

- Gas consumption of 16 m³/month per inhabitant is set for gas heaters to supply hot water to houses where interruptions in hot water supply occur from time to time despite not being connected or connected to the central hot water supply system;

In a number of apartment buildings with a population of 30,257, the number of residents taken for consideration, in October 2022, the monthly gas consumption for the use of natural gas for water heating by apartments without hot water supply was actually below – 30257 people x 27 m³/month = 816,9 thousand m³. By the norm, the monthly gas consumption should be equal to 453.9 thousand m³. Actually, the difference between them was 363.1 thousand m³, and **an excess of natural gas worth 77164.4 thousand soums was used.** (Table 2.).[2]

III- analysis. For the analysis, a gas meter was not installed in the makhalla civil Assembly, 400 of the individual courtyard apartments were taken. Gas consumption in apartments is carried out according to the standards established by the requirements of the owners of the house for Cooking, Bathing and heating.

In addition, the courtyard at the middle fee, where the gas meter is not installed, uses non-standard gas equipment in most of the apartments.

The gas meter is not installed, the appearance in the apartments of the population of the 4th quarter of 2022 of the gas volume with excessive consumption in non-standard gas equipment is given in Table 3.

Below we will consider an analysis of the monthly amount of gas spent in 1 apartment where the gas meter is not installed: in normal conditions based on the norm on gas devices (0°C, 760 mm.rt.st.) at hourly gas consumption - for cooking PG-4 for type gas stoves, $Q = 1,371 \text{ m}^3/\text{hour}$, AGB-80 model to heat the bath and provide hot water through a water heater $Q = 0,75 \text{ m}^3/\text{hour}$ and OBII or OII models for heating devices marked as $Q = 0,95 \text{ m}^3/\text{hour}$. But under standard conditions (20°C, 760 mm.rt.st.) when calculating the consumption of gas per hour, DAST 2939-63 according to the above devices on the basis of the norm, the consumption of gas per hour under normal conditions 1.073 it is shown that multiplying by the coefficient is brought to standard conditions. Based on this, we give the following approximate calculations:

- PG-4 a month of gas consumption for cooking on a model gas stove

$$V_{\text{cooking}} = 1,371 \text{ m}^3/\text{hour} \times 1,073 \times 8 \text{ hour} \times 30 \text{ day} = 353 \text{ m}^3;$$

- AGB-80 hour gas consumption for a month to heat the bath and supply hot water through a model water heater

$$V_{\text{bathroom}} = 0,75 \text{ m}^3/\text{hour} \times 1,073 \times 24 \text{ hour} \times 15 \text{ day} = 270 \text{ m}^3;$$

- OVP or OP hour gas consumption in a month for the heating device in the model

$$V_{\text{heating}} = 0,95 \text{ m}^3/\text{hour} \times 1,073 \times 24 \text{ hour} \times 30 \text{ day} = 734 \text{ m}^3;$$

While not counting the gas consumption spent on the preparation of animal feed.

Total: total one-month gas consumption per household

$$V_{\text{general}} = 353 \text{ m}^3 + 270 \text{ m}^3 + 734 \text{ m}^3 = \text{makes up the } 1357 \text{ m}^3.$$

When we analyze the above situation as an average of five people live in one apartment according to the norm approved by the Ministry of Finance:

- 5 people to cook x 11 m³ = 55 m³;

- 5 people for hot water x 16 m³ = 80 m³;

- for heating rooms 146 m³ heating volume x 5.76 m³ = 841 m³ total 976 m³ natural gas is spent. . **Since the heating and bathroom-mounted gas appliances that are in use are non-standard 381 m³ causes excessive consumption of natural gas.**[3]

IV- analysis. gas (CO) is a gas that appears as a result of incomplete combustion of natural gas used in our homes. Is gas has a strong effect on the respiratory tract and respiratory organs of the human body. gas damages the body through the respiratory tract, in particular the central nervous system. It is possible to get poisoned in unventilated rooms, as well as in home conditions, when natural gas is burning in open conditions, and in houses heated by a stove (house, bathroom, etc.), when the stove cover is not closed in time, it will depend on its concentration in the air and the duration of action. In a mild degree of poisoning, the head hurts strongly, rotates, the ears rustle, nausea, sometimes vomiting and fainting are observed. In moderate poisoning, muscles weaken, breathing is compressed, the pulse accelerates, arterial blood pressure decreases, nausea, the mind becomes numb, sometimes a person becomes sleepy. Scarlet spots appear on the face. In severe poisoning, a person completely faints, and Crimson spots appear on his face. The pulse accelerates, arterial blood pressure drops sharply, breathing slows down and muscles relax, breathing stops and a person dies. The concentration of gas in the air, which leads to death, is 0.08 percent.[4]

Conclusion:

Conducted monitoring result pointers correctly calculated and correctly analyzed.

In order to fully deliver the heat supplied by the heat source to consumer households, it is necessary to carry out activities such as the full repair and insulation of heat generation boilers, heat networks;

Cabinet of Ministers of the Republic of Uzbekistan on January 17, 2006 Number 7 “On the exchange of spiritually outdated economy-free boilers for boilers with a high modern effect in enterprises and organizations financed from the Republican and local budgets” the program of ensuring the execution of the decision and their transfer to the system of localization has not been implemented. Implementation of the program is required;

Gas (CO) that can harm the excessive consumption of natural gas and the health of residents when fully providing apartment buildings with normal heat would not have been affected.

With the installation of modern gas meters in apartments, a number of problems in the system of determining and calculating the amount of gas consumed are put to an end.

Analysis of the volume of gas spent in excess on non-standard gas equipment in the 4th quarter of 2022 in 400 residential apartments in the city of Namangan, where the gas meter is not installed

Table 1.

Year	Months	From this in apartments where the gas meter is not installed		Gas meter not installed in the apartments number of non-standard equipment	0,55 м ³ /hour	Of non-standard gas equipment from the norm in the heating season excess gas consumption (thousand м ³) (1,5м ³ /hour-0,95м ³ /hour = 0,55	1000 м ³ amount of gas sum (thousand sum)	Excess spent amount of gas Summa (thousand sum)
		number of apartments	Spent amount of gas (thousand м ³)					
2022	November	400	808,289	400	0,55	158,4	98,560	15611,9
2022	December	400	809,821	400	0,55	163,7	98,560	16132,3
						322,1		31744,2

Application: the number of non-standard gas equipment identified as a result of inspections carried out in the apartments of the population is based on the heating season in fact, the hourly gas consumption is 1.5 м³ / hour, the excess of the norm is taken from the fact that there is a consumption of 0.55 м³ /hour per hour.

On the use of natural gas for water heating by apartments without hot water supply in October 2022 in existing apartment buildings owned by Namangan city

Information

Table 2.

Year	Months	From this, that is not provided with hot water supply									
		Number of apartment buildings	Apartments in them number (apartments number)	Number of residents	The norm monthly gas consumption thousand m ³	Monthly norm set for 1 person for hot water and cooking	Monthly gas consumption in reality. thousand m ³	month real gas consumption thousand m ³	in a month from the norm excess gas consumption thousand m ³	1000 m ³ natural gas prices for thousand sum	From the norm excess gas consumption sum thousand sum
2022	October	290	13800	30257	453,9	27	30257 people x 27 m ³ /month	816,9	363,1	212,525	77164,4
Total					453,9			816,9	363,1		77164,4

On the fact that in existing apartment buildings owned by Namangan city, in November, December 2022, the Heat Supply was used by non-supplied households to heat rooms from natural gas

Information

Table 3.

Year	Month	Those that are not provided with the supply of heat									
		Number of apartment buildings	number of apartments in the Buildings (number of apartments)	Number of residents	Average gas consumption for 2 months thousand m ³	Built-in 1 PG-4 gas Equipment hourly gas consumption m ³ /hour	Daily gas consumption in excess of the norm thousand m ³ /day	real gas consumption in the month thousand m ³	gas consumption in excess of the norm in the month thousand m ³	Natural gas price per 1000 m ³ thousand sum	Cost of excess gas consumption from the norm thousand sum
2022	November	290	13800	30257	453,9	1,3	1,3 m ³ / hour x 8 hour x 13800 ta	4305,6	3851,7	98,560	379628,0
2022	December	290	13800	30257	453,9	1,3	1,3 m ³ / hour x 8 hour x 13800 ta	4449,1	3995,3	98,560	393773,3
Total					907,7			8754,7	7847,0		773401,3

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Rezyume: *Maqolada istemolchilar tomonidan sarflanadigan tabiiy gaz miqdorlarini hisoblashning turli xil usullari tahlil etilgan va gaz sarfi hisobining optimal usullari tavsiya etilgan.*

Резюме: *В статье рассмотрены различные методы расчёта расхода природного газа и представлены оптимальные способы расчёта расхода природного газа.*

Kalit so'zlar: *iste'mol, ko'p qavatli, tahlil, o'rta to'lov, zaharlangan.*

Ключевые слова: *потребление, многоэтажное, анализ, средняя плата, отравленный.*

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SYNTHESIS OF BLACK PIGMENT FOR COLOR GLAZES AND ITS CHEMICAL AND MINERALOGICAL CHARACTERISTICS

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Summary: Synthesized black pigments for colored glazes. The production of ceramic pigments based on spinel and the isomorphic substitution of chromophoric oxides in the mineral, the chemical and mineralogical characteristics of black pigment, and the effect of ceramic pigments on the intensity of colored glazes have been studied. It has been established that the synthesis of black pigment with a spinel structure in the range of 1100-1270 °C and the addition of ceramic

Keywords: spinel, chromophoric oxides, ceramic pigments, colored glazes, mineralogical characteristics

Introduction. In the ceramic materials industry, the development of highly stable color pigments is of great interest, exhibiting intense tonality and meeting both technological and environmental requirements. Currently, the synthesis of ceramic pigments is based on crystalline structures that are resistant to aggressive media and high temperatures, the dissolving action of glazes and fluxes. For the synthesis of pigments, spinels of the first and second types, zircon, garnets, corundum, willemite, sphene, etc. can be used as acceptor crystal lattices. If transition metal ions are included in the lattices of the listed minerals, the crystals acquire characteristic colors. For example, by partially or completely replacing the oxides included in the $\text{MgO} \cdot \text{Al}_2\text{O}_3$ spinel with coloring oxides and using the spinel's ability to form isomorphic mixtures, a wide palette of stable ceramic pigments is obtained [1]. It should be noted that synthetic inorganic black pigments widely used in the ceramics industry as colorants for both glazes and ceramic masses. In addition, indeed, about 25% of the pigments used in the ceramics industry are black, and they are derived from two main crystal structures, specifically the hematite and spinel structures [2].

Spinel pigments are divided into two groups: $x^{+2}y_2^{+3}\text{O}_4$ and $x_2^{+2}y^{+4}\text{O}_4$. These compounds include two cations: x - oxidation state +2, y - oxidation state either +3 or +4. Cation x in $x^{+2}y_2^{+3}\text{O}_4$ and $x_2^{+2}y^{+4}\text{O}_4$ can be represented by various metal ions - Zn, Mg, Cu, Fe, Mn, Ni, Co, Ba, Sr, Cd, cation y in $x^{+2}y_2^{+3}\text{O}_4$ - ions of trivalent metals: Al, Fe, Mn, Cr, Ga, etc.; cation y in $x_2^{+2}y^{+4}\text{O}_4$ - Ti, Sn, Zr. Spinel has high refractoriness, mechanical strength and chemical resistance. Spinel pigments $x^{+2}y_2^{+3}\text{O}_4$ can be obtained in various ways:

- 1) calcining a close mixture of oxides at a temperature of 1700 °C;
- 2) calcination of a close mixture of oxides in the presence of H_3BO_3 in an amount of 2% at a temperature of 1300...1350 °C;
- 3) fusion while mixing the corresponding metal salts, followed by calcination of the mixture at a temperature of 1000 ... 1200 °C;
- 4) precipitation of metal hydroxides from the corresponding salts and calcination of the mixture at a temperature of 1000 ... 1200 °C.

Ceramic black pigments usually have a spinel structure, which makes them more stable. They are obtained from polycomponent compounds of iron - cobaltochromite $(\text{Fe}, \text{Co})(\text{Fe}, \text{Cr})_2\text{O}_4$ and chromium -nickel $(\text{Ni}, \text{Fe})(\text{Fe}, \text{Cr})_2\text{O}_4$. Arrangement of ions in the crystal structure for compounds AB_2O_4 or $\text{B}(\text{A}, \text{B})_2\text{O}_4$ shows that the spinel structure is stable at an ionic radius (r) of $0.06 < r_{\text{Tet}} < 0.1$ nm and $0.055 < r_{\text{Oct}} < 0.1$ nm. Because first period transition metals meet these requirements, the spinel structure is the most common structure found in materials used as ceramic

pigments and is very suitable for ionic substitution. The chemical reagents that simultaneously formed the correct structure of the spinel and gave a high intensity of black pigments belong to the complex system CoO; NiO; MnO; CuO; FeO; Fe₂O₃; Cr₂O₃; Mn₂O₃; Al₂O₃. However, other oxides may also be present, in addition to those indicated, although in small amounts (no more than 3%) [3].

We have carried out research on the synthesis and study of the chemical and mineralogical characteristics of black pigment in order to use it to obtain colored glaze when decorating artistic porcelain products. The synthesis of a pigment with a black color, with a spinel-type structure, was carried out by a chemical reaction in the solid phase at a firing temperature of 1270 °C. according to a predetermined chemical composition of the initial components.

In the process of pigment synthesis, the initial components of the mixture were pre-dried at a temperature of 130 °C to a constant weight, weighed on an analytical balance, then the mixture was mixed and pressed by semi-dry molding in the form of tablets with a diameter of 20 mm, a height of 10 mm, after which the samples were fired to obtain a pigment. The table shows the chemical composition of the synthesized black pigment.

Table. Chemical composition of the synthesized black pigment

Content of oxides, wt %								Sum
Cr ₂ O ₃	Fe ₂ O ₃	Co ₂ O ₃	NiO	SiO ₂	Al ₂ O ₃	MgO	CaO	
34.0	33.1	24.9	4.83	1.32	0.530	0.273	0.153	99.99

X-ray studies were carried out using the X-ray unit DRON - 3 with Cu-K α radiation with a nickel filter at U = 30 Ku, J = 10 mA; the detector speed was 2 deg/min, and the chart tape speed was 600 mm/h. ISS (count rate meter) - 1x10³ imp/s, time constant RS- 2.5 sec, slots 1x2x0.5.

On the X-ray diffraction pattern of the synthesized pigment with a saturated black color, diffraction maxima were found, close to spinel-type minerals of compounds of the compositions FeCoCrO₄, CoCrO₄, NiFe₂O₄, (0.495; 0.482; 0.295; 0.252; 0.242; 0.208; 0.120; 0.160; 0.148; 0.127; 0.126 nm), as well as an intense single reflection (0.278 nm), reflecting the mineral CoCr₂O₄ (Fig. 1).

The result of the process of synthesizing a pigment with a black color, apparently, is the formation of solid solutions of minerals of the spinel structure with the participation of di- and trivalent oxides of the coloring components, in particular Cr₂O₃, Fe₂O₃, Co₂O₃, NiO.

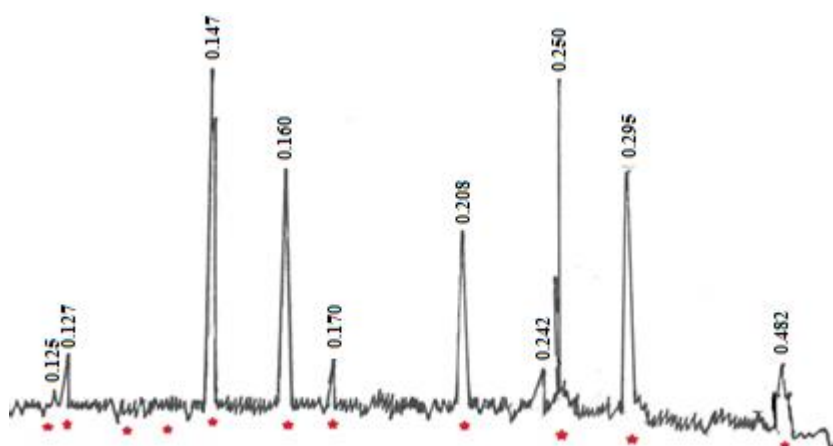


Fig.1. X-ray diffraction of ceramic pigment with black coloration

To study the color characteristics of pigments and glazes, the reflection spectra of prototypes were taken on a c spectrophotometer. UV -2700. On the reflection spectrum of black pigment (Fig.

2) The absorption band maxima lie predominantly in the region from dark green (550.00 nm) to black (517.00 nm) colors.

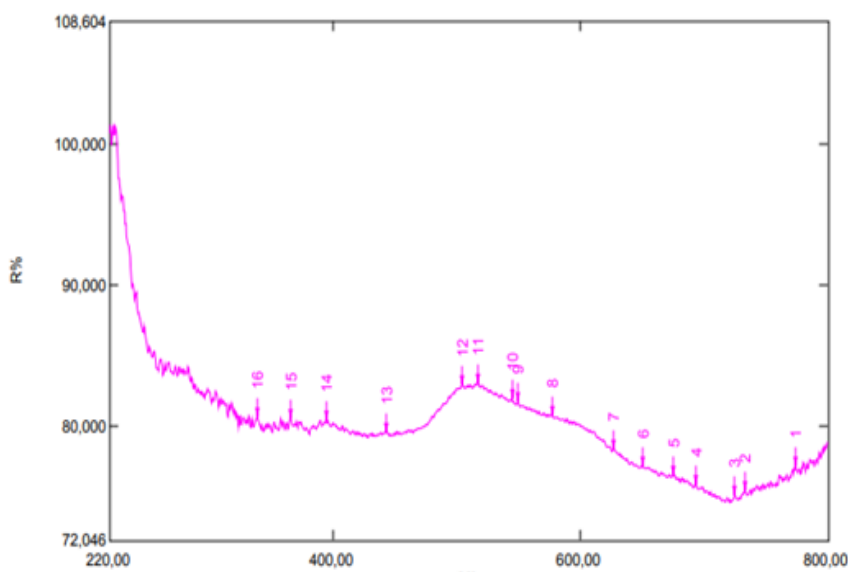


Fig.2. Reflection spectra of black pigment.

The color characteristics of the pigments changed noticeably with an increase or decrease in the amount of coloring oxides introduced, however, the color effect of the pigments was always positive, bright and juicy.

To obtain a colored glaze, a pre-synthesized black ceramic pigment of the spinel type was introduced into the composition of the initial mass of the glaze in the process of preparing the foundry slip in an amount of 5-10% by weight of the air-dry charge. The colored glaze after firing had a uniform and consistent gray -bluish-green color with an unusual decorative effect. The saturation and brightness of the color depended on the amount of pigment introduced, however, the color effect of the masses was always positive, bright and juicy, the brightest color gamut was observed in the sample in which the content of the introduced coloring additive as a synthesized pigment was 8%. The values of the reflection coefficients of colored porcelain samples differed little from those for the synthesized ceramic pigments, which indicates the preservation of their saturated tone in the composition of the glaze. When glazing colored ceramic masses, the quality of the decor improved markedly, the identification of chromophoric shades and colors proceeded with greater intensity.

Thus, with the help of direct introduction into the composition of the glaze mass of the synthesized ceramic black pigment with a spinel type structure, you can get a colored glaze with an unusual color effect for use in the process of decorating artistic porcelain products.

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Rezyume: Rangli glazur olish uchun qora rangli pigment sintez qilingan. Shpinel asosida keramik pigmentlar olish va mineraldagi xromofor oksidlarning izomorf almashinuvlari, qora

pigmentning kimyoviy-minerologik xarakteristikasi va keramik pigmentlarning rangli glazur rangini tiniqligiga ta'siri o'rganilgan. Shpinel strukturali qora pigmentlar sintezi 1100-1270°C harorat oralig'ida borishi va keramik pigmentlar qo'shish orqali tiniq rangli glazur olish mumkinligi aniqlangan.

Резюме: Синтезированы пигменты с черной окраской для цветных глазури. Изучены получение керамических пигментов на основе шпинели и изоморфное замещение хромофорных оксидов в минерале, химико-минералогическая характеристика черного пигмента и влияние керамических пигментов на интенсивность цветных глазурей. Установлено, что синтез черного пигмента со структурой шпинела в интервале 1100-1270 °С и при добавление керамических пигментов на цветных глазури получали насыщенной цвет глазурей.

Kalit so'zlar: shpinel, xromofor oksidlar, keramik pigmentlar, rangli glazur, minerologik xarakteristika.

Ключевые слова: Шпинель, хромофорные оксиды, керамические пигменты, цветные глазури, минералогическая характеристика

UDK: – 004

THE ROLE OF MODERN INFORMATION TECHNOLOGIES AND SOFTWARE PRODUCTS IN THE DIGITAL TRANSFORMATION OF THE AGRICULTURAL COMPLEX

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Summary: *This article discusses the development prospects through the introduction of modern information technologies and new methods of information processing in the agro-industrial complex, aimed at developing the national digital economy of the republic, and also considers the main tasks for improving digitalization. The issues of reducing the cost of production based on the use of digital technologies for the efficient use of land and water resources in agriculture are analyzed.*

Keywords: *Digital technologies, Agriculture, Economic development, Big Data, Digital transformation.*

Introduction

World practice and experience of successful domestic agricultural manufacturers show that the use of modern digital technologies allows you to create optimal conditions that provide significant increase in productivity and labor productivity, decrease in material costs for fuels and lubricants, electricity, plant protection products, wages and other types of expenses, maintaining soil fertility and protecting environment.

The national program "Digital Uzbekistan-2030", developed in the context of the implementation of the Decree of the President of the Republic of Uzbekistan "On national goals and strategic objectives of the development of the Republic of Uzbekistan for the period up to 2030" dated October 5, 2020 No. 6079, outlined the scale of the tasks facing society and the main directions of digitalization of spheres of activity, giving an additional impetus to the study of digital transformations of socio-economic systems of various levels.

Main part

As President Sh. M. Mirziyoyev repeatedly noted in his speeches, one of the main tasks of the consistent socio-economic development of Uzbekistan is the widespread introduction of ICT and digital technologies. This is precisely the area that represents an effective tool that can ensure high-quality reform of economic sectors and spheres of public life. In recent years in the field of development of the digital economy, a number of resolutions and Decrees of the President have been adopted [1-3]. The problem of the digital economy and digital transformation, as well as its development in various areas of human activity, are reflected in books [4] and articles [5].

One of the important sides in the January Address of President Sh.M.Mirziyoyev to the Parliament and people of Uzbekistan in 2020 was given to issues of digital development. It is also symbolic that the 2020 year in Uzbekistan was declared the Year of the Development of Science, Education and the Digital Economy. During this period the fundamental documents were adopted that laid the legal foundation for further digital reforms [7].

On April 28, 2020, the Decree of the President of Uzbekistan "On measures for the widespread introduction of the digital economy and e-government" was adopted with № DP-4699 [2]. This document outlines a range of topical issues related to the widespread introduction of digital technologies in the work of domestic enterprises and public services, the preparation IT-specialists, comprehensive support for IT-businesses and many others.

The logical continuation of these works was the Decree of the President of the Republic of Uzbekistan "On approval of the Strategy "Digital Uzbekistan-2030" and measures for its effective implementation" dated October 5, 2020. The large-scale policy document includes "road maps" for the digital transformation of priority economic sectors and regions [3].

The fourth direction of the Address of the President of the Republic of Uzbekistan Sh. M. Mirziyoyev for 2023 was focused on issues related to ecology, especially water issues becoming a global problem. Among the main issues of the fourth direction is the need to strengthen the requirements for the protection of natural resources, including water bodies and underground reserves, as well as the introduction of a system of transparent water accounting, in this regard, the water management facility will be digitized [6].

Today, the digital technologies come to help the farmers and agronomists in agriculture. Big data and its analysis help to determine the favorable time for planting or harvesting, calculate the fertilizer supply scheme, monitor, predict the harvest, and much more. Digital technologies allow you to control the full cycle of crop production. Smart devices measure and transmit soil, plant and microclimate parameters. The data received from sensors, satellite images, drones, weather stations and other equipment form Big Data and are analyzed by special applications, placed on the geoportal [9].

In particular, in December 2020, the "Smart Agriculture" technology development strategy and the "Action Plan for the implementation of the Smart Agriculture technology development strategy in the period 2021-2023" were approved, providing for four main areas: digitalization of agriculture; automation of management and monitoring processes; support for business start-up projects in the agricultural sector; accounting of water resources [9].

At the same time, in the structure of the central office of the Ministry of Agriculture, the Department for the Development of Digital Technologies in the Agrarian Sphere and the State Institution "Center for Digitalization of the Agro-Industry" were created, which are responsible for the issues of the accelerated program for the development of digitalization in the industry, the introduction of digital solutions in the agricultural sector that contribute to control and maintaining food security, water resources management, state support in providing subsidies, concessional financing, modern information technologies and software products [9].

By the end of 2021 year, the Center for Digitalization of Agro-Industry under the Ministry of Agriculture of the Republic of Uzbekistan launched 5 information systems and portals, such as the "E-IJARA TANLOV" system, on the basis of which agricultural land will be allocated, the Geographic Information System based on "ArcGIS software", the information system Agro-subsidy to support agricultural producers, "Register of agricultural machinery" and a new version of the official website of the Ministry of Agriculture of the Republic of Uzbekistan.

In 2022-2023, it is planned to make and launch 5 more electronic systems, namely the IS "Agroplatform", the agro-trading portal "Marketplace", the project "Smart campus" at the Tashkent State Agrarian University, the Rubicon Water Resources Management System, the Digital Agriculture Unified Integration Platform, which will become the basis for creating an ecosystem for farmers - more than 150 types of interactive services and services. The introduction of these innovative solutions will simplify and optimize business activities in the agro-industrial complex, facilitate document flow and receive interactive services, increase the transparency of processes in the agricultural industry, and most importantly, increase productivity and marginality in the agro-industrial complex [9].

In order to efficiently use land and water resources in agriculture, a geoportal was created, which was launched in November last year - 24 million hectares of land were digitized, an interactive map was created. In addition to information that farmers and entrepreneurs can use, it is planned to launch a number of services provided by drones. The use of such technologies will reduce the cost of agricultural work by almost half.

Conclusion

The era of digital globalization is defined by the flow of information, including information, ideas and news. Smart devices are becoming smaller, faster, cheaper, more powerful and will be the key to solving problems. Data flows, including information, ideas and innovation, are designed to enable the agricultural industry to adopt smart digital solutions that help improve efficiency and tackle sustainability challenges.

Digital technologies are the main key to the consistent development of any country and allow for quality improvement in many aspects of society's life. Large-scale digital reforms implemented in Uzbekistan today are aimed at becoming one of the leading countries with a developed economy and a strong civil society.

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Rezyume: Ushbu maqolada respublikamizni milliy raqamli iqtisodiyotini rivojlantirishga qaratilgan agro sanoat majmuidagi zamonaviy axborot texnologiyalari va axborotni qayta ishlashning yangi usullarini joriy etish orqali rivojlanish istiqbollari qaraladi va shuningdek, mamlakatimizda agro sanoat kompleksini raqamlashtirishni to'kumillashtirish bo'yicha asosiy vazifalar qaraladi. Qishloq xo'jaligida yer va suv resurslaridan samarali foydalanish maqsadida raqamli texnologiyalaridan foydalanish asosida ishlab chiqarishni tannarxini kamaytirish masalari tahlil qilinadi.

Rezyume: В данной статье рассматриваются перспективы развития за счет внедрения современных информационных технологий и новых методов обработки информации в агропромышленном комплексе, направленные на развитие национальной цифровой экономики республики, а также рассматриваются основные задачи по совершенствованию цифровизации. Анализируются вопросы снижения себестоимости продукции на основе использования цифровых технологий для эффективного использования земельных и водных ресурсов в сельском хозяйстве.

Kalit so'zlar: Raqamli texnologiyalar, Qishloq xo'jaligi, Iqtisodiy rivojlanish, Big Data, Raqamli transformatsiya.

Ключевые слова: Цифровые технологии, Сельское хозяйство, Экономическое развитие, Big Data, Цифровая трансформация

LONG-TERM AND SHORT-TERM DESCRIPTIONS OF LOADS OF WATER SUPPLY AND DISTRIBUTION SYSTEMS AT THE STAGE OF ITS FORECASTING

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Summary: The article presents the stage of research work, which will make it possible to form the goals and objectives of scientific research based on the further development of water supply and distribution systems. This gives us the opportunity to create more optimal systems in utility networks.

Keywords: water supply, networks, long-term, mathematical expectation, consumption regimes, functioning of the automated control system, short-term forecast.

INTRODUCTION

The requirements for information about the expected loads of the water supply and distribution system (WDS) - hourly water consumption, are very different in the operational management of the systems and in solving problems for the development of water supply networks for public utilities. Under the conditions of the functioning of the automated control system, a short-term forecast of the expected hourly costs is necessary, but here, in addition to assessing the absolute values of the loads themselves, it is also necessary to know the time when loads of one or another magnitude appear. Such information, that is a short-term forecast of hourly flow schedules should be used to plan the composition of units at all pumping stations operating at different times of the day, to solve the problems of distributing loads between pumping stations (taking into account the limitations on the daily productivity of the head structures of public water supply systems). Methods for obtaining such information are currently sufficiently developed [1] and are already being used in various WDS systems.

With long-term load forecasting in WDS systems, the requirements for information accuracy are much lower, since it is known that even such parameters as population and specific water consumption (depending on the degree of improvement of residential buildings and other factors) are predicted with a very large error, although it is these values determine both the average hourly costs and possible load fluctuations. The most complete data on load fluctuations, which are random variables, can be obtained when the forecast is based on the determination of non-random parameters of the probability distribution functions of these quantities. Such a parameter is the mathematical expectation of loads (MEL) and the dispersion of load distribution functions (DL). If the methods for determining the MEL and DL are developed depending on the influencing factors of specific water consumption and the number of consumers, then this method of predicting loads will not introduce any additional errors, since the accuracy of the calculation will be equal to the accuracy of predicting the numerical values of the factors. Processing the data of field measurements by constructing the distribution functions of hourly water consumption and finding the parameters of these distributions (MEL and DL), made it possible to see that despite the difference in distribution laws at different objects, the value of RP with an error of no more than $\pm 10\%$ can be calculated by the formula

$$DL = \frac{(K-1)^2}{2K-1} \cdot MEL^2,$$

where, K - parameter (coefficient of hourly unevenness) calculated by the regression equation.

$$K = \frac{10,2 + 1,2\overline{Q}1,05\lg N}{\overline{Q}}.$$

Here, N- number of consumers, people;

Q- average hourly consumption, l / person person. (at the same time $MEL = \bar{Q} \cdot N$).

This forecasting method can be used to solve two types of problems. First, to calculate the loads of any required security by the formula

$$Q(X\%) = MEL + t\sqrt{DL},$$

Where, $Q(X\%)$ - secured hourly expense $X\%$, those. the probability of not exceeding this expense in the estimated year of operation of the WDS system is $X = X\% / 100$;

t – parameter of the standardized normal distribution corresponding to a given value $X\%$.

In this case, the difficulty lies in the choice of security, which at present has to be done quite arbitrarily, focusing only on the degree of importance of the PDF system or its individual elements.

Another type of tasks is characterized by the need to determine such characteristics of the elements of the WDS system (for example, the diameter of pipelines) that are affected by the value of RP. So, the economical diameter of an insulated pipeline D can be found by the formula

$$D = \Theta^{0.14} \cdot MEL^{0.42} \cdot R,$$

where, Θ – economic factor;

R – parameter calculated by the formula $R = K^{0.42} \gamma^{0.14}$

Here, K- hourly ripple factor, γ - coefficient taking into account the uneven consumption of electricity for water transportation, the value of which is calculated by the formula [2]

$$\gamma = \frac{1}{3K - 2}.$$

The value of DL and R are determined depending on K and, therefore, it is possible to find the equation for the dependence of R and DL

$$R = 1 + 0,25 \cdot V^\alpha,$$

Where, α – exponent equal to 1.6;

V – coefficient of load variation equal to $\sqrt{DL} / MEL$.

Using these formulas, it is possible to obtain the dependence of the pipeline diameter on the value of MEL and DL of the group of consumers served by this pipeline.

Another problem, which is solved using DL, is to determine the parameters of the load distribution functions of a group of heterogeneous consumers, for each of which the DL values are given. The calculation is made according to the formula [3]

$$DL^\Sigma = \sum_1^n DL_i + 2 \sum_{i \neq j} r_{ij} \sqrt{D_i D_j},$$

Here, DL^Σ - variance of the total distribution; D_i, D_j - variance of individual distributions; r_{ij} - correlation coefficients between individual distributions; n - number of individual consumers.

CONCLUSION

As a result of research studies on the study of water consumption regimes, the values of r_{ij} were determined, which makes it possible to use this formula in practical calculations, which makes it possible to determine the variance of the total distribution when solving problems of determining the volume of containers in the water supply systems of railway stations and in other public utilities.

This stage of the research work will provide an opportunity to formulate the goals and objectives of scientific research based on the further development of water supply and distribution systems. This gives us the opportunity to create more optimal systems in utility networks.

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Rezyume: *Maqolada suv ta'minoti va taqsimlash tizimlarini yanada rivojlantirish asosida ilmiy tadqiqotning maqsad va vazifalarini shakllantirish imkonini beradigan tadqiqot ishlarining bosqichi ko'rsatilgan. Bu bizga muhandislik tarmoqlarining yanada optimal tizimlarini yaratish imkoniyatini beradi.*

Резюме: *В статье представлен этап научно-исследовательской работы, который позволит сформировать цели и задачи научных исследований на основе дальнейшего развития систем водоснабжения и распределения. Это дает нам возможность создавать более оптимальные системы инженерных сетей.*

Kalit so'zlar: *suv ta'minoti, tarmoqlar, uzoq muddatli, matematik kutish, iste'mol rejimlari, avtomatlashtirilgan boshqaruv tizimining ishlashi, qisqa muddatli prognoz.*

Ключевые слова: *водоснабжение, сети, перспектива, математическое ожидание, режимы потребления, работа автоматизированной системы управления, краткосрочный прогноз.*

THE USE OF FOAM CONCRETE IN MODERN CONSTRUCTION

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Summary: *The article presents the use of plasticizing additives as a promising direction in increasing the efficiency of foam concrete and improving their performance properties. The introduction of plasticizers into concrete and mortar mixes makes it possible to increase their flow characteristics without causing a decrease in the compressive strength of concrete or mortar. Even in small quantities, they significantly affect the processes of cement hydration, which makes it possible to positively influence the properties of foam concrete.*

Keywords: *foam concrete, glue rosin, aluminosulfonaphthene, resin saponin, hydrolyzed blood, modified lignosulfonates; naphthalene sulfonates, melamine sulfonates, polyacrylates, hyperplasticizers.*

Foam concrete is an artificial porous stone material. It is obtained by mixing a separately prepared foam with a mortar mix (binder, aggregate, water) or high-speed mixing (whipping) of a mortar mixture with a foaming agent, which is a surface-active substance (surfactant) and reduces the surface tension of water and retains the air involved in mixing. Depending on the average density, foam concrete can contain 85% or more air. The presence of air in it provides high heat and sound insulating properties.

Foam concretes considered in the article are of medium-density (from 400 to 500 kg/m³) and refer to heat-insulating materials.

In Russia, Professor A.A. Bryushkov began to study foam concretes as early as 1928; in the 30s of the twentieth century, it began to be widely used for the roofs of industrial buildings as monolithic thermal insulation.

Glue rosin, aluminosulfonaphthene, resin saponin and hydrolyzed blood were used as foaming agents; they slowed down the cement setting time and did not allow for reducing the average density below 400 kg/m³.

In the post-war recovery period, autoclaved foam concrete developed by professors A.V. Volzhensky and P.I. Bozhenov was widely used. In 1953, the first residential buildings from whole-foam concrete were put into operation in Berezniki. Later, since autoclaved foam concrete showed low crack resistance, autoclaved aerated concrete began to be used.

Domestic and foreign experience in the production and use of foam concrete showed their high technical and economic efficiency.

Foam concrete with an average density of 500 kg/m³ or less plays a leading role in solving the scientific and technical problem of reducing the weight of structures, saving energy resources (heating) of buildings under construction and recycling industrial waste. Foam concrete structures and products make it possible to speed up installation work and reduce labor costs.

It is most expedient to use heat-insulating foam concrete in housing construction, where the issues of reducing the cost of houses, improving the accuracy of products and the quality of construction, reducing material consumption and labor intensity, improving the microclimate of premises and saving heating costs are especially acute.

The possibility of monolithic concreting in accordance with a tendency to increase the share of monolithic-frame housing construction predetermines the growth in demand for this material. However, the production of foam concrete, especially of low densities, is associated with a number of difficulties: the foam-cement mix is not always stable, often sinks, and the resulting material is non-homogeneous in properties. Therefore, at present, foam concrete grades in density from D600

to D800 are mainly produced, while in order to increase the efficiency of thermal protection in terms of wall thickness and material consumption, a wall filler of lower density is required [1].

The construction of factories for the production of foam concrete requires less capital investment than the construction of factories that produce products and structures from lightweight concrete. Foam concrete does not require additional production of lightweight aggregates (for example, expanded clay or perlite).

Therefore, research on the development of compositions of non-autoclaved heat-insulating foam concrete with increased strength characteristics is one of the urgent tasks in the building materials industry.

By conducting scientific research, it is necessary to solve the issue of increasing the compressive strength of non-autoclaved foam concrete with an average density of 400 to 500 kg/m³ to the level of autoclaved aerated concrete with an appropriate average density.

Such compressive strength of foam concrete can only be set with the introduction of modifying additives, proper design of the mix composition, proper preparation, laying, and with proper maintenance of foam concrete at the initial stage of its hardening. An increase in the strength of non-autoclaved heat-insulating foam concrete, reducing its cost and the overall profitability of production depends on the production technology of high-quality cellular building materials.

The strength of foam concrete depends to a greater extent on the strength of inter-pore partitions, which can be increased by:

- reducing the water-solid (W/S) (water-cement) ratio with plasticizers, which will lead to a decrease in the capillary porosity of the material;
- the introduction of ultrafine fillers (production waste) with low bulk density, such as micro-silica, into the composition of the foam concrete mix.

The use of plasticizing additives is a promising direction in increasing the efficiency of foam concrete and improving their performance properties. The introduction of plasticizers into concrete and mortar mixes makes it possible to increase their flow characteristics without causing a decrease in the compressive strength of concrete or mortar. Even in small quantities, they significantly affect the processes of cement hydration, which makes it possible to positively influence the properties of foam concrete.

Plasticizing additives were discovered and patented in 1935; however, they were widely used in concrete technology in the 60s of the XX century. The production of superplasticizers as marketable products started in companies Sudentsche Kalstickstoff Weyke (Germany) and KaO Soap Co Ltd. Since 1978, the superplasticizer C-3 has been produced on an industrial scale in our country.

To date, plasticizers can be classified as follows:

- modified lignosulfonates
- naphthalenesulfonates;
- melaminesulfonates;
- polyacrylates;
- polycarboxylates (hyperplasticizers).

Their correct application allows getting the highest quality indicators of concrete or mortar.

The mechanism of plasticizers is their adsorption on hydrated cement grains and finely ground silica components. At that, the formation of a monomolecular layer, which reduces internal friction, and the peptization of floccules of cement particles occur. An increase in the number of hydrated cement particles during peptization accelerates the hydration processes, and, accordingly, increase the strength of concrete.

Superplasticizers and hyperplasticizers [1] are mainly used for the production of heavy concretes. In the technology of foam concrete, the use of plasticizing additives is constrained due to their negative effect on the stability of the foam.

Over the years, plasticizing of foamed concrete mixes was studied by Kalashnikov V.I., Makridin N.I., Mestnikov A.E., Kuznetsov Yu.S., Ivanov I.A., Ukhova T.A., Krivitskaya I.G., Dvorkin L. I., and others.

Experimental studies conducted by Ukhova T.A. and Krivitskaya I.G. [2], stated the effectiveness of the use of a complex additive (superplasticizer + structure formation intensifier) in the composition of cellular concrete. The study of the basic physical and mechanical properties of non-autoclaved cellular concrete with a complex additive based on a superplasticizer showed the possibility of making small blocks from these concretes, which, in terms of their main indicators, are close to similar products made from autoclaved cellular concrete.

Laboratory test data indicated by V.I. Kalashnikov, N.I. Makridin, Yu.S. Kuznetsov [3], allow a 35% reduction in the rate of water consumption in the composition of cellular concrete mixes using superplasticizer C-3.

Research conducted under the guidance of Professor Ivanov I.A. in [4], states that the efficiency of plasticization in mineral-dispersed compositions depends on the concentration of the solid phase. The maximum degree of plasticization, both in terms of rheological indicators and in terms of mixing water reduction, is manifested precisely in concentrated suspensions, which are cellular concrete mixes. The high dispersion of raw materials of cellular concrete makes it possible to more fully manifest the properties of plasticizing additives in comparison with heavy concretes, in which the plasticizing effect increases with the use of fine sands.

The studies of Vasilik P. and Golubev I. in [5] show that:

- plasticizers of the K-5, Relaxol, Melment brands destroy the structure of the prepared foam;
- Sika plasticizer does not destroy the structure of the foam, but it does not ensure the stability of the foam concrete mix;
- plasticizers C-3, LST reduce the water-cement ratio, partially ensuring the stability of the foam concrete mix, but the finished products are obtained with a non-uniform loose large-pore structure and low strength;
- the best result was obtained with the use of Melflux brand hyperplasticizers (Melflux 2651F and Melflux 1641F). They made it possible to obtain a stable foam (up to 50 min) and a foam use factor of 0.95.

The Department of Technology of Binders and Concrete of MIKKhS together with the Scientific Research Institute "Resource-Saving Technologies" developed a superplasticizer based on "Vega" lignosulfonates. Tests of this additive in foam concrete showed that its optimal content is from 0.27 to 0.36%. The finished foam concrete had a finely dispersed cellular structure, and no signs of sinking, while the foam concentrate consumption was reduced to 150 g/m³.

Sobkalov P.F. and Bertov V.M. developed a raw mix for the manufacture of structural heat-insulating foam concrete based on fly ash with W/S from 0.28 to 0.43 and with the addition of superplasticizer C-3 in the amount of 0.4 to 1.4% by weight of all components (RF patent No. 2237041).

Mestnikov A.E., Kardashevsky A.G., Egorova A.D. developed a raw mix for the manufacture of non-autoclaved heat-insulating cellular concrete based on a burnt rock with W/S = 0.79 and with the addition of C-3 in the amount of 0.2% of the weight fraction of components (RF patent No. 2491257).

The effect of plasticizing additives of a new generation on the basic physical, mechanical, and thermal properties of foam concrete is practically not considered in modern technical literature,

so the question of the possibility of their use as part of heat-insulating foam concrete is very relevant.

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Rezyume: Maqolada ko'pikli betonning samaradorligini oshirish va ularning ekspluatatsion xususiyatlarini yaxshilashda istiqbolli yo'nalish sifatida plastiklashtiruvchi qo'shimchalardan foydalanish tasvirlangan. Beton va ohak aralashmalariga plastifikatorlarning kiritilishi beton yoki ohakning bosim kuchini pasaytirmasdan ularning harakatchanligini oshirishga imkon beradi. Hatto oz miqdorda bo'lsa ham ular tsement gidratatsiyasi jarayonlariga sezilarli ta'sir ko'rsatadi, bu ko'pikli betonning xususiyatlariga ijobiy ta'sir ko'rsatadi.

Резюме: В статье приведено применение пластифицирующих добавок является перспективным направлением в повышении эффективности пенобетонов и улучшении их эксплуатационных свойств. Введение пластификаторов в бетонные и растворные смеси, позволяет повысить их подвижность, не вызывая снижения прочности при сжатии бетона или раствора. Даже в небольших количествах, они значительно влияют на процессы гидратации цемента, что позволяет положительно воздействовать на свойства пенобетонов.

Kalit so'zlar: ko'pikli beton, kleekanifolnii, aluminosulfonaften, qatron saponin, gidrolizlangan qon, modifikatsiyalangan lignosulfanatlar; naftalin sulfanatlar, melamin sulfanatlar, poliakrilat giperplastifikatorlari.

Ключевые слово: пенобетон, клееканифольный, алюмосульфонафтенный, смолосапониновый, гидролизованную кровь, модифицированные лигносульфонаты; нафталинсульфонаты, меламинсульфонаты, полиакрилатгиперпластификаторы.

**RECOMMENDATIONS FOR ENSURING THE STABILITY OF THE SIDES OF THE
AMANTAYTAU QUARRY**

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Summary: *As mining at the lower levels of open pits progresses, the need for a thorough analysis of existing geotechnical and geological data collected during the operation of the open pit increases, to determine and establish safe final slope angles and the edge of the open pit contour zone. This article presents 1) an analysis of the existing geotechnical and geological data, and on their basis 2) the calculations of the safe final angles of the slopes and the edge of the contour zone of the open pit. Based on the performed geotechnical analysis and calculation of the angles of slopes and sides, recommendations are given for further geomechanical work. The analysis and calculation were carried out for the conditions of the existing contour of the Amantaytau quarry.*

Keywords: *Amantaytau open pit, open pit edge, mining technology and geological analysis, open pit boundary zone, calculation of slope and edge angles, geomechanical support.*

INTRODUCTION

When developing mineral deposits in an open way, the safety of mining operations and the economic efficiency of the enterprise depend on the methods for ensuring the stability of the sides of quarries and ledges. Various methods based on various theories are used to determine safe technological processes, slope angles and pit wall. In our case, the calculation of the optimal angles of slopes and the side of the quarry was carried out using the VNIMI method [1]. For this, core samples were obtained from the studied area of the deposit, on which work was carried out to determine the physical and mechanical properties of the rock mass, followed by the establishment of the structural and geological conditions of the Amantaytau deposit.

Based on the obtained data on the physical and mechanical properties of the rock mass breeds and structural-geological conditions fulfilled calculations sustainability for selection of general angles of the sides of the quarry [2]. Tilt angles defined boards, providing normative stock sustainability sides $n=1.3$. calculations fulfilled on the cuts, built on specialized lines, submitted on the rice. 1. Zones With similar characteristics around specialized lines limited by the similarity of mining and geological conditions, such as height board, tilt angle sides, composition rocks that make up the board.

The results of calculations in the form of zoning of the sides of the quarry according to the stability indicator are shown in Fig. 2.

During the development of concentration, an analysis was also carried out of the possible chronic tectonic communities at the meetings of the sides of the quarry. In general, on the basis of the available geological and structural model, any pronounced unsustainable structures are identified, however, attention should be restored to two areas that the company is likely to be unsustainable. These are areas on the southwestern side of the southeastern excavation and on the eastern side of the northern, most often deep, excavation of the quarry (Fig. 3). of the above is recommended in a new quarry project with the ability to secure dangerous areas, as well as record keeping and data stability feedback in the process of decorating them with a quarry excavation.

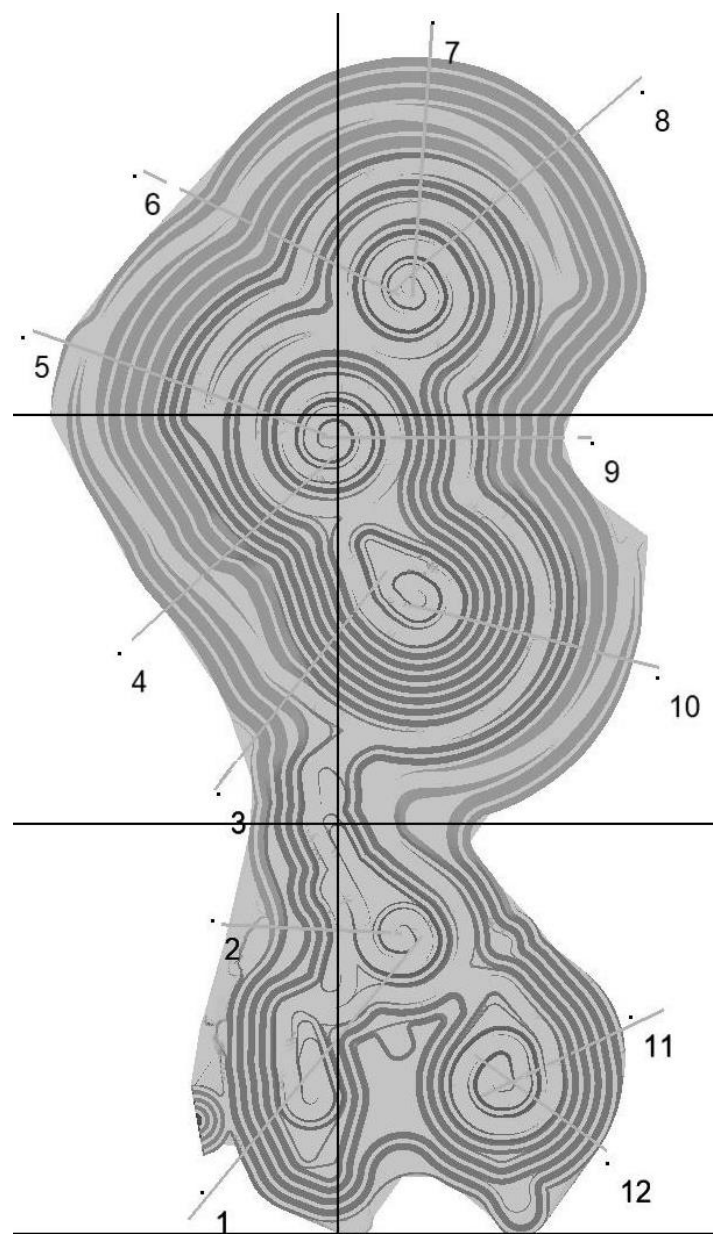
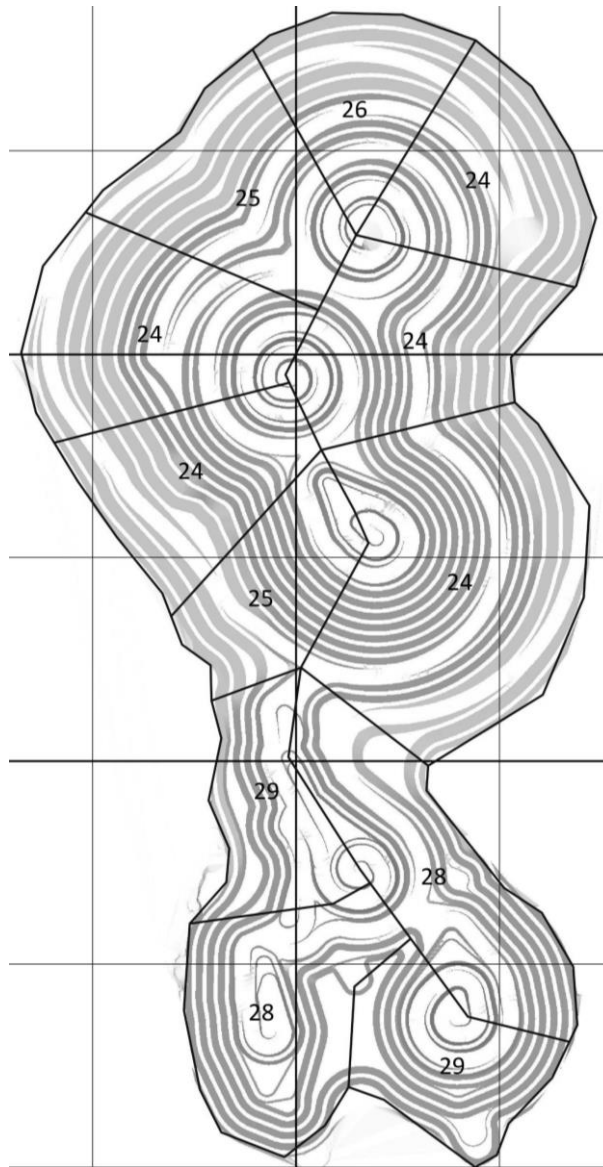


Fig.1. Quarry plan with access to the location of calculated sections

Included in the contours of the Amantaytau quarry, when combined with the recommended parameters for the work of the sides of the quarry, there can be dumps located in the eastern part of the deposit. In order for the dumps not to have a negative chronological effect on the arrival of the sides of the open pit, they should be deepened at a sufficient distance from the sides of the open pit, that is, beyond the visibility of the prism of a possible collapse. In accordance with the calculations performed on the joining of the general angle of the sides, the width of the limit of possible collapse at the eastern limit of the maximum speed is 98 m and at the western limit is 65 m.

Open pit mining in the area of underground workings, passed during the exploration of the deposit, should be accompanied by elevation measures for external security. the most typical measure is to hold the probability of an explosion of the void. Description of this production technology, for example, in the fact Guide to the design of quarry walls [3].

Fig. 2. Zoning career on general corners



Taking into account the geomechanical conditions of the Amantaytau deposit, namely the shearing and the relative decrease in the strength of the rock, it can be predicted that in order to successfully set the benches and sides of the quarry into the design position, why drilling and blasting should be carried out with the implementation of a special drilling and blasting technology when placing ledges on the limit contour. Before reaching the design contours of the quarry, it is necessary to work out a special production, which is permissible for the subsequent permissible case on the instrument array.

To do this, it is necessary to study the impact of the explosion on the contour massif, develop and implement a program for experimental drilling and blasting and mining operations when placing ledges on the ultimate design contour [4].

This work must be ensured in order to achieve the parameters of the sides and ledges of the quarry recommended in this work.

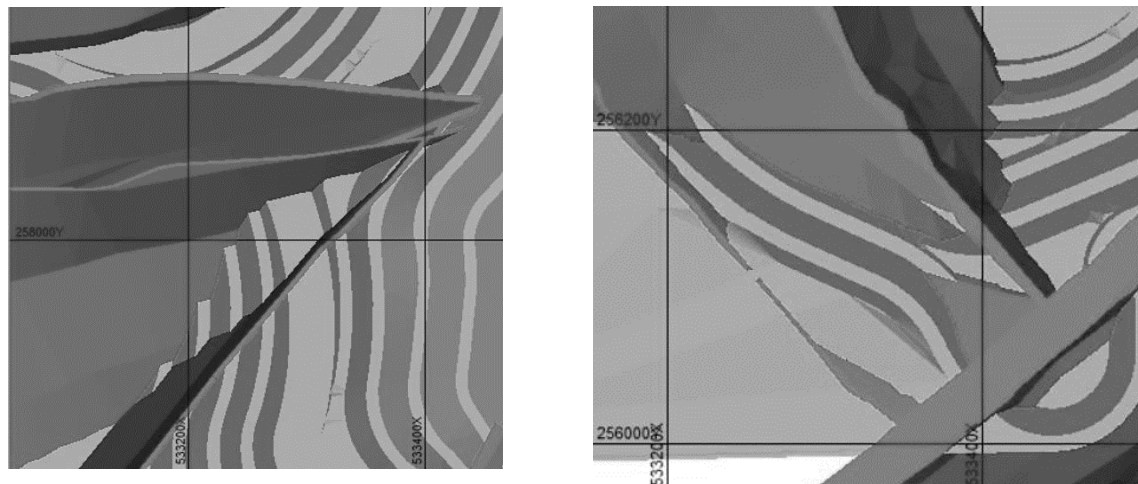


Fig.3. Quarry areas dangerous due to tectonic disturbance

When studying archival materials, data was found indicating that during the development of production, several geotechnical wells were drilled by the subsoil user. If possible, it is necessary to obtain, process and take into account in the geomechanical model the results of core documentation and the study of rocks from these wells. This, perhaps, will allow not to perform the French and technically difficult drilling in the given production conditions with the selection of oriented cores.

Oriented core drilling (or telemetric surveying of wells) is required in international practice when designing a quarry at the PPS level and above.

It is important to note that it is recommended in this paper to use the slope angles of ledges only when developing and applying special measures for setting ledges to the limit position. A certain general angle of inclination of the sides of the quarry allows their subsequent long-term cases.

CONCLUSION

Thus, the zoning of the quarry was carried out according to the angle of slopes of stable ledges and sides of the Amantaytau quarry. It should be noted that the performed zoning of the quarry according to the turn of the slopes is valid for the public design contour of the quarry. When using the design contour, the boundary and recommended parameters of the zones should be reviewed.

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Rezyume: Konning quyi gorizontlarida qazib olish ishlari olib borilishi bilan karyerning ishlash davrida to'plangan mavjud geotexnik va geologik ma'lumotlarni karyerning chegaraviy hududi yon bag'irlari va yon tomonlarining xavfsiz yakuniy qiyalik burchaklarini aniqlash va o'rnatish uchun sinchkovlik bilan tahlil qilish zarurati ortadi. Ushbu maqolada 1) mavjud geotexnik va geologik ma'lumotlarning tahlili va ularning asosida 2) karyerning chegaraviy hududi yon bag'irlari va yon tomonlarining xavfsiz yakuniy qiyalik burchaklarining hisob-kitoblari keltirilgan. Amalga oshirilgan geotexnik tahlil va qiyaliklar hamda yon tomonlarning burchaklarini hisoblash asosida geomexanik ishlarni yanada xavfsiz olib borish bo'yicha tavsiyalar berildi. Amantaitau koni konturi shartlariga muvofiq holda tahlil va hisoblash ishlari amalga oshirildi.

Резюме: С ведением горных работ на более нижних горизонтах карьеров возрастает необходимость тщательного анализа существующих геотехнических и геологических данных, собранные в периоде работы карьера, для определения и установления безопасных конечных углов откосов и борта приконтурной зоны карьера. В данной статье приведены 1) анализ существующих геотехнических и геологических данных, и на их основе 2) выполненные расчеты безопасных конечных углов откосов и борта приконтурной зоны карьера. На основе выполненного геотехнического анализа и расчета углов откосов и борта даны рекомендации по дальнейшему ведению геомеханических работ. Анализ и расчет выполнены для условий существующего контура карьера Амантайтау.

Kalit so'zlar. Amantaitau karyeri, karyer borti, kon-texnologik va geologik tahlillar, karyerning chegaraviy hududi, qiyalik va bort burchaklarini hisoblash, geomexanik qo'llab-quvvatlash.

Ключевые слова. карьер Амантайтау, борт карьера, горнотехнологических и геологический анализ, приконтурная зона карьера, расчет углов откосов и борта, геомеханическое обеспечение.

INVESTIGATION OF THE ADSORPTION ACTIVITY OF A MICROSPHERE - WASTE FROM A THERMAL POWER PLANT

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Summary: *The results of the investigation into the chemical composition, a few physical and chemical traits, and adsorption activity of the microsphere-derived ash and sludge waste from a thermal power plant are reported. On the isotherms for nitrogen adsorption and desorption, a hysteresis loop is clearly visible. Convexity characterizes the isotherm throughout the whole range of relative pressure values, which is characteristic for adsorption with weak contact forces. Low specific area and pore volume are indicated by somewhat underestimated adsorption values for this sample in the range of relative pressure from 0.05 to 0.95. By using the hysteresis loop, it is demonstrated that capillary condensation occurs on the surface mesopores. When the absolute values of water vapor and benzene vapor adsorption on the microsphere are compared, it is clear that the former has a significantly higher level of adsorption. The Langmuir law applies to water isotherms when the adsorption value's dependence on the adsorbate vapor pressure is seen. It takes an S-shape with benzene.*

Keywords: *microsphere, ash sludge, adsorption, adsorbate, isotherm, desorption, Langmuir.*

INTRODUCTION

Every year, there is a rise in electrical energy use. As a result, thermal power plants' capacity is increased, increasing the amount of ash and slag waste (ASW) they can store in ash dumps. Simultaneously, local businesses that produce building bricks add to the grain waste that is stored by the Republic of Karakalpakstan's Committee of Ecology and Environmental Protection. Their monthly contribution is anticipated to be 150 tons. ASW has been produced in excess of 200 thousand tons to far, placing a heavy and already unfavorable strain on the Republic's environment. The degree of usage should be enhanced because this trash has not yet been utilized.

The issue of using thermal power waste is being researched by scientists from all around the world. As a waste product from the high-temperature burning of coal used in thermal power plants, fly ash microspheres (also known as ash microspheres) can be employed in a variety of sectors. It should be emphasized that these wastes' composition and volume depend on the nature of their feedstock [1]. This determines the extent to which mixes of magnetic and aluminosilicate microspheres can be produced. Iron oxides are often abundant in magnetic microspheres, but aluminum and silicon oxides are predominant in aluminosilicate microspheres. They are primarily divided through fractionation [2–5].

Despite its composition, this mixture can be utilized to clean water containing organic contaminants by coagulation and adsorption. Ashes of aluminosilicate microspheres, which are tiny spherical particles with gas inside, are thought to be more freely moving. Because of this, these materials have low bulk densities (no higher than 0.5 g/cm³)

The structure, content, and fundamental physicochemical and surface characteristics of aluminosilicate microspheres have all been the subject of numerous investigations [1–8]. As fillers for composite materials used for a variety of purposes, such as heat-insulating, polymers, cements, silicate bricks, etc., the characteristics of their structure, chemical, and mineralogical composition, combined with their special technological properties, determine the viability of their industrial use [5–8]. Use of ash microspheres as sorbents for the extraction of pollutants of varied chemical nature from wastewater, including radioactive, oil, and oil derivatives, is a promising direction [1, 9].

Numerous academic studies stress the need of studying microspheres to determine their physico-chemical properties rather than their adsorption properties.

Among the most dangerous environmental pollutants are petroleum products. This is partly explained by their high toxicity and in proportion by the fact that a significant amount of oily wastewater is produced during the extraction, processing, transportation, and use of oil and oil-derived goods. Separating emulsified oil products from industrial wastewater is the key challenge. Mechanical (settling, centrifugation, filtration) and physicochemical (sorption, flotation, coagulation, flocculation) procedures are typically used to purify water from various sorts of oil products. Cleaning the surface of reservoirs after oil product leaks during emergencies would be another, no less tough task. The majority of the time, the existing techniques for water purification from oil products in the form of emulsions, drops, and films do not allow for the achievement of the necessary standard results. In this regard, it is necessary to upgrade the current processes for treating both natural and industrial wastewater as well as water bodies contaminated by oil products.

It is well known that UDP "Ustyurtgaz" operates a large number of gas wells on the territory of the Ustyurt area. The fields are home to 17 gas separators that perform main gas processing before to transit. Calculations show that at least 750 m³ of wastewater from the separators is produced each day. At the moment, water from separators is discharged close to this separator without being treated. These waters are filled with tons of organic trash and gas condensate, both of which are extremely harmful to the ecosystem. As a result, challenges with developing highly efficient reagents for purifying these liquids and purification methods are particularly pertinent.

The aim of this investigation is to determine the adsorption properties of waste from Takhiatash TPP (Republic of Karakalpakstan) ash aluminosilicate microspheres (MS) in relation to organic substances in the aquatic environment.

EXPERIMENTAL PART

The study's focus was samples produced by the combustion of coal at the Takhiatash TPP, the chemical composition of which is described in Table 1.

Table 1.

Chemical composition of the microsphere

SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO	Me ₂ O	и др.
60,2	34,4	2,1	1,9	0,6	0,1	0,7

They are non-porous particles that range in thickness from 2 to 10 microns and weigh between 580 and 610 kg/m³.

By using nitrogen adsorption at a low temperature of 77 K on a Quantachrome Nova 1000e static-type adsorption unit, the properties of the porous structure (specific surface area, S_{sp} , total pore volume, V , and pore diameter, d_{pore}) were calculated. The test samples were prepared for this by being treated in a vacuum for 12 hours at a temperature of 100 °C. The partial pressure value reached 0.995 P/P_0 . In the partial pressure range of 0.005 to 0.995 P/P_0 , the nitrogen adsorption/desorption curves were measured. The BET method was used to process curves relating the quantity of adsorption to the residual pressure. The volume of micropores was calculated using the t-Plot method. The Barret-Joyner-Halenda (BJH) method was used to calculate the mesopore volume. The BET technique was used to calculate the average pore diameter using the formula $D_{av} = 4V/S$. By using Horvath-Kawazoe (HK) methods, the volumes and size distribution of micropores (rMP) (cf. size 1.15-1.17 nm) were determined.

Studies were conducted concurrently to determine the selected object's adsorption capacity in relation to the organic and inorganic adsorbates, which were assumed to be water vapor and benzene. Using a set up that included McBain balances, the adsorption procedure was conducted. The linear forms of the Langmuir equation, BET, were used to characterize the obtained isotherms.

RESULTS AND DISCUSSION

The isotherms of nitrogen adsorption and desorption on MS are depicted in Figure 1. On the curve, a distinct hysteresis loop can be detected. The isotherm, which is typical for adsorption with weak contact forces, is convex throughout the whole range of relative pressure values. According to the BDDT classification, the adsorption isotherm is type III. Low specific area and pore volume are indicated by somewhat underestimated readings of the amount of adsorption for this sample in the relative pressure range of 0.05 to 0.95. (Table 2). The hysteresis loop provides evidence that capillary condensation occurs on the surface mesopores. Slow condensation and a sluggish liquid movement through the pores are correlated with a relatively small isotherm loop (percolation). The values of the specific surface area, pore size, and other textural parameters were determined based on the nitrogen's low-temperature adsorption, and are shown in Table 2.

Table 2.

Textural Characteristics of the Studied Samples

S, m ² /g	V _a , cm ³ /g	V _b , cm ³ /g	D, Å	r _{MP} , Å
11,8064	0,002576	0,037243	51,878	7,8623

The volume of micropores is an insignificant part of the total pores. The volume of mesopores is almost 15 times larger compared to the volume of micropores and is 0.0372 cm³/g. The average BET pore size is 51.878 Å.

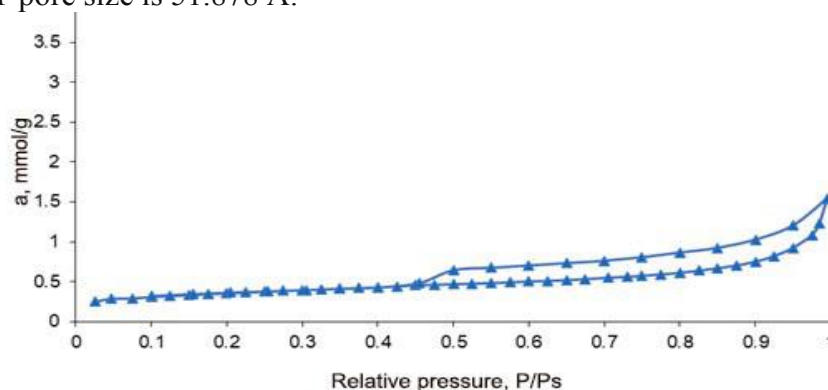


Fig.1. N₂ adsorption isotherm on MS sample.

The statistics in the table demonstrate that this sample is distinguished by low levels of surface markers. They should have less adsorption activity than other adsorbates because of the non-porous surface. This theory was indirectly supported by the benzene vapor adsorption measurements that were done (see Fig. 1).

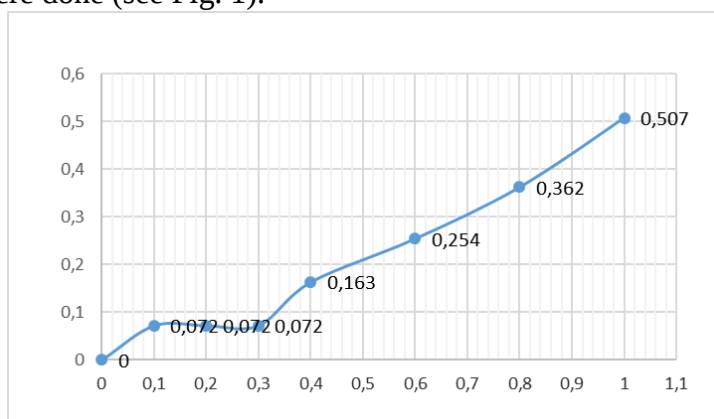


Fig. 2. isotherm of benzene vapor adsorption on the sample.

This sample has insignificant numbers of micropores, as seen by the curves in the diagram. The formation of additional adsorbate layers over the initial layer of benzene molecules is predicted by the increase of the isotherm in the region of pressure $P/P_0=0.3$. The occurrence of

chemical adsorption is likely linked to a further increase in the values of the curve along the y axis because of an increase in the concentration of adsorbates in the gas phase. The calculated specific surface area is 16.82 m²/g.

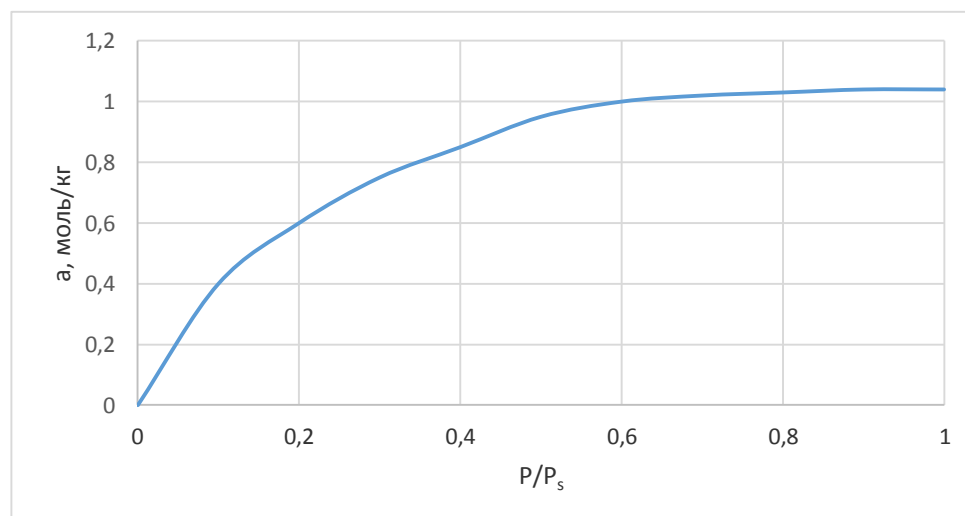


Fig 3. Water vapor adsorption isotherm on the sample.

A comparison of the water vapor and benzene vapor adsorption isotherms on MS reveals that the absolute values of water vapor adsorption are significantly greater than those of benzene vapor adsorption. The HLB value (hydrophilic-lipophobic balance) is greater than one, which firstly shows that the surface has a strong hydrophilic character. Water vapor and benzene have different types of adsorption isotherms from one another. The dependency of the adsorption value on the adsorbate vapor pressure for water isotherms is consistent with the Langmuir law. For benzene, it takes the form of a S. Figure 3 shows that the water vapor adsorption isotherms' initial section has a convex character, which indicates a high energy affinity of the molecules that adsorbate and adsorbent. The initial section and the overall shape of heptane vapor adsorption isotherms are concave, which indicates a low intermolecular interaction between the adsorbate and adsorbent. It is clear that the principal mechanism by which benzene molecules are fixed is by their condensation on the surface and in the pores of adsorbents.

CONCLUSION

Based on the completed investigations, it was determined that the Takhiatash TPP's coal-burning microspheres is a low-porous system. The volume of micropores is a minor portion of the total volume of pores, according to an analysis of the nitrogen isotherm models. Mesopore volume, which is 0.0372 cm³/g, is about 15 times greater than micropore volume. The absolute values of water vapor adsorption are significantly higher than those of benzene vapor adsorption. This indicates that the object under study has a surface that is clearly hydrophilic.

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Rezyume: Issiqlik elektr stantsiyasining kul va loy chiqindilari -mikrosferaning kimyoviy tarkibi, ba'zi fizik-kimyoviy xususiyatlari va adsorbtsion faolligini o'rganish natijalari keltirilgan. Azot adsorbtsiyasi va desorbtsiya izotermalarida aniq gisterezis halqasini ko'rish mumkin. Nisbiy bosim qiymatlarining barcha diapazonlarida izoterma konveks shaklga ega bo'lib, bu o'zaro zayf tasir ko'chlariga ega adsorbtsiya uchun xosdir.

Qiymati 0,05 dan 0,95 gacha bo'lgan nisbiy bosim aralig'ida berilgan namuna uchun adsorbtsiya miqdorining qiymati biroz kam bo'lishi nisbiy maydoni va g'ovak hajmining kichik ekanligini ko'rsatadi.

Mezog'ovaklar yuzasida kapillyar kondensatsiyaning paydo bo'lishini gisterezis halqasi borligini isbotlaydi. Mikrosferadagi suv bug'lari va benzol bug'larining adsorbtsion izotermalarini taqqoslashdan ko'rish mumkin, suv bug'ining adsorbtsiyasining mutlaq qiymatlari benzol bug'ining adsorbtsiyasiga qaraganda ancha yuqori. Suv izotermalari uchun adsorbtsiya qiymatining adsorbat bug' bosimiga bog'liqligi Lengmyur qonuniga to'g'ri keladi. Benzol uchun u S-shaklini oladi.

Резюме: Приводятся результаты исследования химического состава, некоторых физико-химических характеристик и адсорбционной активности микросферы – золошламового отхода теплоэлектростанции. На изотермах адсорбции и десорбции азота можно увидеть явную петлю гистерезиса. Изотерма во всем диапазоне значений относительного давления имеет выпуклую форму, что характерно для адсорбции со слабыми силами взаимодействия. Несколько заниженные значения количества адсорбции для данного образца в интервале относительного давления от 0,05 до 0,95 свидетельствует о низкой удельной площади и объеме пор. Протекание капиллярной конденсации на поверхностных мезопорах доказывается петлей гистерезиса. Из сопоставления изотерм адсорбции паров воды и паров бензола на микросфере видно, что абсолютные величины адсорбции паров воды значительно выше, чем величины адсорбции паров бензола. Для изотерм воды зависимость величины адсорбции от давления паров адсорбата соответствует закону Ленгмюра. Для бензола принимает S-образную форму.

Kalit so'zlar: mikrosfera, loy, adsorbtsiya, adsorbat, izoterm, desorbtsiya, Lengmyur.

Ключевые слова: микросфера, золошлам, адсорбция, адсорбат, изотерма, десорбция, Ленгмюр.

UDC:378.016:004UDC:378.016:004

COMPUTER TECHNOLOGIES IN TEACHING MUSICAL DISCIPLINES IN PEDAGOGICAL UNIVERSITIES

Abilova G.J.

Nukus Branch of Tashkent University of Information Technologies Named After Muhammad Al-Khwarizmi

Summary: *The article discusses and substantiates the need for the use of digital technologies in the process of teaching students. Software tools relevant today are considered. A technique for their application is proposed.*

Keywords: *program, technology, training, methodology, computer, competence*

The beginning of the new millennium was marked by a turning point in the relationship between music and the computer. One can safely prophesy a brilliant fruitful development of their unity. Determining the prospects for interaction between a computer and a musician, the St. Petersburg composer G.G. Belov noted: "For a professional composer, a multimedia personal computer can become a multifunctional "means of production". This statement is true not only for a composer, but also for a professional musician in general. The computer becomes a familiar tool in the process of musical education, musical practice and creativity - accessible, understandable, convenient and, in part, an indispensable "musical computer". As a full-fledged and multifunctional musical instrument, it significantly expands the creative possibilities of a musician.

Musical computer technologies are the sum of technologies that allow a computer to input, process, store, transmit and display (output) such types of data as text, graphics, animation, digitized still images, video, sound, speech. These technologies can be considered as a way to prepare electronic documents, including visual, audio effects and multi-programming of various situations under the unified control of interactive software [1- C. 70-74.].

These two definitions of musical computer technologies seem to be the most successful and reflect the essence of the concept - multimedia (multi-media) technologies, emphasizing that this is, first of all, a technology for preparing and presenting information on a computer screen.

Among the advantages of musical computer technologies over traditional teaching are:

1. a combination of logical and figurative ways of mastering information;
2. visibility;
3. interactive interaction, communication in the information and educational space.

The use of computer technologies in the field of music education is justified by the fact that they allow you to combine work with visual, textual and auditory information.

In general, the computer opens up the widest possibilities in the creative exploration of the space of music, both at the level of professional art and amateur creativity. After all, musical computer technologies have created a new period of technical reproduction of musical products: both in musical notation, and in the genres of applied music, and in sound recording facilities, in the quality capabilities of sound reproducing equipment, in theatrical and concert activities, in sound design and music broadcasting (here it is interesting that broadcasts even over the Internet) [2].

Based on the specifics of music education, the use of computer technology in this area has its limits. First of all, it seems useful to introduce computer technologies into the process of studying musical-theoretical and historical cycles: in fact, a program that has the ability to combine various types of information - textual, visual, auditory, is the best suited for teaching, say, the history of music: the user simultaneously can use the text material of articles, listen to musical

examples. Some scientists are conducting research and creating programs that teach and perform the skills of playing musical instruments.

In modern music education, the following types of multimedia programs are being developed:

- encyclopedic manuals, reference books;
- electronic textbooks and manuals;
- simulator programs for practicing various skills (for example, there is the Musicion program, which also includes tests to check the level of knowledge).

It must be said that test programs are a type of multimedia programs that are not yet widely represented on the market. This is due to several reasons:

1. musical tests have specific features;
2. insufficient equipment of the musical educational process with computer technology;
3. testing is a relatively new way of testing knowledge, therefore, criteria for assessing and compiling tests have not yet been developed.

The modern market of computer programs offers a wide range of ready-made programs. Music editors open up the possibility of experimenting with electronic sounds. Working in such an editor, you can learn not only to record familiar melodies, but also to compose your own, choosing tempos, fragments that correspond to the style, number of voices, etc.

Sibelius 6 is a stable, proven music editor designed to make life easier for musicians. The Sibelius program is very widespread and belongs to the class of professional programs, but is not the only one in its class of programs. Sibelius notation editor is the optimal solution for professional composers, musicians, teachers and those who need it. With the help of such a notator program, you can easily and quickly create any score. The principles of work in Sibelius is the principle of work in the Word editor. Sibelius can work with music editors and virtual studios that support ReWire technology. In addition to the program itself, this archive provides a set of some applications and changes for a more pleasant and comfortable work. Sibelius 6 is the latest stable version of the notation editor. The main charm of the editor is that you can use it to do both a simple set of notes and work on musical projects directly on your computer. For example, to make arrangements or compose new pieces of music. At the moment, the editor was bought by Avid and released a product called Avid Sibelius 7, which contains a completely new interface. Therefore, now there are already 7 versions of this program for PC. The desire to improve each new version has not affected the general principles of working in the Sibelius program. Namely: the implementation of a set of notes, the input of various kinds of designations, the design of the finished score and listening to the sound of the written. make arrangements or compose new pieces of music. At the moment, the editor was bought by Avid and released a product called Avid Sibelius 7, which contains a completely new interface. Therefore, now there are already 7 versions of this program for PC. The desire to improve each new version has not affected the general principles of working in the Sibelius program. Namely: the implementation of a set of notes, the input of various kinds of designations, the design of the finished score and listening to the sound of the written.

A handy wizard is used to open recent projects or create new ones. To do this, select "Create a new document" if the start window appears when you start the program. Or at any time in the program, press Ctrl+N. You can immediately select the instruments that you can then work with in

Sibelius (or a score template), the font style of the notes, the size and key of the work. Then write the title and author's name. And so, the first bars of the future score appeared before us. Next - enter the musical material. Notes can be entered in several ways - using a MIDI keyboard, a regular keyboard and a mouse. If you have a MIDI keyboard or a keyboard synthesizer connected to your computer via a MIDI USB interface, you can type music in the most natural way - just by pressing the desired piano keys. The program has a virtual keyboard for entering durations, accidentals and additional symbols. It is combined with the number keys on a computer keyboard (which are activated by the Num Lock key). However, when working with a MIDI keyboard, we will only need to change the durations. We select the measure from which the input of notes will begin and press N. We play musical material with one hand, and turn on the desired note durations with the other. If your computer does not have number keys on the right (for example, on some laptop models), you can also use the virtual keyboard with a mouse. Having set a large scale, it will be convenient to type musical text with the mouse. To do this, you need to click in the right places of the staff, along the way setting the desired durations of notes and pauses, accidentals and articulations on the virtual keyboard. The disadvantage of this method is that both notes and chords will have to be typed sequentially one note at a time. This is long and tedious, especially since there is a possibility of accidentally "missing" the right point on the staff. You can use the up and down arrows to adjust the pitch of the note.

Entering information using a computer keyboard is the most convenient of all. Notes are entered using the corresponding Latin letters, which correspond to each of the seven notes - C, D, E, F, G, A, B. This is the traditional letter designation of sounds. Entering notes from the keyboard is convenient in that you can use many "hot keys" that increase productivity and typing speed at times. For example, to repeat the same note, simply press the R key. Using the keys, you can also easily select the desired durations, accidentals, put down dynamic shades and strokes, and enter text. Some operations, of course, will have to be done with the mouse: for example, switching from one staff to another or selecting measures. So in general the method is combined.

It is permissible to place up to 4 independent voices on each staff. To start typing the next voice, highlight the measure in which the second voice appears, press 2 on the virtual keyboard, then N, and start typing. Adding additional characters. All functions for working with staves and the actual musical text are available in the "Create" menu. Hotkeys can be used to quickly access them. Leagues, volts, octave transposition symbols, trills and other elements in the form of lines can be added in the "Lines" window (L key), and then, if necessary, "extrude" them with the mouse. Leagues can be quickly added by pressing S or Ctrl+S. melismatic, signs for specific performance on different instruments, and other special characters are added after pressing the Z key. If you want to put a different clef on the staff, press Q. The size selection window is called up by pressing the English T. Sibelius itself arranges the bars of the score in the most successful way. You can also do this by manually moving the lines and measures to the right place, also "expand" and "narrow" them.

In the process of work, you can listen to the result at any time, identify possible errors and evaluate how it might sound in a live performance. By the way, the program provides for the setting of "live" playback, when the computer tries to imitate the game of a live musician.

I would like to note that the use of a computer and other technical means in a music lesson is not an end in itself. The development of society today dictates the need to use new information technologies in all spheres of life. The modern school should not lag behind the requirements of the time, which means that the modern teacher should use a computer in his activities, because. The main task of the school is to educate a new generation of literate, thinking citizens who can independently acquire knowledge. When applying new information technologies in a music lesson, we must not forget that this is a lesson in communication with art. That is why it is so important not

to "replace" it with communication with a computer, not to "dry" the lesson, not to turn it into a technical workshop.

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Rezyume: *Maqolada talabalarni o'qitish jarayonida raqamli texnologiyalardan foydalanish zarurati muhokama qilinadi va asoslanadi. Bugungi kunga tegishli dasturiy vositalar ko'rib chiqiladi. Ularni qo'llash metodikasi taklif etiladi.*

Резюме: *В статье рассматриваются и обосновываются необходимость применения цифровых технологий в процессе обучения студентов. Рассматриваются программные средства актуальные на сегодняшний день. Предлагается методика их применения.*

Kalit so'zlar: *dastur, texnologiya, o'qitish, metodika, kompyuter, kompetentsiya*

Ключевые слова: *программа, технологий, обучение, методика, компьютер, компетенция.*

CHARACTERISTICS OF MEDIA CENTERS IN THE FORMATION OF UNIVERSAL AND NATIONAL MEDIA SPACE (IN THE EXAMPLE OF THE REPUBLIC OF KARAKALPAKSTAN)

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Summary: *This article discusses the traditional types of media centers, modern types, systems and institutions that are part of socio-cultural reality, the formation and functioning of media centers in Karakalpakstan in a certain universal and national cultural space, as well as the formation and improvement of this space.*

Keywords: *institution, reality, dialectical reality, common interests, laws of development, historical and cultural development, political experiences, constitutional ideals, ethno-values, geographical areas, media centers, modern technology tools.*

Both traditional and modern types of media centers are systems and institutions that are part of socio-cultural reality. It is known that the manifestation of socio-cultural reality in the universal and national space is an axiom. Therefore, the media centers in Karakalpakstan are formed and operate in a certain universal and national cultural space and serve to form and improve this space. This dialectical relationship is in accordance with the principle of the subject within the subject, the Republic within the Republic. No matter what institution or reality in the Republic of Karakalpakstan we think about, we should proceed from this dialectical reality, not from the point of view of pitting them against each other or discriminating the other, but from the point of view of the commonality of interests, the generality of the laws of development. There are general laws of our democratic development that are consistent with the principles of universality, including: 1) unity of our historical and cultural development; 2) the exactness of our socio-political experiences and constitutional ideals, 3) the commonality of our ethno-values; 4) integrity of our geographical areas and our state; 5) our equality; 6) such as the proximity of social democratic norms that our media spaces follow and respect.

There is no need to justify the unity of the historical and cultural development of the Karakalpak and Uzbek peoples, because all historical and ethnological studies confirm the accuracy of their ethnogenesis[1]. This identity was formed in the process of historical and cultural development, as a result of which the two ethnic groups came closer to each other and communal aspects appeared. For example, Karakalpak and Uzbek understand each other without a translator, can read each other's writings and information, and easily accept symbolic signs in their information. Media centers not only rely on the unity formed in the processes of historical and cultural development, but serve to strengthen it according to the requirements of the time. For the effective operation of media centers, it is enough to rely on this historical-cultural experience and promote it with modern technology. For example, in the systems of general education, secondary special education and higher education conducted in the Republic of Karakalpakstan, almost no universal or national obstacles were encountered in the transition to the use of information technologies in educational processes. The introduction of information and communication tools, called "modern pedtechnology", which began in the early years of independence, was perceived as an update. Laws "On Education" (1997), "On National Personnel Training Program" (1997), "On

Information" (2004) adopted by our state, strengthening the material and technical base of the President's Higher Education Institutions and fundamentally improving the quality of training highly qualified specialists on measures" (2011) and in many Resolutions of the Cabinet of Ministers "On the program for the development of computerization and information technologies in 2002-2010" (2002), arming the national education system with modern information education tools, which are already used abroad as indicators of universal cultural development introduction of interactive, distance and digital education methods is put on the agenda as strategic tasks. They recognized the possibilities of modern information and communication tools to create a universal media space and set an important goal that they would lead to wide integration in the field of education. As a result, modules and standards such as Forms, Materials, Messenger, Chat, Exercises, Group Work, Student tracking, IMS, SCORM on the Moodle platform appeared in the education and personnel training system. For example, in the Karakalpak State University named after Berdak, in the mid-1990s, separate courses and lessons were organized on the use of computer technology and the formation of students' skills in using information media, along with the technology of introducing modern ped-technologies. Preparation of electronic copies of important articles in the literature, textbooks and training manuals, newspapers and magazines, Bulletins in the university library has been started[2]. However, it is not observed that there has been a significant change in this regard due to the fact that the material and technical base of the educational system is not sufficiently developed, especially due to insufficient provision of modern information and communication tools. General socio-political, economic and spiritual cultural processes in our country are aimed at preserving independence, even though the laws on the education system and the decisions of the President and the Central Government were adopted, the introduction of modern information and communication tools in the field was not at the level of world requirements. With the arrival of Sh.M. Mirziyoyev at the head of our state, and the adoption of the Strategy of Actions in 2017, innovative changes began to take place in this field. On September 23, 2020, the new Law "On Education", the President's "On Measures for the Further Development of the Higher Education System" (April 20, 2017), "On Measures to Further Improve the Information Technologies and Communications Sector" (February 19, 2018) , "On measures to increase the quality of education in higher education institutions and ensure their active participation in comprehensive reforms implemented in the country" (June 5, 2018), "On approval of the concept of development of the higher education system of the Republic of Uzbekistan until 2030" (October 8, 2019) more than 200 official documents were accepted. The pandemic that started in 2020 prompted the widespread use of distance learning methods in the education system, as in all fields. In essence, distance education is a technology of using modern information and communication tools, which serves to make the educational process, in any conditions, a continuous, sustainable reality. It was created as a technology to attract disabled people who returned to their country to social life and education, to provide them with various services during the Second World War, especially during the USA's aggression against Vietnam, and later it was fully implemented in correspondence education processes. It was necessary to occupy the disabled people who overwhelmed Europe with something, this situation encouraged countries to create inclusive and distance education systems. Scientific and technical discoveries made by the 21st century have made inclusive and distance education a global reality, especially in the era of COVID 19, which caused a global crisis. The whole world has moved to distance education and distance services, which, in turn, has made modern information and communication tools a universal artefact. As a result, humanity has created new platforms, programs and modules for the use of scientific and technical discoveries. Today, no one knows what their number and size is in the

global intercom, because every day hundreds, thousands, even millions of people enter the intercom, create their own sites, open Facebooks and expand the circle of communication. Although many countries are trying to monitor and control them, it is not known if any results have been achieved in this regard. The creation of a national interspace remains a challenge. But there are efforts to create a national interspace in the field of education and training under state and public control. For example, we can cite sites such as "Okibat", "Karindoshlar", "Sinfidoshlar", "Choyxona" and "Kadrdonlar" in Telegram, which promote our national-spiritual and moral values against unethical screens in intermaterials, sites that create violence and aggressive mood. In addition, the effective use of modern information and communication technology allows some of our young people to create a national segment on the Internet. In his address to the youth of Uzbekistan, the President proudly mentioned that a group of young people led by Mekhrinoz Abbasova posted more than 10,000 Uzbek articles on Wikipedia[3].

Universal media space does not reject national features and capabilities, any information, standard and module can be placed in it. The Moodle platform coordinated with the above-mentioned Web and on-line mode is today being expressed in the system of higher education in Karakapogistan. This platform is "a special Web-oriented educational system that manages and streamlines the learning process and is designed for use on the Internet. Open source software is used to create the system. To use it, you need a database management program (My SGL or PostgreSGL), a PHP processor, a server configured with a Web service program (Apache IIS). As an operating system, you can use any of the popular systems (Windows. Linux, Mac OS X, Novwll Netware). At the time of writing the training module, the stable version of the system is mooble 2.5. The official website address of the system is: <http://www.mooble.org>. Mooble, abbreviated as Modular Object Oriented Dynamic Learning Environment, is a modular object-oriented dynamic learning environment (MOOBLE), a free web (web-oriented) application licensed under the GNU GPL license. The Mooble system is based on the "pedagogy of social constructivism"[4.25]. The Mooble platform is distributed in 160 countries of the world, in 72 languages, including the Uzbek language, through 37,000 versions. It is evident that the platform has the potential to combine universal and national resources. Candidate of philological sciences, associate professor J.Khoshniyazov, associate professor of philology, who is using these opportunities in Karakalpakstan, K. Samamutov, an employee of the Institute of Language and Literature named after N.Dawkaraev, leading researchers of the Karakalpak department of the Academy of Sciences of Uzbekistan A.S.Muratov and E.Oteniyazov wrote scientific articles in the Karakalpak language. , we know that innovative developments and resources related to the ethnography of the country are being introduced to the Internet. The fact that the results of scientific research are published in foreign journals and through the Internet shows that Karakalpak ethnoculture and science are taking a place in the universal media space. In particular, with the help of "BFE Studio and Median Systeme" company, mass media and educational centers were computerized, the editorial office of "Erkin Karakapakstan" newspaper, "Karalpakstan" television, "Mawrit", "Dawir", "Karakalpakstan", "Assalawma aleykum Karakalpakstan!", The fact that "Diydar" TV programs are equipped with modern information and communication tools immediately attracted the attention of the audience[5.67-68]. If we look at these processes, we can see that the task of media centers is a priority in them. Communication takes place mainly among a narrow circle of intellectuals. Organization of communication with the masses, the general population, takes place in a traditional way, that is, in the subject-object style, left over from the Soviet era. Until 2016, in the activity of media centers, it was very weak to engage in live communication, to focus social opinion on current issues of the time. True, many articles and speeches were organized about the environmental

situation in Karakalpakstan. For example, T.Qaipbergenov, A.Tajiev, I.Niyatullaev, O.Abdurakhmanov, K.Dauletmuratov, D.Allambergenov in "Erkin Karakalpakstan" newspaper and "Nokis haqiqati" newspapers, "Aral", "Qaraqalpaqstan Muğallimi" magazines and "Qaraqalpaqstan" television. They paid attention to the current issues of the Karakalpak people and their life, and revealed the relevance of regional problems[6.72-74]. Nevertheless, the media centers did not have a wide range of communication, they even showed an adaptation to authoritarian rule. This situation is evident in our respondents' answers to the question "What topics do you think media centers should pay more attention to?".

The answers we received are divided as follows:

- 58 percent to "Economic problems"
- 53 percent to "Youth Employment"
- 51 percent to "Environmental problems"
- 44 percent to "Health"
- 32 percent to "Social and political issues"
- 31 percent to "Cultural household issues"
- 29 percent to "Moral education"
- 27 percent to "Education"
- 26 percent to "Issues of democracy and human rights"
- 21 percent to "The problems of women and girls"
- 17 percent to "Scientific problems"
- 11 percent to "Improvement of the environment"
- 4 percent to "International topics"

These answers can be expressed in the form of a diagram as follows.

Respondents indicate that socio-economic issues (58 percent), youth employment (53 percent) and ecology (51 percent) remain serious problems for the people of Karakalpakstan. The public around media centers, mainly journalists and academic staff, tend to organize communication around these problems. The main directions of their creative activity and materials in media centers are related to socio-economic issues. At the same time, they have socio-political materials. Interest in topics related to democracy and human rights, education system, and health also occupy one of the leading positions. Especially in Karakalpak press and TV and radio programs, topics such as independence, spiritual heritage forgotten during the colonial period, the fate of the repressed, and the reflection of tragedies related to the island on the fate of people, give the national media space its uniqueness. They are published not only in national media centers, but also in international materials, international scientific journals and conference materials[7].

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Rezyume: Ushbu maqolada, Mediamarkazlarning an'anaviy turlari, zamonaviy turlari, ijtimoiy-madaniy voqelik sirasiga kiradigan tizimlar va institutlar, Qoraqalpog'istondagi mediamarkazlar ma'lum bir umuminsoniy va milliy madaniy makonda shakllanishi, faoliyat yuritishi hamda ushbu ushbu makonni shakllantirishga, takomillashtirishga xizmat qilishi borasida so'z yuritiladi.

Резюме: В данной статье рассматриваются традиционные виды медиацентров, современные типы, системы и институты, являющиеся частью социокультурной реальности, формирование и функционирование медиацентров Каракалпакстана в определенном общечеловеческом и национальном культурном пространстве, а также формирование и благоустройство этого пространства.

Kalit so'zlar: institut, voqelik, dialektik voqelik, manfaatlarning mushtarakligi, taraqqiyot qonunlari, tarixiy-madaniy rivojlanish, siyosiy tajribalar, konstitutsion ideallar, etnoqadriyatlar, jug'rofiy hududlar, mediamarkazlar, zamonaviy texnologiya vositalari.

Ключевые слова: институт, реальность, диалектическая реальность, общие интересы, законы развития, историко-культурное развитие, политический опыт, конституционные идеалы, этноценности, географические ареалы, медиацентры, современные технологические инструменты.

BREAST SHORT SWIMMER'S SPEED PROCESSING

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Summary; *The article details ways to develop speed skills in short distance swimmers, and the loads that should be done to increase speed.*

Keywords: *swimming, swimmers, swimming methods, swimming interval, short distance, physical loads, quickness ability, maximum speed, ways to increase speed.*

According to the regulation "Physical education and sports" in our country, it is important to improve the health of the people, and physical education also creates conditions for sports [1,23].

One of the most important issues is the development of speed ability, especially in fast-paced sports. The reason is the development of the athlete's speed and the achievement of good results in sports events.

Speed capabilities are a bit more specific. They can only be attached to each other. Movements performed at maximum speed differ from normal movements according to their physiological characteristics. The most important difference between them is numerically, it is difficult for sensory connections to occur during movements at maximum speed: reflex impulses cannot be detected.

5-10 sec. for speed development training, 15-20 sec. for speed-strength training, 20-30 sec., 30-40 sec. for speed-endurance training. Even in 1 minute, it is necessary to develop patience, and therefore to replace the fracture.

In the process of physical training, it is necessary to take into account the functional capabilities of the body.

When the speed is very high, the accuracy of the movement is related to the number of mines. Muscles want to work more actively in movements that are performed at a very fast frequency. The kinetic reaction rate is divided into 2 types: individual reaction, complex reaction.

The optimal pace of each stroke is the length of a step, reaching the maximum speed of the step, and the speed of the movement in intervals is related to the length of the step.

Tempo and speed appear instead of a cycle of movements at a given time. Esiwdi's pace, speed, and strength at the start of the game put a lot of stress on the leg muscles, which does not allow him to stand still. As a result of this, the wall was removed. This will reduce the length of the exercise, and the moving muscles will also accelerate the metabolism of the whole body.

In this article, one of the 3 important elements in speed regulation is movement tempo, which is the ability of an athlete to perform repetitive movements at high speed. If the pace of movement in the exercises is high, the tension in the athlete's muscle system is also increased.

Speed - in the case of large jumps (for example, jumps to distances of 25 m - 50 m), the level of adjustment, which would be in a significant degree before shortening, became important. If the default setting is too fast, the time of shortening will be too fast.

As you get older, your functional abilities change, and your muscle mass changes, like a hammer.

These are the main features of the body: organs, legs, and abdomen, as well as bending and stretching.

The condition for the increase in speed is the conservation of the growth force and the continuity of the effective part of the moment. It is also possible to update these parameters at any time. In addition, a sudden increase in tempo leads to slowness of the movement, and a strong movement leads to a violation of the breath.

Swimming technique changes as follows when the speed of swimming increases: swimming becomes stronger when swimming in water volume, the body's force of attack increases, movement speed increases, movement readiness accelerates, the turn of the keel decreases when it turns, and the amplitude of the movement of the wind decreases.

In classes, jumping exercises are given a significant place in the training of speed and strength.

5-6 repetitions, 20 seconds each, repetition of the body wave, 30-40 seconds of rest between series of jumps, 3-5 minutes, 20-40 seconds, 20-40 seconds between jumps - 40 seconds is enough. Special gymnastics complexes affecting the muscles of the legs, body, and feet are recommended for the development of speed and strength skills in school and physical education classes.

In the speed-strengthening classes, fresh material is taught, and previously prepared material is determined.

A specific reaction is defined as a response to a specific signal with a specific action.

For speed training, two sets of 4-5 reps were performed with a rest interval of 10-20 seconds between reps, and 30-40 seconds between reps. Hold the breath for 60-90 seconds.

The breathing interval should be small, it would not be stable, it would be varied and varied. If active breathing is not considered to be an active part of static stress that affects good recovery, it has been proven that recovery can be facilitated if the action of stress suppression is taken.

In swimming speed, tempo and stride length are related to each other. At the speed of a sharp movement, the length of a step is more or less. The optimal tempo of each stroke is the length of each step, and the maximum speed of the stroke is reached. In the intervals, the speed of movement is also related to the length of the "step".

The maximum speed can be achieved by using the tests as a speed development tool. First of all, three types of trainings: growth promotion, special trainings in sports and trainings in other types of sports were left.

Exercises aimed at developing maximum speed should be performed frequently, but for a short time.

It is necessary to take into account the number of exercises aimed at increasing the speed of the movements, the speed of the exercises should be reduced, repeated several times, and the number of continuous exercises should be carried out without decreasing the speed.

Exercises focused on speed development were stopped when the athlete's subjective feelings, back marks or stopwatch readings indicated that the movement speed was insufficient.

This step serves as the first signal to stop the work that is being carried out in order to increase the speed.

Maximum speed was used as a means of promoting the speed of all possible exercises.

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Maximum speed was used as a means of promoting the speed of all possible exercises.

First of all, three types of training are applied: growth promotion, sports-specific training, and training in other sports.

The condition for the increase in speed is the conservation of the growth force and the continuity of the effective part of the moment. It is also possible to update these parameters at any time. In addition, the increase in tempo leads to the acceleration of the swimming movement and the disruption of the already very heavy breathing.

The sports result of the athlete is determined by the level of endurance of the athlete. Although the speed of the movement of the handle is related to the tempo of the movement, it does not have a high level of efficiency when looking at the result of the passing attempts.

In the short distance, the competition of the swimmers in the special equipment will help us to learn the hidden elements in depth.

Problem: the start time (10 meters) and the finish time (interval) are 10 meters, and the speed of movement between the start and finish is set to 15 meters. In a short distance, the goal is to accelerate from the start with the click of the race car's whistle.

50-meter swimmers swim at the highest speed, therefore, they have an important starting point. Together with the number of swimmers, the starting point at the maximum speed is related to the speed of the swimmers.

If the swinging movement is technically correct, the pulling force will decrease. Usually the speed of the movement of the legs is ahead of the speed of the movement.

The greater the separation between these velocities, the greater the force of gravity. In some cases, if the speed of movement of the body is faster than the normal speed of the body, it is possible that there is no traction.

On the basis of the technique of the sports body, it is possible to see different degrees. Each technique of bodybuilding can be made up of a large number of conditional parts at once: body, breathing, and arm and leg movements. In other words, it is necessary to analyze the importance, character, and speed of the leg and leg movements, as well as the shape of the movement.

One of the most difficult elements to learn is breathing technique.

Breathing difficulties appear in all other ways, except on the back. The impact of the water pressure on the body requires more effort to get rid of it.

In the end, it is necessary to focus on taking a deep breath, rather than taking a deep breath. Breathing, therefore, the speed of the movement is with body.

When the arm movement is balanced with the movement of the bass, for example, in the correct crawl style, the aimless rotation of the from the body leads to the jerking of the sail.

All the elements of the swimming method should be placed in the same way as the turns in the swim, but it should not affect the movement of the arms and legs.

The technique of the sports technique is designed and simplified according to the human movement capabilities.

The form of the movement is related to the structure of the syllables, and the form of the verb is related to the movement. It is possible for athletes to move their joints well, and to do large-scale movements without any interference.

Amplitude - the movements are conditioned by the sports technique, which helps to save energy.

The lack of movement in the joints makes it difficult to maintain the technique and reduces the effectiveness of sports training.

Tactics were used in every way during the competition. However, first of all, it is necessary to determine the tactics of the intermediate competition in a way that takes into account the possibilities of other athletes.

However, in the conditions of the competition, it was sometimes difficult, due to the composition of the participants, the conditions of the competition, especially when the semi-finals were calculated according to the rules of the competition, some people were nervous, especially the big competitions (republic, state unity) and others. At the end of the day, it is necessary to be able to maintain the necessary tactics in any situation, taking into account all the different options.

Achieving a good result depends on the right choice of tactics. In practice took some time, during which the sportsman's speed began to accelerate like a jet engine. In this case, it has brought about a great result. It is recommended to start with a slow speed in the first part of the interval.

From this, the possibility of achieving better results in the next section appeared. From the numbers, there is a possibility of achieving good results in this section. Finally, it is necessary to take into account the pressure of each move and to clarify the tactical option of the right path.

It was found that the difference between the times of the first and second part of this interval is on average 4-6 seconds.

Muscles of the body contract as a result of impulses from the central nervous system, and cause arm-leg movement. The muscles of the body were not in a state of shortening, as in the case of static exercises.

In conclusion, increasing the ability of speed in short distances is a matter of proper preparation of the training process. On the basis of sports training, it is necessary to prepare the swimmers wisely, in this way, it is necessary to use various methods and tools effectively. This, of course, was a factor preventing them from increasing their speed.

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Rezyume: Ushbu maqolada qisqa masofalarga suzuvchilarda tezlik qobiliyatlarini rivojlantirish yo'llari, tezlikni oshirish uchun amalga oshirilishi kerak bo'lgan yuklamalar haqida batafsil bayon qilingan.

Резюме: В данной статье подробно описаны способы развития скоростных развития скоростных навыков у пловцов на короткие дистанции и нагрузки, которые следует выполнять для увеличения скорости.

Kalit so'zlar: suzish, suzuvchilar, suzish usullari, suzish oraliqlari, qisqa masofa, jismoniy yuklamalar, tezkorlik qobiliyati, maksimal tezlik, tezlikni oshirish yo'llari

Ключевые слова: плавание, пловцы, методы плавания, плавательные интервалы, короткая дистанция, физические нагрузки, способность быстроты, максимальная скорость, способы увеличить скорость.

**THE MAIN FEATURES OF AGRICULTURAL REFORMS IN THE DEVELOPMENT
OF THE ECONOMY OF UZBEKISTAN**

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Summary: *Agriculture is one of the leading sectors in the economy of Uzbekistan and is of great importance in ensuring the country's food security. The article describes the main changes and reforms in agriculture during the years of independence, the development of farms, the structural changes in the cultivated area, and the reclamation of irrigated lands.*

Keywords: *agriculture, agricultural products, farm and farmer facilities, cotton, grain, land reclamation, reforms*

Introduction. Deep reforms were implemented in the Uzbekistan agriculture after the country gained its independence. This period can be characterized as a stage of intensive agriculture development. At that time agricultural products were the main source of foreign exchange resources. They were vital for the country food and became the main area of equipment and technology import.

The main part. Special attention was paid to the grain production. The goal was to achieve self-sufficiency, and this task was carried out by limiting the monopoly of cotton. For example, from 1990 to 2020, the size of cultivated areas increased from 433.2 thousand acres to 1610.7 thousand acres, or almost 4 times. The productivity of land increased from 12.8 to 57,0 hwt/ ha (Fig. 1). The harvest gross increased from 553.5 thousand tons to 6545.3 thousand tons. The size of cultivated areas was increased with re-cultivated land and areas irrigated for cotton. Moreover, a higher productivity was achieved. In 1993-2020 the amount of land planted with cotton was reduced from 1721.0 thousand hectares to 1342.5 thousand hectares. Thereby the raw cotton production decreased from 4646.3 thousand tons to 3442, 3 thousand tons.

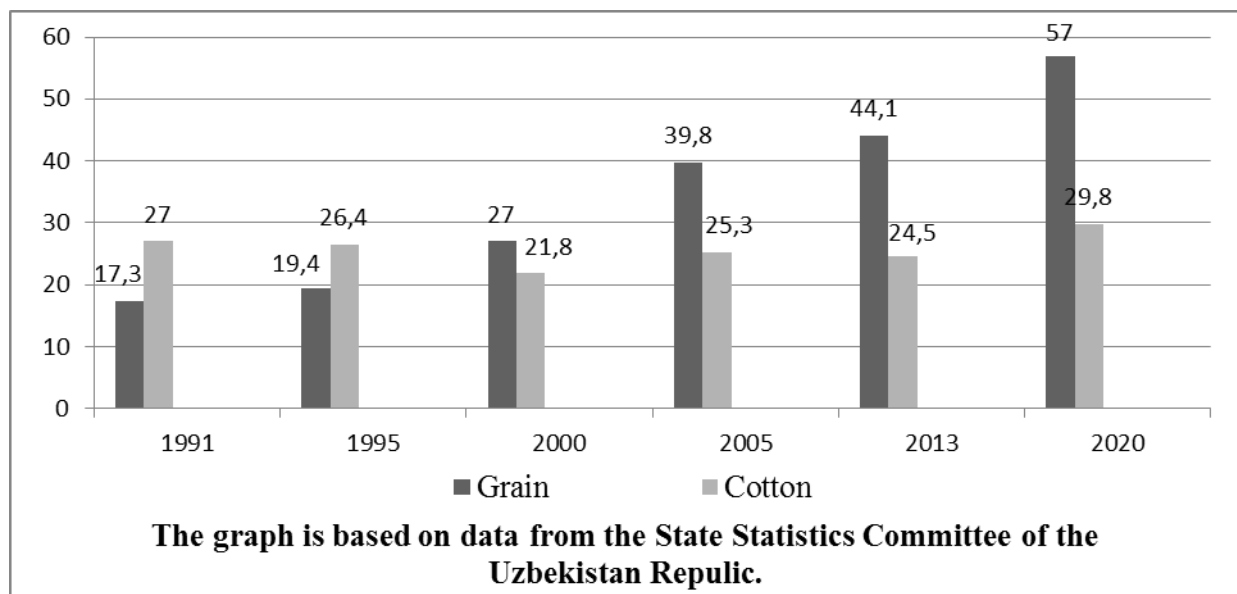
In the studied years you can easily observe the expansion of cultivated land with land for food. Reduction of land for cotton was much less. At that time, with the exception of pasture for cattle from the agricultural lands, reducing acreage for feed grains in irrigated lands created a number of problems in the animal husbandry. In 1991 the agricultural sector owned 92% of the pastures; the total pasture area decreased by 40% due to the extremely haphazard livestock production and reduce of pasture fertility reduce without its recreating [2, 4].

One part of unsuitable pastures was included in the category of reserved lands, and the other became forest fund. Country livestock has about 13 million hectares of grazing land, most of which are located on the territory of the Karakalpakstan Republic, as well as Bukhara, Kashkadarya and Navoi regions, where there is the bulk of grown cattle (sheep).

The Tashkent, Navoi and Khorezm regions lead in livestock productivity in the country. When it comes to gross figures, Samarkand, Khorezm, Kashkadarya, Bukhara become leaders in the meat production of meat. Samarkand, Khorezm, Kashkadarya take the first place in milk production. Cities like Tashkent, Samarkand, Khorezm and Andijan are leaders in the egg production. Kashkadarya, Samarkand, Navoi, Bukhara and Djizzak are leading in the production of wool [3, 5].

Fig.1

Cotton and grain yield in 1991-2020 in the Republic of Uzbekistan (hwt/ ha)



As a result of measures taken in the process of agrarian reform in the village a new economic structure was created. This structure met all requirements of a market economy and necessary changes occurred in the agricultural production. This is explained by the formation of farms. Support for farmers from the state and improvement of their activities coordination were organically related to the implementation of promising agricultural policy. In particular, the President of the Uzbekistan Republic has stated in the decree "On the Concept of development of farms in 2004-2006." from October 27, 2003 that all-round farms development in the future has been identified as prioritized for reforms in agriculture [6].

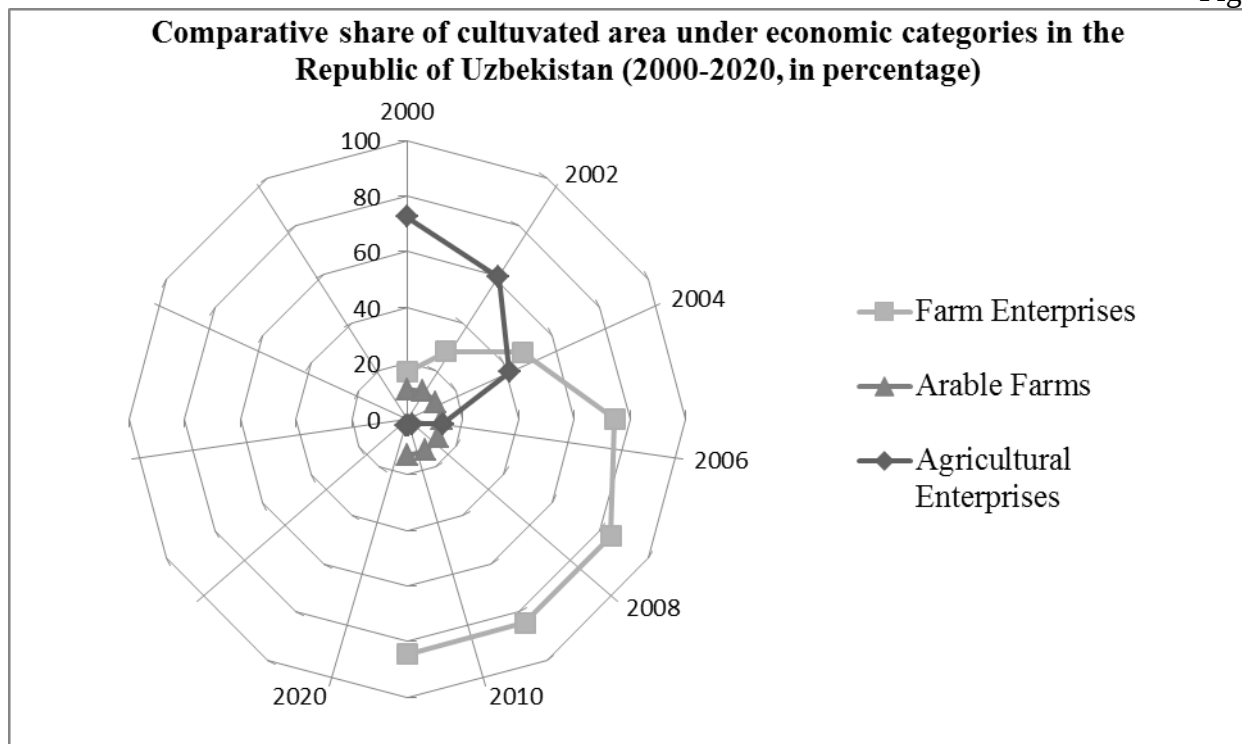
Based on resolutions №243 and 543 of the Cabinet of Ministers, 17 farms identified as unpromising. As an experiment, they were completely eliminated, and 1022 farms were created instead. The experiment started giving positive results from the beginning. Despite the lack of water that year, the average yield in the newly formed farms increased by 9 hwt. At the same time studies show the effectiveness of the material use was also high.

The Cabinet of Ministers in 2000 adopted a number of resolutions under which in 2001 instead of 52 unpromising farms 3428 new ones were created. In 2002 they created 3099 farms on the basis of 83. In 2003, 177 old farms were replaced by 11383 new ones. As a result, by the beginning of 2003, the number of farms was 71,406, with total land area reached 1,591.7 thousand acres (approximately 22.3 hectares per farm).

Proper attention to the farms formation during the transition to the economy with market relations expressed the basic content of the agrarian reforms. The creation of farms was carried out gradually and consistently. However, with deeper analysis it reveals that, despite the measures taken, there are still a number of urgent problems that need to be solved. For example, there were problems identified such as inefficient use of land by some farmers, chronic instability of financial and economic conditions, inadequate supply of material and technical resources, soil and climatic conditions of different areas in the allocation of land, the neglect of issues such as density and employment, as well as inappropriate land division in accordance with the specialization of farms (growing cotton and grain, horticulture and viticulture, vegetable and melon growing, animal husbandry, etc.).

Decree of the President of the Uzbekistan Republic "On measures to optimize land area of farms" from 6 October 2008 was adopted in order to find a solution to such problems [3]. During the optimization process in order to ensure the realization of this document, the number of farms was reduced from 215.776 to 71.7 thousands, i.e. 66% as of 2020. These farms operate at 5345.8 thousand hectares and employ over 1.3 million people. The land area per farm has expanded from an average of 27.4 to 81.7 hectares. In 2020, 35.0% of the agricultural production gross in the country accounted for farms. Wherein, 99.1% of cotton and 85.0 % of grain are produced by farmers [4]. In the years 2000-2020 the composition of cultivated land under economic categories has changed dramatically (Fig. 2). For example, if in 2000 the share of farmers came to 16.7%, while in 2020 the figure was 84.6% [7, 8].

Fig.2



The graph is developed on the basis of the data from the State Statistics Committee of the Republic of Uzbekistan

As of 2020, more than 4.6 million of arable farms are operating in our country and 1420.6 thousands of people are involved in this form of farm management. The share of arable farms in the gross output of agricultural commodities is increasing. For example, if in 2000 the share of arable farms in the gross output of agricultural commodities amounted to 47.5%, in 2020 it amounted to 64.0%.

In its turn, whereas in 2000 each arable farm accrued to 0.12 hectares of land, then due to increasing of the land area, each farm currently has on average 0.24 hectares of land. In 2020, the total area of land allocated for arable farms amounted to 458 thousands of hectares, which made 13.1 percent of the total cultivated area in the country. Along with the positive changes, there are problems to be solved in the activities of farm enterprises and arable farms based on private property.

Generally, at the stage of the agriculture intensive development, the positive figures were achieved as a result of the optimal land and water usage, improvement of irrigated lands. In the agro-economic system of the country, cotton production has a significant share leading Uzbekistan to be the fifth largest producer in the world and the third largest exporter of cotton.

In 2020-2030, 9 priority directions of agricultural development were defined in the Strategy of Agricultural Development:

Ensuring food security of the population, creating a favorable agribusiness environment and added value chain, reducing state participation in industry management and increasing investment attractiveness, ensuring rational use of natural resources and environmental protection, developing modern systems of public administration, and a state focused on network support gradual diversification of expenses, development of the system of agricultural science, education, information and consulting services, development of rural areas, development of transparent systems of network statistics and data collection [1].

In Uzbekistan, half of the population lives in rural areas. According to the target indicators of the population social protection strategy, about 17 percent of the population (about 6.1 million people) live at the level of the poverty line (defined by the minimum consumption expenditure (MIX) of 498 thousand soums from 2022). At the same time, 75 percent of the population living in poverty live in rural areas, whose only source of income is the products grown on their own farms. Therefore, their food security is highly dependent on the agricultural sector. For these reasons, the development and diversification of agriculture in Uzbekistan is one of the priority tasks.

A number of documents and procedures have been developed for the development and re-use of agricultural land. "The concept of effective use of land and water resources in agriculture" was approved, and 1.1 million hectares of land, which had been out of use for years, were set to be gradually put into use in 2020-2030. Also, it is planned to utilize underground water reserves through wide implementation of water-saving technologies in dry and pasture lands.

As a result of the implemented systematic measures, in 2019-2021, a total of 363,400 hectares of agricultural land was brought back into use. In 2018-2020, work was carried out on the assessment of soil quality (score) on a total of 2.4 million hectares. Today, soil quality assessment is being carried out on 690.3 thousand hectares.

In 2016-2020, a total of 330,500 hectares of low-yielding cotton and grain areas were reduced, and cultivation of high-yielding and exportable products was started in these areas. As a result, in 2016-2020, the yield of vegetable production increased by 103%, potatoes - 114%, pulse crops - 110%, legumes - 3.6 times, oilseeds - 240%, animal feed - 191%, fruit - 107.4% and grapes - increased by 106%.

In 2017-2020, farms and agricultural enterprises established modern type greenhouses on a total area of 3.2 thousand hectares, and the area of greenhouses was increased to 4.8 thousand hectares (680 ha of hydroponics). In 2021, 746 initiators decided to launch modern type greenhouses on an area of 2.3 thousand hectares, 2.5 times more than in 2020. To date, 290 modern greenhouses have been launched on an area of 590 hectares.

Between 2016 and 2020, intensive fruit orchards and 57 thousand hectares of vineyards were established on a total of 69.6 thousand hectares of land that had been reclaimed and reduced from dryland, cotton and grain, as well as useless orchards and vineyards. In the spring season of 2021, 63.8 thousand hectares (11 times more than in 2016) of orchards and 37.5 thousand hectares of vineyards (7 times more) were established.

In order to increase the volume of production of fruits and vegetables in the republic, based on the soil and climate conditions of the regions, in 2019, 55 districts were fully specialized in the cultivation of fruits and vegetables. Until 2022, a total of 422,300 hectares, of which 133,900 hectares will be used for horticulture, 113,000 hectares for viticulture, 49,900 hectares for vegetable cultivation, 24,500 hectares for rice cultivation, 15,800 hectares for potato cultivation, 56,100 hectares for legumes and medicinal plants. plants, 6.1 thousand hectares of greenhouse farms and 22.9 thousand hectares of land are specialized for the cultivation of food and oil crops.

In agriculture, the producers of products are more active today depending on the result are driving. Profitability of production, despite the high yield of crops in most cases is low, and some

farms are operating at a loss. All this directly requires the sustainable development of agriculture, the introduction and regular improvement of the mechanism of effective use of existing natural and economic resources in the future [9, 10].

Transition to sustainable development of the country's agriculture, first of all, soil fertility decrease, prevent water pollution, increase the productivity of agricultural crops the possibility of increasing the income of farmers by keeping it at the expense of increasing the level of profitability gives Second, improving the composition of crops, providing the population with food products close to medical standards in addition to maintaining the level, increasing soil fertility, animal husbandry and plant breeding by ensuring the balance between Thirdly, agriculture by improving the efficiency of using all kinds of resources gives the opportunity to turn into a stable profitability field. Fourthly, the use of chemical means in the production of agricultural products will be reduced and on the contrary, biological and integrated protection methods are widely used, which is the environment prevents pollution and provides an opportunity to produce environmentally friendly products. Fifth, tillage is minimized, that is, the equipment leaves the field once to carry out several operations in transition and thereby avoid excessive compaction of the soil and it allows the rational use of other types of resources.

Conclusion. Thus, the undertaken studies suggest the presence of prospects for further agricultural development in the Republic. The particular importance of re-developed lands in the gross output of agricultural commodities in the region, improvement of mechanisms for efficient water and land usage requires measures that have a positive impact on the agricultural development in the economic modernization period.

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Rezyume: *O'zbekiston iqtisodiyotida qishloq xo'jaligi yetakchi tarmoqlardan biri bo'lib, mamlakat oziq-ovqat xavfsizligini ta'minlashda katta ahamiyatga ega. Maqolada mustaqillik yillarida qishloq xo'jaligida amalga oshirilgan asosiy o'zgarishlar va islohotlar, fermer*

ho'jaliklarini rivojlantirish, ekin maydonidagi tarkibiy o'zgarishlar, sug'oriladigan yerlarning meliorativ holati to'g'risida bayon qilingan.

Резюме: Сельское хозяйство является одной из ведущих отраслей экономики Узбекистана и имеет большое значение в обеспечении продовольственной безопасности страны. В статье описаны основные изменения и реформы в сельском хозяйстве за годы независимости, развитие фермерских хозяйств, структурные изменения посевных площадей, мелиорация орошаемых земель.

Kalit so'zlar: qishloq xo'jaligi, qishloq xo'jaligi mahsulotlari, fermer va dehqon xo'jaliklari, paxta, g'alla, melioratsiya, islohotlar

Ключевые слова: сельское хозяйство, продукция сельского хозяйства, фермерские и фермерские хозяйства, хлопок, зерно, мелиорация, реформы.

UDC: 37.091.33-028.16 373.5

**THE FORMATION OF COMMUNICATIVE COMPETENCES THROUGH THE
PROMOTION OF THE SPOKEN LANGUAGE OF SENIOR SECONDARY SCHOOL
STUDENTS**

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Summary: *the article shows the tasks of speech development of students of general secondary schools for the formation of their communicative competencies. Recommendations are given on the methods of formation of communicative competencies through the formation of speech in the lessons of the native language, the tasks of orientation of students to logical thinking in the classroom.*

Keywords: *student, teacher, speech, sentence, skill competence, communicativeness, communicativeness, opinion, class.*

Communicative competence is a term used to describe the language, its phonetics, lexicon, grammar, stylistics, language culture, language tools, language mechanisms on the border of social, professional, cultural activities of a person - speaking, listening, reading, writing. Communicative competence can be acquired naturally as a result of special training.

The proposed ideas about the content of the concept of communicative competence give the possibility to come to the following conclusion: the theoretical basis of communicative competence is the construction of speech conclusions about the language system, the concepts of language knowledge, the changes in the pronunciation of language units, and the practical method (listening) and productivity (speaking and writing).

Communicative competence related to native language learning is the ability to speak at the level of communication goals and spheres, and to have a real preparation, to create an impact through speech, and to communicate with others. According to E.A. Bistrova, concepts related to language are parts of communicative activities in both reproductive and productive levels. It is the ability to choose language tools in an accurate way, to understand the meaning of the language, to convey the meaning of the language, to shape the thoughts related to the personality of different genres and stylistic differences. She confirmed that "communicative skills can be implemented only on the basis of linguistic and linguistic competences".

According to I. Litnevskaya, communicative competence means "acquiring the basics of all speech activities, the basics of oral and written language culture, the communication sphere, which is vital for the relevant age, and the basic skills and experiences of using the language on a regular basis"².

The meaning of the term based on the understanding of the language in the process of speaking can be explained as follows: the ability to speak is the implementation of the speaking activity of the owner of the language. Language-related skills are the language learner's ability to carry out analytical practice with language units, normative skills are the ability of the language owner to obey all the norms of the language, including the norms of correct writing, in speaking.

Within communicative competence, it is appropriate to distinguish between thinking and speaking actions that ensure receiving, understanding, interpreting, and sorting of information, and thinking and speaking actions that provide information. The direction of thinking and speaking actions performed in the receptive type of speech activity is from information to its recipient, and in the productive type - from the author to information. Communicative competence is realized in two

types: introsubjective communicative competence, or the communicative ability of the recipient of information, and extrasubjective communicative competence, or the communicative ability of the author-distributor of information.

Forming of communicative competence in school pupils includes the ability to solve pending issues. Pupils are taught to be prepared for unexpected situations in order to have a proper talk and exchange of ideas. For this, it is necessary to take classes on eloquence and discussion, to know the peculiarities of the psychology of people with different behaviors, to understand facial expressions and hand movements, and to teach them to comprehend their meaning. For the formation of communicative competence, pupils, especially those of junior age, need comprehensive participation, because at their age, the image of thinking and principles of behavior begin to form.

The process of formation of communicative competence in school children includes aspects of oral speaking, social and cultural, also language, reading and knowledge aspects, and each of these consists of certain components. They must have knowledge of language, grammar and stylistics. Including the ability to express one's opinion transparently, to attract the attention of the audience, to be able to respond, to communicate with other people, and also consists of educational, broad-mindedness, moral lessons and others.

Oral speech is carried out for the purpose of conveying information to the listener and influencing them as he wishes (convincing, persuading, inspiring, motivating, etc.) Naturally speaking orally means a monologue. If we look at the speech in front of the public from a psychological point of view, it is not only a monologue in front of the audience, but also a complex process that is carried out together with listener and it is a dialog. Communication between speaker and listener is characterized as subject-subjectivity relationship. Both sides are subjects of cooperative activity and creativity also each of them has a specific role in a complex process is the speech in front of the public. Oral speech is characterized by differences of each sentences that describes its meaning.

If you want students to understand what was said, the speaker should establish a separate dialogue with them.

Carefulness, being in a respectful relationship usually make positive feelings. We should create emotional form of communication not to come across negative feelings. After making sure that the audience's mood allows them to understand the information, we may move on to the topic of the speech. Reconnection signals should be given special importance so that listeners are not bored. Knowing importance of your speech and that you have something to say will take away any fear. To solve this fear, say: "I know many things those others don't. So that I want to tell them to others!"- yourself. Don't start your speech quickly, wait some minutes. At the beginning you should start your speech in a simple, easy and understandable way to interest the listener. If you want students to understand what was said, the speaker should establish a separate dialogue with them.

Requirements for the spoken word: The meaningfulness of the word, Transparency of information, Speak freely, To speak with skillful waving of hands. The lecturer's boldness and richness of emotions are also important. It is necessary to speak with enough emphasis, to hesitate and pause where necessary. An appropriate joke can be really helpful. You should always be in face-to-face contact with the audience. The final word is related to the topic of speaking out, and it is necessary to speak in an uplifting spirit.

It is useful for students to read aloud the text they like. It is better if they record their readings on a tape recorder or a video camera, so that they can see their image flaws. Training on speaking techniques (tongue twisters) helps to process sounds, words clearly and clearly, speed of speech, intonation. It is also beneficial to have other students analyze their spoken words to improve

their speaking skills. It is necessary for the teacher to clearly synthesize what the students liked and what caused negative feelings when they spoke out.

One of the possibilities that aroused the interest of students is to hold an extracurricular event called "Smart Boys" and "Smart Girls". Its purpose is to learn to identify the correct solution as a response related to the context. It is necessary to improve and enrich students' language skills, to develop the ability to speak clearly with intonation and to learn to distinguish different stylistic colors of words, to develop the ability to communicate and express one's opinion.

It is noticed that many students react positively to new forms of work (first in pairs, then in groups), but do not immediately understand its meaning. During the "Graphic dictation" assignment, situations close to conflict can quickly occur among students. Children ask each other, for example: "Are you studying properly? Bring me one, do you always confuse everything?" or "how do I walk right? Can you distinguish between right and left?" like these questions can be asked.

Gradually, by constantly setting tasks in pairs and groups, analyzing the work performed in pairs and groups, and by giving appropriate warnings by the teacher during the analysis, the children will learn about each other and change the attitude when interacted together. First, it is necessary to be able to see external changes, and then the students should learn to address each other politely (using names and polite speech tools). When we witness a violation of the "rules of working in a group", we ask students to pay attention to this situation and tell them to treat their fellow students in the right way. Then the number of warnings began to decrease.

Working with proverbs and phraseology, creative works, and writing small artistic works will give good results for the development of speaking ability of primary school students in the native language class. To develop speaking skills, we recommend working on sentences. Assignments: "Putting punctuation marks", "Writing the omitted words", "Determining the main idea of the read text", "Composing a sentence on the topic from the set of given words".

In addition to checking the literacy and correctness of the spoken and written language in the lesson, one of the main tasks of the teacher is to let children express their thoughts freely, fully, logically, without fear of showing their individuality to form the ability. The work on language development is carried out not only through lessons, but also extracurricular activities ("My family", "My parents' profession", "familiar or unfamiliar words", etc.) and extracurricular activities is also realized.

Studying all aspects of the language (sound structure, phonetics, lexicon, grammar, word formation) in relation to each other is the main principle in teaching the mother tongue, which has interconnected important aspects that creates a scientific basis for understanding it as a phenomenon. Understanding the specific nature of language in this way is the basis for understanding the development of phenomena and the organization of interconnected sections. The development of students' speaking and written language is realized in the course of learning the mother tongue.

The interaction of all aspects of language is reflected in its function as a means of communication. In order to communicate as the main unit of the language, it is necessary to say or write the word correctly, to be equally understandable to all people who speak that language, and to organize the sentence correctly from the grammatical point of view.

Thus, communicative competences create a dichotomy that forms the system of language science: that is, the communicative competences of the recipient of information are contrasted with the communicative skills of the author. The stated contradiction makes it neutral that he speaks as a receiver of information in some speaking situations and as a creator in others. Therefore, the effectiveness of students' speaking skills and introsubjective and extrasubjective communicative competences, that is, the quality of the communicative competences of both the information

receiver and the author, is directly related. Communicative competence, as one of the most important children's skills of listening and speaking, also develops.

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Rezyume: *Maqolada umumiy o'rta ta'lim maktab o'quvchilarining kommunikativ kompetensiyalarini shakllantirishda nutqini rivojlantirish vazifalari ko'rsatilgan. Ona tili darslarida nutqni shakllantirish orqali kommunikativlik kompetensiyalarini shakllantirish metodlari, darslarda o'quvchilarni mantiqiy fikirlashga yo'naltirish vazifalari bo'yicha tavsiyalar berildi.*

Резюме: *в статье показаны задачи развития речи учащихся общеобразовательных средних школ по формированию их коммуникативных компетенций. Даны рекомендации по методам формирования коммуникативных компетенций через формирование речи на уроках родного языка, задачам ориентации учащихся на логическое мышление на уроках.*

Kalit so'zlar: *o'quvchi, o'qituvchi, nutq, gap, ko'nikma kompetensiya, kommunikasiya, kommunikativlik, fikr, sinf.*

Ключевые слова: *ученик, учитель, речь, предложение, умение компетентность, коммуникативность, коммуникативность, мнение, класс.*

METHODS OF SPEED DEVELOPMENT IN BRASS SWIMMERS

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Summary: *The article describes in detail the technique of speed development in breaststroke swimmers, the techniques needed to increase speed.*

Keywords: *swimming, swimmers, swimming methods, the age of speed development, maximum speed, strong movements, education of mobility.*

It is one of the important issues in the process of development of swimming sport in the current modern era, and this indicates the high level of attention paid to the method of development of speed abilities of swimming.

In terms of speed capabilities, the functional order of the bug is the same as the vegetative and sensor order, but in this case, the sensible mechanics are in the same line, the speed of movements and the speed of the movement engine. The speed of the engine is related to the development of the equipment.

The speed of the hammer is very large, and the development of speed abilities is of great importance in achieving good results even in swimming while satisfying medium and long distances. At this time, it is important to increase the effectiveness of the high-speed abilities in short-distance swimmers.

The rate of movement measures the rate of reaction that must be built. The speed of individual movement reaction is defined as the response to a specific signal (pistol shot, whistle, slap, etc.).

By means of a predetermined movement, the task of improving the reaction of the movement is explained, which means that it is a communication that takes only a fraction of a minute.

For the development of the speed, it is estimated to be 9-10 times. At the age of 12-14, biological changes appear in the body.

It is necessary to develop the speed of movement, the natural forms of movements in the creation of the at first. It is not recommended to update speed capabilities ahead of time.

Working with this method, 3 steps were taken: the athlete made a quick movement, and the trainer told the time: he made the left movement again, but now the trainer asked him the time (the ability to sense time is trained); It was determined by the sports trainer's instructions.

The individual characteristics of the activity will determine the possibilities of speed development.

The maximum speed is not only related to the development of speed, but dynamic strength, agility, endurance, and the level of technique are also closely related to others.

It is possible to determine the requirements for the ability of the trainer to be able to perform the exercises in the conditions of high speed and high speed.

The following is necessary for the high speed of the fracture: the technique must be carefully prepared, the fracture should be done at a high speed, not the method of the fracture, but the speed of the fracture should be reduced.

It is important to pay attention to the training of movement speed. The reason is that both childhood and adulthood have many opportunities to develop important physical skills.

It is necessary to separate the number, because at the beginning of the training, speed, speed, and speed are developed in the sports competition, and this is the result of the rational technique of moving (moving from one place to another).

The idea behind all methods of training the speed of movement is to try to increase the maximum speed and maintain a sense of speed.

Therefore, it is necessary to take into account how many continuous contractions are performed without decreasing the speed of the movement.

The speed of the movement was increasing, and it was necessary to stop. It is necessary to move quickly to achieve high speed.

In the process of training, it is necessary to pay attention to the quick replacement of the training of sportsmen.

Great attention should be paid to the development of movement speed. The reason is that they have more opportunities to develop important physical skills during childhood.

The basic preparation is trained in the beginning of the sports competition in a way that is related to speed and speed, and this means that it is a necessary training to get the results of the rational technique of the movement.

In order to avoid premature stabilization of the speed at the achieved level, and therefore to run at maximum speed, a series of speed-strokes should be used more than individual speed-strokes.

It is necessary to determine the norm of the exercises aimed at increasing the speed of the movement, reduce the speed of the exercises, repeat several times, count, decrease the speed as much as possible, and calculate how many continuous exercises should be performed.

Speed training was stopped when the athlete's subjective sensations, back pain, or stopwatch showed a decrease in movement speed.

This signal serves as the first signal to stop the pulsing of the speed booster.

The methods of preventing the swelling are dealt with in a strict order, and the methods of the month are explained.

The condition of being respected according to the status of the members is also related to the physical ability. It is also necessary to take into account the condition of the fish, its appearance, the movement of its muscles, etc. In this case, we will observe the speed of the swimmers in the process of breaking and breaking.

In terms of speed, the speed characteristic of movements, the complex of functional properties of determining the time of movement reaction is understood.

There is a three-dimensional form of speed:

1. Jack's movement speed; 2. Movement frequency; 3. Motor reaction speed. Sports speed capabilities are somewhat specific. They can only be connected to each other.

Movements performed at maximum speed were separated from other movements based on their physiological characteristics. The most important difference between them is numerical, which makes it difficult for sensor connections to occur while performing movements at maximum speed: the reflector cannot detect integral pulses.

Swimming speed, tempo and stride length are related to each other. At the same speed, the pace of the movement is greater, the length of the step is a little longer than before. The optimal tempo of each stroke is the length of the step, and the speed of the stroke is reached.

In the intervals, the speed of the movement is related to the length of the "step". During a certain period of time, movements appear in a cycle, tempo, and speed.

The strong pace and speed at the beginning of the exercise will strain the muscles of the legs beyond their limits, and will not allow them to "stay put". As a result of this, the bridge appeared.

In this case, the length of the heat decreases, and the movement of the muscles also accelerates the metabolism of the body. Gradually accelerated growth provides the most efficient and timely use of the potential.

At the same time, with the acceleration of the muscles, the speed of the body gradually increased. Those who do not have sufficient muscle mass should effectively use their abilities to maintain a good speed.

This is why enough hit the joints of the arms and shortened the shoulder support. Absolute speed is the best in sports results.

The absolute speed level is determined by the effective performance of functional capabilities under special conditions.

Of the three important elements in determining speed, one of them is the tempo of the movement, which is the ability of the athlete to perform repetitive movements at a high speed.

If the tempo of the movement in the exercises is high, the tension in the muscle system of the athlete will be increased.

The maximum speed of the pen was used as a speed development tool. First of all, there are three types of exercises: team building, special exercises in sports and other sports.

The speed of movement of the body can be slightly improved by increasing muscle strength. Like a hammer, the less resistance there is to the movements, the faster these movements are performed. The speed of movement has increased due to the increase in muscle strength, and the first one has increased due to the improvement of the ability to move.

The exercises focused on the development of speed were stopped when the subjective sensations of the athlete, the back marks of the athlete or the stopwatch readings indicated the decrease in the speed of the movement.

It serves as the first signal to stop the work that is being done in order to increase the speed.

The collision-reactive effect of the speed-power of the jets was observed in the mobile devices. It used to be a mess in the training, after the maximum setting, the shortening action was suddenly increased, and in turn, the speed and the explosive power of the force came to the development.

In this place, the following exercises were performed, i.e. jumping from a height of 0.5-0.9 m, jumping to the ground (in dry conditions), running short distances.

Distance: 25m, 50m, 100m for 10, 20 sec intervals, at full speed, 12.5-7.5m.

The most intelligent tools for developing strength and speed are combined dynamic works of the nature of pressing - driving.

The speed of the movement was increasing, and it was necessary to stop. Swimmers has to move very quickly to achieve high speed.

Movements can also be determined by exceeding the requirements for the ability of the trainer to be trained in the conditions of high speed and high speed.

The idea behind all methods of training the speed of movement is to try to increase the maximum speed and maintain a sense of speed.

It is necessary to correctly determine the norm of exercises aimed at increasing the speed of movements, to reduce the speed of exercises, to repeat several times, to count how many continuous exercises are performed without decreasing the speed as much as possible.

If you follow such methods, the swimming interval will be long, and in the end, you will have to increase the speed in the repeated swimming attempts.

Determine the norm of exercises aimed at increasing the speed of movements, repeat several times without reducing the speed of the exercises, and calculate how many continuous exercises will continue without decreasing the speed until the limit of the possibility is exceeded.

In the months that were related to the development of speed, the relays had to be repeated.

In this case, he should try to maintain the strength of his body, increase the speed of his raking, and try not to get stuck.

But for a long time, he kept his ability to work at the level of fighting.

In the training focused on the development of speed, the athlete's subjective sensations, back marks, or stopwatch indications indicated the slowness of the movement speed.

This signal serves as the first signal to stop the pulsing of the speed booster.

In conclusion, increasing the ability of speed in breaststrokes is a matter of proper preparation of the training process. On the basis of sports training, it is necessary to prepare the swimmers wisely, in this way, it is necessary to use various methods and tools effectively. This, of course, was a factor preventing them from increasing their speed.

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Rezyume; *Ushbu maqolada suzishning brass turi bilan shug'ullanuvchilarda tezlikni rivojlantirish uslubiyati, tezlikni oshirish uchun kerak bo'lgan uslublar haqida batafsil bayon qilingan.*

Резюме; *В данной статье подробно описана техника развития скорости у пловцов брассом, приемы необходимые для увеличения скорости.*

Kalit so'zlar: *suzish, suzuvchilar, suzish usullari, tezlikni rivojlantirish yoshi, maksimal tezlik, kuchli harakatlar, harakatchanlikni tarbiyalash.*

Ключевые слова: *плавание, пловцы, методы плавания, возраст скоростного развития, максимальная скорость, сильные движения, воспитание подвижности.*

**DIVERSIFICATION AS A FACTOR IN IMPROVING THE EFFICIENCY OF
AGRICULTURAL PRODUCTION**

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Summary: *The high importance of production diversification to ensure the sustainability of agricultural producers to adverse changes in the external and internal environment has been revealed. The main features of the diversification of production in agricultural organizations, as well as the conditions and criteria for the implementation of its strategy were identified.*

Keywords: *agricultural production, diversification, efficiency, enterprises.*

Active processes of international integration actualize the tasks of increasing the role of the food complex, its economic growth and competitiveness in the domestic and foreign markets. The food complex is one of the most important components of the national system of any state, its function is to optimally meet the needs of the country's population with high-quality, economically and physically accessible food products with the state's predominant food self-sufficiency, with adjustments for participation in globalization processes.

Modern realities are such that the volume of consumption of many food products is still below scientifically based norms, and import dependence exceeds the acceptable food security criterion, while the number of rejected and downgraded imported food products is large.

The relevance of the topic is confirmed by the importance of the object, the presence of a large number of unresolved problems of food supply for the country's population, insufficient research on the ways and directions of intensifying the economic growth of the food complex sectors, taking into account the external factor, and the need to strengthen the scientific and methodological support of this most important socio-economic process.

The practical solution to the problems of income stabilization, reduction of risks and credit opportunities depends on expanding the industry range of the enterprise and its entry into new market sectors. Therefore, the study of types of diversification and their implementation in the activities of agricultural enterprises is relevant. Diversification of the company's activities means updating the product and the market of enterprises at the same time, going beyond the core business that the company was still engaged in, penetrating into new industries and sectors of the economy. Diversification is the diversification of the enterprise's business. In Western economic science, "diversification" means the penetration of enterprises into new areas of activity for them that are not related to the main production [1].

In our opinion, diversification should be applied in the following cases:

- When there is a stagnation of the market, a drop in demand or an enterprise has a monopoly position;
- When there is an excess of the capital stock and there is a need to use it;
- When an enterprise loses the opportunity to receive additional profit in the traditional market due to a decrease in competitiveness.

The main directions of diversification of the activities of agricultural enterprises are: products, production technology, consumers, suppliers, means of financing, markets.

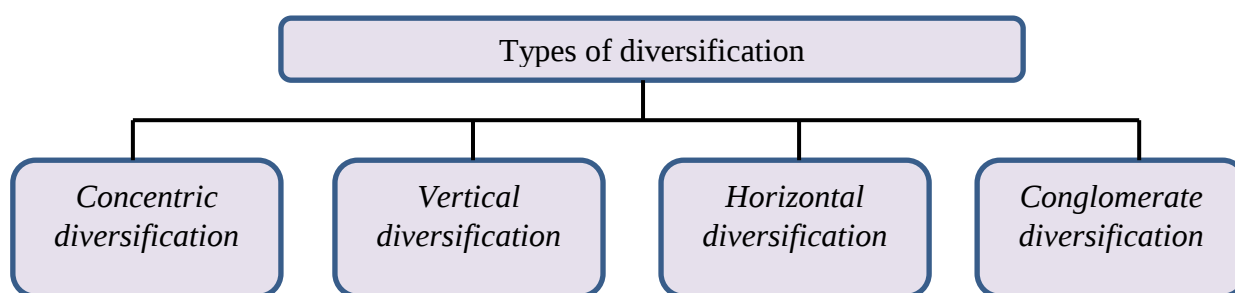
Diversification of agricultural production is expanding the range, changing the types of products manufactured by the enterprise, development of new industries, including those related to processing agricultural raw materials in order to increase economic efficiency.

The relevance of diversification in modern conditions is high, since most small and medium-sized agricultural enterprises both in the Saratov region and in many other regions mainly specialize in the production of grain crops (primarily wheat and barley), as well as sunflower. Wherein the

company sells raw materials on the market often during periods of low prices, which is essential, reduces the efficiency of production and sales.

The purpose of the study presented in the work is to reveal the theoretical the basics of diversification of crop production. The objectives of the study are to characterize the types of diversification production, identifying the features of agricultural production regarding the development of diversification, disclosure of diversification indicators, characterizing it as a factor in increasing economic efficiency production [2].

In the context of constant changes in the markets of agricultural raw materials, which are caused by both macroeconomic and natural and climatic (changes in supply in the grain and sunflower market), a modern agricultural enterprise needs to quickly adapt and look for the most profitable areas of activity. Diversification in a broad sense is a variety of activities of the enterprise in the production, financial and marketing fields. In the economic literature, there are four types of diversification, each of which can be used in agricultural production (pic 1).



Pic 1. Types of diversification

Concentric diversification is the creation of new types of products while maintaining existing technologies and based on the same types of raw materials that were previously used in the enterprise.

Vertical diversification is the organization of production of products that the company previously received from suppliers. Such types of products in agriculture can be seeds, biofuels, organic fertilizers. In addition, the company may enter the market of processed raw materials.

Horizontal diversification involves the release of traditional products, but in a new way using new technology or upgrading an existing one.

Conglomerate diversification implies penetration into new areas of activity that may not be directly or indirectly related to the current ones. In terms of agricultural production, this can be both new activities, such as rural tourism [3], and the development of new areas of agricultural production and processing.

The benefits of diversification, which allow for an increase in the economic efficiency of agricultural production, can be expressed through various economic indicators.

The development of diversification may mean a decrease in the coefficient of specialization of the enterprise, because the set of types of agricultural raw materials produced by the enterprise will be expanded. However, this process means a decrease in the dependence of the indicator of revenue from sales of products on the market situation for only one of the two main types of products, an increase in the company's resistance to stressful external factors, due to the possibility of diversifying sales. Calculation of the share of each type of product in total revenue and profit allows you to analyze diversification efficiency. The indicators of diversification will also be the establishment by the owners of the enterprise of new types of business, the creation of new enterprises related to the main one, whose activities will be aimed at expanding the capabilities of

the main company and increasing its financial stability. These may be companies that processing of raw materials, development of a trade retail network. An increase in the number of connected enterprises means an increase in the level of diversification.

Analysis of the effectiveness of the distribution system involves an analysis of the number of distribution channels and the share of each in total revenue. Increasing the number of distribution channels and equalizing their share in the structure of total revenue will mean greater diversification.

In conclusion, it can be noted that diversification in agriculture is an important and relevant process that allows you to reduce the risks of an agricultural enterprise, increase the sustainability of the agricultural sector. Diversification allows ultimately to ensure the development of the competitive advantages of the enterprise, increase the entrepreneurial activity of management and employees, which will ensure an increase in economic and financial performance.

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Rezyume: *Qishloq xo'jaligi ishlab chiqaruvchilarining tashqi va ichki muhitdagi salbiy o'zgarishlarga barqarorligini ta'minlash uchun ishlab chiqarishni diversifikatsiya qilishning yuksak ahamiyati aniqlandi. Qishloq xo'jaligi tashkilotlarida ishlab chiqarishni diversifikatsiya qilishning asosiy xususiyatlari hamda uning strategiyasini amalga oshirish shartlari va mezonlari belgilab olindi.*

Резюме: *Выявлено высокое значение диверсификации производства для обеспечения устойчивости сельскохозяйственных товаропроизводителей к неблагоприятным изменениям внешней и внутренней среды. Выявлены основные особенности диверсификации производства в сельскохозяйственных организациях, а также условия и критерии реализации ее стратегии.*

Kalit so'zlari: *qishloq xo'jaligi ishlab chiqarish, diversifikatsiya, samaradorlik, korxonalar.*

Ключевые слова: *сельскохозяйственное производство, диверсификация, эффективность, предприятия.*

UDC. 330

ECONOMETRIC MODELS OF ENSURING THE ECONOMIC EFFICIENCY OF AGRICULTURE IN THE REPUBLIC OF KARAKALPAKSTAN

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Summary: *In the article, scientific-theoretical research, analysis of statistical data, the practice of evaluating economic indicators and econometric models aimed at its improvement, as well as scientific proposals, were developed in order to ensure the economic efficiency of the agricultural sector of the Republic of Karakalpakstan.*

Keywords: *agricultural enterprise, econometric model, profitability, labor resource, income, agricultural products, cost, profit.*

Introduction

Agriculture is one of the leading sectors of the economy of our republic. Today, special attention is being paid to the processes of production transformation, technical and technological renewal in the real sectors of the national economy. Agriculture is also one of the complex economic systems.

In particular, raising production to a new level in economic efficiency indicators of agriculture is becoming one of the urgent tasks.

Ensuring economic stability in increasing the indicators of economic efficiency of agriculture, extended reproduction in agriculture consists in ensuring interdependence of biological, technological, organizational and economic processes .

The low economic efficiency indicators of agriculture in the effective and appropriate use of available land, labor, material and financial resources, the lack of employment of rapidly growing labor resources in the countryside, and the fact that the processes of adapting agricultural products to market conditions are slow . among such problems.

A positive solution to existing problems in agriculture largely depends on effective management of ownership relations, proper organization, and adequate supply of material, financial and labor resources for their appropriate development based on the requirements of the times.

Current problems create the need to ensure the economic efficiency of agriculture today. This, in turn, requires scientific research into the development and improvement of econometric models as a result of statistical analysis to ensure economic efficiency of agriculture.

Analysis of literature on the topic

According to the economist R. Hovit, models of ensuring the economic efficiency of agriculture are represented by a series of actions that are solved to maximize the income of farms or regional income in the conditions of technological, environmental and institutional limitations of the agricultural sector[1].

X.Z. Wang, S.L. Wu and F. Gao show in their research that there has always been a positive relationship between agriculture and its economic growth and discuss how agriculture contributes to economic growth[2].

According to their conclusions, although the share of agriculture in the GDP has declined significantly over time, the contribution of agriculture to growth has maintained an upward trend, and it has been noted that the contribution of foreign exchange and output to non-agricultural growth remains the driving force in economic growth.

Scientists M. Miza and M. Uddin used empirical data on agricultural, industrial, service sector and GDP growth based on time series data in econometric modeling of agricultural sector[3].

According to their hypothesis, three different sectors namely agriculture, industry and service sector influence the GDP growth in Bangladesh. focused on learning using econometric models. It also aims to measure the relationship between relevant variables in the model and their overall impact on GDP.

M.O. Adenomon, B.A. Oyejola in research conducted by Econometric model development using VAR and SVAR models found that agriculture and industry contributed to the structural innovation of GDP in Nigeria. They also recommended special incentives for farms and provision of infrastructure in the results of this study[4].

Analysis and results

Based on the research, econometric models of ensuring the economic efficiency of agriculture of the Republic of Karakalpakstan were developed.

According to our hypothesis, the increase in the growth rate of agricultural products in the Republic of Karakalpakstan and the increase in the growth rate of the production resources will lead to an increase in the gross domestic product in the Republic of Karakalpakstan. The existence of a relationship between these factors affects the economic efficiency of agriculture in the Republic of Karakalpakstan.

In the development of econometric equations for the research, analytical data from the 20-year data of the State Statistics Committee of the Republic of Uzbekistan (www.stat.uz) were used.

Also, since the empirical data is formed on the basis of time series data, the econometric equation was developed based on the ARDL (Autoregressive Distributed Lag) model.

ARDL (Autoregressive distributed lag) Many studies were conducted by foreign scientists on the model, and theoretical and scientific developments were made and definitions were given.

ARDL (Autoregressive distributed lag) these types of regression models have been used for decades, but recently they have been shown to be a very valuable tool for testing the existence of long-term relationships between economic time series [5] .

Multivariate Time Series Autoregressive Distributed Lag Models ARDL (Autoregressive distributed lag) model plays an important role when it is necessary to analyze the economic scenario.

In an economy, a change in any economic variable can lead to a change in another economic variable over time.

This change in variable is not reflected immediately, but it is spread over future periods.

Also, in the ARDL model, the independent and dependent variables are considered internally, or one variable is defined as a function of the lagged values of the other variables in the model[6].

The following requirements should be met when building an ARDL model.

The absence of autocorrelation is the first requirement of ARDL.

The model requires that the error terms are not autocorrelated with each other.

There should be no heteroskedasticity in the data. Simply put, the variance and mean must remain constant throughout the model.

The data should follow a normal distribution.

The data must be stationary at either I (0) or I (1) or both. In addition, the ARDL model cannot work if any variable in the data is stationary in L (2)[7].

The ARDL model is one of the general dynamic unrestricted models in developing time series econometric equations.

also shows whether the expected sign of the dependent variables and independent variables in the ARDL model is consistent with the theory.

While the cointegration test is based on the long-run correlation in the system of equations, the ARDL model uses a short form[8].

ARDL model for research, we built the equation in the following sequence.

1. A time series graph matrix was developed based on the ARDL model.
2. of the resulting trait and factor traits was developed.
3. The Dickey-Fuller test for the outcome sign (Y) and factor signs (X1 and X2) was examined.
4. ARDL model regression equation was developed.
5. The developed ARDL model was tested with Gaussian Markov significant terms of the regression equation.

According to our research, during the years 2001-2021 the resulting sign and factor sign analytical graphic matrix table has the following form.

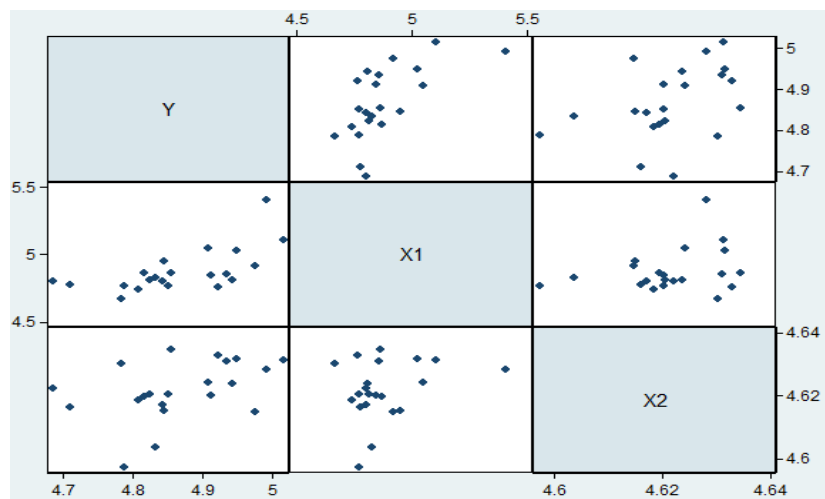


Figure 1. Graphical matrix of resultant sign and factor sign.

Figure 1 shows the density of the growth rate of gross domestic product in the Republic of Karakalpakstan, the growth rate of agricultural products in the Republic of Karakalpakstan and the growth rate of labor resources in the Republic of Karakalpakstan, which represents the relationship between them.

In the second step of our study, the intercorrelation relationships between the outcome and factor signs were checked in the stata program.

Table 1

Correlation matrix of correlations of the resulting sign and the factor signs

	<i>Y</i>	<i>X1</i>	<i>X2</i>
<i>Y</i>	1.000000		
<i>X1</i>	0.6519	1.000000	
<i>X2</i>	0.4455	0.2909	1.000000

From the data in the table, we can see that there is a correlation relationship between the outcome sign and the factor signs, and there is no multicollinearity between the influencing factors.

In the next step, we examined the Dickey-Fuller test in the analysis of the cointegrating relationship between the outcome measure and the factor measure model.

Table 2

Dickey-Fuller index on the resulting sign (Y).

Resultant symbol (Y)	Test Statistics	1% Critical Value	5% Critical Value	10% Critical Value	p-value for Z(t)
	-7.637	-3,750	-3,000	-2.630	0.0 000

The final mark on the study (Y) When the Dickey-Fuller test was checked, the statistical value **(-7.637)** and the remaining values **(-3.750, -3.000, -2.630)** produced a small value as a negative number and indicated that there is a state of stationarity.

Also according to the Dickey-Fuller test MacKinnon's value of **Z(t)=0.0000** was small, indicating strong stationarity.

Table 3

Dickey-Fuller index by factor sign (X1).

Factor symbol (X1)	Test Statistics	1% Critical Value	5% Critical Value	10% Critical Value	p-value for Z(t)
	-7,882	-3,750	-3,000	-2.630	0.00 2 3

The first factor in the study was tested by the Dickey-Fuller test with a statistical value **(-7.882)** and the remaining values **(-3.750, -3.000, -2.630)** produced a small value as a negative number, indicating the presence of stationarity.

Also according to the Dickey-Fuller test **the first factor** generated the presence of stationarity with the MacKinnon sign being a small value with **Z(t)=0.0000**.

Table 4

Dickey-Fuller index by factor sign (X2).

Factor symbol (X2)	Test Statistics	1% Critical Value	5% Critical Value	10% Critical Value	p-value for Z(t)
	- 6,998	-3,750	-3,000	-2.630	0.0003

According to the study, the second factor of the sign when checked by the Dickey-Fuller test, the statistical value **(-6.998)** and the remaining values **(-3.750, -3.000, -2.630)** represented the values, produced a small value as a negative number and showed that there is stationarity.

Also according to the Dickey-Fuller test The second factor expressed the presence of stationarity, with the MacKinnon sign having a small value with **Z(t)=0.0000**.

The results of Tables 1, 2 and 3 above show that after the first integration of the outcome sign and the factor signs, the Dickey-Fuller test values became stationary and showed a cointegrating relationship.

An econometric equation was created using the ARDL model for the study.

$$y_t = \beta_1 y_{t-1} + \beta_2 x_1 + \beta_3 x_2 + \beta_4 x_{1,t-1} + \beta_5 x_{2,t-1} + u_t \quad (3)$$

Here:

Δy_t - Growth rate of gross domestic product in the Republic of Karakalpakstan.

$\beta_1 y_{t-1}$ - Growth rate of gross regional product in the Republic of Karakalpakstan a year

ago

β_{2x1} - Growth rate of agricultural products in the Republic of Karakalpakstan

$\beta_{3x1_{t-1}}$ – A year ago Growth rate of agricultural products in the Republic of Karakalpakstan

β_{4x2} - Growth rate of labor resources in the Republic of Karakalpakstan

$\beta_{5x2_{t-1}}$ - A year ago Growth rate of cocktail resources in the Republic of Karakalpakstan

u_t - between years __ errors faith __

developed the econometric equation of **the ARDL model** based on the Stata program for our research.

Table 5

ARDL model regression equation indicators							
Y	Coef .	St. Err .	t-value	p-value	[95% Conf	Interval]	Sig
L	.264	.202	1.30	.214	-.17	.698	***
X1	.393	.1	3.92	.002	.178	.608	
L	-.02	.127	-0.16	.577	-.293	.253	
X2	1.395	1.758	0.79	.441	-2.376	5.167	
L	-1.429	4.083	-0.35	.332	-10.185	7.328	
Constant	1.914	15.403	0.12	.903	-31.121	34,949	
There is a mean dependent		4.863	SD dependent			0.089	
R-squared		0.495	Number of obs			20	
F-test		7.066	Prob > F			0.002	
Akaike crit. (AIC)		-42,825	Bayesian crit. (BIC)			-36,851	

*** $p < .01$, ** $p < .05$, * $p < .1$

produced values of 0.26 , 0.39, -0.01, 1.39 and -1.42 , respectively , while the standard errors were 0.20 , 0.15, 0.12 , 1 . 75 and 4.08 .

According to the model, the true value of $F=7.07$ in the ANOVA table was a high positive value.

The corrected determination according to the econometric equation is $R\text{-squared}=0.49$, which indicates that the quality of the model has a positive value.

According to the research, according to the regression equation $H_0 : y=0$, $H_1 : y \neq 0$ $F < 0.05$ and $t < 0.05$, the main hypothesis has no meaning $H_0 : y=0$ and we reject the main hypothesis and go to the alternative hypothesis and in this case the alternative hypothesis $H_1 : y \neq 0$ is statistically significant.

Based on the research, an econometric equation was developed based on the ARDL model .

$$Y = 0.26 Y_{t-1} + 0.39 X1 + 1.39 X2 - 0.19 X1_{t-1} - 1.42 X2_{t-1} + 1.91$$

of the growth rate of agricultural products in the Republic of Karakalpakstan from 2022 to 2026 without taking into account random factors was developed using the ARIMA(2,1,1) model using the Stata program.

Table 6

Growth rate of agricultural products in the Republic of Karakalpakstan in 2022-2026 forecast indicators

Years	Growth rate of agricultural products in the Republic of Karakalpakstan (in percent)	Years	Growth rate of agricultural products in the Republic of Karakalpakstan (in percent)
2001	128.53	2014	123.53
2002	152.43	2015	130.23
2003	165.05	2016	117.93
2004	106.72	2017	122.18
2005	155.98	2018	136.69
2006	127.11	2019	125.07
2007	123.07	2020	118.80
2008	117.26	2021	118.05
2009	121.93	2022	119.71
2010	223.52	2023	118.86
2011	129.45	2024	118.30
2012	141.35	2025	116.49
2013	114.30	2026	115.48

Conclusions and suggestions

According to the research, the rate of growth of the gross domestic product in the Republic of Karakalpakstan, the rate of growth of agricultural products in the Republic of Karakalpakstan, and the rate of growth of culinary resources in the Republic of Karakalpakstan as a result of the analysis and conclusions of the interaction study, the following proposals and recommendations were developed.

1. The econometric equation according to the ARDL model for research is $Y = 0.26 Y_{t-1} + 0.39 X1 + 1.39 X2 - 0.19 X1_{t-1} - 1.42 X2_{t-1} + 1.91$ according to **1 % increase in the growth rate of the gross domestic product in the Republic of Karakalpakstan** will lead to an increase in the growth rate of the gross domestic product in the Republic of Karakalpakstan by **0.26 % after one year**.

a 1 % increase in the growth rate of agricultural products in the Republic of Karakalpakstan leads to an increase in the growth rate of the gross domestic product in the Republic of Karakalpakstan by **0.39 %**. leads to an increase in

At the same time, the rate of growth of agricultural products in the Republic of Karakalpakstan and the rate of growth of alcoholic resources in the Republic of Karakalpakstan will have the opposite effect after one year.

2. In our opinion, ARDL model according to the research has successfully passed all tests, being considered the optimal model for increasing the efficiency of the agricultural sector in the Republic of Karakalpakstan.

In our study, we can see from the ARDL model that the factors affecting the growth rate of agricultural products in the Republic of Karakalpakstan have shown a positive economic impact.

3. We conducted our research using the ARIMA (2,1,1) model program based on the Stata program, and the growth rate of agricultural products in the Republic of Karakalpakstan in 2022-2026 without taking into account random factors is 119.71 percent in 2022, 118.86 in 2023, respectively. percent, in 2024 it will be 118.30 percent, in 2025 it will be 116.49 percent and in 2026 it will be 115.49 percent.

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Rezyume: *Maqolada Qoraqalpog'iston Respublikasi qishloq xo'jaligining iqtisodiy samaradorligini taminlashning statistik ma'lumotlar tahlili, iqtisodiy samaradorlikni ta'minlashga qaratilgan ekonometrik modellar hamda ilmiy takliflar ishlab chiqilgan.*

Резюме: *В статье проведен анализ статистических данных обеспечения экономической эффективности сельского хозяйства Республики Каракалпакстан, разработаны эконометрические модели, направленные на обеспечение экономической эффективности, и разработаны научные предложения.*

Kalit so'zlar: *qishloq xo'jaligi korxonasi, ekonometrik model, rentabellik, mehnat resursi, daromad, qishloq xo'jaligi mahsulotlari, tannarx, foyda.*

Ключевые слова: *сельскохозяйственное предприятие, эконометрическая модель, рентабельность, трудовой ресурс, доход, сельскохозяйственная продукция, себестоимость, прибыль.*

PHRASEOLOGICAL UNIT OF LANGUAGE IN THE LIGHT OF MODERN LINGUISTIC THEORIES

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Summary: *This article discusses various classifications of phraseological units of a language from the point of view of traditional linguistics and modern linguistic theories, including cognitive linguistics.*

Keywords: *artistic speech, phraseological units, classification, cognitive linguistics.*

At the present stage of development of linguistics, phraseology, as one of the most interesting areas of knowledge of the world through specific linguistic signs, opens up new aspects of research. The attention of researchers is attracted by the study of the interaction and mutual influence of linguoculturology and cognitive science in the field of phraseology.

One of the main tasks of linguistics in our time, researchers consider the disclosure of the peculiarities of the mentality of the people through the language (Venzhinovich), the identification of entire complexes of cultural traditions that are enshrined in the language. It seems natural to turn phraseological problems towards a person as a carrier of a certain culture, which makes it possible to answer the question of what images arose in the mind of a person when creating phraseological units. These images acquire a symbolic meaning in culture, summarizing the results of human consciousness proper. All this confirms the inseparable connection of phraseology with a number of sciences. According to N.F. Venzhinovich [5]: “Exploring phraseology, we pay attention to the reflection in it of the national character, temperament, prejudices, moods, etc. The main information about the world comes to us through the language in general and its phraseological composition in particular. In the process of studying phraseological units, many hidden or long-lost knowledge, material and spiritual values of society are revealed.

Cognitive linguistics is a direction in linguistics that explores the problems of the relationship between language and consciousness, the role of language in the conceptualization and categorization of the world, in cognitive processes and the generalization of human experience, the relationship of individual human cognitive abilities with language and the forms of their interaction. Categorization is understood as the process of ordering the acquired knowledge, i.e. the distribution of new knowledge according to certain headings that exist in the mind of a person, and often set by the categories of the language, of which this person is a carrier. Conceptualization is the process of determining a set of cognitive features (including categorical ones) of some phenomenon of the real or imaginary world, which allow a person to have, keep in mind and supplement with new information a somewhat outlined concept and idea about this phenomenon and distinguish it from other phenomena.

According to Wikipedia, cognitivism is a set of sciences that combines the study of general principles that govern thought processes. Language is presented as a means of access to thought processes. It is in the language that the experience of mankind, its thinking is fixed; language is a cognitive mechanism, a system of signs that specifically encodes and transforms information. The object of cognitive linguistics is language as a mechanism of cognition.

The emergence of cognitive linguistics is timed to coincide with the International Linguistic Symposium, held in the spring of 1989 in Duisburg (Germany). This symposium also became the First International Conference on Cognitive Linguistics, and its participants created the International Association for Cognitive Linguistics, founded a journal and planned to publish a series of monographs, where the works of representatives of this direction were later published.

Although cognitive linguistics emerged earlier, the period of the late 1980s. was the time of its heyday.

Cognitive linguistics has become a new stage in the study of the relationship between language and thinking. The beginning of such a study was laid by neurophysiologists, and neurolinguistics arose on the basis of neurophysiology (L.S. Vygotsky , A.R. Luria).

The next stage in the development of the problem of the relationship between language and thinking is associated with psycholinguistics, which studies the processes of generating and perceiving speech, the processes of studying language as a system of signs, and its use.

So, as an independent area of modern linguistics, cognitive linguistics has emerged from cognitive science. It explores consciousness on the basis of language, she explores cognitive processes. To date, the following areas of cognitive linguistics are generally recognized:

- culturological study of concepts as elements of culture based on data from different sciences; language in this case acts only as one of the sources of knowledge about concepts;

- linguoculturological - the study of the concepts named by linguistic units as elements of linguoculture in their connection with national values and national characteristics of this culture: the direction "from language to culture";

- logical - analysis of concepts by logical methods;

- semantic-cognitive - the study of the lexical and grammatical semantics of the language as a means of access to the content of concepts;

- philosophical - semiotic - the cognitive foundations of signs are explored. In the scientific circles of different countries, the names of researchers in cognitive linguistics are known, such as: Charles Fillmore, George Lakoff, Ronald Langaker, Leonard Talmy, Alexander Kibrik and others.

N.F. Venzhinovich believes that "it is possible to understand and explore the ways of conceptualizing the world by mastering and using such scientific categories from the new scientific paradigm as conceptualization, categorization, verbalization, mentality, concept, worldview, concept sphere, etc. The concept is the most important phenomenon cognitive linguistics, in which the cultural level of each linguistic personality is accumulated; this is a kind of core of the linguistic picture of the world, imprinting the cultural and national experience of its perception" [5].

E.P. Levchenko notes that the involvement of culture in the field of linguistic analysis led to the emergence of the concept of "cultural paradigm", and also highlights concepts such as a text of culture, a code of culture, a culturally significant concept as basic concepts for cultural linguistics. E.P. Levchenko sees the specifics of cognitive research in not separating the phenomena of the proper linguistic and non-linguistic levels. The metalanguage used in cognitive research takes into account the facts of the cultural development of the people, their traditions, beliefs, customs, etc., i.e. mental, cognitive background on which language processes take place [5].

N.F. Alefirenko in one of his works emphasizes that one of the main tasks of modern phraseological research is to understand the interdisciplinary status of cognitive phraseology, which is determined by the interpenetration of ideas and categories of traditional phraseology, cognitive semantics, linguoculturology and linguo - synergetics. N.F. Alefirenko considers the subject of cognitive phraseology to be the search and processing of information by the appropriate means of natural language [10-14].

N.F. Venzhinovich defines cognitive phraseology at the current stage of its development not as a new phraseological discipline, but as an ordered program of cognitively ordered studies of the phraseological composition of a language using a modern conceptual and categorical apparatus [5].

Interesting are the views of V.N. Telia , who notes that "the very possibility of raising the problem of the interaction of language and culture, in particular, the correlative relationship of units of phraseology and culture ... comes from the assumption of a high probability of the ability of subjects of language as subjects of culture to embody in speech-thinking activity knowledge

belonging to this sphere of human understanding of the world " V.N. Telia also emphasizes that the results of the study of the "pedigree" of the cultural semantics of phraseological units ... are the philological knowledge that provides the linguoculturologist and native speaker with material for immersion in the " prototypical " layers of linguistic signs, motivating them and creating a tradition of their reproducibility.

A. Levin-Steimann believes that culturally marked ways of verbalizing concepts reflect not only national-specific features, but also features that go back to the common source of ancient times, to tracing based on cultural and linguistic contacts, as well as to the universal heritage of human culture - in its past and present [12].

According to I.A. Golubovskaya [7], we can consider language as one of the forms of culture storage and its tool. "Language as a form of culture storage acts as a treasury of the cultural values of an ethnic group and a means of their translation into the future. On the one hand, the language reflects the unconscious intuitions of the people about the world around them, on the other hand, it keeps the memory of significant historical events in the life of the ethnic group. However, language is not only a channel along which culture makes its course: language is an instrument of culture, its spiritual instrument, which forms its carrier, imposing on him a vision of the world imprinted in linguistic forms. The language in the richness of its forms and meanings contains the keys to the secrets of the mental universe of a certain culture, to the knowledge of the way of thinking of the people, the peculiarities of the mentality of its speakers.

In modern linguistics, there is a parallel existence of two traditions of studying phraseology - traditional and cognitive - psychological. The reason for this coexistence lies, according to A.N. Baranov and D.O. Dobrovolsky [3], in a fundamentally different understanding of the subject of research. "If traditional phraseology studies the behavior of phrasemes in speech and their systemic features, then cognitive - psychological studies consider mental procedures that contribute to the understanding of idioms. Nevertheless, cognitive - psychological studies contain interesting material that has not yet been comprehended from the proper linguistic positions.

N.F. Venzhinovich believes that special attention should be paid to the study of phraseological units of closely and distantly related languages ... Such scientific research in the light of the latest paradigms, in her opinion, will recreate the prerequisites for the formation of the richest phraseological pictures of the world of different peoples, help to identify universal phenomena, and also outline the national and cultural specificity of phraseological units. When studying phraseological units in the cognitive aspect, the description of those structures of human consciousness that provide adequate perception and use of idioms plays an important role.

Exploring phraseology, we pay attention to the reflection of the national character, temperament, prejudices, moods, etc. in it. Today, the fact that the basic information about the world comes to us through the language in general and its ... phraseological composition in particular is becoming more and more deeply realized. In the process of studying phraseological units, many hidden or long-lost knowledge, material and spiritual values of society are revealed [5].

In the light of cognitive theory, at the present stage of the development of linguistics, metaphorical thinking is being actively studied. A striking example of a cognitive metaphor is an extended phraseological metaphor. Such a metaphor is one of the ways of contextual transformation of language units and is characterized by individual belonging, novelty, unpredictability, context dependence, semantic and stylistic connection with the basic form. Extended metaphor as a variant of cognitive metaphor is a complex thought process that can be based on several conceptual metaphors [2]. Deployment of a cognitive model implies the creation of several associative metaphors associated with the basic meaning of a phraseological unit. An extended metaphor can be classified as a "construction" type, which organizes a cognitive metaphor as a "construction" from smaller meanings [10].

Extended phraseological metaphor is common in the text, it is a stream of motifs that create associative metaphors that are interconnected, covering the entire area of the text, with each of the motifs building on the previous one, which maintains unity between sentences (Nacicsione, 2001). An extended metaphor is a complex way of contextual implementation of a phraseological unit. The basis of metaphorical transfer is the borrowing and interaction of ideas and the change of context [2]. The specificity of the relationship between the phraseological unit and the phraseological context lies in the fact that the phraseological unit is, and a special independent context, and at the same time, is part of the phraseological context [2].

Changes in the phraseological unit within the occasional phraseological context do not occur arbitrarily, but are subject to certain rules on which the functioning of the context under study is based. One of the main factors influencing the way the phraseological unit changes in the context is the internal form of the phraseological unit, since “the mechanisms for the formation of a new unit are based on an impressive cognitive base”. Metaphor functions as a changeable organism [4].

Phraseology deals with the study of stable units that are little subject to change. When studying phraseological units, it is necessary to take into account their various classifications. The semantic classification of phraseological units by V.V. Vinogradov is based on the component composition of the meaning of a phraseological unit: its idiomaticity, motivation, the presence or absence of an internal form and phraseological image, etc. In his classification, V.V. Vinogradov divides the entire set of phraseological units into three types:

- 1) phraseological fusions;
- 2) phraseological units;
- 3) phraseological combinations.

The first and second types of phraseological units are part of idioms. Phraseological combinations are a semantically and syntactically dissected unit, where only one of the components has a phraseologically related meaning.

Let us consider in more detail the classification of V.V. Vinogradov:

1) phraseological fusions are turns in which one of the components has a phraseologically related meaning, which manifests itself only in connection with a certain number of concepts and their verbal designations. V. V. Vinogradov noted that for such a restriction, as if there were no grounds in the logical nature of the designated objects or phenomena themselves. These restrictions are created by the laws of the connection of verbal meanings inherent in a given language. Such combinations are sometimes formed by words with somewhat limited compatibility, but are closest to variable (“free”) phrases (for example, fear takes, longing takes, envy takes), but cannot be combined (joy takes, pleasure takes), etc.

2) phraseological units are also semantically integral and indivisible phraseological units, but their meaning is motivated, i.e. it follows from the values of the components. Indecomposability arises due to the figurative rethinking of the whole turnover, its generalized - figurative, metaphorical semantics.

V.V. Vinogradov identifies four features of phraseological units: figurativeness (figurative meaning); expressiveness; the impossibility of a synonymous replacement of one of the components; replacing the entire expression with an equivalent word or expression. Examples: a white crow (“a person who stands out sharply among others”), throw a bait (“hint, scout, find out”), suck out of a finger (“bring it out of nothing”).

V.V. Vinogradov also refers proverbs and sayings with an allegorical meaning to phraseological units: and the casket just opened, the courage of the city takes, there are devils in a still pool.

3) Phraseological combinations are stable combinations of words in which the meanings of the words - components are isolated, but not free, but phraseologically connected. The components of phraseological combinations are perceived as separate words that have an independent meaning,

but one of the components has a phraseologically related meaning. For example: a sworn enemy, a bosom friend, a sensitive issue, pitch darkness. Here the components of the phraseological unit are connected, i.e. are used with one specific word, and therefore the whole expression is stable and reproducible.

But phraseological combinations are an intermediate link between free phrases and phraseological units. Therefore, some authors do not classify them as phraseological units. So, they are not in the "Phraseological Dictionary of the Russian Language" by A.I. Molotkov, who does not consider combinations to be phraseological units even of a transitional type [12].

Other authors, on the contrary, refer to phraseological units some intermediate types of stable turns. N.M. Shansky identifies another type of phraseological units:

4) Phraseological expressions are combinations of words that have received stability and reproducibility, completely consisting of words with a free meaning. These are composite non-metaphorical names: a higher educational institution, a rest home; descriptive turns: contain a victory, make an acquaintance; non-metaphorical proverbs, sayings, catchphrases: old age is not a joy, a healthy mind in a healthy body.

In a broad sense, phraseological units include proverbs, winged words, and speech clichés and clichés. V.N. Teliya [13] distinguishes the following types of phraseological units:

1. Idioms, i.e. classical phraseological units that correspond to fusions and unities according to V.V. Vinogradov. They form the core of phraseology: to walk along the line, from under the shelf, sewn with white thread.

2. Analytical lexical collocations are stable phrases, one of the components of which is independent and plays the role of a key and motivating phraseological unit. These include phraseological combinations (according to V.V. Vinogradov) and phraseological expressions adjoin (according to N.M. Shansky): briefly and clearly, to help, to have patience.

3. Speech clichés and clichés - speech formulas of colloquial speech, including ritual ones: the battle for the harvest, welcome, I apologize.

4. Precedent texts (winged words) - quotes from works of art or statements of famous people, titles of works: the process has begun, to be or not to be, wanderlust.

5. Paremiyas - proverbs and sayings, sayings, signs, comic sayings: there is no truth at the feet, you can't jump above your head [13].

V.N. Teliya considers the types of phraseological units from the point of view of semantic-pragmatic classification (by thematic fields): for example, the phraseological unit "characteristic of a person" - by social status (necessary erratic, no stake or yard), by character traits (not timid a dozen, a shot sparrow), according to physical signs (two inches from a pot, an oblique fathom in the shoulders).

E.I. Dibrova solves the problem of determining the types of phraseological units in accordance with the classification of V.V. Vinogradov [8].

Having considered different options for the classification of phraseological units, we consider it appropriate to adhere to the classification of phraseological units according to V.V. Vinogradov, since this particular classification is the most famous and widespread in linguistics.

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Rezyume: Ushbu maqolada an'anaviy tilshunoslik va zamonaviy tilshunoslik nazariyalari, jumladan, kognitiv tilshunoslik nuqtai nazaridan tilning frazeologik birliklarining turli tasniflari muhokama qilinadi.

Резюме: В данной статье рассматриваются различные классификации фразеологизмов языка с точки зрения традиционной лингвистики и современных лингвистических теорий, в том числе когнитивной лингвистики.

Kalit so'zlar: badiiy nutq, frazeologik birliklar, tasnif, kognitiv lingvistika.

Ключевые слова: художественная речь, фразеологизмы, классификация, когнитивная лингвистика.

**THE EASTERN MINIATURE SCHOOLS AND QUESTIONS OF THEIR SCIENTIFIC
AND PEDAGOGICAL ANALYSIS**

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Summary. *The article is about the first miniature. This miniature is a scientific and pedagogical study of schools and their creators*

Keywords: *School, art, miniature, lesson, process*

It is advisable to consider the issues of scientific and pedagogical analysis of theoretical knowledge in the visual arts by analyzing the concept of art.

Skillful work and bringing to a high level certain things and so many of people suggest that human work worked artistically. Thus, the model of amateur performances is the careful, beautiful and impeccable work of the teacher.

The very nature of the concept of fine arts in education involves a scientific and pedagogical analysis. Therefore, the theoretical concepts that have arisen should talk about their role in pedagogical science.

Fine art is one of the most common forms of art. It has a wide meaning and is divided into such types as sculpture, color painting and graphics. Species are also divided into several genres. Theoretical study of the types and genres of fine art, as well as the basics of style, ways of teaching students through exhibition weapons during classes or stories, is an art described by creative (sculptors and artists) on a certain plane, surface, phase, etc. In addition, fine art has monumental and easel views. The monument refers to fine art, designed several times in size for a construction craft, as well as for an ocean of a certain volume. The machine is mainly versed in works created by free creative activity, they can be put in place.

Even though the history of our ancestors is far from their religious notions are consistent, there are subtle bridges that connect them to us. These bridges are examples of noble crafts, their cultural customs, concepts and knowledge that have influenced the continuous development of human thought in the common world. Therefore, in the comprehensive development of teachers of modern artists, we can be aware of such examples of the heritage of the past, use them in the educational process not only as the past, but also as improved tools.

The oldest school of painting can be seen on the samples of the Greek school of painting. There is reason to call this school of painting a school of painting developed according to the Iskandar trace. It is known that in 329-327 BC, Iskandar warriors conquered the regions of Central Asia, Greek languages, culture and religion appeared. Locals began to study painting and scientific craft, as a result of which sculptures, wall drawings, samples of scientific crafts appeared. In the history of fine art, the Great Silk Road, connecting people had a great influence. A natural phenomenon has become that trade and trade relations between people can lead to the interaction of the visual arts as a result of their transition through products and various examples of tools, valuable crafts. According to the Great Silk Road, the connection between people not only influence of fine art on relationships, but also becomes an impetus for professionalism and enrichment. Ancient examples of fine art, cultural places, the vicinity of Sugdiyoy (Zarafshan) and Kashkadarya (Baktriya), Surkhandarya, northwestern Tajikistan, eastern Afghanistan (Farfia), Ashgabad region of Turkmenistan, southeastern Iran (Chach), we see that in the middle of the sirya, currently, in Tashkent region, northern Kazakhstan, as well as ancient Khorezm, ancient Fergana. In short, every visual art teacher should be aware of the works created by our ancestors in the visual arts field.

The history of the fine arts of Uzbekistan, its harmonious habit, not enriched by the content of the education of fine arts in the preparation of students, opens a direct analysis from the

scientific and pedagogical side. The history of the fine arts of Uzbekistan, its harmonious habit, not enriched by the content of the education of the fine arts in the preparation of students, opens a direct analysis from the scientific and pedagogical side.

He has a special pedagogy in the study of the history of ancient sculpture and fine art. The old color image on the territory of Uzbekistan has worthy samples. It is necessary to pay attention to the work experience, knowledge, as well as pedagogical skills of famous artists of the past, similar to the profession of Besaiktep, to the skill of Barakhsha, to the fact that today in the development of teachers of fine arts we use the heritage of crafts directly, economically and on a scientific basis. The deeper we study the culture of our ancestors and the secrets of crafts, the more visible the traces left by them, continuous stories about the ancient places of residence created by them cultural heritage are made. We must carefully study them, contribute to the enrichment of our worldview and on the basis of historical evidence, to the development of the visual art methodology.

As for the skill of miniature, the Arab scientist Ibn Nadim writes that the 87th Hijri (i.e. In 706, he first visited Samarkand, where he saw paper enterprises. These workshops were also in Khiva, Kokand, Bukhara, Samarkand, Tashkent and other places. Khiva Khan Sayd Muhammad Khan is the library of his palace, which contains many books and manuscript writers worked.

In a library owned by the Heevin School, Hudaybergen Devon is an experienced craftsman and watchmaker who has decorated several books.

When educational tasks of fine art will be well realized, when education will be carried out by artists-teachers with higher education. If education through the visual arts is not possible, such education loses its influence. This type of education was received by outstanding specialists, scientists, poets and writers, artists-teachers K. Bekhzod, Lutfiy, A. Zomiy, Z. Bobur, D. Samarkandiy, M. Khondomir, Attor, A. Yassavi, Ulugbek, H.A.Abdulhai, Pir Ahmad and others were well aware. Artists such as Pir Ahmad and H. Abdulhai lived in Samarkand, were engaged in creativity and can be seen among the Asian miniaturists. Miniatures created in 1398 contain "Antigologia." It is believed that this book is stored in the State Library of Turkey. The researchers found that the works of Moni found in the tourist background (Kashkar) were described on Samarkand paper. Monius was a famous painter of antiquity. Samples of his works were found. In the geographical works of the 10th century, entitled "Zone Alam" (Alam works), it is said that in Samarkand, supporters of Moni education had strong attention, and until 372 BC. e. 982 he had great respect.

The leading role in new schools of fine arts, organized by the Boburians in the 16th and 17th centuries, was played by famous Central Asian miniatures. The founder of miniature schools was Mir Sayyid Ali, who was one of the founders of Indian writing of the 16th and 17th centuries, was a prominent artist of his time. Mir Said Ali was born in Termiz, studied the profession of painting with his father, the famous artist Mir Mansur or master Matsur, and went to India for his life. In addition, the Central Asian Muhammad Murad, Muhammad Nadir Samarkandiy and Farrukhbek, who headed the Indian School of Miniatures, certainly did not appreciate the culture of Asian khanates that we created in Central Asia at the end of the 18th and 19th century. We meet miniaturists. Of course, even if mutual development continued during this period, this becomes unknown to us. We know that color fine art in Central Asia and the East is closely related to the art of book design. So, at the end of the 18th-19th and the beginning of the 20th century in Central Asia, we learned about the life of Behzod from many masters of book design and their strong master artists who were able to rise from their creative activity to the level of an unequal artist in Asia. He is one of the artists who fought to raise the level of the visual arts to the level of society. And their contribution to education created the style and genres of teaching fine arts. As a mentor, he also tried to steer his students away from formalism. This indicates that Behzod's superior ability was highly regarded by A. Navoi.

A. Navoi and Timuryan developed a miniature at a level that meets a wide demand. Miniature schools are very developed in the east and are called by different names. There are higher centers of fine art, such as miniature schools "Bukhoro," "Boburiev," "Sheroz," "Yazd." During the Timur and Timurid period, Samarkand, as a result of high level of his culture, left his Western European countries. However, the Samarkand School of Miniatures was not fully refined. A special place in the development school is occupied by Samarkand School of Miniatures under the leadership of K. Bekhzoda. Samarkand was the capital of a country with developed science and culture during the Timurids. The Hiroton School like Samarkand was an integral part of the hearth of art and culture. The Arabs who invaded Samarkand saw the first paper in Samarkand.

According to specific historical records, K. Behzad studied the craft under Pir Saeed Ahmad Tabrizi. Pir Syd Tabrizi was a favorite student of Bucharest master Jahangir, known as "Unday ul-musirin" (master of artists). Teacher Jahangir studied with the founder of the fine arts of the Timurid state, Master Gung. So Samarkand School of Fine Arts expected a thorough analysis. In particular, the work "War on the Samarkand Wall" (stored in the Zhyldyz library in Turkey) shows in these works its method of combating portrait accuracy and brightness of the landscape of nature in relation to Samarkand fine art.

The creation in 1441-42 of a portrait of Mirzo Ulugbek by an unknown artist testifies to its wide development in Samarkand. The work of the miniature "Combat Meeting of Sahibkiron" is especially noteworthy. This work depicts Amir Temur and his wives. This work is signed "Khalil Mirzo Shohrukh." According to the testimony of Baburius "Jahangirdin," the name of the artist was not clearly written on the agar, one could call this work belonging to the tribe K. Bekhzod. Because stylistically, K. Bekhzod resembles a school of creativity.

The author of this work, Khalil Mirzo Shohrukh, created long before the work of K. Bekhzoda. However, this article, which Jahangir listed, has not yet been published. However, this work, dating from the 13th-14th century, began in the living time of Emir Timur and continued after his death. During the completion of the work dedicated to Khalil Mirjo, who, after the death of the ruler Amir Temur, took the Samarkand throne, Shohrukh Mirzo ascended the throne. For this reason, the artist may have signed the names of both rulers, but in the Samarkand miniature schools of Central Asia, the portrait genre and description of historical events became consistent themes of miniatures.

Samarkand artists worked on the work of Maisud Ibn Usmonius Kuhistani "Reception of Genghizkhan in Syrdarya district," a portrait of Abdulkhan in Urgan and the work of Khotifidin Timurnom. "Timur's trip to India" is an example of the aforementioned miniature "Wedding around Timur Samarkand," on which Ali Yazdiy "Zarapnoma" worked. One of the representatives of Samarkand Miniature School Muhammad Nadir Samarkandi Mir Said Ali (Thermizzians). Mir Said's father Ali Mir Mansour was a famous artist. He came from Asia to India, where he continued his creative work.

11 works of Mohammed Nadir Samarkandi from artists are stored in British Museum, the Center for Scientific Works of Paris and Sank Petersburg.

The works of the Timurid Family belonging to the Mir Said Ali and Khoja Abdi Samad tribes, which paint Humayun Akbar Jahangir, Shoh Johan, Shohrukh Mirzo Bobur, Sultan Muhammad and Miron Shokhov are very popular. This work is kept in the Britain Museum in London.

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Rezyume: Maqolada birinchi miniatyura haqida so'z boradi. Bu miniatyura maktablar va ularning ijodkorlari haqidagi ilmiy-pedagogik tadqiqotdir

Резюме: В статье идет речь о первой миниатюре. Эта миниатюра представляет собой научно-педагогическое исследование школ и их создателей

Kalit so'zlar: Maktab, san'at, miniatyura, dars, jarayon

Ключевые слова: Школа, искусства, миниатюра, урок, процесс

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ECONOMIC STIMULATION OF WALNUT MARKET DEVELOPMENT IN DEKHKAN FARMS

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Summary: *The author of this article evaluates the possibilities of expanding the legal consulting process for the development of the walnut business in the republic. The article presents extensive analytical material on the production and export of nuts.*

Keywords: *walnut, export, business, diet, specialization, risk, intensive technology, rootstocks, breeding, competitive varieties, plantation, vegetation, annual effective temperature, mountainous and foothill areas.*

Introduction.

Growing walnuts today is one of the most promising types of business with great advantages compared to other types of activity. The demand for walnut fruits is explained by the abundance of trace elements, carbohydrates, proteins, vitamins in them. Combined with the fact that the walnut has a high degree of usefulness for the human body (nutritional value), scientists in this field (in particular I.V.Michurin) called it a tree-complex, because all its parts go to work. For example, walnut oil and leaves are used not only for medical and food purposes, but also in printing, perfumery and painting. Walnut wood is widely used in the furniture industry, in the production of building materials, in local craft workshops, walnut is used for decoration of premises, all walnut products are highly valued on the world market for durability and quality [1].

Main part.

At the same time, it should be noted that the amount of land per capita in the country is decreasing. This is due to the fact that along with an increase in population there are cases of transfer of agricultural land for other purposes).

The increase in population is a factor leading to an increase in demand for agricultural products, a decrease in irrigated land per capita. The peculiarity of the demographic situation in our country is manifested in the rapid growth of the population. In particular, if in 1990 the population was 20.4 million people, in 2000 the number of people increased to 24.6 million, in 2018 to 32.6 million, and by 2022 the population was 35.2 million, an increase of 59.5% (14.2 million people) compared to 1990.

As a result, in 1990 there was an average of 0.20 ha of irrigated land per capita, in 2000 - 0.17 ha, in 2010 - 0.12 ha, in 2018 - 0.09 ha, and in 2020 this indicator was 0.08 ha, i.e. decreased by 40% compared to 1990 (Table 1). It is also worth noting that in the conditions of population growth and reduction of agricultural land to ensure food security and reduce the dependence on imports, dekhkan (private subsidiary) farms, which according to 2022 account for 65.9% of the total volume of agricultural production, are becoming even more important. Dekhkan farms are the main producers of livestock products; their share in the total volume of livestock products in 2021 was 90.7%. Unlike farms, dekhkan farms and owners of homestead lands have a greater diversity in crop production and these farms have a higher degree of adaptability to changes in demand.

Table 1

Changes in the amount of irrigated land area per capita in the republic [2]

Indicators	Unit meas.	1990 year	1995 year	2000 year	2010 year	2018 year	2022 year
Total population	Thousand people	20403,2	22684,0	24650,4	28 562,4	32 956,1	35 271,2
Total area of irrigated land	Thousand hectare	4221,8	4297,9	4273,3	3 387,9	3 095,5	2 984,7
The area of irrigated land per capita	hectare	0,20	0,19	0,17	0,12	0,09	0,08

Dekhkan (private subsidiary) farms independently determine the price of their products based on the supply and demand ratio in the market. Dekhkan farms also play an important role in solving the employment problem in rural areas. In particular, the share of income of dekhkan farms in the total income of rural families is 26% (per family member). In the structure of incomes of dekhkan farms, the share of incomes from the sale of agricultural products (including income in kind) in different regions of the republic is 62.2-70.0%. Many families receive a significant increase in the family budget due to the sale of walnuts. At the same time, the research results show that land plots in dekhkan farms are used ineffectively.

The development of dekhkan and private subsidiary farms should be based on the efficient use of land resources, taking into account the specifics of agriculture and territorial features. In addition to such a feature as seasonality of production, it should be taken into account that even one type of product ripens in different time periods, early spring or late autumn (for example, there are early-ripening, summer and autumn-winter varieties of apples). In relation to nut crops, it can be noted that nuts (walnuts, almonds) have a relatively long shelf life, in the shell nuts do not lose their healing and flavoring qualities for up to a year. These and other features play an important role in the organization of dekhkan farms when selling their products.

In the post-Soviet period, walnut cultivation was widespread in Ukraine, Moldova, the Caucasus region and Central Asia (mainly in Kyrgyzstan and Kazakhstan). Despite the fact that in Uzbekistan the walnut tree grows in almost every household, homestead plot, at the state level the issue of walnut production on an industrial scale was not given sufficient attention, which caused the lag in breeding towards the creation of quality varieties of walnuts.

The adoption of the Law of the Republic of Uzbekistan "On dekhkan farming" in 2021 and other regulatory and legal documents ensures the solution of such issues as protection of the rights and interests of dekhkan farms, their economic and financial support, sale of grown products, introduction of a system of uninterrupted supply of resources necessary for cultivation of agricultural products, providing necessary information.

Over the past two-three years (2019-2021) in Uzbekistan started growing walnuts by plantations method on more than 10 thousand hectares of land. The fact that the main part of plantations are in Samarkand region (2521 ha), Jizzak region (2500 ha), Surkhandarya region (2172 ha), Tashkent region (576 ha) indicates that modern plantations are organized mainly on non-irrigated lands and foothill areas.

As a rule, climate for walnut cultivation should be warm, annual effective temperature not lower than 2400°C, warm days should be not less than 150, the lowest air temperature in winter season not lower than -28°C. Such characteristics of walnut as heat- and light-loving, intolerance to excessive moisture create sufficient opportunities for walnut cultivation in regions of Uzbekistan.

As studies show, walnut production is highly profitable and highly recoupable production, this is one of the most important economic advantages of walnut production (Figure 1).

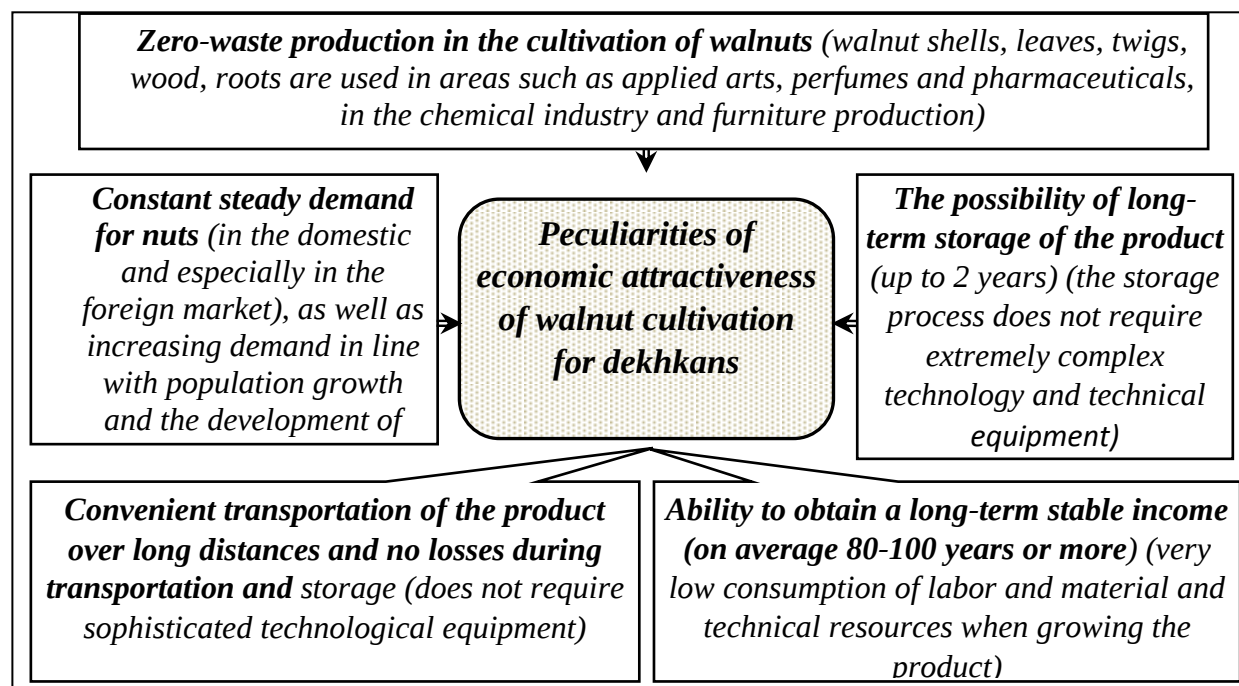


Fig. 1. Peculiarities of economic attractiveness of walnut growing [3]

In recent years, the demand for walnuts in the domestic and foreign markets has remained stable and their quantity is steadily increasing. However, the cultivation of walnuts is a problem for the entrepreneur, because the costs incurred do not pay off quickly as in other branches of agriculture. This is due to the fact that you can get the first crop after at least 5 years, it will be possible to grow nuts commercially only after 8-10 years, the expected high profits walnut business will begin to bring 20 years, when the biological capabilities of walnuts will be fully manifested.

The long lifespan of a nut tree, and the periodicity of fruit-bearing inherent in fruit trees (one year is productive, the next year is unproductive) also reduce the efficiency of land use in dekhkan farms.

The technology of walnut cultivation has changed little over the centuries, the simplicity of cultivation, the lack of need for large current investments (except initial investments), the low potential for additional income by planting other crops in between the rows (chemical substances that are released from the tree leaves, prevent the growth of other crops) reduce the possibility of growing walnut on highly fertile irrigated lands, providing intensive yields of agricultural crops. Due to the fact that the trees occupy a large area (one tree occupies an area of almost 1 hectare), it is advisable to use foothill slopes, rainfed lands, empty lands in mountainous areas to create walnut plantations.

One of the important above-mentioned features of walnut cultivation as a highly profitable type of production, namely the steady and steadily increasing demand for walnuts on both domestic and foreign markets, is directly related to the following circumstances:

- today science has proved by means of concrete and indisputable indicators the importance of walnuts as foodstuffs, their necessity in people's nutrition, and this is penetrating more and more into the public consciousness;

- The fact that the volume of walnut production in the world market is much less than the demand for it, there is the possibility of convenient transportation over long distances without quality and quantity losses, increase the attractiveness of the walnut business for business entities.

Studies show that the economic attractiveness to the entrepreneur is related to the constant demand in the domestic and foreign markets for walnut, while the value of the demand is constantly growing. At the same time:

- The importance of the walnut as a foodstuff in the human diet has been scientifically substantiated by indisputable evidence, and it is increasingly assimilated into the public consciousness..;

- the fact that the volume of walnut production in the world market is much less than the market demand and that it is easy to transport without loss of quality and volume reduction;

- the fact that storage, transportation and unloading do not require complex equipment, making the product very attractive.

At the moment the commodity characteristics (consumer value) of walnuts in the world market are estimated by the following indicators (Figure-2).

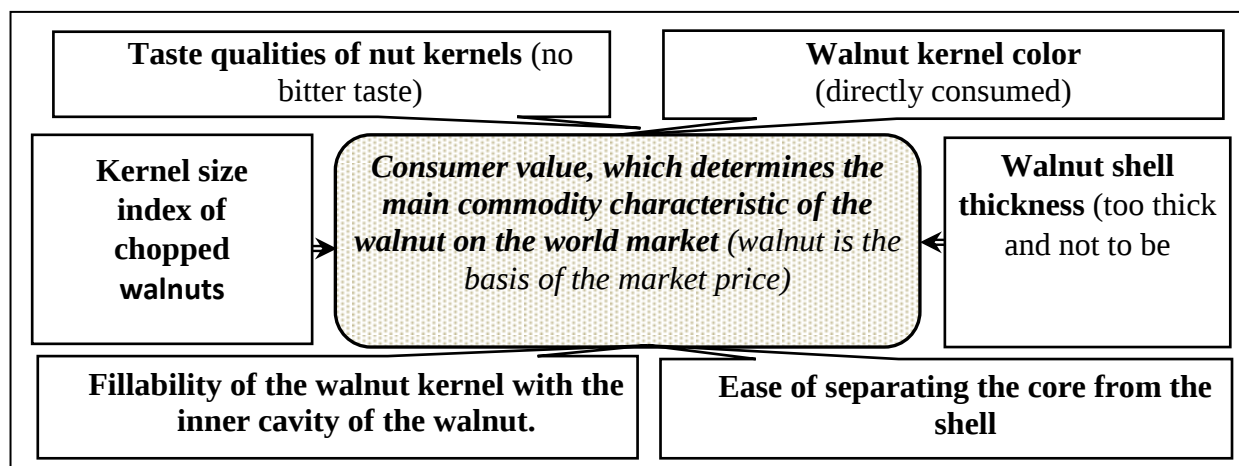


Figure-2. Characteristics of walnuts determining the level of the product on the domestic and world market [4]

The above-mentioned indicators reflect the demand in the world walnut market while providing the entrepreneur with profit. Therefore, the selection of walnut varieties is an extremely important issue when placing highly productive walnut plantations (walnut plantings on homestead plots). Because an incorrectly selected walnut variety can delay a grower's ability to profit from farming for several more years, resulting in the loss of many years of labor and expense.

In spite of the fact that constant growth of already high demand for walnuts guarantees high demand for the grown products and the walnut business is recognized as highly profitable, the success of the walnut business largely depends on the yield of certain varieties, so the choice of walnut variety is very important when organizing walnut orchards (in dekhkan farms, on homestead plots). Wrongly selected variety can delay for a few years the gardener profit from the use of land at his disposal, and lead to unjustified costs. In this regard, special attention should be paid to the purchase of guaranteed seedlings of prolific varieties of walnut from reliable sellers. It is most advisable to purchase seedlings from research institutions.

Usually walnuts are offered on the market in peeled and unpeeled form. There are no such statistics in our country, but using global market indicators, we can conclude that almost 64% of all sold walnuts are offered to the market in peeled form. However, after peeling the shells the shelf

life of walnuts is reduced almost 5-6 times, and the level of hygienic guarantee is drastically reduced. Consumers do not always understand this.

In addition, the issue of organizing the production of high-yield walnut seedlings by grafting imported fertile varieties to local walnut rootstock is relevant. This will allow farms and dekhkan farms to produce seedlings at the price of 10-15 thousand soums, which is 10-12 times cheaper than imports.

Results of the study allow us to identify areas of economic risk that may arise in farms, dekhkan farms and owners of homestead plots when growing walnut (Fig. 2).

It should also be noted that scientific research in the field of breeding of walnut crops in the country is very poor, and research in the field of agrotechnology of walnut cultivation is just beginning. Therefore, it is necessary to expand the scope of fundamental and applied research on the breeding of walnut varieties, their cultivation technology, disease and pest control.

Unresistance to diseases and pests in walnuts is most often manifested when they are grown on low fertile, unfertilized stony soils. Also, if old trees are left untreated for years, they become breeding grounds for diseases for young trees [5].

Conclusion.

1. Despite the fact that the walnut business is developing in the Republic, there are a number of features that stimulate and limit the entrepreneurial activity in this industry:

First, the fact that the demand for walnuts in the domestic and foreign markets is growing year after year, and this demand is in direct correlation with the growing popularity of consuming products that are healthy and increasing awareness of the benefits of walnuts, means that demand in the market will continue to grow.

Secondly, the seasonality of the walnut business and the inability to use walnut orchards to plant additional crops, the long return on investment slows the flow of investment into the industry.

2. changes in market demand for walnuts and the pricing mechanism make it necessary to focus on the following circumstances:

First, despite the fact that walnuts have been grown in the regions of the country for centuries, they are unknowingly chosen by the population wild-growing nuts, the yield of which is low and the quality of the product does not meet the market demand.

Secondly, the fact that walnuts are grown mainly by owners of homestead plots, and even within each farm walnuts differ in appearance, separability of the core from the shell, shell thickness and quality of the core, creates difficulties in serial production and getting the quantity needed to meet market demand, and this becomes the reason for a sharp decline in the market price of the product.

Third, the population sells walnuts mainly in local markets, and the product is purchased for various ceremonies, family consumption or for cooking at home. In this case, the quality of the product is formed based on the demand in the local market.

Fourth, the number of walnut trees in subsistence farms is small, mostly growing on stony soils with very low soil fertility or on the banks of mountain rivers, and yields are low. In addition, the irregularity in walnut yields leads rural walnut-growing families to attach secondary importance to the walnut business.

Fifth, the indiscriminate planting of walnuts in mountainous areas along riverbeds, on rocky slopes, and in areas where other crops cannot be planted does not allow for the observance of walnut cultivation agro-techniques.

3. It is necessary to stimulate the creation of new varieties of walnut and agro-technologies of cultivation, contributing to the entrance to the market with a quality product that meets the requirements of the world market.

4. Observations of dehqan markets in Tashkent show that the following factors influence the formation of market prices of walnuts:

- large-sized walnuts sell almost 50% more expensive than small-sized walnuts;
- walnuts harvested in the current year are 30% more expensive than last year's walnuts (however, it takes some knowledge and experience to determine the freshness of walnuts);
- peeled walnut kernels are more expensive, but one must keep in mind that they spoil more quickly and become contaminated.

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Rezyume: Ushbu maqola muallifi respublikada yong'oqchilik biznesini rivojlantirish uchun huquqiy maslahat jarayonini kengaytirish imkoniyatlarini baholaydi. Maqolada yong'oqlarni ishlab chiqarish va eksport qilish bo'yicha keng tahliliy materiallar keltirilgan.

Резюме: Автор статьи оценивает возможности расширения процесса юридического консалтинга для развития орехового бизнеса в республике. В статье представлен обширный аналитический материал по производству и экспорту орехов.

Kalit so'zlar: grek yong'og'i, eksport, biznes, nisbat, ixtisoslashuv, tavakkalchilik, intensiv texnologiyalar, payvandlash, seleksiya, raqobatbop navlar, plantatsiya, vegetativ, yillik samarali harorat miqdori, tog' va tog' oldi hududlari.

Ключевые слова: орех грецкий, экспорт, бизнес, patsion, специализация, риск, интенсивная технология, подвой, селекция, конкурентоспособные сорта, плантация, вегетация, годовая эффективная температура, горные и предгорные районы.

**THE IMPORTANCE OF FUNCTIONAL LITERACY IN ORGANIZING
EXTRACURRICULAR ACTIVITIES IN PRIMARY SCHOOLS**

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Summary: *The term 'functional literacy' was proposed by UNESCO in 1957 and there is given explanation to the terms of 'literacy' and 'minimum literacy'.*

Literacy is the ability of reading, writing and working with data, while minimum literacy is the capability of student's reading and writing basic information. Functional literacy is the capability that student can use the ability to read and write in the society. Literacy is a characteristic of a person, while functional literacy represents the ability to use this characteristic in a certain situation.

Keywords: *literacy, functional literacy, knowledge, skill, extracurricular activities*

The main purpose of extracurricular activities in primary schools is to boost students' interests in the subject, broaden their knowledge the students learn in the lesson, and improve their experience and adaptation to their mother tongue.

Primary school students can read, but they do not understand what they read, the teacher may have students read the book, he cannot narrate about it, though. Therefore, the ability to read and the ability to comprehend is distinguished from each other.

The term of functional literacy was first introduced by Aleksey Leontov, a soviet psychologist and philosopher and pedagogue, he proved that functional is the probability of cooperation with information, while information is the term connected with reading. He also claimed that contemporary neurolinguistics, psycholinguistics and neurodidactics show reading is a cognitive process.

Contemporary neurolinguistics, psycholinguistics and neurodidactics prove that learning is a cognitive process.

In 1957, the term of functional literacy was proposed by UNESCO, there was given explanation to the terms of 'literacy' and 'minimum literacy'.

Literacy is the ability of reading, writing and working with data, while minimum literacy is the capability of student's reading and writing basic information.

Functional literacy is the capability that student can use the ability to read and write in the society.

Literacy is a characteristic of a person, while functional literacy represents the ability to use this characteristic in a certain situation. We could witness the existence of functional literacy during the changes in various situations.

Functional literacy is:

1. Principal head of reading and writing skills
2. Aimed to perform daily household tasks
3. Indicates the student's condition in particular concrete events
4. Intended to solve similar standard, stereotype problems

The reason why we mentioned the researches in our country is that international (PISA, TIMSS, PIRLS) evaluation systems will test the functional literacy in the first place.

In researches of PISA and PIRLS, reading literacy is defined that student can comprehend the given written text and should be able to use its meaning and goals, also develop his knowledge and opportunities in the society.

The word 'literacy' means that student know to read and need to be ready for hard work in the society, practice in order to achieve their goals.

According to PISA, reading literacy is divided into following levels:

1. Search for the information which the text requires. (the lowest level)
2. Search for the information in accordance with various levels.
3. Search for the information that the text requires, connect the fragment of information with the text, search for particular but opposing information from the written language forms.
4. Find the correct arrangement of those they have and required solution so as to perform the written task.
5. Comprehend the structure and assignment complex texts.
6. Feel confident about the text and come to the conclusion.

Let's give explanation to the term 'functional reading'. Functional reading is the ability to analyze written texts, to understand the texts, to split texts into correct parts and to apply them precisely.

Basic skills of primary school students develop on the basis of functional reading. Regarding this, we need to teach teachers reading first. Reading is a complicated process. If the mechanism of reading is difficult for students, they will devote more energy to read and will not have strength to comprehend. Reading ability should be tested in students' mind. To read correctly and to understand what they read are actually distinct things.

Functional reading is a multi-level skill that analyses texts in various levels. An primary school student need to understand all the words while reading.

Is everything clear?

Did you understand all the actions?

The only way of this possibility in class is asking questions. It is impossible to know who is just reading or who understands what he is reading during the class. We pay attention to reading correctly and quickly, but catching the meaning. Extracurricular activities plays a vital role in order to improve this process. During extracurricular activities, a student may bring his favourite books from home and we can improve functional reading skills by having him read the book.

– How could we force a student to read?

– By giving examples:

1. Narrating the summary of the book we have read
2. Instructing them to make a home library
3. Giving opportunity to choose a book themselves

Teaching process assists to boost the connection between extracurricular activities and the quality of the entire pedagogical process. As an essential part of teaching process, extracurricular activities create opportunity to teach the subject 'Mother tongue and reading literacy' in high quality and use the mother tongue in practice.

According to V.I.Kazarenkov's opinion, it is important to connect extracurricular activities with teaching process, and to create 'lesson-extra lesson' system and to find optimal type of functional teaching and teaching individually.[4.25]

It is important to mention that the activities in 'Mother tongue and reading literacy' is one type of extracurricular activities. These activities are hold considering primary school students' personal, physical and psychological peculiarities.

Many researchers have conducted scientific researches on teaching mother tongue. The issue of teaching mother tongue in kindergartens and primary schools has been investigated by numerous scientists. [5.38]

The problems of extracurricular lessons in primary schools were given in the dissertation of Methodist Z.N. Valieva on the example of Ossetian schools, S.A. Sharipov on the example of Tajik schools, and Sh.A. Nasrullaev's dissertation about the methodology of organizing extracurricular lessons in Russian language textbooks in elementary grades.

The current condition of the subject 'Mother tongue and reading literacy' proves that in primary schools it is required to improve the types of conducting extracurricular activities in a circular manner and develop the methods of organizing this kind of activities.

The content of extracurricular activities primarily needs to be carried out considering students' interests, also it should be distinctive by developing students' activeness and boosting their motivation to study.

Consequently, contemporary extracurricular activities of 'Mother tongue and reading literacy' demand to be interesting and to change the content, as well as, to accept the outdoor activities as a main type of organizing extracurricular activities. In 'Mother tongue and reading literacy', students improve their reading skill through reading the text, performing tasks on the basis of it, doing activities.

International evaluation systems – PISA, PIRLS programs evaluate students' literacy according to reading comprehension, speaking, writing, listening skills.

The experiences of Finland, Great Britain, USA, Turkey, as well as Kazakhstan and Tajikistan demonstrate that the subject 'Mother tongue and reading literacy' has been taught on the basis of integrated program in primary schools.

The objectives and aims of the extracurricular activities of the subject 'Mother tongue and reading literacy'.

The extracurricular activities of 'Mother tongue and reading literacy' aim to speak in native language, enrich students' active vocabulary and strengthen their functional reading skills. To achieve these aims, it is vital to accomplish the following objectives:

1. To consolidate the materials of the program
2. To improve and strengthen teachers' knowledge
3. To develop spoken and written language skills
4. To enhance functional literacy
5. To develop sense of aesthetics, ethics, patriotism in students
6. To enhance students' personal abilities

Every language and speech material is chosen according to the principle of the connection between theory and practice.

The types of extracurricular activities include 'Extra lessons of Mother tongue', 'The corner of Mother tongue and reading literacy', wall newspaper, quizzes, competitions, excursions, role plays, exhibitions, interactive games, etc.

All the kinds of extracurricular activities need to be connected with each other. For instance, Mother tongue corner is carried out in order to advocate mother tongue.

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Rezyume: "Funksional savodxonlik" atamasi 1957 yilda YuNESKO tomonidan taklif qilingan va "savodxonlik" va "minimal savodxonlik" atamalariga tushuntirish berilgan.

Savodxonlik - bu o'qish, yozish va ma'lumotlar bilan ishlash qobiliyati, minimal savodxonlik esa o'quvchining asosiy ma'lumotlarni o'qish va yozish qobiliyatidir. Funksional savodxonlik - bu o'quvchining jamiyatda o'qish va yozish qobiliyatidan foydalanish qobiliyati. Savodxonlik shaxsga xos xususiyat bo'lsa, funksional savodxonlik bu xususiyatdan muayyan vaziyatda foydalanish qobiliyatini ifodalaydi.

Резюме: Термин «функциональная грамотность» был предложен ЮНЕСКО в 1957 г. и дано объяснение терминам «грамотность» и «минимальная грамотность».

Грамотность — это способность читать, писать и работать с данными, а минимальная грамотность — это способность учащегося читать и писать основную информацию. Функциональная грамотность — это способность учащегося использовать умение читать и писать в обществе. Грамотность является характеристикой человека, а функциональная грамотность представляет собой умение использовать эту характеристику в определенной ситуации.

Kalit so'zlar: savodxonlik, funksional savodxonlik, bilim, qobiliyat, sinfdan tashqari darslar

Ключевые слова: грамотность, функциональная грамотность, знание, умение, внеклассная деятельность

EDUCATION OF A CULTURE OF BEHAVIOR IN PRESCHOOL CHILDREN ON THE BASIS OF UZBEK NATIONAL VALUES

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Summary: *This article highlights the role of the culture of the Uzbek people in the education of a culture of behavior of preschoolers. It also details the provision of special educational knowledge for the comprehensive development of children on the basis of a qualitative radical transformation, or rather, the renewal of general educational content.*

Keywords: *Preschool age, children, national values, moral culture, means.*

Studying the national values of our people, their customs and traditions in pre-school education organizations has an important educational and educational value. The task and content of forming a culture of behavior in a child of preschool age requires the education of his spiritual world, mind, moral qualities, and personal qualities [1]. Unfortunately, we still don't have the full imagination to inculcate our traditions, traditions, and customs in children's minds in order to create a moral culture. Because the national values, traditions, traditions and customs that have been developing for centuries are still not fully paid attention to. Observations and scientific research show that our children do not have a complete idea and understanding of our traditions, customs and traditions, which are our national values. Maktabgacha tarbiya tashkilotida milliy qadriyatlar vositasida xalq madaniyatini shakllantirishning asosiy maqsadi yosh avlodda milliy qadriyatlarga sodiq bo'lish, xalqimizning ma'naviy merosini o'rganish, mustaqil O'zbekistonning barcha udumlarini, urf-odatlarini, tarixini asrovchi fuqarosi bo'lish, butun jahonga tariximiz va millatimizning qudratini namoyon etuvchi shaxsni tarbiyalashdir[2].

Morality is the essence of the life of the Uzbek people. A person's humanity is determined primarily by his spiritual and moral integrity, purity, and behavior. A morally perfect person cares about the well-being of his parents, children, relatives, neighborhood, fellow villagers and the whole country.

Preschool childhood is the most important period in the moral development of a person. One of the directions in the child's moral development is the education of behavioral culture[3]. Many scientists dealing with the problem of formation of behavioral culture do not pay enough attention to this issue. The roots of the culture of the Uzbek people go back to the distant past. Our people have been striving for goodness and doing creative work throughout their lives. Pre-school educational institutions have their own ways of education and upbringing, which are carried out in order to raise children as well-rounded and well-rounded individuals.

Effective ways of forming moral culture include children's activities, family members, educators' activities, relationships between educators and children, relationships between children and their peers, and the content of their activities [4].

Behavioral culture is formed in children of preschool age mainly in the process of activities, games, walks, observations.

During the traditions, which are our national values, children's thoughts, views, feelings, desire, will, thinking, worldview, and moral culture develop.

Behavioral culture of children of preschool age, their conscious activity, level of knowledge, faith - is formed at the level of their attitude to historical experiences, traditions, customs and traditions, and the acquired theoretical knowledge, practical skills and competences are used in life, in their own life. it is manifested in the fulfillment of duties and tasks in front of the public, kindergarten, family, friends.

The study of traditions, customs and traditions, which are our national values, is carried out in an interesting way in the family, kindergarten, community and neighborhoods. With the help of our national values that interest children, slide films, color picture books, cultural recreation centers for children, institutions (cinema theater, folklore troupes, folk theaters, art palaces, cultural centers, etc.) provides an opportunity to satisfy their interests.

It is necessary to follow the pedagogical conditions in the formation of the family and household behavior culture in preschool children, the cultural environment created, and the types of activities performed. These are:

- mutual sincere communication, mutual respect in studying national values;
- creating a healthy psychological environment in the creation of a cultural environment, putting an end to stress, coercion, full adherence to the plan, that is, paying attention to the diversity and richness of the activity.

Organization of events according to the needs and interests of children as follows:

- being able to set the right goal in the process of activity;
- cultural environment, directing activities to the formation of cultural, moral and spiritual values in children;
- is to ensure the balance between the content, form, style, method and means of activity.

Another characteristic of children's spiritual world is that they consider adults as authoritative people, role models, take advice, imitate and make sure that they get any help when necessary [5].

For example: let's take the rules of hospitality, which is one of our national values. Every house has a guest. When a guest came to the house, they poured water on their hands and washed them, and before leaving, they poured water on their hands and watched them. After washing his hands, the guests prayed "Thank you, be blessed, and receive your blessing." Such expressions are still preserved and passed down from generation to generation, they have been absorbed into their minds. Or, when a guest comes, he straightens his shoes and puts them in order, and when he leaves, he says "Welcome, come again!" such expressions educate children.

For example, the reputation of older children and their interactions with people have a strong influence on the formation of children's behavior and character. When they are asked the reason, you can hear answers such as "My friend does this, my kindergarten teacher does this, or my mother does this at home, my father does this, my grandmother says this." Children are influenced not only by the behavior of parents and kindergarten community, but also by their civility, speech, and question-and-answer.

Effective ways to increase family and cultural-domestic behavior culture do not depend on the time spent by parents on children or the time spent by the educator on it, but on their education, family lifestyle, public reputation and personal examples. Interactions between parents, kindergarten teachers and other employees, even older brothers and sisters in the family show their uniqueness in the initial formation of the culture of behavior. Traditions, traditions, and customs help as an important tool in the formation of moral culture in children. When determining the level of educational influence of such traditions, traditions and customs that set an example for children, we paid attention to the following:

- to know the child's surname, name, father's name, year of birth, number of family members, how many children there are, what traditions are often observed in the family;
- the name of family activities, what family members do in their free time, their professions, economic education;
- who pays more attention to children in the family, who is the story teller? Mutual respect of family members, dressing, participation of children in solving family problems, etc.

It is inappropriate to say that some negative upbringing methods in families will disappear by themselves as generations pass in the family.

A child should trust the words and actions of adults, that is, regardless of their promises, heartfelt actions or threats. Such effective ways play a key role in making children treat others with respect and become civilized. As a result, positive qualities are formed in behavior, self-control, and cultural behavior through national values. In our opinion, these qualities are strengthened in families who are friends with their children, who pay attention to them, sympathize with their sorrows, share their joys, and are patient parents.

If the formation of moral culture is carried out in the following directions, its effectiveness will increase further:

- if the kindergarten can consistently direct all its educational activities to the educational process in the family;
- the team of educators is able to correctly organize the requirements for the education of moral culture based on national values in mutual cooperation with the family;
- neighborhood, kindergarten, family, public education department can direct the public to one goal in the process of education;
- cooperation between kindergarten teachers and children is established in the use of family traditions, traditions and customs.

Kindergarten workers, neighborhood committees, and educational opportunities of public education departments are becoming increasingly important in positively solving these issues. Therefore, it is our sacred duty to raise special educational knowledge to a higher level than ever before, based on the quality of the general educational content in our country, or rather, on the basis of updating it.

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Rezyume: *Ushbu maqolada maktabgacha yoshdagi bolalarda xulq-atvor madaniyatini tarbiyalashda o'zbek xalqi madaniyati tutgan o'rni yoritib berilgan. Shuningdek, umumiy ta'lim-tarbiya mazmunini sifat jihatdan tubdan isloh qilish, aniqrog'i, yangilash asosida bolalarni har tomonlama kamol toptirish uchun alohida tarbiyaviy bilim berish to'g'risida batafsil yoritilgan.*

Резюме: *В данной статье освещается роль культуры узбекского народа в воспитании культуры поведения дошкольников. Также, подробно рассказывается о предоставлении специальных образовательных знаний для всестороннего развития детей на основе качественного радикального преобразования, а точнее, обновления общеобразовательного содержания.*

Kalit so'zlar: *Maktabgacha yosh, bolalar, milliy qadriyatlar, xulq madaniyati, vosita.*

Ключевые слова: *Дошкольный возраст, дети, национальные ценности, нравственная культура, средства.*

UDC 8. 81-13

FEATURES OF TRANSLATION OF ENGLISH PHRASEOLOGICAL EXPRESSIONS AND PHRASES INTO RUSSIAN

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Summary: *In this article the research is discussed as descriptive comparative and structural analyses of phraseological expressions of English and Russian languages.*

Keywords: *English language learning, advanced level, phraseology, translation, lexical competence, acquisition of conversational abilities.*

INTRODUCTION

The phraseological composition of a language is the most colorful, expressive and expressional part of its vocabulary. The phraseology reflects the rich historical experience of the people, the originality of their way of life and culture, their customs and traditions. Phraseological phrases are often used in fiction, which gives the text a bright stylistic coloring, imagery and emotionality. Since the meaning of a phraseological unit is usually veiled and cannot be derived from the meanings of its constituent lexemes, their translation into another language causes difficulties.

To determine the meaning of phraseological phrases, it is important to consider their semantic classification. Academician V.V. Vinogradov was one of the first to propose the classification of phraseological units based on the material of the Russian language. He identified three types of phraseological units: phraseological combinations, phraseological unities and phraseological fusions [3].

This classification is based on the degree of difficulty in deducing the meaning of the entire phraseology from the meanings of its constituent components. In phraseological combinations, the meaning of an idiom can be easily deduced from the meanings of its constituent lexemes; in phraseological unities, this is complicated by semantic diversity, and in phraseological combinations it is practically not deducible at all. In cases where it is difficult to determine the meaning of phraseology, it is necessary to refer to phraseological and etymological dictionaries, where the etymology of idioms, allusions, outdated meanings of lexemes that make up phraseological combinations and the images underlying them are given.

The semantic classification of V.V. Vinogradov can also be used in relation to English phraseology [1; 5].

To illustrate the different types of phraseological units, here are some examples.

Phraseological combinations, or collocations: to fall into bad hands 'попасть в плохие руки'; to bind somebody hand and foot 'связать кого-либо по рукам и ногам'; to poke one's nose into something 'совать свой нос во что-либо'; an unbelieving Thomas 'Фома неверующий'; to take somebody under one's wing 'взять кого-либо под свое крыло'. As can be seen from the examples given, combinations of this type are not only well understood, but, as a rule, have exact Russian equivalents. Thus, their mastering by students is not difficult.

Phraseological unities: to put the cart before the horse (букв. 'поставить телегу перед лошастью') 'поставить все с ног на голову', to bark up the wrong tree (букв. 'лаять не на то дерево') 'напасть на ложный след, ошибиться'; to stick one's neck out (букв. 'высовывать голову') 'ставить себя под удар'; to catch somebody napping (букв. 'застать кого-то дремлющим') 'застигнуть кого-либо врасплох'; to lead somebody up the garden path (букв. 'вести кого-то по дорожке сада') 'увлекать, завлекать кого-либо, вводить в заблуждение'. The

meaning of phraseological units of this type is to some extent related to the meaning of its constituent words, but is not directly derived, so their translation into Russian requires some skill and in most cases it is impossible to choose the appropriate Russian phraseology.

Phraseological combinations, or idioms: to eat dirt (букв.есть грязь) терпеть оскорбление или унижение; to be in a brown study (букв. находиться в коричневом кабинете) быть погруженным в мрачные мысли'; to pay through the nose (букв. «платить через нос») «платить бешеные деньги»; to have bats in the belfry (букв. «иметь летучих мышей на колокольне») «быть не в своем уме»; to jump down somebody's throat (букв.«прыгнуть кому-то в глотку») «перебивать кого-либо, возражать кому-либо.

The nomenclature of idioms of modern English is wide and diverse. Over the millennial history of its development, the language has accumulated a large number of expressions that people have found successful, accurate and beautiful. However, some idioms are borrowed by the language from fiction.

Idioms are characterized by the following features: they have a given word order once and for all; they are used only in a figurative meaning; they cannot be directly translated into another language (although in some cases there may be a corresponding phraseological combination to convey the meaning of an idiom in a translated language).

Since idioms form a national-specific part of the linguistic picture of the world, by studying them, students penetrate into a new national culture for them, which reflects the centuries-old history of the people, join the spiritual wealth that has accumulated over the years and has been preserved in the language.

There is no doubt that, forming lexical competence, it is necessary to enrich the individual vocabulary and stable phrases of the studied language. Of course, it is possible to have a conversation without using them, but those who have only a superficial idea of idioms find themselves in a difficult position when listening to authentic English speech. Conversely, the use of idioms indicates a high knowledge of the language, since they make speech more natural.

Anyway, offering idioms as a material for study, the teacher faces a difficult methodological task: to explain to the student the meaning of this idiom.

As our experience of working with students in the classroom shows, in some cases they do not experience any special difficulties (compare: to praise to the skies («восхвалять до небес»), to put somebody in a bad light (представить кого-л. в плохом свете»), wouldn't hurt a fly ('и мухи не обидит), to give somebody his due (отдавать должное кому-либо), to have a head on one's shoulders («иметь голову на плечах»). In these phraseological units, the words are used in their literal, subject-logical meanings.

In other cases, even if there is a metaphorical or metonymic reinterpretation of phraseological unity, the learners are able to guess the meaning of the idiom. Comp.: bread and circuses – хлеба изрелищ; not to breathe a word – держать что-л. в секрете (keep something secret);

to open a can of worms – открыть ящик Пандоры (Open your panders);

to be on pins and needles - сидеть, как на иголках; (like sit on needles);

to bring home the bacon – добиться успеха (achieve success);

to ruffle smb's feathers - раздражать или огорчать кого-л. (to annoy or upset someone);

to be all thumbs – быть неловким, неуклюжим (to be awkward, clumsy).

And yet, in the overwhelming majority of cases, it is possible to understand the true meaning of phraseological merges and translate them into Russian only with the help of phraseological and etymological dictionaries, where the etymology of idioms, allusions, outdated meanings of lexemes that make up phraseological combinations and the images underlying them are given [6.123].

The complexity of the semantics of English idioms is due to a number of factors:

- rethinking the meaning of the components of stable combinations. For example, the combination *run the gauntlet*, which originally meant passing punishment through the ranks, was metaphorically reinterpreted over time and began to mean being sharply criticized, fiercely attacked, becoming the subject of someone's ridicule.

- ignorance of the etymology of phraseological combinations.

Let's illustrate this conclusion with the following examples.

The idiom *to get on the high horse* (Agatha Christie, "Taken at the Flood"), meaning "важничать, держаться высокомерно (to put on airs, to behave arrogantly)", originated in the language due to the fact that the feudal lords, who usually fought on horseback, disdained infantry consisting of mercenaries or commoners.

Compare.: *to be in a cleft stick* - находиться в безвыходном, отчаянном положении, в тупике (to be in a hopeless, desperate situation, in a dead end), *to be in fine fettle* - быть в хорошем состоянии (to be in good condition), *at somebody's beck and call* готовый немедленно исполнить чьи-либо приказания (ready to immediately execute someone's orders), *to hum and haw* мямлить, запинаться; колебаться (to mumble, stumble; hesitate). The lexemes *cleft*, *fettle*, *beck*, *haw* are obsolete and are not used outside of the above phraseological combinations.

Considering the nature of the idiom as a lexical unit, its development is possible only through memorization. Of course, a creative teacher will try in one way or another to "revive" acquaintance with a new idiom and thereby increase the chances of remembering it. This can be done in various ways - both traditional [9.23] and with the use of modern technologies (using, for example, the capabilities of an interactive whiteboard and videos with professional actors [14.45]).

In this paper, it will be shown that with the proper choice of language material, instead of unattractive mechanical memorization, students can be offered a lively discussion of the idioms introduced in the classroom. The purpose of the proposed methodological approach is not so much to enrich the individual vocabulary by assimilating (memorizing) idioms, as to use them as educational material that allows students to improve their foreign language communicative competence, thanks to which students develop language guesswork and language thinking, are involved in the process of communicating with each other, etc. Such an approach has recently become increasingly widespread [4. 24] and was previously tested by us on the material of English proverbs [2. 34].

The material for this study was obtained as a result of a continuous sample of phraseological units from twenty works of fiction by English, American and Australian writers. At the same time, the methods of phraseological analysis, phraseological identification and phraseological description were applied [8. 10].

The specific weight of expressive evaluative components was very high in the selected phraseological units. The meanings of idioms in the vast majority of cases did not correspond to the literal meanings of their constituent lexemes or even contradicted them. Moreover, in some cases, when translating idioms into Russian, false semanticization is often suggested. Comp.: *to make one's bed and lie in it* - расплачиваться за свои поступки, пожинать то, что посеял (to pay for your actions, reap what you sowed); *to send smb away with a flea in his ear* - 'сделать резкое замечание кому-л., дать резкий отпор кому-либо. ('to make a sharp remark to someone, to give a sharp rebuff to someone).

To split hairs - вдаваться в чрезмерные тонкости, быть чрезмерно педантичным (to go into excessive subtleties, to be overly pedantic);

to get cold feet - струсить, смалодушничать (to get cold feet, to be cowardly);

• *from the horse's mouth* - из надежного источника (from a reliable source);

• *to cook one's goose* - погубить себя, вырыть самому себе яму (ruin yourself, dig yourself a hole).

So, the procedure we propose looks like this. Students are presented with a new phraseological unit. For example: birds of a feather. Then a literal translation is given (in case the phraseology contains words unfamiliar to students). This is followed by the central stage of the work: students alternately offer their versions of what this phraseology can mean. During the discussion, inaccurate or even incorrect interpretations will certainly be given, which will allow the teacher and other participants in communication to identify semantic subtleties and nuances that will help students form the competence of linguistic analysis. For this example, it is appropriate to quote from R. Kipling's "Mowgli": "We are of the same blood" or a similar expression "We are of the same pack". At the end of the discussion, an option prepared in advance by the teacher is given (for example: people closely related to each other; having a lot in common, etc.). At the final stage, students are asked to recall a Russian phraseology with the same meaning (in this case, you can offer options: одним лыком шиты или два сапога пара (one bast sewn or two pair of boots)).

CONCLUSION

In conclusion, we say that in order to determine the meaning of phraseological phrases, it is important to consider their semantic classification. It is shown that with the proper choice of language material, instead of unattractive mechanical memorization, we can offer students a lively discussion of the idioms introduced in the classroom. The purpose of the proposed methodological approach is not so much to enrich the individual vocabulary by assimilating (memorizing) idioms, as to use them as educational material that allows students to improve their foreign language communicative competence, thanks to which students develop language guesswork and language thinking, are involved in the process of communicating with each other, etc. Such an approach has recently become increasingly widespread and was previously tested by us on the material of English proverbs.

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Rezyume: Ushbu maqola tadqiqotni ingliz va rus tillaridagi frazeologik iboralarning tavsifiy qiyosiy va strukturaviy tahlili sifatida ko'rib chiqadi.

Резюме: В данной статье рассмотрены исследования как описательный сопоставительный и структурный анализы фразеологических выражений английского и русского языков.

Kalit so'zlar: ingliz tilini o'rganish, yuqori daraja, frazeologizm, tarjima, leksik kompetentsiya, so'zlashuv qobiliyatini egallash.

Ключевые слова: изучение английского языка, продвинутый уровень, фразеологизм, перевод, лексическая компетенция, приобретение разговорных способностей.

"BOBURNOMA" DESCRIBES THE SPIRIT OF THE EVENTS IN WORDS

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Summary: *In this article, the great poet and statesman Zahiriddin. The circumstances that happened in the life of Muhammad Babur and in this situation that the mood is conveyed to people in a very deep way by words expressed with examples.*

Keywords: *Zahiriddin Muhammed Babur, "Baburnoma", suffering, Rubai, mental state, inner experiences.*

Zahiriddin Muhammed Babur's "Baburnoma" was written by him is considered as a chronicle of days and its rubai "Boburnoma" with equal, fills it with content. Narrative of events in "Boburnoma" clear, concise and concise, impressive, most importantly, true to life and compliance is important. Nature in the author's story to the image, to the description of some places, to the descriptions of individual people gives serious importance to the mood and situations of the characters in the work expressed in his Rubai is or through different words. For example (1500-1501) - a good compliment of a ruler to Babur it is said that he did not show and the writer mentions the following verses: Who sees, O heart, good people of the world?

He who is not good from you, do not look at good from him. In the account of the events of 907 (1501-1502), King went to Tashkent it is remembered that he recited a Rubai under his eyes:

Don't forget the person who is in labor.

A person who does not rejoice is a person whose heart is in a foreign state.

My heart was never happy in this strangeness,

A person who does not rejoice in a foreign country is certainly a person.

His life and literary lyrics are finally political life in Movarounnahr. The complexity and crisis of the Timuri state is one that continues was appropriate to the period. Such complexities are reflected in "Boburnoma" as we have seen, how it is reflected in the poet's psyche is reflected in his poems appears. The result of their attempts to unify Movarounnahr. After not giving, Babur was mentally challenged, influenced by the treachery of the officials his mood in times of despair was reflected in his poems. Later in Babur's poetry when he left his country and went to Afghanistan and India. The feeling of homeland, longing for the homeland, the hope of returning to it began to rise.

It's not enough, my soul has become a child,

Everything I did was a mistake.

I left my husband and went to India.

What will do, what happened.

According to "Boburnoma", he traveled to Fargona and Samarkand. During the suffering, regrets, but betrayal BaburIt was against his nature and he writes about it like this. He writes in "Boburnoma": "One morning, Marginondin Jahangir left Mirza Tanbal and ran away. I was in the bathroom - I saw who, Mirza, came. This time Sheikh Bayazid¹⁶ also came with pain and suffering.

Mirza and Ibrahimbek said, Sheikh Bayazid should be arrested, the arch should be closed. Filvoqi' work the account was this. I said, make a deal. We will make a covenant." In the personality of Bobur, who turns his back on betrayal under any circumstances Babur's positive qualities such as steadfastness, determination and tension will appear more prominent in the next steps. The bitterness he experienced.

Experiences seem to burn his brilliant personality from every point of view he would find and turn it into pure gold. Indeed, his romantic nature there was a struggle between righteousness .He wrote "Baburnoma" in his work Condemn the actions of "friends" who betrayed you and your

true faith states this case to show its force; "...When you say that, come on. It was a strange situation. There is nothing worse in the world than fear of death suck ... I realized in myself impatiently. I went to the corner of the garden.

I thought on my own. I said, if a person lives a hundred, if he lives a thousand, that's the end I have to die. I decided to die. There was a stream flowing in that garden. I performed ablution, prayed two rakats, bowed my head and prayed I was wishing, my eyes went to sleep..." (174-175).

In this, Babur was not killed by himself, but by the enemy Confessing to his death, convinced that he will be killed, or his pre-death illness and in some cases pain when the violence brought bitter tears to his eyes and unbearable pain to his body "On Sunday, Muharram on the sixteenth of the month, I felt hot, shivered, and it was my turn. Twenty five took twenty-six days. I drank the medicine.

The end is simple, insomnia and I was very worried about thirst." However, Babur is his firstborn his son Khumayun expressed his opinion to the ambassadors of Mirza, "Glory be to God I hope that the region of Hindustan will be captured soon. Please and we leave our good fortunes in the Hindustan region, and we ourselves are Mauritians

we will go to our region. And it is important that our people are in this campaign, to Khumayun "Let them be companions and show sincerity." Not only in this part Babur's inner experiences, state of mind, loneliness and resilience the fact that he is in a distressed mood, these situations are for the Motherland depicted with a dream of return.

Babur organized in the spring in "Boburnoma" and came out social mood associated with sightseeing and romantic feelings I celebrate the spring and Navroz holiday in the review of images combined with he also created verses and special ghazal. Babur Nowruz holiday found in the work's account of the events of 1503-1504. Babur in this image he emphasizes that Eid and Nowruz come consecutively. So, this is a new 7-byte greeting inspired by this auspicious and characteristic situation in forms about the creation of a ghazal and two verses of a ghazal of welcome he writes in "Boburnoma"

"It was Eid al-Fitr... Gomal performed the Eid prayer passed on the edge of the river. Nowruz ul Eid was approaching. The difference is one or two. It was a day, and I recited this ghazal with ul qarib:

May the new moon be seen together and happy holidays,
May you have sorrows in the month of Eid.

Yuzi Navro'zi vasli Iydini, Babur, take the booty, because tomorrow will not be good, but there will be a hundred Navro'zu holidays.

Babur wrote a 7-verse greeting under the influence of these auspicious events not the ghazal in full 7 stanza form, but the beautiful matla and praise of the ghazal gives and what a mood that his greeting is also given in this ghazal starting with and knowing what mood it ends with, time passed, the full text of the ghazal was included in "Devon" and has reached us.

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Rezyume: Ushbu maqolada buyuk shoir va davlat arbobi Zahiriddin. Muhammad Bobur hayotida sodir bo'lgan holatlar va bu holatdagi kayfiyat misollar bilan ifodalangan so'zlar bilan insonga juda chuqur yetkaziladi.

Резюме: В этой статье великий поэт и государственный деятель Захириддин. Обстоятельства, которые произошли в жизни Мухаммада Бабура и в этой ситуации, что настроение передается людям очень глубоко словами, выраженными с примерами.

Kalit so'zlar: Zahiriddin Muhammad Bobur, "Boburnoma", iztirob, Ruboiy, ruhiy holat, botiniy kechinmalar.

Ключевые слова: Захириддин Мухаммед Бабур, «Бабурнома», страдающий, Рубаи, психическое состояние, внутренние переживания.

**METHODOLOGY OF DEVELOPING MATERIAL FOR DIFFERENT AGE GROUPS
IN TEACHING ENGLISH LANGUAGE**

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Summary: *Teaching English to Young Learners (EYL) is different from teaching English to adults. It also requires different materials. The competence of teachers also plays an important role in determining whether teaching materials are good for students or not. In addition, YL characteristics, age, cultural context, schools, programs, and lower cognitive development are also important in selecting materials suitable for EYL teaching. This article aims to further discuss how and what learning materials; mostly textbooks, are suitable for learning English for young learners.*

Keywords: *methodical categories, approach, method, technique, technology as a procedure, instruction, principle, communicative language teaching and learning, co teaching and co-learning, lingua-cultural teaching and learning.*

1. Distinction between the main categories of methodology

In determination of methods, the distinction between «philosophy of language teaching at the level of theory and principles and a set of derived procedures for teaching a language, is central». Although these categories of methodology are mixed. E. Antony identified three levels of conceptualization and organization, which he named approach, method and technique. According to his model: approach is the level at which assumptions and beliefs about language and language learning are specified; method is the level at which theory is put into practice and at which choices are made about particular skills to be taught, the content to be taught, and the order in which the content will be presented; technique is a level at which classroom procedures are described. The teacher is the main pillar in the educational and rehabilitation process for children with disabilities. His interaction with this group increases the burden on him in the educational process, and he undertakes big tasks that require great effort and time to reach tangible results (Khasawneh, 2021). The teacher of students with LDs deals with students with different characteristics from each other, and he must know those characteristics and work on preparing educational plans and programs that each student needs according to their level of performance. This work increases the burden in terms of effort and time on the teacher to reach an effective result with students. Therefore, the teacher must fulfill educational roles to help him reach the desired goals.

Approach is considered to be the, theory about the feature of language and language learning that stands as the source of practices and principles in language teaching. J.C. Richards and Th.S. Rodgers present linguistic and psycholinguistic aspects of approach, as follows: a) theory of language which has three different theoretical views of language and nature of language proficiency: the structural, functional and interactional view; b) theory of language learning which associates with a method at the level of approach emphasizing either one or both of these dimensions: process oriented and condition oriented theories. The second level at which approaches and methods are treated is a design and it is a dimension specially developed for an instructional system which leads an approach to a method. At this level of method analysis objectives, language content, learning tasks and teaching activities, role of students, role of teachers and role of instructional materials are designated. And the third level of approach and methods analysis as procedure is concerned with how the tasks and activities are integrated into lessons and used as a basis for teaching and learning.

Thus, methods are held to be fixed in teaching systems with prescribed techniques and practices, whereas approaches represent language teaching philosophies that can be interpreted and

applied in a variety of different ways in the classroom. Method can be distinguished according to the teaching and learning context and it is used in wide context (Communicative language teaching) and narrow context (project work, problem-solving, brainstorming). Approach and method are based on the principles as initial theoretical points. Procedure itself includes task, techniques and activities. Tasks and activities can be considered as exercises. Technique is a way for a teacher to organize a learner's activity. Through techniques we develop in learners productive, receptive and interactive skills that are necessary for effective communication.

Technology is meant as a procedure of teaching and learning FL in the classrooms. By technology of teaching we understand the complex or system including algorithm of operations and actions and ways of acquiring the content of FLT for achievement the result of FLT/ FLL as a certain level of communicative competence.

Pedagogical technology is the systematic method of creation, application and determination of the FLT process and acquiring the knowledge with the help of technical and human resources and their interaction for the goals of optimizing the forms of education. Technology can be manifested also at the level of operations and actions in the teaching and learning process.

In methodology the following technologies are distinguished:

- illustrative;
- dialogic;
- playing;
- problem-solving;
- project;
- case study;
- Information-communication.

But we can meet and other classifications in methodology of FLT.

2. Lingua-cultural teaching and learning

For the effective intercultural communication learners should know both the language and culture. Lack of knowledge of cultural specifics has a negative impact on understanding between the representatives of different cultures. That's why, in ELT the co-teaching and co learning the language and culture is implemented.

Co-teaching/co-learning language and culture focus on values and beliefs, on one hand, and attitudes and behaviors, on the other. In fact a social or cultural blunder can be far more serious than a linguistic error when one is engaged in oral communication. Even when good cultural descriptions are available, it is hard to get learners to change their native verbal behavior based on a new set of assumptions.

There are social contextual factors, stylistic appropriateness and cultural factors which influence the norms and conventions of intercultural communication: 1) social contextual factors: the participants' age, gender, status, social distance and their relations to each other (e.g. Distance of power and affect); 2) stylistic appropriateness: politeness strategies, a sense of genres and registers; 3) cultural factors: background knowledge of the target language group, major dialects/regional differences, and cross cultural awareness.

Nowadays, the most accepted instructional framework in the co-teaching and learning programs is communicative approach, whose main goal is to increase learners' communicative competence. This theoretical term means being able to use the linguistic system effectively and appropriately in the target language and culture. However, it is also demands integrating culture-oriented instruction. One of the variants of culture-oriented approaches is lingua-cultural teaching and learning.

A language is a means of communication and a form of culture. That's why lingua-cultural approach matches many of the goals of Communicative Language Teaching by seeking: 1) an

integration of linguistic and cultural learning to facilitate communication and interaction; 2) the potential co-teaching/co-learning language and culture to prepare learners to communicate with the representatives of the native speakers and non-native speakers in English in an appropriate way. English has become an international language or a lingua franca (language-mediator), that's why the bounds of usage the EL have been extended.

From the position of linguists the lingua-cultural approach is directed to study the current condition and functioning of a language and culture in the close interrelation in the different types of discourse. This approach to FLT gives an opportunity to interpret the language meaning as a result of cultural experience or as units of cultural memory of people.

Lingua-cultural teaching and learning is based on the formula «from language facts to culture facts; from culture facts to language facts» and directed at developing the «second language personality» and the certain communicative skills which are necessary for undertaking the intercultural interaction. This approach presupposes to study the national-cultural features and differences between the target and native languages and aims for developing an intercultural/cross-cultural competence where the thesaurus of lexicon and thesaurus of conceptual world picture of the native speakers are to develop. So, teaching EL integrates itself teaching culture as a set of beliefs, values and norms shared by community members, serving their self-identity with this social group. This competence related to cultural awareness and influenced the productivity of intercultural communication. The result of developing the «second language personality» is a set of knowledge, abilities and skills for productive undertaking of intercultural communication.

Under the lingua-cultural approach the culture becomes the means of cognitive activity and language itself is a means of receiving new information about world picture of the English language speakers. Lingua-cultural teaching and learning is implemented through content-based and context-based language instruction. Content based teaching of culture focuses on culture-related information, while context-based instruction emphasizes real-world situations where people need to behave in culturally appropriate way. Content-based teaching is knowledge-oriented and context-based instruction is skill-oriented.

The lingua-cultural aspect runs through all components of communicative competence, which includes: 1) cultural knowledge and its representations in language units' meaning and texts; 2) skills for comprehension of linguo-cultural information within the language units and texts; 3) skills to produce texts taking into consideration the lingua-cultural features.

Within integrating communicative and lingua-cultural teaching and learning (taking the lingua-cultural component as a point of departure) a variety of activities in the four language skills are presented for teaching intercultural communication.

No doubt, that an extended living experience among members of the target language group is probably the best experience for language acquisition if the learner has adequate basic preparation in both linguistic and socio-cultural competence coupled with good power of observation. In this case the native speaker may become us a model that is implicit in both the linguistic and sociolinguistic competences.

By the way, other modern tools like Skype, Zoom Cloud Meetings, Ted Talks enables every language learner best videoconferencing atmosphere to develop their fluency in the language. I also utilized the program Skype which was actually helpful to keep in touch with friends worldwide.

3. Methods of FL teaching

There are many methods of teaching languages. Some have had their heyday and have fallen into relative obscurity; others are widely used now; still others have a small following, but contribute insights that may be absorbed into the generally accepted mix.

The grammar translation method instructs students in grammar, and provides vocabulary with direct translations to memorize. Most instructors now acknowledge that this

method is ineffective by itself. It is now most commonly used in the traditional instruction of the classical languages.

Communicative language teaching (CLT) is an approach to the teaching of languages that emphasizes interaction as both the means and the ultimate goal of learning a language. It continues to be popular, particularly in Europe, where constructivist views on language learning and education in general dominate academic discourse.

The direct method, sometimes also called natural method, is a method that refrains from using the learners' native language and just uses the target language. The direct method operates on the idea that second language learning must be an imitation of first language learning, as this is the natural way humans learn any language - a child never relies on another language to learn its first language, and thus the mother tongue is not necessary to learn a foreign language.

The audio-lingual method has students listen to or view recordings of language models acting in situations. Students practice with a variety of drills, and the instructor emphasizes the use of the target language at all times.

Blended learning combines face-to-face teaching with distance education, frequently electronic, either computer-based or web-based. It has been a major growth point in the ELT (English Language Teaching) industry over the last ten years.

Online teaching can also include tutoring on the Internet, there are those individuals who have actually started personal web sites for the specific use of online teaching or tutoring to help people learn about a subject or those who need help on their homework, obviously this is mostly for school age children and high school students but it is a form of online teaching as well. Imperatives are the main structures to transfer or communicate information. The student is not forced to speak, but is allowed an individual readiness period and allowed to spontaneously begin to speak when the student feels comfortable and confident in understanding and producing the utterances. There are five functional categories in language learning: personal, interpersonal, directive, referential, and imaginative.

In methodology of FLT the different approaches are used to distinguish methods. They can be classified according to different criteria.

1. According to the sources of information (sources transmission and acquiring the knowledge): 1) verbal methods - lecture, conversation, explanation; 2) method of working with a book - working on textbook, reading additional literature, preparation of messages, abstracts; 3) method of observation, experiment; 4) methods of exercises and practice – practical experience of learners.

2. According to the quality parameters, as particular features of cognitive process, they are: 1) explanative-illustrative method; 2) reproductive method; 3) problem recount method; 4) partly searching method; 5) research.

3. In agreement with specifics of FLT and its action-oriented character there are methods of teaching: 1) demonstration (presentation); 2) explanation; 3) practice (training); 4) feedback and self-control.

4. The methods of interaction between a teacher and learners oriented to the FLT in the aspect of organization are: 1) familiarization of the teaching material on the basis of visual-sensory perception; 2) independent comprehension of teaching material and operations with it; 3) practice for production of speech; 4) practice for reception of speech; 5) motivational production of oral and written speech; 6) motivational reception of oral and written speech; 7) control, correction and evaluation of speech acts in a productive aspect; 8) control, correction, evaluation of speech acts in a receptive aspect. These methods put together a hierarchical system; they are in collateral subordination; a learner moves from step of familiarization to comprehension, then to training and to using, i.e. to communication. As well as in teaching process it is

necessary to undertake an assessment for effective gaining accuracy and fluency by learners. For this aims various ways (methods) are used.

Advices for effective teaching

If you want to influence learners for good, you should not only love to teach; you should love each person you teach. As you show your love for those you teach, they become more open to learning from you and more aware of their eternal worth. Seek to understand those you teach. As you do, you will be better able to teach lessons that meet individual needs. Search for ways to help new members and those who have been less active feel welcome in your class. Invite them to come, and introduce them to other class members. Invite them to participate by asking them questions you know they can answer and otherwise helping them feel comfortable in class.

Do all you can to know class members' interests and needs.

Learn class members' names and call them by name.

Listen attentively to class members and express sincere appreciation for their participation.

No teacher should fall into a monotonous pattern of presenting the same kind of lesson week after week. When you teach with variety, learners tend to understand principles better and retain more. As you strive to choose effective teaching methods, ask yourself: Will the method invite the Spirit? Will the method help learners better understand the gospel principle? Will the method invite students to participate in the lesson? Will the method make the best use of time?

It is important to begin your lesson in a way that prepares others to learn. You can do such things as present an object lesson, write questions on the board, or have someone read a story or scripture.

It is also important to conclude your lesson in a way that invites learners to live what they have learned. You can review the main principles taught and ask learners how to apply them, ask an individual to summarize the main points of the lesson, and bear testimony of the principles.

As a gospel teacher, you should do all you can to create an atmosphere that contributes to learning. Preparing a comfortable and inviting classroom is important to encouraging learning. Helping class members respect you and each other will also contribute to a learning atmosphere.

One of the most important things you can do is to promote reverence. Begin by being a good example of reverent behavior. Set limits that define what behavior is acceptable and unacceptable in your class. If you teach children, take time to explain clearly what reverent behavior is. Using music in the lessons you teach will help learners feel reverent.

Try to help the person participate in positive ways, and if necessary speak privately with the person. As you seek to resolve the problem, do all you can to show the person you care about him or her.

- Make sure the classroom is neat and organized.
- Encourage learners to respect you and each other by inviting them to listen to others, speak in turn, and respond positively to others' comments.
- To encourage reverence, prepare your lessons carefully so that there is little confusion and you can vary your lesson as necessary to restore a reverent atmosphere.
- When learners are disruptive, move closer to them or invite them to participate in the lesson

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Rezyume: *Yosh o'quvchilarga ingliz tilini o'rgatish (EYL) ingliz tilini kattalarga o'rgatishdan farq qiladi. Bundan tashqari, turli xil materiallar talab qilinadi. O'quv materiallarining o'quvchilar uchun foydali yoki mos emasligini aniqlashda o'qituvchilarning malakasi ham muhim rol o'ynaydi. Bundan tashqari, YL xususiyatlari, yoshi, madaniy kontekst, maktablar, dasturlar va pastki kognitiv rivojlanish EYL o'qitish uchun mos materiallarni tanlashda ham muhimdir. Ushbu maqola qanday va qanday o'quv materiallarini muhokama qilishni maqsad qiladi; asosan darsliklar, yosh o'quvchilar uchun ingliz tilini o'rganish uchun mos.*

Резюме: *Преподавание английского языка юным ученикам (EYL) отличается от преподавания английского языка взрослым. Это также требует различных материалов. Компетентность преподавателей также играет важную роль в определении того, хороши ли учебные материалы для студентов или нет. Кроме того, характеристики YL, возраст, культурный контекст, школы, программы и более низкое когнитивное развитие также важны при выборе материалов, подходящих для преподавания EYL. Эта статья направлена на дальнейшее обсуждение того, как и какие учебные материалы; в основном учебники, подходят для изучения английского языка младшим школьникам.*

Kalit so'zlar: *metodik kategoriyalar, yondashuv, usul, texnika, texnologiya tartib sifatida, ko'rsatma, tamoyil, kommunikativ tilni o'rgatish va o'rganish, birgalikda o'qitish va birgalikda o'qitish, lingva-madaniy o'qitish va o'rganish.*

Ключевые слова: *методические категории, подход, метод, прием, технология как процедура, инструкция, принцип, коммуникативное преподавание и обучение языку, со обучение и со обучение, лингво культурологическое обучение и обучение.*

THE STUDY OF THE CONCEPTS OF EMOTION IN LINGUISTICS

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Summary: *The article discusses the problem of the study of the concept of emotion in linguistics. The purpose of this article is about the situations related to human emotions have been attracting the attention of scientists like Lyons, Lakoff G., Kövecses Z., etc for a very long time, almost all philosophers have studied the important position of emotion in the human mind and thought also tried to express some opinion about it. Representatives of the fields of psychology, biology, sociology, cognitology, and, finally, linguistics are also looking for opportunities to deeply study the phenomenon of emotion.*

Keywords: *Concept, aspect, emotion, psychological, hyperactivation, hypoactivation, culture, anger.*

INTRODUCTION

Situations related to human emotions have attracted the attention of scientists since ancient times. Almost all philosophers have studied the important place of emotion in the human mind and thinking, and have tried to give some idea about it [15.295]. Also, representatives of the fields of psychology, biology, sociology, cognitive science, and, finally, linguistics are also looking for opportunities to deeply study the phenomenon of emotion [3.4], [25.204], [9.752].

One of the most important topics in the field of emotion phenomenon studies refers to the conceptualization of emotions [21.491]. But not based on the biological and social characteristics of research in this direction, but limited to the general imagination and analysis of concepts. In subsequent years, the psychological anthropological [27.414] and linguistic [1.147; 29.359] studies of this phenomenon covered the linguistic-cultural features of various emotional concepts.

The results of the studies carried out on the study of emotions testify to the fact that the analysis of this phenomenon was mainly focused on four characteristics:

- 1) What is the content of emotion-specific concepts [28.191; 31.19];
- 2) The interaction of various emotive concepts belonging to a separate culture [30.16; 6.255; 23.182];
- 3) Different aspects of alternative concepts in different cultures [13.81; 7.121];
- 4) The role of culture in the conceptualization of emotive concepts [8.65; 11.458].

It is also important to analyze the process associated with the fact that the conceptualization of a single emotion has different options in relation to time and genre. In doing so, of course, it will be necessary to distinguish between the two manifestations of options. In the first of these, a single concept appears in different forms in a certain language system, and in the second, the state of alternation between different emotion concepts is assumed. For example, the application of the concept of "anger" at the stage of English development is an example of variation (intraconceptual variation) within the framework of conceptualization. An alternative between the concepts of anger and rage in the same language, or the alternation of this concept with the concept of "qáhár, ashıw, gázep" in Karakalpak language, is a manifestation of "interconceptual variation".

The directions mentioned above are closely related to each other. The analyzes carried out in these areas show that the cross-cultural commonality of emotion concepts, and the differences between them related to human feelings and life experience, are more dependent on cultural factors. Changes in the system of cultural factors also cause diachronic changes in content and content.

The content of the concept of emotion is usually determined through lexical meaning analysis. The complex between lexical meaning and concept is manifested in two ways. In the first,

the presence of a lexical unit indicates the existence of a concept capable of lexicalization. In the latter, the semantic structure of a lexical unit is equated with a conceptual structure [10.122; 5.25].

Of course, different analysis methods can be used to describe the meaning of emotion terms and the content of concepts. Since the content of these concepts is central to the study of the phenomenon of emotion, it is important for contextual analysis. Based on the research results of a number of scientists such as Z. Koveg, E. Bamberg, V. Shchakhovsky, it is possible to distinguish five approaches aimed at describing the terms and concepts of emotion.

In the first of them, which is called "dimensional analysis", emotion is defined based on the meaning of descriptive words and certain "dimensions". According to N. Frijda, emotions alternate on the scale of three dimensions: pleasantness - unpleasantness, excitement - depression, tension - softening [7.121]. Recently, however, other types of "sizes" have been proposed. For example, Russell tried to explain 28 emotion terms in English within a two-layer diagram [22.215]:

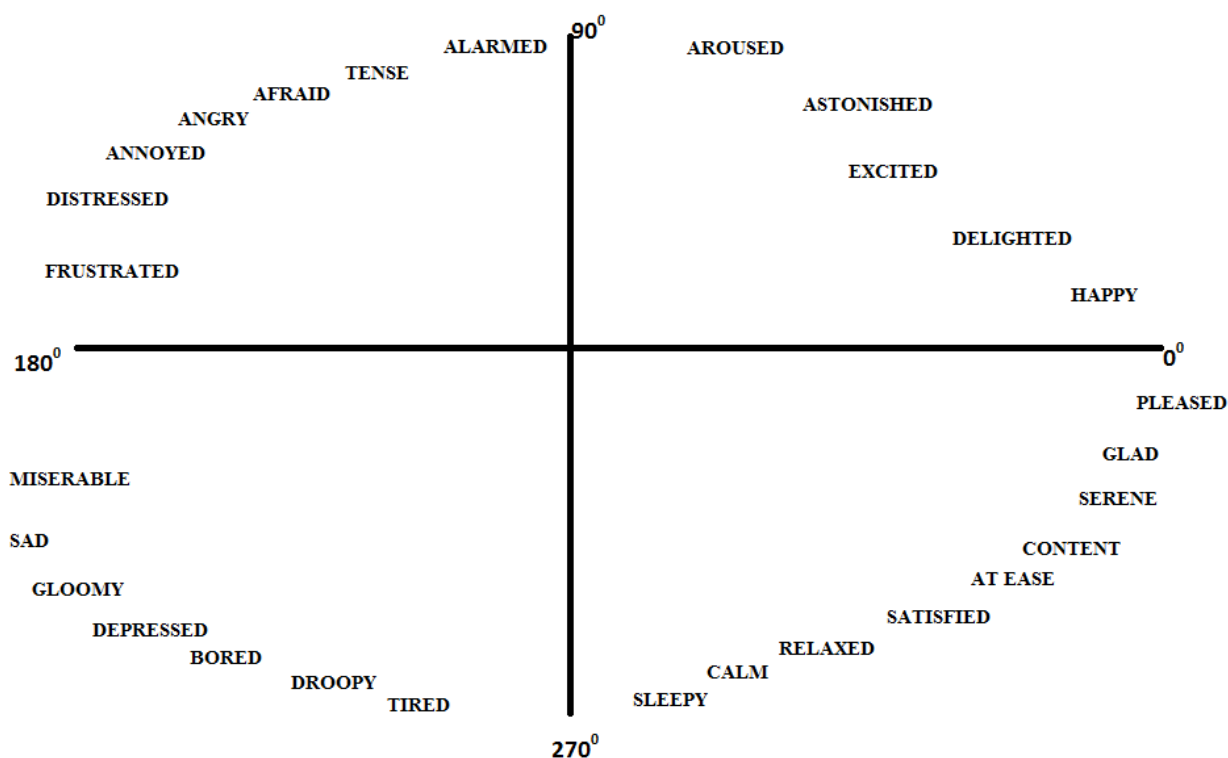
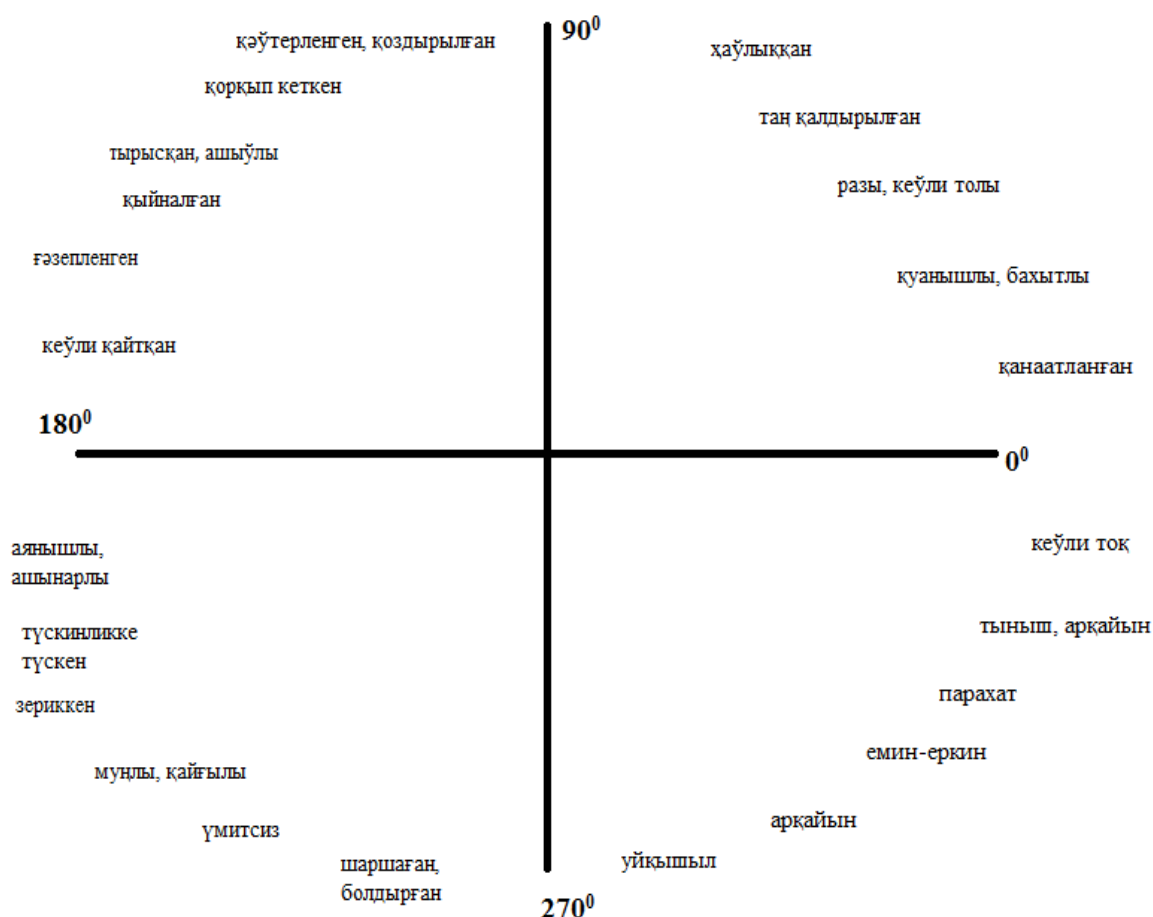


Figure 1. Meaning of 28 emotion terms

In this chart, the horizontal line indicates the level of satisfaction, while the vertical line indicates the level of revitalization.

The chart shows that the placement of emotion words is generally based on proximity in meaning. Also, their level of activation also motivates their distribution into groups. Distance between words basically refers to the distance between concepts, how close or far they are.

A similar relationship between grouping and emotion words can be seen in the example of the Karakalpak language (Figure 2):



From the comparison of this drawing, it can be seen that the meaning of the English word "anger" can be interpreted as "moderately high degree of arousal" and "moderately high degree of unpleasant". The meaning of the terms "ashıw", "qáhár", "ǵázep" in the Karakalpak language is published in the "Explanatory dictionary of the Karakalpak language". But according to J. White, emotion words can mean different things during everyday communication [30.16]. Therefore, the criteria are sometimes of a general nature, and in some cases they are not enough to explain the essence of concepts. This approach is more suitable for elucidating the meaning of emotion words within one language and serves only as an auxiliary method in cross-linguistic comparison. The dimensional approach is particularly useful in determining the relationship of emotion concepts within a particular culture. For example, from the first diagram above, it is clear that the concept of happy represents a higher level than delighted.

The second approach, aimed at the purpose of description, assumed the separation of semantic features of emotion words and concepts. J. Davitz, one of the promoters of the descriptive analysis method, distinguishes 12 different semantic symbols or meaning clusters (meaning clusters). To do this, he turns to English-speaking informants and asks them to describe the concept of emotion [4.142]. Below we mention some of the descriptions given to the concepts of emotion and the distinguishing semantic marks.

For example: "activation" tetik (I feel wide awake); "hypoactivation" (I feel heavy, logy, sluggish) "hyperactivation" (háreketsheńliktiń páseyiwı) (My pulse quickness) (Júregim óz qanasına sıymadı); "moving towards" tárepke qarap jol alıw (I want to withdraw, disappear, draw back, be alone, away from others) (Jalǵız qalıwdı qáleymen); "moving against" qarsı háreket etiw (I want to say something nasty, something that will hurt someone) "comfort" qolaylı (I am peaceful, tranquil, quiet) (Meniń kewlim jay); "discomfort" qolaylısız jaǵday (There's a lump in my throat)

(Aydoŝtın shıntaq tamırına páki tiygen soraw); (T.Qaypbergenov) "tension" stress jaw (My face and my mouse are tight, tense, hard) (Xabar esitken pátte denesi túrshikken Aydos); [14.105] "enhancement" үлекейиў, кеңейиў (I feel taller, stronger, bigger) (Ózimdi elede uzın, kúshli sezıp turman); "incompetence: dissatisfaction" qábilietsizlik: qanaatlanbaw (Seems that nothing I do is right) (Men ne islesemde durıs emestey); "inadequacy" talapqa tuwra kelmew (There's a sense of not knowing where to go, what to do) Ózin qayjerge barıwın yaki ne islewin bilmew.

J. Davitz states that any concept of emotion can be described by means of the 12 distinguishing semantic characters listed above. It is also expected that in each case one of these characters will take the leading place and receive special emphasis. Therefore, the concept of "anger" has the distinguishing semantic features of "hyperactivation", "moving against", "tension", "inadequacy".

Although the mentioned differentiating semantic signs are limited in number and abstract, they allow for a more complete illumination of the content of contextual concepts and a deeper understanding of their nature compared to the dimensional approach [13.81].

Thus, the analysis carried out by separating the distinguishing semantic features facilitates the description of the semantic relations of emotion concepts that are closely related to each other within the same culture. Including, we can clearly see the difference between the concepts of happiness (baxıt, quwanış) and delight (ráhát) in this order of method. J. Davitz's just mentioned research [4.321] described: activation, hyperactivation, moving toward, comfort, enhancement. In this study, the description given to the concept of delight is almost the same. However, the level of the separated descriptive semantic characters is not the same, that is, in the content of the concept of happiness, the level of the semantic characters "activation", "comfort" and "enhancement" is high, while in the conceptualization of the concept of delight, the semantic characters "hyperactivation" and "moving towards" come to the fore.

In addition, when determining the meaning of emotion words by distinguishing semantic signs, as in the application of the dimensional analysis method, the cases related to the differences of alternative concepts in different cultures and the mutual variation of these concepts were not given much importance.

However, it can be seen that both approaches are based on the denotative meaning of linguistic units. In the "implicational view" approach proposed by Zoltan Kövecses, connotative meaning is the main point [13.83]. R. Schweder who is a supporter of this approach according to this theory is based on the following idea: "to know what something means is to know what it causes, what it implies, and what it indicates to the person who perceives it" [28.397]. The scientist tries to describe emotions as follows:

Some emotions point to action. Surprise increases focus. Scary refers to the light. Emotions in another row represent a certain desire and desire. Anger indicates an explosion, destruction. Shame is close to exposure and persecution. Guilt means guilt, reparation, remorse. Sadness is closely related to the concepts of self-discontent, withdrawal, loss, and need for help.

The approach from the point of view of implicature, unlike others, the problem of the relationship of emotion concepts within a single culture has not been studied so much. Here, the main focus is on the cross-cultural aspects of emotions. Therefore, representatives of this approach emphasize that the meaning of emotion concepts differs in many ways implicature in linguistic cultures. In particular, R. Schweder noting that the meaning of emotions is culturally diverse, expressed the following opinion: "The people of the Ilongosh tribe have a completely different understanding of anger, because they believe that anger is a dangerous emotion and can even break up the community; and the Eskimos note that emotion of anger is only for children; for American workers, anger is a means of overcoming fear and achieving freedom [28.398].

In Karakalpak nation, there are proverbs related to the concept of unique anger.

«Ashıw araz aqıl dos, aqılña aqıl qos»

«Ashıw kelse aqıl ketedi»

«Ashıwlı adamnıń sózi ashshı.»,

«Ashıw menen qartaysań,
Kúlki menen jasarsań.»

«Ashıw aldınan keledi,
Aqıl sońınan keledi».

«Ashıw – aqıl bolmaydı,
Aqıl azıq boladı.»

(Korakalpak Folklore - Collection of Proverbs)

The problem of studying the connotative meaning of emotion words separately is of course not of equal interest to all researchers. Famous psycholinguist R. Osgood and his co-authors, in the process of researching the phenomenon of emotion, while distinguishing the cross-cultural commonalities of connotative meanings, do not forget to study other aspects of them [17.405].

A number of scientists have been engaged in determining the place of culture in the contextualization of emotions. As a result, the direction of "cultural psychology" became popular in the 80s of the last century. In this direction, the problem of how cultural traditions and social experience control and express the human psyche was studied. "It was noted that it is more reflected in the mind and emotions of the person" [27.192]. For example, in India in the Middle Ages, it is emphasized that morality, human behavior and lifestyle motivated the multi-level structure of emotions [28.397]. Scholars point out that the four primary emotions are associated with the purpose and end of life in Indian classical folklore. In this, passion is associated with contentment (kata), anger, control, freedom and power associatively (artha), perseverance, in turn, is associated with social and moral obligation (dharma), and finally, peace, redemption or the sight of God related to attainment (moksha).

R. Shweder and J. Hydet studied the concept of emotion in the context of ancient Indian culture; he did not specifically study the issue of historical changes in the system of these concepts.

In fact, since emotional meaning is a multifaceted and complex phenomenon, some of the proposed methods for its analysis are not able to explain the essence of the phenomenon. These methods are sometimes one-sided and do not take into account the positive results of other approaches. The complexity of emotionality, as V.I. Shakhovsky notes, it requires an approach to its analysis in the application of different methods, from the point of view of different theoretical interpretations [26.204]. The tradition of polysystemic approach to the study of linguistic phenomena is an idea that has been promoted for a long time in the history of linguistics. Sh. Safarov explained in detail the positive and negative aspects of the approach in his work entitled "Language theory and linguomethodology". According to the scientist, "particularities, different characters have their place in the system; they are ready to perform the service of maintaining its balance and systematization in the required cases. At the same time, it is required to have a perfect theoretical basis for the research, which is planning to organize and describe the system in which the relations of linguistic phenomena, as well as even and uneven relations at the same time, take the form of structures" [24.110].

Currently, Sh. Safarov urges not to forget that the description of the studied phenomenon may take different forms when the research is based on different theoretical ideas and methods. According to the scientist's conclusion, "the analysis model proposed for the detailed description of the true nature of linguistic phenomena should, firstly, be consistent with the objective ontology of

these phenomena, and secondly, it should not be abstract, but should allow the use of various perfect actions" [24.114].

As a result of the study of phenomena related to emotionality using different methods, various evidences are collected, and by clarifying and complementing each other, the picture of the object under study begins to get a more complete picture. In the involvement of different approaches, it should not be overlooked that emotionality is related to the psyche, and it is necessary to use the method of psychological analysis. On the other hand, since this phenomenon is specific to speech and language, it requires the involvement methods of linguistic analysis. [26.204]. In this context, in addition to the ones listed above, researchers have been studying emotions using a number of analytical methods, such as distributive, paradigmatic, descriptive-analytical, and creating a chain of symbols. In particular, the method of separating word meaning into components has become somewhat popular in the analysis of emotion words.

In recent years, the unexpected development of cognitive linguistics and philosophies of psychology has led to the formation of a new approach to the study of the phenomenon of emotion. Scientists note that it is preferable to explain concepts within the scope of emotions with the help of frames, scenarios, scripts. The practice of describing patterns that form concepts of this kind in the prototypical situation of an emotion is gaining momentum on a large scale. For example, Z. Kövecses explains patterns such as "prototype view", "cultural prototype", "social-constructionist prototype", M. Bamberg and A. Wierzbicka discussed the issue of "universal semantics". Also, N. Stein's theory of "goal-action-outcome" and R. White's method "emotion as event schemata" of analysis are examples of cognitive analysis.

As an example of a cognitive approach, we present the image of the concept of "anger" in the form of a four-step scenario:

Step 1.	offending event Wrongdoer offends S (self). Wrongdoer is at fault. The offending event displeases S. The intensity of the offense outweighs the intensity of the retribution, thus creating an imbalance
Step 2.	Anger Anger exists S. experienced psychological effects I heat. Anger exerts force on S to attempt an act of retribution.
Step 3.	Attempt to control anger.
Step 4.	S. exerts a counterforce of anger goes above the limit. Anger takes control of S. S. exhibits angry behavior (loss of judgement, aggressive actions). There is damage to S. There is danger to the target of anger, in this case, the wrongdoer.
Step 5.	Retribution S. performs retributive act against wrongdoer (this is usually angry behavior directed at wrongdoer). The intensity of retribution balances the intensity of offence. The intensity of anger drops to zero. Anger ceases to exist

Z. Kövecses describes a slightly different scenario of the power of action associated with the concept of anger [13.82]:

- a) There is a rule or violation;
- b) It is pointed out by someone.
- c) This person simultaneously condemns the act;
- d) The perpetrator acts in fear to that anger;
- e) The perpetrator amends his or her ways.

Anna Wierzbicka, giving a cognitive description of the concept of anger, notes that the "semantic primitives" that are distinguished in the script describing it have an ethnocultural nature [30.88].

- a) X felt something because X thought something;
- b) sometimes a person thinks about someone;
- c) this person did something bad;
- d) I don't want this person to do things like this;
- e) I want to do something because of this;
- f) when this person thinks this, this person feels something bad;
- g) X felt something like this;
- h) because X thought something like this;

CONCLUSION

Obviously, the given cognitive descriptions are somewhat close to each other from the outside, but there are steps that separate them. J. Lakoff, Z. Kövecses: if the main attention is paid to the description of the course of events in the articles proposed by A. Wierzbicka's model, the prototypical representation of this situation rather than any situation itself is an integral part of the cognitive activity that produces the concept [31.361].

One of the newest trends in the study of the phenomenon of emotion within the framework of cognitive linguistics is the "contextual metaphor approach", and the application of this approach is becoming more and more popular in world of linguistics. We have arranged to dwell on this issue in our next article.

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Rezyume: *Ushbu maqolada emotsiya tushunchalarining tilshunoslikda o'rganilishi va inson his-tuyg'usi bilan bog'liq holatlar juda qadimdan ilm ahlining e'tiborini tortib kelganligi va shuningdek, psixologiya, biologiya, sotsiologiya, kognitologiya va nihoyat, tilshunoslik sohalari bilan o'rtasidagi munosabatni ham o'rganib chiqdi.*

Резюме: *В данной статье изучение концептов эмоций в лингвистике и ситуаций, связанных с человеческими эмоциями, давно привлекает внимание ученых, а также изучается взаимосвязь между областями психологии, биологии, социологии, когнитологии и, наконец, лингвистики.*

Kalit so'zlar: *konsept, jihat, hissiyot, psixologik, giperaktivatsiya, gipoaktivatsiya, madaniyat, g'azab*

Ключевые слова: *Концепция, аспект, эмоция, психология, гиперактивация, гипоактивация, культура, гнев*

ENSURING THE RIGHT OF CITIZENSHIP IN THE REPUBLIC OF UZBEKISTAN

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Summary: *The article tells about the right of citizenship in modern society of New Uzbekistan and its role during the development of reforms in the republic is one of the main branches of law. It reflects the legal framework for the activities of the citizenship, its main tasks and powers.*

Keywords: *citizenship, Constitution, law, legal, rights, society*

Civil rights in Uzbekistan are property, as well as private non-property public equality of relations, inviolability of all forms of ownership and participants, freedom to conclude contracts, a way to arbitrarily interfere is an area of law based on the principles of non-imposition, with personal work. Any person exercising unhindered realization of civil rights to enhance, ensure the restoration of violated rights, their judicial protection is necessary. Civil law is the basis of private law.

The civil rights in modern society: New Uzbekistan and its role during the development of reforms in the republic is one of the main branches of law.

Issues related to citizenship are very relevant today. Not so long ago, the Law "On Citizenship of the Republic of Uzbekistan" in a new edition came into force. According to article 4 of this document, citizenship in the Republic of Uzbekistan determines the permanent political and legal relationship of a person with the state, expressed in the totality of their mutual rights, duties and responsibilities and based on the recognition and respect for the dignity, fundamental rights and freedoms of a person [1, 2020].

Citizens of the Republic of Uzbekistan are equal before the law without distinction of gender, race, nationality, language, religion, social origin, beliefs, personal and social status. In the Republic of Uzbekistan, every person has the right to citizenship. No one can be deprived of the citizenship of the Republic of Uzbekistan, except as provided for by this Law, or the right to change citizenship.

The Republic of Uzbekistan in the person of its bodies and officials is responsible to the citizens of the Republic, and a citizen of the Republic of Uzbekistan is responsible to the state.

The adoption on March 13, 2020 of the Law "On Citizenship of the Republic of Uzbekistan" in a new edition was an important step in ensuring human rights and freedoms. The law defines the procedure for suspending or terminating the consideration of applications for admission to the citizenship of the Republic of Uzbekistan. The execution of decisions on issues of citizenship in relation to persons permanently residing in the Republic of Uzbekistan is entrusted to the Ministry of Internal Affairs and its relevant divisions, and in relation to persons residing abroad, to the Ministry of Foreign Affairs and the relevant consular offices.

Amendments and additions to the existing norm based on the draft law, which were introduced last year and are currently being used in practice, are aimed at further simplifying the procedures for the recognition of citizenship of the Republic of Uzbekistan for stateless persons. In a word, recognition of the citizenship of the Republic of Uzbekistan for stateless persons who have been resident in our country for a certain period of time for fifteen years, according to legal grounds, directly - legal grounds for obtaining the right citizenship will be created.

A very important point in the new law is that in order to realize the constitutional powers of the President to resolve issues of citizenship of the Republic of Uzbekistan for a period of five years, a Commission on Citizenship under the President is formed, which is an advisory and subsidiary body. Its main tasks are consideration of applications on citizenship issues, making

proposals to the President, monitoring the execution of decisions on citizenship issues, analyzing the implementation of legislation, making proposals to the President aimed at eliminating identified problems in this area, studying international practice and best foreign experience on citizenship issues.

The law reflects the legal framework for the activities of the Citizenship Commission by the President of the Republic of Uzbekistan, its main tasks and powers.

In order to ensure interaction between interested state bodies on issues of citizenship of the Republic of Uzbekistan, as well as input, accounting and monitoring of documents and information, an Interdepartmental database on citizenship of the Republic of Uzbekistan is being formed.

The document confirming the citizenship of the Republic of Uzbekistan is a passport of a citizen of the Republic of Uzbekistan or another document containing an indication of the citizenship of the Republic of Uzbekistan.

A document confirming the citizenship of the Republic of Uzbekistan of a child under the age of sixteen years is:

certificate or certificate of birth (regardless of the place of birth of the child) upon presentation of a passport or other document indicating that one of the parents has citizenship of the Republic of Uzbekistan;

certificate or certificate of birth (at the birth of a child in the Republic of Uzbekistan) upon presentation of a residence permit in the Republic of Uzbekistan of both parents (single parent) who are stateless persons.

Also, a child is recognized as a citizen of Uzbekistan, one of whose parents (single father or mother) is recognized as a citizen of Uzbekistan, who has not taken citizenship of a foreign state and lives in Uzbekistan, if he expresses his will.

According to the law, now in the absence of documents confirming the facts for recognizing him as a citizen of Uzbekistan, the applicant can establish these facts in court.

In addition, for stateless persons born and living in the territory of Uzbekistan 5 years before the date of application for admission to the citizenship of Uzbekistan (from the date of obtaining a residence permit for stateless persons), the period of continuous residence has been canceled.

It is appropriate to note that a civil passport is, first of all, a document confirming citizenship, political and legal connection of a person with the state. This connection is manifested in his rights and duties. A civil passport is the property of the Republic of Uzbekistan, its holder is under the protection of the state.

The passport of a citizen of the Republic of Uzbekistan is issued to all citizens who have reached the age of 16, as well as citizens who have received citizenship in accordance with the law on citizenship.

The procedure for issuing, exchanging and using a passport of a citizen of the Republic of Uzbekistan is determined in accordance with the Regulations on the passport system in the Republic of Uzbekistan, approved by decree of the head of state dated January 5, 2011.

The biometric passport system of the Republic of Uzbekistan has strengthened the efficiency and effectiveness of the activities of the country's human rights bodies and simplified the identification of citizens when crossing the state border, ensured the formation of a single database of individuals, which serves to provide interactive public services within the framework of the Electronic Government system.

“On the legal status of foreign citizens and stateless people in the Republic of Uzbekistan” adopted by the Legislative Chamber on March 3, 2021, the following is approved.

Foreign citizens who have citizenship of two or more states are considered in the Republic of Uzbekistan as citizens of that state, according to the documents on belonging to the citizenship (nationality) of which they entered the Republic of Uzbekistan.

Foreign citizens and stateless persons who are on the territory of the Republic of Uzbekistan are provided with rights and freedoms in accordance with the norms of international law. They bear obligations established by the Constitution of the Republic of Uzbekistan, laws and international treaties of the Republic of Uzbekistan.

Foreign citizens and stateless persons who are on the territory of the Republic of Uzbekistan are equal before the law of the Republic of Uzbekistan without distinction of gender, race, nationality, language, religion, social origin, beliefs, personal and social status.

Foreign citizens and stateless persons temporarily residing on the territory of the Republic of Uzbekistan, permanently residing on the territory of other states, are registered at the place of temporary residence [3, 2021].

The procedure for registration of foreign citizens and stateless persons permanently residing in the territory of other states, at the place of temporary stay in the territory of the Republic of Uzbekistan, is determined by the Cabinet of Ministers of the Republic of Uzbekistan.

Also, a new concept of compatriot was introduced into the law, according to which a person who was born in the territory of Uzbekistan or previously lived in its territory, who does not have the citizenship of Uzbekistan, who lives outside the territory of Uzbekistan and according to his family tree It is established that their immediate relatives, provided that their immediate relatives live in the territory of Uzbekistan, they will be treated as citizens.

A simplified procedure for admission to the citizenship of Uzbekistan has been introduced for a citizen who is considered a stateless person. According to it, if a compatriot has a legal source of livelihood, undertakes the obligation to comply with the Constitution of the Republic of Uzbekistan, or knows the state language at the level necessary for communication in accordance with the procedure established by law, the simplified procedure for acceptance into the citizenship of Uzbekistan applies.

Thanks to the cardinal reforms initiated by the President of Uzbekistan, the situation with the elimination of statelessness in our country has changed radically in the next five years. As it is known, in recent years, unprecedented work has been carried out in our country to ensure the constitutional rights of citizens, including the granting of citizenship to stateless persons. For example, until 2016, 482 stateless people received citizenship, and since December 2016, by presidential decree, more than 16,000 citizens have received citizenship of Uzbekistan. In response to the call of UN Secretary-General António Guterres to take tough measures to reduce the number of stateless people, 56,751 people received citizenship of the Republic of Uzbekistan in 2021.

In accordance with the recently updated Law “On Citizenship of the Republic of Uzbekistan”, a new procedure for admission to citizenship has been established for stateless persons who have lived in our country for at least 15 years and are registered at their place of permanent residence.

Citizenship in the Republic of Uzbekistan determines the permanent political and legal relationship of a person with the state, expressed in the totality of their mutual rights, duties and responsibilities and based on the recognition and respect for the dignity, fundamental rights and freedoms of a person.

In the Republic of Uzbekistan, a single citizenship is established for the entire territory of the Republic of Uzbekistan. A citizen of the Republic of Karakalpakstan is simultaneously a citizen of the Republic of Uzbekistan.

Citizenship of the Republic of Uzbekistan is equal for everyone, regardless of the grounds for its acquisition [2, 1992, Article 21].

Decisions on admission to citizenship of the Republic of Uzbekistan, restoration of citizenship of the Republic of Uzbekistan, withdrawal from citizenship of the Republic of Uzbekistan or loss of citizenship of the Republic of Uzbekistan are made by the President of the Republic of Uzbekistan in the form of decrees and come into force from the day they are signed.

The Republic of Uzbekistan guarantees legal protection and patronage to its citizens both on the territory of the Republic of Uzbekistan and abroad.

Reference:

1. Law On citizenship of the Republic of Uzbekistan, dated March 13, 2020 No. ZRU-610.
2. The Constitution of the Republic of Uzbekistan.
3. Law on the legal status of foreign citizens and stateless persons in the Republic of Uzbekistan, dated June 4, 2021 No. ZRU-692.

Rezyume: *Maqolada Yangi O'zbekiston zamonaviy jamiyatida fuqarolik huquqi va uning respublikadagi islohotlarni rivojlantirishdagi roli huquqning asosiy tarmoqlaridan biri haqida hikoya qilinadi. U fuqarolik faoliyati uchun huquqiy asoslarni, uning asosiy vazifalari va vakolatlarini aks ettiradi.*

Резюме: *В статье рассказывается о гражданском праве в современном узбекском обществе и его роли в развитии реформ в Республике, одной из основных отраслей права. Он отражает правовую основу для гражданской деятельности, ее основные обязанности и полномочия.*

Kalit so'zlar: *Fuqarolik, Konstitutsiya, qonun, huquq, huquq, jamiyat,*

Ключевые слова: *гражданство, конституция, закон, закон, закон, общество.*

THE PROCEDURE FOR CONSIDERATION OF CASES RELATED TO INVALIDATING DECISIONS OF ADMINISTRATIVE BODIES IN ADMINISTRATIVE COURTS

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Summary: *This article establishes the procedure for considering cases in administrative courts regarding the invalidity of decisions of administrative bodies. processes of protection of the rights and interests of individuals through the court were studied.*

Keywords: *administrative court, administrative body, complaint, jurisdiction.*

Article 44 of the Constitution of the Republic of Uzbekistan and the Code of Administrative Court Proceedings of the Republic of Uzbekistan. In accordance with Article 4, the interested person, in the cases provided for by law, the prosecutor, as well as some citizens and state bodies authorized to protect the rights and interests of other persons, declare the decision of the administrative body invalid and the action (inaction) of its official illegal. with an application (complaint) about, provided that due to this decision, action (inaction) his:

rights and interests protected by law have been violated;

an obstacle was created in the realization of rights,

freedoms and realization of legal interests;

any obligation imposed on him in violation of the law;

he has the right to appeal to the court if he believes that another obstacle has been created to carry out his activities in this or that field.

As we mentioned above, the term "administrative bodies" means state administration bodies and their regional bodies, local executive authorities, citizens' self-government bodies, as well as other organizations empowered with administrative and management authority and means specially established commissions.

Officials of administrative bodies mean persons who act as representatives of the authorities or perform administrative-management duties (giving organizational orders) in these bodies and are authorized to perform legally significant actions. Interested party means a citizen or legal entity to whom the decision of an administrative body or the action (inaction) of its official is directed, or another person whose rights and legal interests are affected by such a decision, action (inaction).

The term "decision" means a document adopted by an administrative body or its official individually or collegially and having certain legal consequences. Decisions can be made in a fixed form (for example, decisions of local executive authorities) or freely (for example, a written notice of refusal to satisfy a citizen's appeal).

Actions of administrative bodies and their officials mean legally significant orders, even if they are not expressed in the form of a decision, but which lead to the violation of the rights and freedoms of interested persons or prevent the realization of their rights and freedoms.

Failure to act means non-fulfillment of an obligation imposed on an administrative body or its official by regulatory and other documents (position instructions, statutes, regulations, orders).

Decisions of state bodies, the verification of which is within the exclusive competence of the Constitutional Court of the Republic of Uzbekistan, as well as decisions, actions (inaction) against which a different procedure for filing an appeal to the court is provided for in the legal documents, shall not be considered in accordance with the procedure established in Chapter 23 of the Criminal Code of the Republic of Uzbekistan.

In particular, the decisions, actions (inaction) of the officials of the administrative bodies related to the criminal case or the case of the administrative violation, as appropriate, the Code of Criminal Procedure of the Republic of Uzbekistan and the Code of Criminal Procedure of the Republic of Uzbekistan. A complaint is filed in accordance with the procedure established by the Code of Administrative Responsibility of the Republic of Uzbekistan.

At the same time, it should be mentioned that the decisions and actions of the officials of investigative detention centers and penal institutions regarding the application of disciplinary measures to detainees, prisoners, and prisoners deprived of liberty may be disputed in accordance with the procedure provided for in Chapter 23 of the Criminal Code of Ukraine. Except for issues that are resolved in the manner stipulated in Article 542 of the Code of Criminal Procedure of the Republic of Uzbekistan (Procedure for resolution of issues related to the execution of judgments, rulings and decisions).

The decision, actions (inaction) of the state executive can be appealed in accordance with the procedure provided for in Chapter 23 of the Code of Criminal Procedure, with the exception of decisions issued on the basis of an executive document issued by an economic court (O. The first part of Article 861 of the Law of the Republic of Uzbekistan).

Appeals against the decisions, actions (inaction) of the military administration bodies and their officials, as well as the decisions of the draft commissions of the Republic of Karakalpakstan, regions, and the city of Tashkent are heard by military courts ("On Courts" of the Republic of Uzbekistan Article 41 of the Law, the ninth part of Article 20 of the Law of the Republic of Uzbekistan "On General Military Obligation and Military Service").

When conducting cases by administrative courts, it should be provided that when a demand is made against a separate division of an administrative body that does not have the status of a legal entity or an official, the court, observing the provisions of Article 42 of the Criminal Code must resolve the issue of involving the relevant body as the respondent.

When the decision of the special commission is appealed to the court, the state body, which is the working body of the special commission, must be involved as the defendant in the case. If the administrative body is reorganized or terminated before the case is resolved, the court will involve its legal successor or the body authorized to restore the violated rights and freedoms of the applicant to participate in the case.

If by the time the case is being considered, the person whose decision or action (inaction) is being complained about has ceased to be an official, the court shall invite the person holding this position or the relevant body authorized to restore the violated rights and freedoms of the applicant to participate in the case. solves the issue.

The applicant has the right to apply directly to the court or to a higher-ranking body or official with an application (complaint). Failure to initially address a higher authority or official is not a reason for refusing to accept an application (complaint).

At the same time, it should be considered that legal documents may provide for the procedure of pre-trial dispute in the mandatory procedure over certain decisions, actions (inaction). An application (complaint) to declare the decision invalid, to declare the action (inaction) illegal must be filed in accordance with Articles 128, 187 of the Criminal Code of Ukraine, and the state duty must be paid in the manner and amount specified by law.

With regard to the form and content of the application (complaint), taking into account the requirements set forth in Article 187 of the Criminal Code of Ukraine, it should include, among other things, the following:

- what decision, action (inaction) is being appealed;
- name of the administrative body;
- initials of the official's surname and first name;
- details of the decision;

exactly what rights, freedoms and legal interests of the applicant were violated;
according to the opinion of the applicant, the decision, action (inaction) being appealed
against is contrary to which legal document;

whether a similar complaint was submitted to a higher authority or official in a subordinate
order, and if so, what kind of response was received.

Documents specified in Article 130 of the Criminal Code of Ukraine, as well as a copy of
the disputed decision, are attached to the application (complaint).

Also, let the attention of the courts be drawn to the fact that in accordance with the first part
of Article 134 of the Criminal Code of Ukraine, failure to attach a decision to the application is not
a reason to return the application. The court has the right to request the contested decision from the
administrative body at the request of the applicant or on its own initiative.

According to Article 92 of the Criminal Code of the Russian Federation, the court may order
the court in cases where there is a clear risk of violation of the rights, freedoms and legal interests of
the applicant or the person on whose behalf the application is made, and in cases where it is
impossible or difficult to protect them without taking such measures. has the right to take
preliminary protective measures.

If the mandatory suspension of the execution of the disputed decision is provided for by law
(for example, the third part of Article 19 of the Law of the Republic of Uzbekistan "On State
Control of the Activities of Economic Entities", " Article 34 of the Law of the Republic of
Uzbekistan "On Competition"), the judge must check whether the execution of the contested
decision has been suspended by an administrative body or an official in connection with the
applicant's appeal to the court. If this has not been done, the court should issue a ruling on
suspending the action of this decision until the court's decision enters into legal force.

It should be noted that in the cases provided for by the law, decisions and actions of an
official of an administrative body related to the prevention of emergency situations, epidemics and
other situations that pose a real threat to the life and health of the population may be suspended.
can't.

In accordance with the second part of Article 67 of the Criminal Code of Ukraine, the
obligation to prove the legality of the disputed decision, action (inaction) in cases of this category is
assigned to the body or official who accepted the document or committed the disputed action
(inaction).

In order to properly resolve the case, the court has the right to request evidence on its own
initiative. An official of the relevant body may be fined by the court for failure to comply with the
court's request to submit documents (Article 122 of the Criminal Code of Ukraine).

Also, when considering cases of appeals against the decisions, actions (inaction) of
administrative bodies and their officials, the court has the right to apply the norms of the Civil Code
of the Republic of Uzbekistan on the period of claim not and should be based only on the terms
provided by the Ministry of Labor and Social Affairs and the laws regulating relevant legal
relations.

Missing the deadlines established by the law is not a reason to return the application. In such
cases, the application should be accepted for processing and considered in its content.

In each case, the court must determine whether the applicant has complied with the deadlines for
applying to the court established by law, and when these deadlines are violated, it must discuss the
reasons for their omission, regardless of whether the interested person drew attention to this
situation.

The deadline for applying to the court starts from the morning of the day when the following
is known to the applicant:

violation of his rights, freedoms and legal interests;
that there are obstacles to the realization of his rights and freedoms;

that he is under some obligation.

Since the issue of compliance with the term of appeal to the court is an important condition for the correct resolution of the case, conclusions on its restoration or refusal to restore it, according to paragraph 2 of the first part of Article 156 of the Criminal Procedure Code, the decision of the court should be justified in the decision.

If the deadline for applying to the court is missed or the court refuses to restore the missed deadline, the application will be rejected.

When considering the content of the case, the court should carefully examine all the relevant circumstances, in particular, the following:

whether an administrative body or an official has the authority to make a decision or perform an action. According to the law or other regulatory legal document, the decision or not to make, the implementation or non-implementation of an action is at the discretion of an administrative body or an official, the court may make or not make such a decision, implementation or non-implementation of an action does not have the right to assess the expediency (for example, when complaining about inaction expressed in the failure to receive a document on awarding a specific person);

whether or not the procedure for decision-making and action implementation by an administrative body or official has been followed, provided that such requirements (form, terms, grounds, procedures, etc.) are specified in regulatory legal documents. In this case, it should be noted that non-observance of the order of decision-making and execution of an action can be the basis for satisfying the application (complaint) only if this condition affects its legality;

whether the content of the contested decision, the action (inaction) is in accordance with the requirements of the law and other normative legal documents regulating these legal relations.

The presence of at least one of the above-mentioned circumstances indicating the illegality of the adopted decisions and actions (inaction) may be the basis for satisfying the application (complaint).

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3. O'zbekistan Respublikasi Prezidentimizingning «Sud hokimiyati organlari faoliyatini raqamlashtirish chora-tadbirlari to'g'risida»gi qarori.

Rezyume: Mazkur maqolada ma'muriy sudlarda ma'muriy organlar qarorlarini haqiqiy emas deb topishga oid ishlarni ko'rib chiqish tartibi tashkil etadi. Ma'muriy organ tomonidan chiqarilgan qarorlarni sud tartibida ko'rish orqali, aniqlangan qonunchilikka zid keladigan qarorlarni bekor qilish, fuqoralarning va yuridik shaxslarning huquq va manfaatlarini sud orqali himoya qilishni amalga oshirish jarayonlari o'rganilgan.

Резюме: В данной статье установлен порядок рассмотрения дел в административных судах о недействительности решений административных органов, исследованы процессы защиты прав и интересов физических лиц через суд.

Kalit so'zlar: ma'muriy sud, ma'muriy organ, shikoyat, sudga taaluqlilik.

Ключевые слова: административный суд, административный орган, жалоба, подсудность.

THE COMPARISON OF PRACTICAL AND VIRTUAL ACID-BASE REACTIONS IN PEDAGOGICAL TEACHING

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Summary: *This article presents ideas on the effective use of interactive methods, ICT, virtual laboratories, practical training in the teaching of "Acid base titration" in chemistry in secondary schools, as well as the development of one-hour lessons and the effectiveness of the lesson.*

Keywords: *Education, interactive methods, comparison class, experimental class, ICT, practical training, mastering efficiency, acid-base titration, virtual lab.*

Introduction: The rapid development of science and technology in the world, the changes associated with the adoption of innovative technologies are leading to new socio-economic, political and cultural changes.

Much attention is paid to preparing students for life through the formation of practical experience in students, the organization of effective preparation for social life through the formation of basic competencies and the development of teachers' competencies, the organization of educational processes based on a competency-based approach.

"Defining the priorities of the systemic reform of general secondary and extracurricular education, raising the spiritual, moral and intellectual development of the younger generation to a qualitatively new level, the introduction of innovative forms and methods of education in the educational process.

To conduct course analysis, 9 grade students of Presidential school were selected as an experimental class and 9 A class student of the 6th school in Jizzakh city were selected as a comparative class

In the comparison class, the lessons were organized traditionally and interactively and they have done their acid-base titration experiment practically, while in the experimental class, they were organized in a non-traditional way, they used virtual laboratory and computer programs.

In addition to the lessons, weekly follow-up tests were conducted to determine the overall learning outcomes.

Lesson plan for the comparison class:

Topic: Acid –base titration experiment.

Course Objectives:

(Learning Objective) Students will gain a broader understanding of the concepts of strong and weak acids, strong and weak bases, acid –base reactions, identifying unknown concentration of acid by titrating alkali with known concentration;

(Educational Objective) Students develop the skills of working in groups, listening to each other, and respecting each other;

(Developmental Objective) Students will be able to apply their knowledge of acid-base reactions in practice (in the laboratory) and using virtual laboratory, and will be able to pay attention to safety.[1]

Course Type: Learn and reinforce a topic, practical experiment.

Course materials and reagents: 50 cm³ byurette, pipette filler, 25 cm³ pipette, 150 cm³ or 250 cm³ conical flask, burette stand and clamp, funnel (for filling burette, white tile, 0.1 mol dm⁻³ hydrochloric acid, 0.720 moldm⁻³ sodium hydroxide, methyl orange indicator.

Course Method: Laboratory and practical training, Concept Analysis.

Type of lesson: generalization, giving new knowledge, practical experiment

I. New topic statement:

The new topic will be demonstrated through a presentation.

A **titration** is a lab technique used to determine the volume of a solution that is needed to react with a given amount of another substance. In this activity, the goal is to determine the molar concentration and strength of one acid solutions by conducting titrations with a base solution of known concentration.[2]

There are several different kinds of titration. One of the commonest involves the exact neutralization of an alkali by an acid. For 9 grade students doing neutralization reactions is convenient and useful.

II Preparation for practical training

Some instructions were given to students

1. Read through the whole method before starting any practical work. Where appropriate, prepare a table for your results in the space provided.
2. Show the precision of the apparatus you used in the data you record.
3. Show your working and appropriate significant figures in the final answer to each step of your calculations.

II. Practical experiment

Students will do practical experiment by following next steps.

1. Use a volumetric pipette to place a given volume (usually 10 cm^3 or 25 cm^3) of sodium hydroxide of unknown concentration into a flask.
2. Get some of acid of known concentration, e.g. hydrochloric acid of concentration 1.00 mol dm^{-3}
3. Fill a clean burette with the acid (after having washed the burette with a little of the acid).
4. Record the initial burette reading.
5. Add a few drops of an indicator solution to the alkali in the flask, e.g. methyl orange.
6. Slowly add the acid from the burette to the flask, swirling the flask all the time until the indicator changes color (the end-point).
7. Record the final burette reading. The final reading minus the initial reading is called the titre. This first titre is normally known as a 'rough' value.
8. Repeat this process, adding the acid drop by drop near the end-point.
9. Repeat again, until you have two titres that are no more than 0.10 cm^3 apart.
11. Take the average of these two titre values.

Your results should be recorded in a table, looking like this:

Readings	Rough	1	2	3
Final burette reading/ cm^3	35,2	34,65	35.4	34.75
Initial burette reading/ cm^3	0	0	0	0
Titre/ cm^3	35,2	34,65	35.4	34.75

Table-1

Each student should note:

1. all burette readings are given to an accuracy of 0.05 cm^3
2. the units are shown like this: cm^3
3. the two titres that are no more than 0.10 cm^3 apart are 1 and 3, so they would be averaged (Table-1)
 $(34.65 + 35.4 + 34.75) / 3 = 34.70$
4. the average titre is 34.70 cm^3

In every titration there are five important things you need to know or work out:.

- 1.the balanced equation for the reaction
- 2.the volume of the solution from the burette (in this example this is hydrochloric acid)
- 3.the concentration of the solution in the burette
4. the volume of the solution in the titration flask (in this example this is sodium hydroxide)
- 5.the concentration of the solution in the titration flask.

If we know four of these five things, we can calculate the fifth. So, in order to calculate the concentration of sodium hydroxide in the flask, we need to know the first four of these points.

$$C_1V_1=C_2V_2$$

Finding concentration of NaOH

$$25 \times 1 = 34.70 \times X$$

$$X = 0.72$$

Concentration of NaOH is equal to $0.720 \text{ mol dm}^{-3}$

Control questions:

1. What was observed when the indicator was dropped into the titration flask? Explain the reason.
2. Explain that this color change is related to the topic.

III. Announcing grades and giving homework.

To study the acid-base reactions that occur in everyday life.

After the topic of acid-base titration reactions, both classes were tested in the theoretical questions program. Examples of questions:

1. What is concentration of solution?
2. What is a neutralization reaction?

Lesson plan for virtual titration lab



I. In virtual reality, acid-base titration is used. Titration using a burette to properly measure quantities of solution demands cautious and organized working procedures, manipulation abilities combined with mental concentration, and attention to detail. All of these are good attributes for kids to cultivate, but there must be some fundamental competency and reliability before employing a burette with a class.[3]

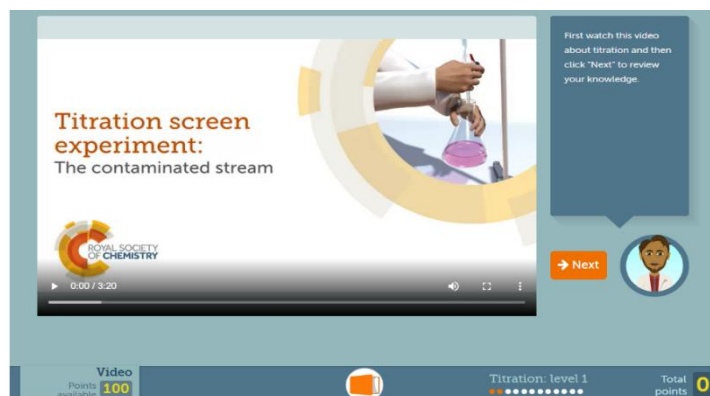
The titration screen experiment from the Royal Society of Chemistry is a publicly downloadable digital resource. This experiment allows students to do their own titration experiment on a computer or tablet. A redox titration experiment is also included in this resource.

II. Virtual experiment. The material is organized into four stages, each of which should take around 30 minutes to complete as a homework assignment or in class. These can be used as a pre-lab activity to get students acquainted with the procedures and concepts, or as a post-lab extension exercise.

During the research, we used level 1 titration experiment for grade 9 students.

At level 1, students examined samples from an acid-contaminated river. (Picture-1) Titration experiments is performed by students to determine the concentration of acid in the samples. Students will be able to earn points for participating in each activity.

Students can restart at the end of the level to improve their abilities



Picture-1

Throughout these virtual experiments, students will solve various theoretical issues and answer questions on acid-base titration. For example theoretical issues and answer questions on acid-base titration. For example:

1. Hydrochloric acid fully dissociates when dissolved in water.
2. The PH of water is approximately 7. which means it is

Neutral, acidic, alkaline

3. A titration can be used to determine the.....of acid a known concentration of base

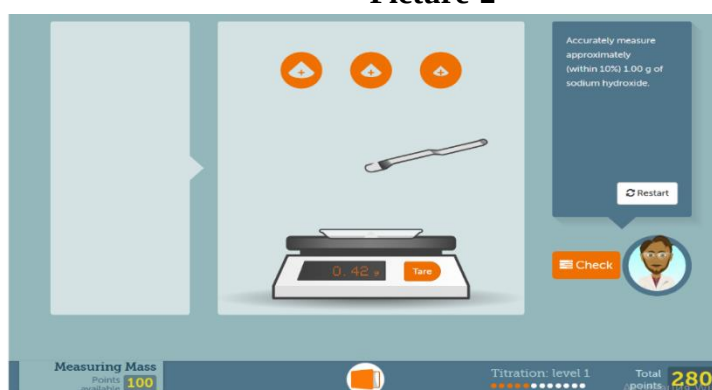
Volume, unknown concentration, known concentration

Students investigated how the acidity or alkalinity of a solution influences its pH in this exercise. The pH scale indicates whether a solution is acidic, alkaline, or neutral. An indicator can tell us if a solution is acidic or alkaline by linking a color change a certain pH range.

Throughout these virtual experiments, students solved various Students have the option to select substances according to their acidic, basic, or neutral nature. True-false type questions are about indicators that would help students to improve their scientific ability in this area. In the next activity, students entered the virtual lab and measure sodium hydroxide using balance.(Picture-2)

Before this step, this app informs students about safety rules even if they are doing this experiment in virtual reality.

Picture-2



Before proceeding to the following procedure, the sodium hydroxide has been transferred to a beaker. The learner should then prepare the normal NaOH solution. The standard solution is the dissolved chemical solution with a known concentration. Students select the necessary equipment and prepare this solution in the specified volume. They have to use the correct pipette, volumetric flask, and beaker, for passing this stage. Doing a rinse is also important. The calculation of the concentration of NaOH is important. The unit of concentration is in mole dm^{-3} .

Students use this information to identify the concentration of HCl in the contaminated river water sample.

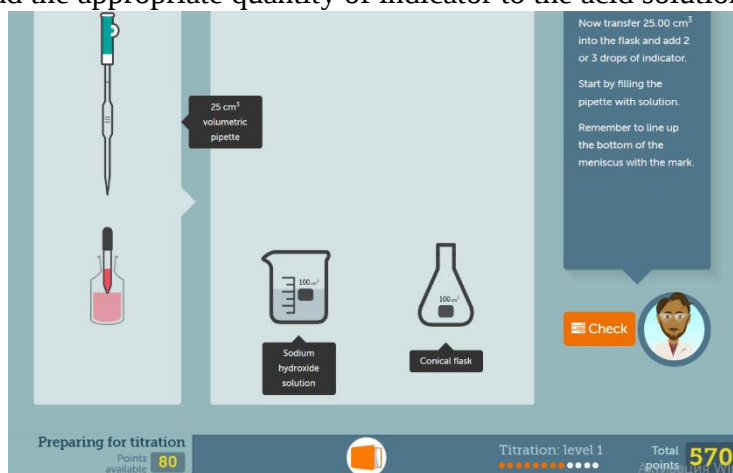
After doing some virtual experiments there is given calculation which is related to identifying concentration of solution.



Picture-3

To calculate the concentration first rearrange the $n=cv/1000$ equation in the form $c=n \times 1000/V$ where n is amount of substance (mole), c is concentration of solution (mole dm^{-3}), V is volume (dm^3) (Picture-3)

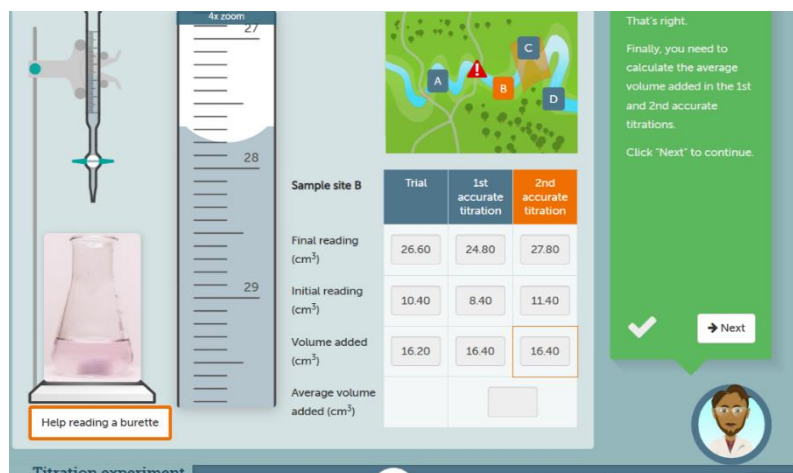
The following stage is called Preparing for Titration. Pupils learn how to properly use a 25cm³ pipette and add the appropriate quantity of indicator to the acid solution. (Picture-4)



Picture-4

For set up burette student should be careful. Checking burette with true way is very important. Student face safety rules during each step. “As a safely precaution , always make sure top of the burette is below eye level when you fill it». After rinsing burette will be filled with sample of river water.

Next titration process starts, Students should do experiment and fill table, according their results. 3 reading will be measured during the titration experiment . The average volume is calculated. (Picture-5)



Picture-5

According to two step experiment calculation students do in final stage. We can change reaction conditions and examine the course of the reaction on the submicroscopic level with virtual lab tools. With this, we included visualization elements that are crucial for learning and understanding chemistry. The effectiveness of lessons carried out with a virtual laboratory was examined from the knowledge's point of view at three levels: knowledge, comprehension, and application of knowledge.

After finishing these lessons in two groups that did virtual end practical experiments test results have taken from two group of students. Each student will be given a handout with a syllabus on the topic (Table-2). And they analyse.

Table-2

№	CONCEPTS	Analysis
1	Acid is	
2	Base is-	
3	Indicators are	
4	Neutralization reaction is-	
5	Why the use of titration is important to identify unknown concentration of acid or base?	

To find the average number of correct answers, when we add the sum of the number of correct answers given by each student to the number of students, the average value of the correct answers of the group is obtained, which multiplying the value by 100%, the percentage of the average value of the correct answers of both groups is determined by the number of questions.

Table-3

The results of the tests are given.

Class	Number of studenss	Number of questions	Number of correct answers	Correct answers in %
9-grade	24	20	16	80
9-A	20	20	14	70

As can be seen from Table 1, students from 9-grade and 9-A had an average mastery score of 75% on 20 test questions. These indicators indicate that the group was selected correctly. (Table-3)

In conclusion, it can be said that the results of tests conducted after classes using traditional and information technologies have increased the rate of students' mastery of the material.

It can be said that, unlike practical experiment and virtual lab experiment which remain in the minds of students and increase the effectiveness of learning. (Table-4)

Table-4

Increased student achievement			
Take an experimental lab classes		Take a virtual lab classes	
Number of correct answers	Correct answers in %	Number of correct answers	Correct answers in %
16	80	14	70

Conducting lessons in this way increases students' knowledge and develops their skills and competencies.

Conclusion. The use of innovative technologies in the acquisition of chemical knowledge, modernizing teaching, is one of the most pressing issues today. Virtual laboratories allow the execution of experiments without teacher's presence; therefore, students have a major role in their learning process. Studies have shown that virtual laboratory is an appropriate tool with which chemistry students prepare for practical work.

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Rezyume: Ushbu maqolada umumta'lim maktablarida kimyo fanidan "Kislota asos titrlash" mavzusini o'qitishda interfaol usullar, AKT, virtual laboratoriyalar, amaliy mashg'ulotlardan unumli foydalanish, shuningdek, bir soatlik darslarni ishlab chiqish va samaradorligini oshirish bo'yicha fikrlar keltirilgan.

Резюме: В данной статье представлены идеи по эффективному использованию интерактивных методов, ИКТ, виртуальных лабораторий, практических занятий по преподаванию «Кислотно-основного титрования» по химии в общеобразовательных школах, а также разработка одного поурочного плана и повышение эффективности урока.

Kalit so'zlar: Ta'lim, interfaol usullar, taqqoslash sinfi, eksperimental sinf, AKT, amaliy mashg'ulot, o'zlashtirish samaradorligi, kislota-ishqor titrlash, virtual laboratoriya.

Ключевые слова: Обучение, интерактивные методы, сравнительный класс, экспериментальный класс, ИКТ, практические занятия, эффективность усвоения, кислотно-щелочное титрование, виртуальная лаборатория.

ELECTRONIC GOVERNMENT AS THE MOST IMPORTANT DIRECTION OF PUBLIC ADMINISTRATION REFORM IN THE REPUBLIC OF KARAKALPAKSTAN

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Summary. *The article highlights the main problems in the development of the electronic government of the Republic of Karakalpakstan, contains a number of proposals to improve the legislation on electronic government, the development of the infrastructure of the electronic government system in the Republic of Karakalpakstan.*

Keywords: *E-government, government bodies, public services, electronic services, exchange of information between state institutions.*

E-government is considered as the most important direction of public administration reform in order to increase its efficiency, as a way to transform relations between the state, business structures, population and civil society structures. By a generalized definition, the "Electronic government" system is "an innovative model of public administration that transforms the relationship of the state with civil society based on information technology"[1].

Today, "Electronic Government" provides interaction in three areas: the state - the state, the state - business and the state - citizens. At the level of interdepartmental interaction, "Electronic Government" allows you to: improve the efficiency of information exchange between government agencies, as well as the quality of planning and management in the field; to constantly monitor public opinion and influence it. In the sphere of relations between business and the state, administrative procedures are being automated, which allows entrepreneurs to significantly reduce their time and financial costs, for example, the electronicization of business registration, the provision of tax and statistical reporting, the filing of customs declarations, etc.

In this model of interaction between the state, citizens and business, as well as the state bodies themselves, information and communication technologies are actively used: websites, information systems, databases integrated with each other. Simply put, e-government is a system that:

- facilitates communication with government authorities;
- contributes to the reduction of queues;
- simplifies the process of obtaining certificates, certificates, licenses and other documents, helping all parties: government agencies, entrepreneurs, and ordinary citizens to work more efficiently;
- provides access to public institutions to people with disabilities;
- increases the transparency and accountability of the government.

In the Republic of Uzbekistan and the Republic of Karakalpakstan, normative legal acts are adopted aimed at regulating certain aspects of e-government. The processes taking place in the country require theoretical understanding, including the development of an integrated approach to the legal regulation of e-government. As you know, the law "On e-government" defined public services as services provided by state bodies for the *implementation of their functions and carried out at the request of applicants* [2]. And "electronic government" is defined as a system of organizational and legal measures and technical means aimed at ensuring the activities of state bodies in the provision of public services to individuals and legal entities through the use of ICT, as well as interdepartmental electronic interaction [2]. As you can see, in our legislation, the institution of public services is associated with e-government. And public services, as mentioned above, are mainly understood as administrative services. In foreign countries, when we talk about public

services, we mean the so-called "public services", among which the most important are health care, education, utilities and employment promotion.

In our opinion, it is necessary to adopt the Law of the Republic of Uzbekistan "On the organization of the provision of public services", in which it is necessary to legislate the concept of public services and e-government, meaning the so-called "public services".

The legislation regulating electronic document management needs to be improved. Thus, the principle of public accessibility of unclassified information should be enshrined in legislation on citizens' access to state information. A citizen without special permission can obtain the necessary document via the Internet.

As you know, the Decree of the President of the Republic of Uzbekistan dated January 28, 2022 No. UP-60 "On the development strategy of New Uzbekistan for 2022-2026" provides for measures to develop the "Electronic Government" system, bringing the share of electronic public services to 100% and eliminating bureaucracy; modernization and creation of new digital services; ensuring a systematic and consistent process of developing the digital economy, information and communication and innovative technologies; increasing the digital literacy of the population and training highly qualified personnel in the field of digital technologies; creation of favorable conditions for retraining of personnel, etc.[3].

Despite the measures taken to develop e-government in the Republic of Uzbekistan and the Republic of Karakalpakstan, there are a number of problems that need to be resolved. They come down to this:

- Low level of awareness of new forms of interaction with the authorities (we are talking, first of all, about the portal of public services);
- insufficient level of computer literacy;
- lack of equipment, i.e. computers, Internet access, which hinders the involvement of the population in the processes of formation and development of e-government;
- the habit of people to personal interaction with government officials. It is necessary to improve the level of ICT use in the public administration system.

This can be achieved through the development of broadband Internet access networks; development of Wi-Fi Internet access points in public places and public transport; increasing the number of fixed broadband Internet ports; technological equipment upgrades; establishing cooperation with leading foreign companies in the field of software and telecommunications.

Human capital plays a big role in the development of e-government. Thus, the human capital of Denmark occupies the 7th position among the EU countries in terms of the presence of "digital" competencies among the population. As noted, in general, 71% of Danes have skills in working with digital technologies, of which almost 50% have skills above basic ones. Unfortunately, this figure in our country is low. Today's realities are such that people have the opportunity to use the Internet, but they do not do it because they do not know how or do not understand what it will give them. Many people do not use a computer and the Internet, do not have new skills and abilities to receive and process information. We are talking about the unpreparedness of citizens, the lack of appropriate competence, the lack of ICT specialists (especially in the regions). It is necessary to actively promote the concept of e-government and present the latest technologies in the field of public Internet services, conduct activities to train the population in the skills of using ICT.

Along with this, it is necessary to provide for measures to develop the infrastructure of the "Electronic Government" system in the Republic of Karakalpakstan, namely, the creation of an integrated information system "Electronic Government of the Republic of Karakalpakstan. Also introduce an automated system of electronic document management in the state authorities of the republic, a single information and reference portal [4]. The measures taken in this sector will contribute to further ensuring transparency, openness and reliability of the activities of state

authorities and administration of the Republic of Karakalpakstan, will increase the efficiency of their interaction with the population of the country.

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Rezyume: maqolada Qoraqalpog'iston Respublikasining elektron hukumatini rivojlantirishda asosiy muammolar yoritilgan, Qoraqalpog'iston Respublikasida elektron hukumat to'g'risidagi qonun hujjatlarini takomillashtirish, elektron hukumat tizimi infratuzilmasini rivojlantirish bo'yicha bir qator takliflar mavjud.

Резюме: в статье освещаются основные проблемы, имеющие в развитии электронного правительства Республики Каракалпакстан, содержатся ряд предложений по совершенствованию законодательства об электронном правительстве, развитию инфраструктуры системы Электронного правительства в Республике Каракалпакстан.

Kalit so'zlar: elektron hukumat, davlat organlari, davlat xizmatlari, elektron xizmatlar, davlat organlari o'rtasida ma'lumot almashish.

Ключевые слова: электронное правительство, государственные органы, публичные услуги, электронные услуги, обмен информацией между государственными органами.

**PROVERBS AND SAYINGS OF THE RUSSIAN LANGUAGE AND WAYS OF THEIR
TRANSLATION INTO THE KARAKALPAK LANGUAGE**

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Summary: *This article discusses the comparative typology of paremia of the Russian and Karakalpak languages, and provides translation methods. The work can serve as additional material in the compilation of the dictionary of Russian and Karakalpak languages and in the work of teaching Russian and Karakalpak languages in native schools.*

Keywords: *paremia, proverbs and sayings, aphorisms, concept, compensation, analogy, synonym, equivalent, descriptive, combined, tracing, axiology.*

It is important and interesting to study the language in the linguoculturological aspect, which implies awareness of it as a form of expression of national culture, and as a natural phenomenon, as the relationship of language and the history of the people, where the features of culture and traditions dating back to the living conditions of the people are reflected and transmitted from generation to generation. The linguistic and cultural aspect of language learning is present at all its levels, it is especially evident in the combat units, which include paremia. The value of the paremia in the cultural aspect appears in two ways: as integral signs and a reflection of the national-cultural component, which makes it possible to analyze in comparative terms a variety of axiological concepts. Paremias are a separate genre of oral folk art and reflect the relationships of people, social and natural phenomena, traditions.

In a broad sense, paremias in linguistic are understood as short folk sayings, i.e. linguistic aphorisms that go back to folklore and have both a literal and figurative plan of meaning and have a poetic form in their structure, and grammatically constitute a complete sentence.

In this sense, the paremias in the work are understood as a proverbial and proverbial fund, which reflects information about the life of the people of their worldview as a special kind of maxim. Proverbs, as V. P. Zhukov points out, unlike sayings, have two plans – direct and figurative and can only have a figurative plan, and sayings have only a literal plan. [V.P.Zhukov M.1968:11]

Proverbs and sayings have been repeatedly emphasized as cognitive value and have been the object of scientific research. However, the presence of separate searches about some thematic groups as a whole does not change the picture of general knowledge. Especially if it concerns the translation from Russian into Karakalpak or vice versa. Therefore, our chosen topic is still relevant. Along with grammatical and structural differences, paremias also have lexico-semantic and thematic differences. In the thematic and lexical-semantic classification, we adhere to the classification of V.P. Felitsina, Yu.E.Prokhorov, where the lists of the paremia in alphabetical order reflect the life of the people and its history:

1. Activity, initiative: Strike while the iron is hot;
2. Trouble, grief, misfortune: It is no use crying over spilt milk;
3. Poverty, lack of something: The shoemaker's son always goes barefoot;
4. Disaster, carelessness: To go hunting - to feed dogs;
5. Thrift: A penny saved is a penny gained;
6. Talkativeness, taciturnity: A man's ruin lies in his tongue;
7. Chagrin, pain: What the heart thinks the tongue speaks;
8. Mutual assistance, partnership: A single thread from everyone and there's a shirt for naked one;
9. Visibility and essence: All that glitters is not gold;
10. Guilt and retribution: Innocent until proven guilty;
11. Benefit: It is not worth the effort;

12. Stupidity: Fools are fools – they observe no rules; etc.

In total, there are 84 topics in the linguistic and cultural dictionary. In the course of studying such a rich factual material, various structural, lexico-semantic, thematic groups of paremias have been identified. Therefore, in this paper, as a translated material, we decided to investigate paremias by the method of translation, i.e. by translatability. Translation, as defined by Rosenthal D. E. and Telenkova M. A., is "the transmission of the content of an oral or written text by means of another language" [Rosenthal D.E. and Telenkova M.A. 1972:250].

The question of translating proverbs and sayings as visual means of language occupies a certain place in the theory and practice of translation and in the methodology of teaching language and literature, as well as in mastering the apt expressions of the compared languages and in the mutual enrichment of their cultures. By means of translation, the disclosure of the meaning of proverbs and sayings and the identification of analogies to them will help to comprehend the instructive contents of ideas about life, about the innermost thoughts of the two people. Taking into account these circumstances, the object of our research is the methods of translating the paremias of the Russian language into the Karakalpak language.

The purpose of our study is to determine the ways of transmitting the meanings of the paremias created on the basis of the Russian mentality into the Karakalpak language.

The task is to adequately transfer the meanings of the paremia of the Russian language into Karakalpak. When translating proverbs and sayings, two cultures collide and we will witness the interaction of these two cultures, therefore, the translator is obliged to know the history of these people, their traditions, culture, living conditions, and therefore we proceed from the generally accepted definitions of translation as a type of language mediation, in which the same text is created in the translating language, communicatively equivalent the original, and its communicative equivalence is manifested in its identification by the receptors of translation with the original in functional, substantive and structural relations, therefore, the communicative approach in our work is the leading principle and the method of research is a comparative analysis of translation.

Many scientists and writers convince that a literary work should be translated only "literally", i.e. semantically accurate reproduction, when the finest nuances of the original are transmitted.

The communicative approach to translation requires the adequacy of the translation to the original in semantic-stylistic, pragmatic terms from the translator.

The comparison of the paremias of the Russian and Karakalpak languages shows the commonality of some of them in thematic and lexico-semantic terms and is easily translated, while others need an explanation, since they have nothing in common and are not translated literally. For example: As man sows, so shall he reap (не ексең соны орасаң), it is not worth a rush (бир пулға қымбат), to wash dirty linen in public (уйдың сырын сыртқа шығарма), to be on top of the world (басы көкке жетиу), in the middle of nowhere (барса келмес), strike while the iron is hot (темирди қызғанда соғыу or тандырды қызғанда жабыу) etc. And the following examples have nothing in common: a disservice (a helpful fool is more dangerous than an enemy), тақан шайысыу (stop, end friendships), сиркеси суу көтермеу (dislike, be in a bad attitude). As it can be seen from the examples, some proverbs completely coincide, some only partially coincide, and some do not correspond at all, and in this regard, in the selection of equivalents to Russian proverbs and sayings, we use three types of translation: semantic full or partial, semantic and literal.

1. The following paremias belong to the semantic type: a) Grandmother (grandmother) said "more" in two (guessed); This is "still" written with a pitchfork on the water (Шенгел гуллегенде), (түйенин куйрыгы жерге жеткенде); b) Far away (In the middle of nowhere, where the raven will not bring bones; where Makar did not drive calves)- Барса келмес; c) The women shouted hooray and threw caps into the air (Not to remember themselves because of joy) – Топпысын аспанға

атыў; -where the semantics are similar in both languages, although their literal translation does not match.

2. The semantic type includes: a) complete: They don't go to Tula with their samovar- Тоғайға шопшек алып бармайды; East or West, home is best - Қонақ жайда жақсы, ал үйде оннан жақсырақ; As man sows, so shall he reap – Не ексең соны орасан. In times of yore– Алми сақтан қалған; the meaning of such proverbs is close.

b) partial: Every family has its black sheep- бес бармақ бирдей емес; One foot in the grave – Бир аяғы гөрде, бир аяғы жерде. They did not lead to execute, they led to utter a word - Бир қасық қанымнан кешің. The same Savka, on the same sled – баяғы- баяғы бай хожаның таяғы. The literal translation of such proverbs absolutely does not give what was in the original.

c) literal: Happiness takes no note of time – Бахытлы адамлар сағатқа қарамайды; Measure thrice times- cut once— Жети өлшеп бир кес; Birds of –a feather flock together Балықшы балықшыны танийды; Burned on milk, blows on water – аузы куйген катыктыда уплеп ишеди. Haste makes waste – Асықсаң адамларға күлкі боласаң. A fool you were born, you will die as one – Ақмақ болып туылсаң ақмақ болып өлесең. In this type of translation, everything coincides, structurally and verbatim.

In addition to direct translation, reverse translation is also used, which helps to control how the translated paroemias are assimilated and helps to implement a communicative approach.

Conclusions. Russian paremias in our work, we have considered ways to transfer the Russian language into Karakalpak. Our analysis has shown that paremias have both universal and national cultural characteristics. When translating, we relied on the functional aspect of the paremias and mainly used semantic, semantic and literal translations. This work can serve as an example in creating a Russian-Karakalpak dictionary of paremias, in improving the speech culture of those who study the language and contribute to the mutual enrichment of the cultures of the two peoples.

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Rezyume: *Ushbu maqolada rus va qoraqalpoq tillari paremiyasining qiyosiy tipologiyasi muhokama qilinib, tarjima usullari ko'rsatilgan. Asar rus va qoraqalpoq tillari lug'atini tuzishda va ona maktablarida rus va qoraqalpoq tillarini o'qitish ishlarida qo'shimcha material bo'lib xizmat qilishi mumkin.*

Резюме: *В статье рассматривается сравнительная типология паремий русского и каракалпакского языков, а также приводятся методы перевода. Работа может служить дополнительным материалом при составлении словаря русского и каракалпакского языков и в работе по преподаванию русского и каракалпакского языков в родных школах.*

Kalit so'zlar: *paremiya, maqol va maqollar, aforizmlar, tushuncha, kompensatsiya, o'xshatish, sinonim, ekvivalent, tavsif, qo'shma, iz, aksiologiya.*

Ключевые слова: *паремия, пословицы и поговорки, афоризмы, концепт, компенсация, аналогия, синоним, эквивалент, описательный, комбинированный, калькирование, аксиология.*

THE FORMATION OF AUTHORIZED CAPITAL IN JOINT-STOCK COMPANY

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Summary. *The article analyzes the issues of the formation of authorized capital in the joint-stock companies establishing process and provides conclusions and proposals for their solution. The paper gives the author's description of the concepts of "formation of authorized capital", reveals the essence of some terms, and also proposes to clarify the list of property and property rights that can be a contribution to the authorized capital of a joint-stock company.*

Keywords: *authorized capital, joint-stock company, charter, memorandum of association, supervisory board, general meeting, constituent assembly, shareholder, property, share, know-how.*

According to scientists, the concept of "authorized capital" is conditional - it is a monetary expression of the property value that the created joint-stock company should have, regardless of the objects included in its composition, and below the level of which the value of its net assets should not decrease [9, p. 46]. There is also an unconventional approach to understanding the authorized capital, for example, A. A. Glushetsky defines it as a set of shares owned by shareholders, which expresses their participation rights in the company: "Authorized capital is an asset owned by shareholders, it is not associated with contributions to property society" [2, p. 5].

The company authorized capital is formed at the expense of the shares nominal value acquired by the shareholders. In other words, the source of the joint-stock company authorized capital formation is the income from the sale of shares. Therefore, this organizational and legal form of this legal entity is called a joint-stock company.

In the economic sense, the company authorized capital consists of shares contributed by shareholders. The authorized capital, in its significance, is the amount of fixed assets allocated to the company to start its activities and fixed by the charter of the company or the memorandum of association. The formation of the authorized capital is possible at the expense of income from the sale of shares, independent capital, public funds and other objects.

The legal literature provides a description of contributions made to the property of a joint-stock company and discusses the procedure for making them [6, p. 59]. In addition, the literature discusses questions about what property can be contributed as a contribution to the authorized capital, what is the legal status of intangible benefits contributed as such a contribution, is it possible to pay the authorized capital in full exclusively with intangible assets, and if not, then what should be the ratio of tangible and intangible assets in the authorized capital? At the same time, there is an opinion about the need to establish a certain percentage of funds contributed in the authorized capital formation [3, p. 230]. At the same time, E. A. Sukhanov notes that the possibility of contributing various (any in principle) property to the authorized capital, even if its independent assessment is required, cannot lead to anything but abuse [8, p. 55].

There is no concept in American Corporate Law that is identical to the authorized capital of a joint-stock company in the post-Soviet space. The closest concept corresponding to the concept of authorized capital is the entrepreneurial corporation share capital. The legal concept of authorized capital is the total amount of compensation received by a corporation in exchange for issued shares, subject to formal restrictions regarding the type and amount of payment for shares [4, p. 33-37].

The specifics of the corporation authorized capital legal regulation are fixed by the imperative norms of special corporate legislation. Such norms include the norms on the minimum authorized capital, the procedure for its payment, as well as on the increase and decrease in the authorized capital. They are aimed at ensuring the interests of not only the creditors of the joint-stock company, but also the shareholders themselves. Thus, in accordance with the Second EU

Directive 76/91 of 12.13.1976 (the “Capital Directive”), the minimum authorized capital of a joint-stock company must be at least 25 thousand Euros. At the same time, the shares into which the authorized capital is divided must be expressed in a nominal amount. In the countries of the Romano-Germanic legal family, the requirement for a fixed authorized capital is an important means of protecting creditors, minority shareholders, as well as management and majority shareholders, since in the event of a corporation's bankruptcy, their additional liability to creditors with their own property is excluded. As can be seen, the presence in the Romano-Germanic Law countries legislations of the requirement for the authorized capital minimum amount, consistent with the legal norms on insolvency, on accounting and auditing, and others, ensures the performance of functions aimed at conducting conscientious and reasonable business activities. Therefore, proposals to abolish the minimum size of the corporation authorized capital were criticized in the German legal literature [1, p. 65].

The legislation of the Republic of Uzbekistan, based on the general rule that legal entities are liable for their obligations within the limits of their property, determines that the authorized capital minimum amount of a joint-stock company should be set at the level of ensuring the interests of its creditors. This rule is enshrined in part 2 of Article 16 of the Law of the Republic of Uzbekistan “On Joint Stock Companies and Protection of Shareholders' Rights”. The authorized capital of the company is considered as an object of collection of the company's debts to creditors and is its property, fixed in the charter, and the shareholder is liable only in limited cases and only within the limits of the property contributed by him.

The authorized capital of a company does not consist of all the property of the company, but only of its required minimum level. In this regard, it is necessary to distinguish between the concepts of “authorized capital” and “property of a joint-stock company”. When an enterprise is established, its property consists entirely of the authorized capital, which is formed at the expense of the founders who make their contributions. However, in the future there is a separation of the authorized capital from the actual property of the company. A line in the balance sheet and the real property of a legal entity correlate less and less, the further economic activity unfolds. The value of property begins to change, the company acquires or loses assets that are not comparable in value to the authorized capital minimum level that is provided for by law [5, p.72]. For example, if the total amount of all assets on the joint-stock company balance sheet is 620 thousand US dollars, then the authorized capital may be 500 thousand US dollars.

According to Article 17 of the Law of the Republic of Uzbekistan “On Joint Stock Companies and Protection of Shareholders' Rights”, the authorized capital size of joint stock companies is determined by the charter of the company, and its minimum amount can be determined by the licensing requirements.

To date, the number of commercial banks operating in Uzbekistan is 33, of which the authorized capital of 13 banks (39.39%) exceeds 500 billion soums, the authorized capital of 9 banks (27.27%) exceeds 200 billion soums, the authorized capital of 11 banks (33.33 percent) less than 200 billion soums [10].

In some commercial organizations created in the form of a joint-stock company, such as commercial banks, higher thresholds are set for the minimum amount of authorized capital. This is due to the need to guarantee the interests of creditors. For example, according to the first part of Article 13 of the Law of the Republic of Uzbekistan “On Banks and Banking Activities”, the minimum authorized capital of a bank should be one hundred billion soums.

The following functions of the authorized capital can be distinguished:

1. The authorized capital of a company is defined as the material basis for the start and further conduct of its activities. In other words, the authorized capital plays the role of capital turnover in entrepreneurial activity;

2. The authorized capital (the size of the authorized capital) determines the share of each shareholder in the distribution of the company's property. The authorized capital is divided into several parts, each of which has a nominal value. The lower the nominal value of the shares, the greater the ability to accumulate large sums of money for business in a wide range;

3. The authorized capital is a kind of the joint-stock company efficiency indicator [7, p. 129-130].

Based on the foregoing, two main features of the authorized capital can be distinguished: its presence is reflected not only in the balance sheet, but also provided for in the charter, which is considered as the main document.

To form the authorized capital, a temporary account number is opened in the bank in order to account for the property contributed by the founders of the company. Thus, upon the company registration completion, the contributed shares in accordance with the charter, the payment of dividends and all further settlements with the founders will be transferred to a special account opened by the company.

The authorized capital of a company is usually formed from real estate, land, equipment and other quickly convertible assets (liquid assets). Thus, the main feature of the authorized capital is its monetary value.

The authorized capital may be increased or decreased. In such cases, the articles of association are amended. According to the general rules, amendments to the charter are made on the proposal of the general meeting of shareholders. However, amendments to the charter relating to an increase in the authorized capital may also be made by the supervisory board of the company. This is allowed only in cases where the supervisory board is endowed with such a right, provided for by the charter of the company or by the general meeting decision of shareholders.

The change in the authorized capital is regulated by the charter of the joint-stock company. The Charter, firstly, specifies the number and nominal value of shares acquired (placed) by shareholders; secondly, the charter of the company may provide for an increase in the authorized capital in the future, indicating the rights of the owners of these shares.

The decision to increase the nominal value of shares, increase the authorized capital and make appropriate changes to the charter of the company is taken by the general meeting or the supervisory board, if it has such a right. An increase in the nominal value of issued shares is the basis for the cancellation of state registration of previously issued shares and requires the shares delisting with a new nominal value.

In addition, in accordance with Article 19 of the Law of the Republic of Uzbekistan "On Joint Stock Companies and Protection of Shareholders' Rights", the authorized capital of a company can be reduced by reducing the nominal value of shares or reducing their total number, including by acquiring a part of the shares by the company with their subsequent cancellation.

Thus, we consider it appropriate to give a legislative definition of such a legal structure as "formation of authorized capital", which should be understood as making property or monetary contributions to the composition of the property of a joint-stock company by paying for shares issued by the company upon establishment or when increasing the authorized capital.

In addition, the legislation should clarify the list of property and property rights that can be a contribution to the authorized capital of a joint-stock company. It seems necessary to establish a ban on making know-how as a contribution to the authorized capital of a joint-stock company, since the procedure for forming the authorized capital makes it impossible to transfer know-how with real value to the authorized capital, thereby the legislation creates a legal possibility for the formation of the authorized capital of a joint-stock company by fictitious contributions under the guise of know-how. It is also necessary to provide that when making intellectual property objects into the authorized capital, the contribution of the participant may be not only a property right, i.e. the right to use an intellectual property object transferred to the public in accordance with a license or

author's agreement, but also the property itself (for example, materialized copies of an author's work (copyright object), including computer programs).

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Rezyume. Maqolada O'zbekiston Respublikasida aksiyadorlik jamiyatlarni tashkil etishda ustav kapitalining shakllanishi masalalari tahlil qilingan va ularga bog'lik masalalarni hal qilish uchun taklif va hulosalar keltirilgan. Maqolada «ustav kapitalining shakllanishi» tushunchasiga mualliflik tavsifi berilgan, ayrim iboralarning mazmun-ma'nosi ochib berilgan, shuningdek, aksiyadorlik jamiyatning ustav kapitaliga hissa bo'lishi mumkin bo'lgan mol-mulk va mulkiy huquqlar ro'yxatini aniqlashtirish taklif qilingan.

Резюме. В статье анализируются вопросы формирования уставного капитала в процессе учреждения акционерных обществ и приводятся выводы и предложения для их решения. В работе дается авторская характеристика понятия «формирование уставного капитала», раскрывается сущность некоторых терминов, а также предлагается уточнить перечень имущества и имущественных прав, которые могут быть вкладом в уставный капитал акционерного общества.

Kalit so'zlar: ustav kapitali, aksiyadorlik jamiyat, nizom, ta'sis shartnomasi, kuzatuv kengashi, umumiy yig'ilish, ta'sis yig'ilishi, aksiyador, mol-mulk, aktsiya, nou-hau.

Ключевые слова: уставный капитал, акционерное общество, устав, учредительный договор, наблюдательный совет, общее собрание, учредительное собрание, акционер, имущество, акция, ноу-хау.

ON SELF-DEVELOPMENT AND IMPROVEMENT OF THE FUTURE PHILOLOGIST-TEACHER OF THE KARAKALPAK LANGUAGE IN HIGHER EDUCATION

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Summary: *Future teachers of the Karakalpak language should be able to manifest in their creative activity the accepted goals of improving future professional activities, developing language competence, and feel like full-fledged subjects of this process. Self-development of linguistic competencies is only an opportunity for cultural self-transformation, self-development of the future teacher of the Karakalpak language, which allows to show the abilities of the individual.*

Keywords: *educational goals, principles, diagnostics of the level of improvement of language competencies, teachers of the Karakalpak language, linguistic competence, methodology, teaching, philologist-student, modeling, exemplary model, behavior, social conditions, level of education, social activity.*

The training of the future teacher of the Karakalpak language, the improvement of his language competencies, includes the professional activities of the future specialist in the Karakalpak language, based on self-organization and development. Its importance lies in the fact that future teachers of the Karakalpak language can manifest in their creative activity the accepted goals of improving their future professional activities, developing language competence, and feel themselves as full-fledged subjects of this process. Self-organization determines the operational aspect of the above process and employability.

The future teacher of the Karakalpak language needs to master pedagogical technologies and increase the level of language competence and self-control. Self-development of linguistic competencies is only an opportunity for cultural self-transformation, self-development of the future teacher of the Karakalpak language, which allows to show the abilities of the individual.

Having turned personal life activity into a subject of practical changes, the future teacher of the Karakalpak language will increase the highest form of language activity - creativity, the ability to develop.

The need of a student-future teacher of the Karakalpak language for self-improvement as a person improved by the language determines effective professional development in the future. Self-development is an integral part of professional development, which means that the initiative is a factor in the professional development of the future teacher of the Karakalpak language.

It is expressed through integrative content, organizational forms and teaching methods. Educational blocks and modules are built on the basis of functional blocks designed to achieve specific linguistic goals aimed at improving the language competence of the future teacher of the Karakalpak language. The content of blocks and modules ensures its assimilation in offline modes, including in distance learning. With a certain systematic organization of blocks and modules, it is possible to change the sequence of their study and offer of information, taking into account the individual psychological characteristics of the students' linguistic personality, the need for their implementation and self-development.

The sequence of changes introduced into all components of the educational process, at all its stages and for all students, is realized through expediency.

It is based on an unchanging methodological model for improving the linguistic competencies of a future teacher of the Karakalpak language, which covers the following structural sections:

- educational goals;
- principles;

- methodology for improving language competencies (educational content; educational technologies);
- organization of education and didactic conditions;
- diagnostics of the level of improvement of language competencies;
- the result is focused on the quality of training of a specialist - a teacher of the Karakalpak language.

It covers the system diagnostics of the level of improvement of the linguistic competencies of the future teacher of the Karakalpak language with the help of tests. This, in turn, contributes to the determination of the language competence of applicants, their long-term preparation for professional activities in their future specialty, and the ability to work as a teacher of the Karakalpak language.

Improving the language competence of the future teacher of the Karakalpak language according to the criteria for the effectiveness of the university educational process is the main goal of our scientific activity today.

The main task of assessment is to interpret the process, give feedback, determine the state and features of the educational process and make appropriate adjustments. The emphasis is on criteria-based control and self-assessment of students.

The achievements of students (future teachers of the Karakalpak language) are assessed as levels aimed at improving the language competence of specific educational blocks, modules, subjects or a set of subjects based on general criteria for assessing educational achievements.

Based on the established principles, we have developed a methodology for improving the linguistic competencies of the future teacher of the Karakalpak language.

According to our plan, the content of education specified in the state educational standard is supplemented by the following criteria in order to be mastered at a creative and variable level and contribute to the improvement of the language competencies of the future teacher of the Karakalpak language:

- on a competency-based approach;
- on the main directions of state policy in the field of language education;
- on psychology and pedagogy of self-development of the future teacher;
- evaluate the results of educational activities according to the criteria;
- on the creation of a network electronic professional portfolio as a technology for developing the professional skills of a future teacher of the Karakalpak language.

Formation of the following competencies - that is, readiness and ability:

- independent research activity;
- work with the network electronic professional portfolio of the future teacher of the Karakalpak language;
- constant professional self-development and self-education;
- improvement of self-assessment according to the criterion of the results of educational, cognitive, research and future professional activities based on language competencies;
- reflect their educational, cognitive, scientific and future professional activities;
- professional mobility and re-profiling of one's professional activity.

V. A. Belikov shows that the main directions of reforming higher education are the focus on the person, his abilities and characteristics, the humanization of education, the enlargement of individual subjects, the transition from academic subjects to educational areas, the technologization of education [1]. One of the necessary conditions for the implementation of these areas is the introduction of new educational (pedagogical) technologies, pedagogical technologies as a tool, that is, the production of teaching aids, equipment, teaching aids for the educational process and their proper use.

The second place was won by V. P. Bepalko, S. Gibson, I. A. Zyazyun, A. M. Kushnir, V. M. Monakhov, V. A. Slastenin, B. Skinner, T. Sakamoto, M. A. Choshanov and others. They consider pedagogical technology as a communicative process (method, model, method of solving educational problems) based on the participants in the pedagogical process, a certain algorithm, program, and a system of their interaction. Close to this position is the understanding of pedagogical technology and the ability to teach and educate as an art.

Representatives of the third position (P.I. Pidkasti, V.V. Guzeev, M. Eraut, R. Kaufman, S. Wedemeyer) consider pedagogical technology as a wide field of knowledge based on data from social, managerial and natural sciences. This position requires absolute precision from technology, guaranteed conclusions (even in the field of probabilistic properties).

The fourth position refers to a multidimensional approach and suggests considering educational (pedagogical) technologies as a multidimensional process (M.V. Klarin, V.V. Davydov, G.K. Selevko, D. Finn, K.M. Zilber, P. Mitchell, R. Thomas).

Commenting on the concept of "educational (pedagogical) technology" based on the foregoing, we understand that pedagogy is a category with a high level of generality and a stereoscopic level. In this regard, G.K. Selevko showed that the development of pedagogical technology based on the concept in pedagogy is a new qualitative stage of development [2].

Thus, pedagogical technology is also studied as a science (a field of pedagogical theory) that studies and develops the most effective methods of education. As a real learning process, it can be represented by a whole set of aspects or a scientific development (project, concept), or a description of the mode of action or process carried out in practice.

As for the technological part of the simulated educational process, which contributes to the improvement of the language competence of the future teacher of the Karakalpak language, it must be expressed with the help of personality-oriented technologies. Through this, specialization in development and activity, renewal of professional and individual performance, formation of a cultural linguistic personality, creation of a comfortable psychological environment, attention to ensuring a free democratic environment, ensuring a subjective position for all participants in the educational process, and most importantly, the development of professional skills of the future teacher of the Karakalpak language is in the use of a supportive and encouraging pedagogical method of interaction.

Since the developed subject "Methods of teaching the Karakalpak language and literature" is a special subject, the typology of its curriculum was studied as a type of program related to the subject:

- we marked it as a program with a tabular structure, because the educational material is placed without repetition and without returning to the previous ones;
- creates a continuous sequence, directly related to each other, which is generated once during the study.

Since the program was developed on the basis of improvement, unlike the current one, the subject "Methods of teaching the Karakalpak language and literature" is divided into departments and modules.

For each of the modules, it is revealed that students should know and solve the problem, what experience they should have in developing their linguistic competence [3].

The main principle of the undergraduate program is the comprehensive development of the individual and the preparation of a citizen who is ready to take responsibility, through the dynamic adaptation of knowledge, skills, abilities, qualifications and the development of creative thinking. To do this, we need to create a student profile. "Profile" serves as the main tool for creating a learning space in an educational institution. His service determines the types of educational technologies and control, serves the development of the student's personality. The document allows

teachers and students to interpret curricula, directions, including the results of service in educational institutions.

Questionnaire of a student of the Karakalpak language and literature

Description of student image	Characteristics
Curiosity	They develop their natural curiosity and independently acquire the knowledge, skills and practical skills needed to conduct research. Forms life skills in the process of learning and learning.
Acquisition of knowledge	They study concepts and ideas of regional and global importance. Including, comprehensively assimilates knowledge and develops interdisciplinary integration.
Genius	Takes the lead in identifying complex problems, making informed and ethical decisions, and developing critical and creative skills.
Culture of speech	Speech with a logical accent, pauses and gestures, the use of artistic speech: metaphors, comparisons, etc. be able to use it correctly, speak, strictly observe the culture of communication, politeness, observe the culture of listening when talking.
Liquid radiation	Pleasant appearance, good manners, clear and distinct speech, knowledge.
Communicator	Keeps thoughts and information in secret, is creative, maintains pedagogical tact in communication, communicates with respect for a person, knows how to show interest and respect, does not use critical answers, recognizes the feelings of others, knows how to listen with interest to the interlocutor, be attentive and understanding, attracting attention, using clear and convenient words.
Principle	Mental stability, adherence to principles and seriousness, confident speech, determination (not stubbornness).
Pedagogical motivation	The ability of students to generate interest in their subject.
Creativity	Means creator, creator, preparation for the production of new ideas and independent creative ability. The creativity of a person is his ability to manifest itself in his thinking, communication, feelings, and activities. Creativity characterizes certain characteristics of a person, sharpness of mind.
Respect for values	Values and understands one's own culture, history and respects the future, values and traditions of other people and communities. I am used to finding and evaluating different points of view, striving for development, gaining new experience.
The guardian	Works to fulfill the desires and feelings of others, to support and welcome people with an open face, to improve the quality of life of others and the environment.
Risk-takers	Show courage, courage, foresight, readiness to accept new ideas and strategies, courage to defend their beliefs in strange, incomprehensible situations.
Innovator	Having a new approach to solving a problem, a way of applying a new technological process, a complex of technologies.

Profoundly	Defines the results of reflective learning and experience. Knows the strengths and weaknesses that help and hinder learning and independent experience.
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The main way to form self-possession of knowledge is the correct organization of educational activities. Therefore, it is necessary to highlight the main teaching methods in teaching. According to the curriculum "Methods of teaching the Karakalpak language and literature", the methods for developing the mental performance of students in their independent work were as follows:

- highlighting the main landmarks in the material, dividing the text into sections;
- drawing up plans, theses, abstracts;
- creation of a logical scheme of the material, selection of serial connections;
- understanding of existing schemes, schemes, tables;
- memorize the necessary theorems in the text.

In modular learning, a lecture (exercise) is considered a necessary form of learning, and the student independently finds solutions in new situations. In addition, students prepare abstracts and lectures on issues of interest to them, learn to analyze new material. All this helps students to learn independently and develop their language competencies [4].

Features of classes in educational institutions working on undergraduate programs are determined by its concept, based on the values and goals of humanity and are based on the following rules.

Knowledge is considered not as an end in itself, but as a means of self-determination of the individual, as a way for the student to enter the culture and realize himself in a cultural place. Therefore, constant attention is paid to the method of obtaining knowledge, the activity of students in the learning process. It creates favorable conditions for the direction of natural interest, aspiration and independent work of students in solving problems in the lesson.

If the lesson pays different attention to the formation of practical and independent work of students, then their acquisition of competence will be high. Self-study in the classroom creates the conditions for organizing creativity, educating the subjects of the educational process to life by solving problems, expressing one's point of view, solving it through debates.

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Rezyume: *Bo'lajak qoraqalpoq tili o'qituvchilari o'zlarining ijodiy faoliyatida kelajakdagi kasbiy faoliyatini takomillashtirish, til kompetensiyasini rivojlantirish bo'yicha qabul qilingan maqsadlarni namoyon eta olishlari, o'zlarini shu jarayonning to'laqonli sub'ektlari sifatida his qilishlari kerak. Til kompetensiyalarini o'z-o'zini rivojlantirish – bu bo'lajak qoraqalpoq tili o'qituvchisining o'zini-o'zi madaniy o'zgartirishi, o'z-o'zini rivojlantirish imkoniyati, bu shaxsning qobiliyatlarini namoyon etish imkonini beradi.*

Резюме: Будущие учителя каракалпакского языка должны уметь проявлять в своей творческой деятельности принятые цели совершенствования будущей профессиональной деятельности, развития языковой компетенции, чувствовать себя полноценными субъектами этого процесса. Саморазвитие языковых компетенций – это лишь возможность культурной самотрансформации, саморазвития будущего учителя каракалпакского языка, позволяющая проявить способности личности.

Kalit so'zlar: ta'lim maqsadlari, tamoyillari, til kompetensiyalarini takomillashtirish darajasi diagnostikasi, qoraqalpoq tili o'qituvchilari, til kompetensiyasi, metodikasi, o'qitish, filolog-talaba, modellashtirish, namunali model, xulq-atvor, ijtimoiy sharoit, ta'lim darajasi, ijtimoiy faollik.

Ключевые слова: образовательные цели, принципы, диагностика уровня совершенствования языковых компетенций, учителя каракалпакского языка, языковая компетенция, методика, обучение, филолог-студент, моделирование, образцовая модель, поведение, социальные условия, уровень образования, социальные активность.

**TEXTUAL STUDY INFORMATION IN VISUAL FORM PEDAGOGICAL
APPROACHES TO EXPRESSION**

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Summary: *In the era of globalization, the flow of information is so great that it is impossible to fully absorb it. However, no matter how complex, the specialist or specialists must master the professional knowledge thoroughly. This requirement requires summarizing, organizing, condensing and systematizing existing and new knowledge in all areas. In modern conditions, the most effective method of summarizing, organizing, condensing and systematizing knowledge is their visualization, that is, changing it from textual information to visual form. The effective passage of this process depends on the correct selection of pedagogical approaches aimed at expressing textual educational information in a visual form. The article talks about pedagogical approaches that serve this purpose.*

Keywords: *text, information, educational information, textual educational information, visual, visuality, representation in visual form (visualization), representation of textual educational information in visual form.*

Due to its physiological characteristics, a person effectively receives and remembers information in visual (picture) form for a long time, compared to oral and written verbal information. Visualization of textual educational information is considered a somewhat complicated but interesting process. Its effective passage requires a creative approach to the process from the person working on the text. To visualize the textual educational information, to fully understand its didactic importance, it is necessary to be aware of the content of some basic concepts.

The concept of "**text**", which is an Arabic word, lexically means "shoulder", "expression of speech in writing", and theoretically means the main part of a printed publication without pictures, drawings and comments [6, p. 557]. Throughout the history of human development, text has served as the basis of written communication between individuals. Letters, letters, wills, handwritten books mainly consisted of texts. After the introduction of book printing, it became possible to reproduce and distribute printed texts in many copies. Even today, texts form the main part of printed matter.

The concept of "**information**" derived from the Latin word "informario" and the Arabic word "news" expresses the meaning of "an evidence, description of an event, explanation" [3, pp. 43-44]. In modern conditions, information is treated not only as a method of expression, but also as a valuable commodity (product). Especially in the fields of production, service, business and advertising, accurate, detailed, as concisely expressed information as possible is the main driving force of the market economy became one of the factors.

The concept of "educational information" is explained in the sources as follows: 1) specially selected and prepared information about the object of study, which is determined by the acquisition of relevant knowledge, taking into account the achievement of the required educational results" [5]; 2) information of a scientific, technical or educational nature, which performs an explanatory function and serves to convey to the audience existing knowledge about natural and social phenomena, systematized taking into account scientific experience, intellectual capacity and age characteristics of the receivers [4]. In our opinion, educational information is information of a social, natural, practical, artistic, religious, technical, technological character, which is specially

selected, arranged, condensed, systematized and scientifically-cognitively based, which serves to fully reveal the essence of the object of study.

Textual educational information is specially selected, ordered, compact, systematic and scientific-cognitively based social, natural, practical, artistic, religious, technical, technological character that serves to fully reveal the essence of the object of study, but does not have a graphic, figurative form. is a specific piece of information consisting of text only.

"Visual" (Latin "visualis") means information received by sight, represented by an image. "Visuality" is the representation of certain information by means of an image, image, perception by sight.

Representation in visual form (visualization) means graphic, pictorial representation of information in oral or printed form, and representation of textual educational information in visual form means graphic, figurative representation of textual educational information. V.A. Belomestnova draws attention to the fact that visibility is "equipment with a list, table, diagram, photograph, scheme, picture, etc." [1]. Therefore, visual representation (visualization) of textual educational information means enrichment of knowledge in a graphic, figurative way: list, table, diagram, photo, scheme, picture, image, picture, map and video footage.

In the process of visual representation (visualization) of textual educational information, students' cognitive, analytical, creative, creative, practical, reflexive competencies are evident.

Representation of educational information in a visual form (visualization) is carried out on the basis of certain approaches. O. Yu. Zaslavskaya and E. S. Puchkova note the importance of the following approaches in this process:

targeted approach;

analytical approach;

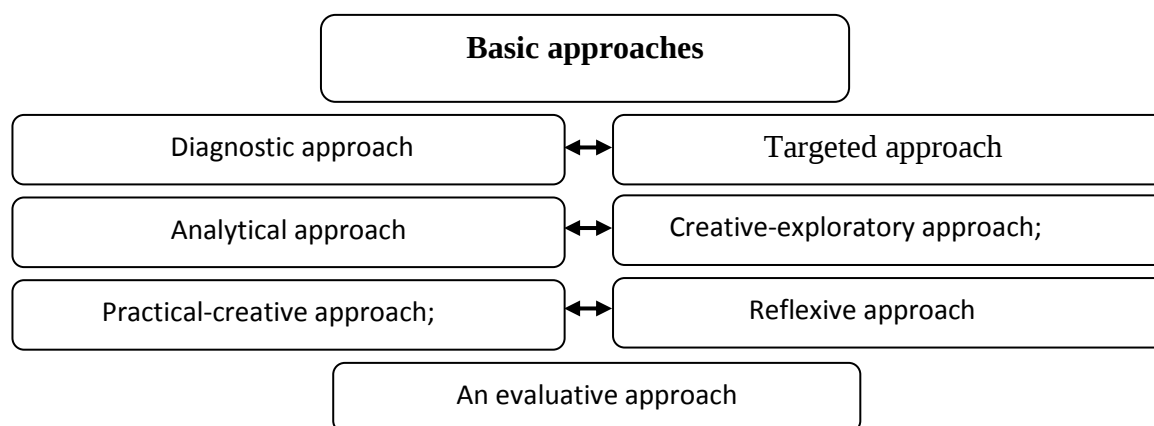
creative-exploratory approach;

practical-creative approach;

reflexive approach [2, 134].

At the same time, students are placed in the opinion of the authors

from the point of view of developing the ability to visualize educational information, we found it necessary to supplement the approaches mentioned by O.Yu.Zaslavskaya, E.S.Puchkova with the following:



The main approaches to the development of students' ability to visualize educational information

1. Diagnostic approach. This approach serves to determine students' ability to visualize educational information and its level (primary assessment). In this process, the students' creative abilities can be improved by working with textbooks and specially selected diagnosis methods - "Mind map", "Interconnecting diagram", "Idea generator", "Associative map", "Venn diagram", "Diagnosed and assessed using the Fish Skeleton, Frame Scheme, etc. (initial assessment). The diagnostic approach serves as a basis for determining the main direction of scientific research aimed at developing students' ability to visualize educational information, and forming a special methodology.

2. Targeted approach. This approach helps clarify the goal of visualizing relevant educational information in students. It is known that the clarity of the goal is important in the proper organization of activities and ensuring its effectiveness. In visualization, goal setting is determined taking into account the content, character, structural structure, coherence between the main elements of the textual educational information.

3. Analytical approach. The basis of this approach is the analysis process. In the process of analysis, first the main tasks are defined. In most cases, the main tasks are to study the content of the isolated textual educational information, to take into account its character, to analyze its structural structure, to find the interrelationship between the main elements, logical unity and coherence. The result of the analysis and the conclusion drawn from it ensure the selection of methods and tools that will be the basis for students' creative-inquiry activities.

4. Creative-searching approach. The process based on this approach helps students to choose the methods and tools that serve to visualize textual educational information based on its content, character, educational structure, main elements. The creative-exploratory approach creates a wide opportunity for students to fully realize their creative and creative abilities. In the corresponding process, students are offered several options for visualizing textual educational information. With the help of group and collective discussion, the effectiveness of the proposed options is studied and the most effective option is selected. In the course of work, new ideas about visualization of textual educational information appear according to the selected option. As a result, the visual image of textual educational information is further improved.

5. Practical-creative approach. According to the group and collective discussion of this process, the didactic possibility of applying the improved visual educational information to the educational process is explored. The practical-creative approach means that visual educational information can be presented one or more times, taking into account the existing level of knowledge, learning activity, group and team work experience, and individual abilities of learners.

6. Reflexive approach. This approach helps to analytically assess the level of personal capabilities of students in visualizing textual educational information - their achievements and shortcomings, significant mistakes.

7. Evaluative approach. This approach is carried out by a methodologist-teacher or researcher. Its purpose is to determine the development of students' ability to visualize educational information and its level (secondary assessment) after the application of a special methodology to pedagogical practice. Accordingly, the assessment approach guarantees two important results: firstly, students' ability to visualize educational information is developed and the possibility to determine its level arises; secondly, to come to a certain conclusion about the effectiveness and practicality of the special methodology recommended for pedagogical practice.

Thus, the most important feature of the era of globalization is the emergence of a large volume of information flow. This situation, in turn, creates certain difficulties in the effective reception and assimilation of information by subjects, in particular, students. For this reason, the visual expression (visualization) of textual educational information is becoming more and more relevant today. Accordingly, providing students with generalized, organized, compact and systematic knowledge is of particular importance in ensuring the effectiveness of the educational process in

modern conditions. As a future specialist, students need to have the ability to visualize textual educational information. Deciding on a rational approach to pedagogical activity aimed at this goal allows to achieve the expected results in the process of developing the ability to visualize textual educational information in students.

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Rezyume: *Zamonaviy sharoitda bilimlarni umumlashtirish, tartiblashtirish, ixchamlashtirish hamda tizimlashtirishning eng samarali usuli – ularni vizuallashtirish, ya'ni, matnli axborot ko'rinishidan vizual shaklga o'zgartirish sanaladi. Maqolada ana shu maqsadga xizmat qiladigan pedagogik yondashuvlar haqida so'z yuritilgan.*

Резюме: *В современных условиях наиболее эффективным способом обобщения, сортировки, уплотнения и систематизации знаний является их визуализация, т. е. перевод их из текстовой информации в визуальную форму. В статье говорится о педагогических подходах, которые служат этой цели.*

Kalit so'zlar: *matn, axborot, o'quv ma'lumotlari, matnli o'quv ma'lumotlari, vizual, vizuallik, vizual shaklda tasvirlash (vizualizatsiya), matnli o'quv ma'lumotlarini vizual shaklda ko'rsatish*

Ключевые слова: *текст, информация, учебная информация, текстовая учебная информация, наглядность, наглядность, представление в наглядной форме (визуализация), представление текстовой учебной информации в наглядной форме.*

**PROVERBS ABOUT THE FARMING PROFESSION AND THEIR TYPOLOGY IN THE
FOLKLORE OF THE TURKISH PEOPLE
(ON THE EXAMPLE OF UZBEK, KARAKALPAK AND TURKMEN FOLKLORE
PROVERBS)**

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Summary: *In this article, one of the genres of folklore, the idea-content and the theme of proverbs of Turkic people are compared and analyzed on the example Uzbek, Karakalpak and Turkmen folklore materials. Their typology and peculiarities are also defined. As a result, the typology of proverbs about the farming profession in the folklore of the target peoples is clarified.*

Keywords: *folklore, farming profession, proverb, typology*

We all know that the people's oral tradition contains the dreams and aspirations of our ancestors, good wishes for a better life, customs and traditions. Therefore, in each of the works of folklore, you can see the artistic reflection of the past and present history of our people. If we pay attention to the genres of folklore, it can be observed that folk proverbs, realized as a characteristic phenomenon of language, philosophy and artistic creativity, are short, large in size, but have deep content, and are a genre that is distinguished from other genres and forms of folklore. Therefore, in proverbs, the experiences and observations gathered in the social, economic, political and cultural life of the people for many centuries have found an artistic expression with few words and deep content. The term proverb is derived from the Arabic word “qawlun” which means “to say, to tell” and the sequence of words used to say it, statements form the content of the proverb. We all know that proverbs are full of stories like in saga, even if they are small in size. Therefore, in proverbs, the opinion is clear, and the finished conclusion is described. The content described in it is used in its own sense and in other ways. Such characteristic features of proverbs provide a typological character for all proverbs used in the folklore of Turkic peoples. Therefore, in this article, we aimed to analyze and compare proverbs about the farming profession on the example of Uzbek, Karakalpak and Turkmen folklore materials, and we will also try to talk about their typological similarities. In the proverbs used in the folklore of each nation, it is necessary to see the national way of life, customs, traditions of that people, their worldview, political and economic conditions, national characteristics, all the ideas related to the relationship between people and labour, nature and animals. However, the Turkic peoples, including the Uzbek, Karakalpak, and Turkmen peoples lived in the same way in ancient times, their culture, literature, and folklore have typological similarities to each other. Therefore, typological similarities are also evident in the proverbs of these peoples.

For example, let's compare the proverbs about the farming profession:

There is a proverb in Uzbek folklore:

“Ёр ҳайдасанг куз ҳайда,
куз ҳайдамасанг юз ҳайда»

In Karakalpak folklore:

“Жер айдасаң гүз айда,
Гүз айдамасаң жүз айда”[1].

In Turkmen folklore:

“Ери гүйз сүр, гүйз сүрмесен, йүз сүр”[2].

Here, in the context of proverbs spoken among three peoples, there is an optimistic opinion, in which the land values a person, so if you take good care of the land, it will give you a rich harvest, so if you plow the land in the fall, water it and pour the crops, the land will be ready in the spring. The admonitions that if you sow a crop, you will be assured of a bountiful harvest, are described artistically in short words.

For example:

There is a proverb in Turkmen folklore:

“Экене – бар, экмедиге – ёк.”

In this context, the verb "ekmek" is emphasized. That is, as we all know, "harvest", "planting", and "farming" are related to the verb "planting". Therefore, in this proverb, the thought about diligence is connected with the idea that whoever works well, he will make a good living in this life, and he who is lazy, if he does not work, then he will face difficulties in life, is connected with the idea that "The word "crop" is introduced and as a result, the thoughts and feelings that the product is valuable to the person are reflected.

A proverb with this content is in Karakalpak folklore:

“Ексең жерди қандырып,

Аласаң өним жандырып”.

“Бақшаны күтсең бағ болады, Күтпесең жантақ болады”[3].

In Uzbek folklore this content is given in the following proverbs:

“Эккан ўрар, қилган топар”.

“Ер тўйдирар, Ўт куйдирар”.

“Ерга қарасанг, боғ бўлар, Кўнгил очилиб, чоғ бўлар”.

“Ерга сочсанг, ер беради, Елга сочсанг — эл”.

And let's see an example in Turkmen folklore:

“Тикенсиз гүл болмаз, зәхерсиз бал”

It describes the result of hard work. "Flower" and "honey" are used in an antithetical way, and it is used in the same way. In other words, there can be both the black and white periods in life, but if a person works very hard honestly, he will have a rich harvest, he will receive a reward. Here, the symbols “тикен” and “зәхер” represent labour and work. As a result, the words that a person who does not work, will not receive flowers and honey, and will not be able to achieve his intention, are figuratively depicted.

These comments are also used in Karakalpak proverbs:

“Тикенексиз гүл болмас, Машақатсыз бахыт болмас”.

In Turkmen folklore:

“Томус депеси гайнамадыгың гыш газаны гайнамаз”

One of them depicts the summer, and the second, opposite to it, a very cold winter. Here, we all know the description of the summer season, and the time of the maximum amount of sunlight in the summer is calculated. If it is winter, it will show the story of the degree of life according to the result of summer. That is, if you sow crops in the summer, you can enjoy the abundant harvest in the cold winter days. The reason is that if you don't work hard in the summer, if you are not busy with farming, then it is described in literary words that the life will not be easy for you in winter.

Similar proverbs are also used in Uzbek and Karakalpak folklore. For example, in Uzbek folklore:

«Дехқон экканини ейди,

Чўпон — боққанини».

деген көйнисте қолланылады.

In conclusion, there is no doubt that the proverbs related to farming, which are related to the accumulated experiences of our ancestors over several years, serve as an educational school for people. In addition, proverbs are of great importance in educating today's young people in the spirit of loyalty to the Motherland, respect for the national heritage and abilities of our ancestors, and preparing for marriage.

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Rezyume: *Ushbu maqolada folklor janrlaridan biri bo'lgan turkiy xalqlar maqollarining g'oya-mazmuni va mavzulari o'zbek, qoraqalpoq va turkman folklor materiallari misolida qiyoslanadi va tahlil qilinadi. Ularning tipologiyasi va xususiyatlari aniqlanadi. Natijada o'rganilayotgan xalqlar xalq og'zaki ijodida dehqonchilik kasbiga oid maqollarning tipologiyasi ko'rsatilgan.*

Резюме: *В данной статье сопоставляются и анализируются один из жанров фольклора, идея-содержание и тематика пословиц тюркских народов на примере узбекского, каракалпакского и туркменского фольклорных материалов. Определены их типология и особенности. В результате уточняется типология пословиц о земледельческой профессии в фольклоре изучаемых народов.*

Kalit so'zlar: *folklor, dehqon kasbi, maqol, tipologiya*

Ключевые слова: *фольклор, крестьянская профессия, пословица, типология*

**SCOPE OF COVERAGE OF THE THEME OF ECOLOGY AND ISSUES OF SKILLS
IN THE PRESS OF KARAKALPAKSTAN**

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Summary: *This article examines in detail the topic of ecology, which today is considered one of the global problems in the world, and the importance of its coverage in the press. The topic of ecology is mainly analyzed on the example of the modern press of Karakalpakstan. Based on the analysis, environmental problems in the territory were identified. Topics of ecology are also revealed by dividing them into classifications.*

Keywords: *Ecology, topic, problem, newspaper, classification, interview, reportage, Aral Sea.*

Introduction

Recently, in the world practice of journalism, environmental topics have become one of the main areas of journalism. The reason for this is the accumulation of many environmental problems in society and the unresolved nature of these problems in time. The mentioned problems that have arisen in this area are now developing into global problems of human society. There is a need for objective coverage of this topic and the awakening of public opinion on these issues, and in this regard, there is a need to solve these problems.

The main part

In the world there is a need to study environmental topics in many areas of science. And the media plays a big role in this matter. In particular, scientific research is carried out in journalism on the analysis of environmental problems, the classification of topics, the mastery of the disclosure of topics, the possibility of a genre, language and style of text. Therefore, the study of environmental issues in journalism with modern methods and obtaining accurate scientific and practical conclusions is relevant.

During the years of independence, the national journalism of Uzbekistan and its integral part - the press has been widely developed. Research work was carried out on the press and its place in society, the principles of development, the social and spiritual specifics of journalism and genre improvement in journalistic creativity. As you know, the press reflects all the vital issues of public life, including issues of ecology and the environment. It should be noted that many environmental problems have remained from the period of formation to our time. One of them is the drying up of the Aral Sea. Today, this environmental problem threatens not only Central Asia, but the whole world. «I would like to draw your attention to the destruction of the Aral Sea, one of the most acute environmental problems of our time. Here, in my hands, is a map reflecting the tragedy of the Aral Sea. I think comments are unnecessary here. Dealing with the consequences of the drying up of the sea requires active integration of actions at the global level» [1]. Therefore, in the press of Karakalpakstan, which is directly related to this problem, the interpretation of environmental topics in a logical and comparative aspect is relevant.

The "Erkin Karakalpakstan" newspaper, one of the leading newspapers in Karakalpakstan, covers environmental issues. In particular, the newspaper has special headings that reflect the environmental problems of the region.

Of these, the heading "Ecology and Nature" is very popular. Under this heading, on October 31, 1991, three materials and one incriminating photograph were submitted. "How is the situation in our region?" [2; 1991. October 31] the article gives a general overview of the work carried out by the Committee for Nature Protection of the Republic of Karakalpakstan, which studied the ecological situation of the republic, weather, drinking water, soil, sewerage, the death of young

animals, adolescents, the sanitary and epidemiological situation, the consciousness of nature, the main directions, such as the use and protection of the environment, are covered in the form of a report. This material, built on the basis of acute criticism, frankly shows that the environmental situation in the republic is clear and sad. For example, "for 9 months of 1991, 36,642 children were born in the republic, of which 1,730 children died at the age of up to a year. Based on this information, we see that the infant mortality rate over the past nine months was 47.2 units (in 1990 this indicator was 49.4 units)".

"Jasirıp kelsek te bar kesel..." (Even if we hide it, there is a disease...) [2; 1991. November 30] and the fact of the growth of tuberculosis among the population due to the aggravation of the environmental situation at a later time is given on the basis of facts. In addition, on this page of the newspaper, the artist Muratboy Doshchanov's "Save nature!" given the title image. This picture shows two situations, the first one depicts a kind attitude towards nature, and the second picture skillfully shows the situation of man aggressively using nature.

"Man. Nature. Ecology" in the heading "What is the ecological state of our region?" [2, November 30, 1991] commented on the work carried out by the Committee for Nature Protection of the Republic of Karakalpakstan. In addition, under this heading "Qirg'awılı shaqirg'an ma'kan edi", "Biz nege biyg'ambız?" also published these materials. The material "Qirg'awılı shaqirg'an ma'kan edi" is given in the genre of "Kenes" a farm and nature in the Chimboy region, "Biz nege biyg'ambız?" the title article talks about the conservation and care of trees.

Analyzing the pages of the press, it can be seen that the tragedy of the Aral Sea and its consequences is a difficult problem, and that the emergence of other environmental problems under its influence has become one of the pressing topics of the press. That is, in the press, not only the drying up of the Aral Sea was brought to the first level, but many speeches were published around the thesis that the environmental tragedy can have a negative effect on the environment and human life. This can be clearly seen from the materials printed in the 1992 issues of "Erkin Karakalpakstan" newspaper.

Published in the issue of the newspaper dated January 18, 1992 "Aral ha'm qurılıs yamasa Qaraqalpaqstanda turaq jaylar nege tozadı" [2; 1992. January 8], the author, scientist I. Ayymbetov, provides evidence that the houses built several years ago in the city of Nukus fell into disrepair as a result of salinization of the Amu Darya water and the soil layer of the earth, brought by wind from the sea coast recently, and mineral the state of salts and salinity gives its recommendations for the development of maps.

"Aspantaydı nege qista suw aldı? Usı sorawg'a juwap izlep jolg'a shıqtıq" [2; 1992. January 8] the analytical article talks about the natural disaster that happened in Aspantay farm of Bozatov district. This article in the "Editor's Tribune" section was prepared by the editor-in-chief of the newspaper Sh. Usnatdinov. The author goes to the scene, carefully examines the situation and, based on this, gives detailed information. That is, in the winter months, the village of Aspantai is flooded due to an unexpected spill of the Amu Darya water, and the local population suffers greatly. In the article, the author explains not only the flood, but also the causes of this disaster.

We can also see topics related to overcoming the consequences of the island tragedy in interviews with newspaper journalists. "Ku'shler ja'mlespey, Aral mashqalası sheshilmeydi" in the issue of the newspaper dated February 1, 1992 [2; 1992. February 1] journalist E. Ermanov interviews Joldasbay Suinov, then Deputy Chairman of the Council of Ministers of the Republic of Karakalpakstan. This will mainly be the work of the newly created consortium "Aral", the preservation of the then level of the Aral Sea and the continuity of the large-scale work carried out in the republic to improve the health of the population. brought to the fore.

In 1993, on the initiative of the First President of Uzbekistan, Islam Karimov, a number of articles, reports and comments were published in the local press about the international conference organized in Kyzyl-Orda, Kazakhstan.

As we all know, with the efforts of the government of Uzbekistan, in cooperation with the countries of Central Asia, the "International Island Rescue Fund" was established, and several meetings of state leaders were held around it. One such high-level event was organized in 1994 in the city of Nukus. It was attended by the leaders of the Central Asian countries and the Russian Federation on the problems of the Aral Sea basin. A number of articles about the work of this conference appeared on the pages of the Karakalpak press of that time. In particular, it can be seen that the January 10, 1994 issue of the "Erkin Karakalpakstan" newspaper is completely dedicated to this important event.

The front page of the newspaper opened with speeches by the First President of the Republic of Uzbekistan Islam Karimov and Chairman of the Council of the Jokorgi of the Republic of Karakalpakstan U. Ashirbekov, and congratulatory words were given in the languages of the countries participating in the conference. On the following pages, there are articles devoted to the actual situation of the Aral Sea, elimination of the consequences of the tragedy, and directing additional water to the sea. In particular, "Ecological problems of the Aral Sea" by the candidate of biological sciences R. Reimov, "We must live in the Aral Sea" by scientist P. Saparov, "It is possible to solve the problems of the Aral Sea" by the reader of the newspaper M. Omirniyazov, "Vodovod came to the address" of the journalist E. Ermanov Tushag pier " [2; 1994. January 10] we can cite his materials on this subject. Another noteworthy article in this issue of the publication is the article "What do you expect from the meeting of the presidents?" famous scientists of Karakalpakstan, academician Sabir Kamalov, doctor of biological sciences Saparbay Gabulov and professor Amaniyaz Matekeev, about the importance of these meetings and what to expect from them. in the title article, scientists expressed their opinion about the problems.

Since the issue of January 13, 1994, news and articles related to the work of the conference, final thoughts at the conference, and reports of heads of state have been published. For example, "The problem of the Aral Sea is being discussed", "Presidents have arrived in Urgenish", "Statement of the heads of state of Central Asia and the Russian Federation on the development of the Aral Sea basin", "Care for people", "Grateful" [2; 1994. January 13] articles by them.

So, it can be seen that such activities are very important. Because the population will have full information about the event and its importance, and secondly, they will have a detailed understanding of the problem.

At first, when the word "ecology" was mentioned, the public understood only the problems related to the Aral Sea, but later this concept expanded much more, and now the consequences of the drying up of the Aral Sea, human health, environmental protection, nature protection, and the impact of the tragedy are hundreds and thousands. As it was felt even kilometers away, the topics started to be announced in the press pages. This is, firstly, due to the increased attention of the audience to the problem, and secondly, it indicates that the views of the population on what and how ecological problems can arise are being formed. "Let's study the language of nature", published in 1996 by the newspaper "Erkin Karakalpakstan" [2; 1996. July 16], "We will know how to protect nature" [2; 1996. November 13], "Kindness to nature" [2; 1996. November 14] is a clear confirmation of our opinion on this matter. All these articles talk about environmental protection, nature conservation. Not only the land and water resources, but also the issues of protection of forests and groves, issues of waste, laws of rational use of natural resources were raised.

Now, if we turn our attention to the classification of materials on the subject of the analyzed period and their statistics, see Table 1.

The amount of materials on the topic of ecology published in the newspaper "Erkin Karakalpakstan" during 1991-2000

№	Topic	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	A subject related to the Aral Sea	2	10	1	5	3	-	1	-	3	3
2	Human health	2	3		-	1	-	1	1	-	-
3	Air pollution	1	-		-		-		-	-	-
4	Water quality, water problem	1	4	1	2	2	1	1	2	1	4
5	Waste problem	-	-	-	-	-	-	-	-	-	-
6	The problem of destruction of trees and their preservation	2	2	-	-	1	1	1	1	-	1
7	Ecological culture	-	-		1		1	1	-	2	
8	Maintaining biological balance	-	-	1	1	1	1	1	-		1
9	Environmental protection	1	6	2	-	-	-	1	-	1	-
10	Natural disaster	-	8	-	-	-	-	-	-	-	-

It can be seen from the table that the problem of ecology is covered in different topics every year. Despite this, the main focus of the publication's ecological topic was the materials related to the tragedy of the Aral Sea. We can see from this that aspirations and hopes to preserve the island in the society were preserved even during this period.

According to the classification of topics, it can be seen from the number of articles in the table that topics related to water supply and its purity are also relevant. We understand that one of the main reasons for this is that the tragedy of the Aral Sea mainly caused the disruption of the water supply in the region, and as a result of this, a natural imbalance, deterioration of human health and a number of other problems arose.

The theme of the destruction of tree plantations is also in the main place in the newspaper. This can be explained by the fact that in recent years, the situation of people's "attack" on trees has increased due to the deterioration of the population's heat supply and the lack of natural gas. Also, the topics of biological balance and environmental protection are covered to a certain extent.

The low level of attention paid to issues of waste, air pollution, and ecological culture is evidenced by the fact that these concepts are gradually forming in the society. This can be explained by the fact that in these years the manifestations of globalization processes were not so prominent in the local press and other issues that pose a threat to humanity are poorly covered.

The coverage of the topic of natural disaster since 1992, as mentioned above, is related to the flood that took place in January of that year in the Aspantay farm of the former Bozatov district of the Republic of Karakalpakstan. One of the reasons for its lack of coverage in the local press can be attributed to the absence of natural disasters that caused great loss and destruction in the area in the following years.

It can be seen from the analysis that only topics corresponding to the level of acceptance by the audience, related to the general processes taking place in society, were published on the newspaper pages.

If we look at the example of the number of subsequent years, see "Table 2".

Index of material on ecology published in "Erkin Karakalpakstan" newspaper during 2001-2010

№	Topic	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1	A subject related to the Aral Sea	-	3	3	2	-	-	-	-	1	-
2	Human health	-	-	-	1	-	1	-	-	-	-
3	Air pollution	-	-	-	-	-	-	-	-	-	-
4	Water quality, water problem	15	4	1	-	1	1	2	-	1	1
5	Waste problem	-	-	-	-	-	-	-	-	-	-
6	The problem of destruction of trees and their preservation	-	-	1	1	4	1	2	1	2	-
7	Ecological culture	-	-	-	-	1	3	-	-	-	-
8	Conservation of biological diversity	1	3	5	8	3	3	4	2	-	3
9	Environmental protection	1	-	-	1	2	2	1	-	1	1
10	Topics related to environmental projects	2	1	-	3	3	-	-	2	-	-
11	Land salinization, desertification problem	-	1	-	-	1	-	-	-	-	-
12	The topic of transboundary rivers	-	-	-	-	-	-	-	-	-	4

It can be seen from the table that the number of topics related to the problem of the Aral Sea has significantly decreased in these years compared to the table that analyzed the ecological materials published in the newspaper "Erkin Karakalpakstan" between 2001 and 2010. On the contrary, more attention is paid to water supply, water scarcity, and water in general. The reason for this is, first of all, that the problem of water shortage in the republic became acute in those years. It can be seen from the topics raised that there is a shortage of water and that the mood of the population is depressed because of it. For example, "Suwsız bostan ha'm el abadan bolmaydı..." [2; 2001. May 24], "Bozatawlılar suw biyjay bolıp ko'ship ketpegen" [2; 2001. May 26], "Eki jıl suw a'spek, ku'tilgen na'tiyjege erise aldıq pa?" [2; 2001. July 5], "Suw qayda ketip atır?" [2; 2001. July 12]. Materials from 2002 "Suw tamtarıslıg'ında diyqansılıqtı iske asırıw ilajları" [2; 2002. May 14], "Suwsızlıq aqıbetinen tuwılg'an oylar" [2; 2002. May 30], "Suw tamtarıslıg'ı bizdi ele ko'p na'rsege u'yretedi" [2; 2012. November 21] can be cited as a confirmation of our opinion.

The theme of forests and groves, greening has also increased slightly during the years studied. Because it was understood that the way to solve the problems of the Aral Sea and to block the path of salty winds is more useful to establish tree groves and green areas.

Among the ecological problems, the problem of maintaining the biological balance remains relevant. The consequences of biological imbalance have been given special attention in the number of the newspaper we have studied. For example, "Qayqı tayaqlı, shelek dan'g'ırlatıp, qıyqıw menen qasqır u'rkitken shopanlar" [2; 2002. September 13], "Porlıtaw qasqırğ'a talang'an awıl" [2; 2002.

December 21], "Jolbaristin' jag'in ayirg'an Du'ysenbay" [2; 2003. January 14], "Orinbay qaqpanshinin' ekinshi o'miri" [2; 2003. May 13], "Qazaqda'ryanin' qiziq-qiziq adamlari..." [2; 2004. January 8], "Qasqir menen ko'rpe-dastiq ilaqtiripa..." [2; 2004. May 13], "Umit bolg'an ka'sip-ka'r" [2; 2005. 14 May] issues related to the preservation of the country's nature and animal world and increasing their number are highlighted. It is natural that a large number of materials on this topic will be published, which will further increase the love of the young generation for the nature of their country.

Among the topics shown in the table, the ones devoted to environmental projects are noteworthy. In recent years, a number of non-governmental organizations have been involved in solving environmental problems of the region. Among them are the international organization "Save the Island" and the International Organization for German Cooperation (GIZ). These organizations organized a number of competitions for journalists on the topics "Water is the key to existence", "The problem of the island is the problem of the country". This enabled journalists to cover issues in a new way, as well as bring environmental issues to the press that the public does not know about.

From the materials on the problems of interstate rivers it is also clear that the topic of ecology is gaining a broad tone. It is known that the construction of the Rogun HPP in Tajikistan exacerbated the problems of using transboundary rivers in the region. "Rogun HPP and civil society" in the press [2; 2010. July 3], "Transboundary rivers" [2; 2010. March 4] articles such as this problem and its solution are discussed in detail.

As a result of our analysis, it can be seen that the directions of topics from the pages of "Erkin Karakalpakstan" newspaper during the studied period compared to the previous table have expanded a little. This can be explained as, firstly, the increased demands of the audience, secondly, the increased attention to ecological problems in our country, and thirdly, the successful coverage of global (international) ecological problems in the local press.

At the joint session of the Legislative Chamber and the Senate of the Oliy Majlis of the Republic of Uzbekistan held on November 12, 2010, the "Concept of deepening democratic reforms and development of civil society in our country" was adopted. It was emphasized that the Law "On Environmental Control" should be adopted. Regarding this issue, a number of articles were published in the 2011 issues of "Erkin Karakalpakstan" newspaper. For example, "Environmental control and social protection of the population" [2; 2011. May 24], "The Significance and Necessity of Adopting a Law on Environmental Control" [2; 2011. September 15], "Effective methods of environmental protection" [2; 2014. August 5] reveals articles on the importance of legislative documents aimed at protecting nature and eliminating environmental problems by our state and the essence of the law "On Environmental Control".

"Greenhouse and water resources management" from the pages of the press [2; 2012. November 17], "Solar energy: problems and solutions" [2; 2013. November 12] and the article "Environmental protection, socio-economic benefits, social security of the population in the implementation of new technologies and environmentally friendly products."

As we mentioned above, the organization of various activities related to the topic in studying ecological problems and finding their solutions will greatly alleviate the problem. As one of the positive measures for the specialization of journalism in ecology in our republic, the importance of press tours, that is, media tours, organized with the initiative and support of a number of non-governmental, non-profit and ecological organizations, environmental protection agencies, is increasing. Prominent mass media representatives, ecologists, and experts of our republic are taking part in these events. Press tour event - "This is an event planned by the information service and specially designed for journalists, which is organized to announce objective journalistic performances in mass media. Press tours can last from several hours to several days. Any important

event in which the authorities directly participate can be the reason for organizing a press tour" [3; 66].

"Journalists on the coast of the island", published in the issue of the newspaper "Erkin Karakalpakstan" dated June 3, 2017 [2; 2017. June 3] under the heading "Two unforgettable days or houses born from a media trip to the Aral Sea" in the June 20 issue [2; 2017. June 20] under the heading "Journey to the region of Great Ustyurt and to the shores of the Far Island" in the issue of October 24 [2; 2017. October 24] in the materials entitled Ustyurt, the Aral Sea and the Sudoche lakes, the nature and ecological state of the country were widely mentioned. In our opinion, the frequent organization of such media tours will increase the experience of journalists covering environmental issues and lead to an increase in their number. Therefore, it is appropriate to hold such events related to the ecological problem.

The newspaper "Vesti Karakalpakstan", published in Russian, is one of the socio-political publications published on a national scale. The publication was published under the name "News of the Amudar Executive Committee" since 1919.

В отличие от других изданий, его отличает уникальный стиль освещения тем и умелое использование публицистических жанров. In particular, "And without water... neither here nor there" [4; 1991. July 12], "A more difficult fate" [4; 1991. July 19], "Caspian: to save or to be saved?" [four; 1991. August 13], "The problem of water, the problem of survival" [4; 1991. September 15] from the titles of the articles one can see a peculiar approach to the issue. Также еще одним аспектом поиска решения проблемы является обращение к специалистам в данной области. For example, A. Dzholdasova "Eco-Bio-Chem-Polygon" [4; 1992. January 29] is proof of our opinion. This article can be said to be prepared in a sensational style. It covers a topic that has not been published in the press until now and that any author would not dare to do. That is, in the article, it is written that during the time of the Soviets, a laboratory worked on the island of "Barsakelmes" in the Aral Sea to test bacteriological weapons. The important aspect of the content of the article is that at that time such a laboratory was working in the Aral Sea, and the local authorities did not know about it, and for many years Moynaq and Kungirov districts were considered a closed area for foreigners. At the same time, the fact that the information about the operation of this training ground and laboratory was kept secret by official government leaders and official defense institutions is also covered in detail. As a confirmation of the opinions in the article, a member of the republican working group formed to study this issue organizes an interview with MP Sh. Usnatdinov. Also, the article analyzes a large number of facts and reveals the true essence of the matter.

"Green oasis of the desert. Green oasis of the desert." Why are you hiding?" [4; 1992. March 4], "Aral in the conditions of sovereignization" [4; 1992. March 6], "How to restore the Southern Aral Sea (Based on materials of complex scientific research)" [4; 1992. March 20], "Desert and forest: who will overcome?" [4; 1994. September 27], "Once again about ecology" [4; 1996. June 16] the opinions of a number of scientists-experts are reflected in the articles.

"Problems of environmental education and prospects for its development", published in the issue of May 27, 2003 [4; 2003. May 27] the author E. Yangibaeva highlights the main directions of using new pedagogical technologies in environmental education and upbringing in secondary school and instilling love for nature and the environment in children in the educational process. "Okhrana prirody i ekologicheskoe vospitanie" by scientist Z. Sherlanov [4; 2009. March 31], the author, based on his many years of experience, draws attention to the need to pay attention to activities outside the classroom in the teaching of biology at school, and to the importance of eco-tours to get to know living nature.

On the pages of this publication, articles on the implementation of environmental projects aimed at protecting the environment and mitigating environmental problems are widely presented. "Innovations against moisture deficiency and salinization" [4; 2012. February 18], "Improving the

living conditions of people” [4; 2012. January 7], “Everything depends on people” [4; 2012. October 20] it is clear that the journalists of the editorial office have established good cooperation within the framework of the UN development program, and the results of the practical work carried out within the framework of the project are detailed in these articles.

Over the years studied, about 30 materials devoted to the protection of tree plantations and the conservation of green nature have been studied. "Conservation of tugai forests is a common cause" [4; 2008. January 5], "Combining efforts in the conservation of tugai forests" [4; 2008. February 9], "New Initiative in Forestry of Karakalpakstan" [4; 2008. September 9], "General forestry in Karakalpakstan" [4; 2009. February 10], "Reserves and national parks - the standard of nature" [4; 2016. January 12], "What will be left to posterity" [4; 2017. January 11] raised issues of preserving and increasing the size of tree plantations and groves.

In addition, the newspaper began to publish materials focusing on the possibility of achieving a clean environment and nature through the use of alternative forms of energy production. For example, "Alternative Energy: Myth and Reality" [4; 2009. May 25] journalist A. Aminova dwells on the economic effect of solar batteries when using solar energy, achievements and some problems of using these technologies in the republic.

“Protection of the ozone layer is a solution to a global problem”, published in the newspaper on September 26, 2017 [4; 2017. September 26] the topic of the article is news for the local press. It is said that along with the measures taken by the international community to protect the ozone layer, certain actions and measures are being taken in Uzbekistan to protect the ozone layer.

Looking at the activities of the publication, we see that in recent years the editorial office has undergone many changes regarding organizational and internal issues. Firstly, the period of publication of the newspaper was reduced, and secondly, the newspaper was merged with the newspaper "Erkin Karakalpakstan" into one editorial office, as a result of which there is a need for specialists in the combined editorial office.

If we compare the materials published on the pages of the newspaper on the topic of ecology with the publication "Erkin Karakalpakstan", it is noticeable that they contain a lot of colorful materials of a new direction. As mentioned above, presentations of projects aimed at ecology and environmental protection and global environmental problems confirm our opinion.

Conclusion

In short, socio-political publications keep the processes taking place in the society within the scope of attention. As a result of our analysis, we were convinced that in the first years of independence, the majority of materials directly related to the problem of the Aral Sea were on the pages of newspapers. The main reason for this is that there is little hope for the restoration of the Aral Sea in society. That's why the number of exits in this direction has increased. In recent years, publications have started to highlight global problems with the increasing impact of mankind on the environment.

During the analysis of socio-political publications, it was observed that in the 90s, most of the materials on the topic of ecology were published by scientists and specialists, and by the 2000s, with the expansion of the number of reporters writing on the topic of ecology, many articles by journalists specializing in the field of ecology were published. Therefore, it became clear that one of the main tasks for humanity in covering the topic of ecology in social and political publications is to convey all the gifts of nature to the future generation in their pure form.

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Rezyume: *Ushbu maqolada bugungi kunda jahondagi global muammolardan sanalgan ekologiya mavzusi va matbuotda yoritilishi ahamiyati atroflicha o'rganilgan. Ekologiya mavzusi asosan hozirgi Qoraqalpog'iston matbuotida misolida tahlil qilingan. Tahlillar asosida hududdagi ekologik muammolar ochib berilgan. Ekologiya mavzulari tasniflarga ajratish orqali ham yoritilgan.*

Резюме: *В данной статье подробно исследуется тема экологии, которая на сегодняшний день является одной из глобальных проблем в мире, и важность ее освещения в прессе. Тема экологии в основном анализируется в современной прессе Каракалпакстана. На основе анализа выявлены экологические проблемы в районе. Темы экологии также раскрываются путем их разделения на классификации.*

Kalit so'zlar: *Ekologiya, mavzu, muammo, gazeta, tasnif, intervyu, reportaj, Orol dengizi.*

Ключевые слова: *Экология, тема, проблема, газета, классификация, интервью, репортаж, Аральское море.*

LINGUOSTYLISTIC FEATURES OF ENGLISH FAIRY TALES

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Summary: *The article is an attempt in analyzing linguostylistic features of English fairy tales. The scientists opinions about the definition of fairy tales is discussed. The object of the investigation is linguostylistic characteristics of English fairy tales "Cinderella", "Three Little Pigs" and "Little Red Riding-Hood"*

Keywords: *fairy tale, expressiveness, stylistic device, metaphor, personification*

As we have already noted, the fairy tale is the object of scientific research for more than three centuries, its study uses different approaches or methods. We present the methods that are most often found in works devoted to folklore works. E.M. Meletinsky identifies three aspects within which, in folkloristics conducted a study of fairy tales: 1) genetic, 2) study of the development of plots, 3) study of formal poetic structures of fairy tales [1, 4]. This article is an attempt in analyzing linguostylistic features of English fairy tales.

From early childhood we all had fairy tales. They exist in every culture and language. They have changed drastically over time, countries and storytellers. While early fairy tales were typically violent stories with sad endings, now they are an integral part of children's literature. They brighten imagination, introduce us to literature, and give life lessons. They are warnings learned from a safe distance.

Fairy tales have changed a lot, but most of them have a common structure and a set of language features. Phrases, numbers (3 and 7) or expressions are repeated to emphasize or to create a magical, theatrical effect.

"Once upon a time", "long time ago", "far, far away"... From the moment these phrases are spoken, something magical happens and our inner child awakens. From Korea to Portugal, every culture has its own version of 'once upon a time'. For example, in Korean, a typical fairy tale begins with "Once, in the old days, when tigers smoked...". Typically, Russian fairy tales start with "It happened in one kingdom, in one state..." or "There were...". In Catalan (north-east of Spain), a story may start with "Once upon a time in a corner of the world where everybody had a nose..." or "Once upon a time, when the beasts spoke and people were silent...". In Karakalpak language fairy tales start with "Bir bar eken bir joqeken, or Buring' Io'tken zamanda".

English linguist Kenny came up with his own fairy tale. It was built around 5 unique words: we've polled Word of the Day app users and discovered the top 5 least known English words. Ineffable, ultracrepidarian, delphic, sophrosyne, metanoia... these rare words. English storytellers have an amazing sense of the word, thanks to which their works have become an inexhaustible source of citations. And because of these properties, the fairy tale, like all English literature, seems directly created in order to take quotes from it for all occasions.

Before highlighting the linguostylistic features of a fairy tale as a folklore genre, let us turn to the problem of defining the concept of "fairy tale", which is debatable. N. I. Kravtsov notes that the definition of a fairy tale is often missing in the works on its study. In these works it is obvious it is assumed that everyone knows what a fairy tale is" [2, 68]. V. Ya. Propp notes that the concept of "fairy tale" is not defined in terms of the concept of "genre": "So, it is generally accepted to consider a fairy tale as a genre. Meanwhile in the composition of fairy tales includes works of various poetic nature. By in their structure, fairy tales are something completely different from fairy tales cumulative or fairy tales about magic. Therefore, a fairy tale is a concept broader than the genre" [3, 37]. The author notes that the story is one of the types of folk prose.

So we see it reasonable to perform a brief analysis of the scholar's views on the fairy tale definition and its functional characteristics. According to Propp, the fairy tale, being based on fiction [4,], differs from all other stories in its special poetics

[3,29]. Thus, the genre of a fairy tale should be regarded as a folk belles-léttres[4, p. 283]. A number of other scholars found it useful to outline the fairy tale's main characteristics by contrasting it with the legend. Jacob Grimm suggested the following criterion for their differentiation: "the fairy tale is more poetic, the legend is more historical" [5, 167]. Generations of folklorists elaborated on the Grimms' observation and further specified the differences between tale and legend as two basic forms of narration related to each other by a shared body of motifs and episodes but standing in opposition to one another [6, 487].

The object of our investigation is linguostylistic characteristics of English fairy tales "Cinderella", "Three Little Pigs" and "Little Red Riding-Hood"[7].

The social and domestic genre of the fairy tale "Cinderella" is manifested in everyday relations between family members, and the ideological meaning itself consists in justice, in a happy and peaceful life. This tale presents a number of stylistic features, among which simile is first. Simile is often used to describe the appearance of a character: his beauty of face and soul. For example:

«...clung as close behind each other as if they had done nothing else their whole lives

«...cried she, gaping, rubbing her eyes and stretching herself as if she had been just waked out of her sleep...» –

“All heads turned”- synecdoche is used the part of human body is used instead of people.

“Dong!” went the clock again

Dong!” rung the clock.

Direct onomatopoeia is used to describe the situation.

For expressiveness of statements in a fairy tale, SD of hyperbole is used. For example, «They broke above a dozen laces in trying to be laced up close, that they might have a fine slender shape...»

«He had by another wife, a young daughter, who was the best creature in the world» – «...I will put on my hold-flowered manteau, and my diamond stomacher, which is far from being the most ordinary one in the world» –

In the fairy tale, one can also see epithets characterizing various phenomena,

items such as: «a sorry garret, fine rooms, gold-flowered manteau, excellent notions, a fine slender shape, a fairy godmother, a fine horse, jolly coachman, the prettiest pair of glass slippers, the most honorable seat».

The next frequently encountered stylistic device in a fairy tale is the inversion

«No sooner were the ceremonies of wedding over but the mother-in-law began to show herself in her true colors» –

«However, notwithstanding her mean appeal, a hundred times was Cinderella handsomer than her sisters..

«Almost two days without eating, so much were they might have a fine slender shape...» –

An English fairy tale is characterized by the height of enumerations, where the function homogeneous members of the sentence is specification. For instance:

“Cinderella scoured the dishes, scrubbed madam's chamber, laid in a sorry garret or sit down among ciders and ashes».

Aposiopesis, that is, a sudden stop in speech that makes it unfinished can be found in the dialogue between the godmother and Cinderella: «I wish I could... I wish I could...» she replied»

Irony can be seen in the conversation between the stepmother and stepsisters with stepdaughter, where the three of them mock her:

«Replied sisters: «It would make the people laugh to see a Cinderwench at a ball» –

«Ay, to be sure! » – cried Miss Charlotte; «lend my clothes to such a dirty Cinderwench as thou art! I should be a fool»

"Three Little Pigs" and "Little Red Riding-Hood" are tales in which animals are able to think, speak and act in accordance with the situation.

Personification is a stylistic device that occurs throughout both tales. As previously mentioned, animal characters are endowed with the ability to speak, both among themselves and with people. Let's take an example from fairy tales "Three Little Pigs"

«Presently came along a Wolf and knocked at the door, and said: «Little Pig, Little Pig, let me come in». The Pig answered: «No, no, by the hair of my chinny chin chin».

The use of repetition in addressing promotes emphasis attention. For example, "Little Pig, Little Pig..."

The plot of the two fairy tales is built on the clash of good and evil. In both in fairy tales, the wolf is cunning and dangerous, and the pigs are trying to escape, just like naive Little Red Riding Hood, unaware of the insidious plan of the hungry wolf.

However, throughout the Three Little Pigs tale, one can observe irony, because the wolf finds himself in ridiculous situations and is deceived by the third piglet. Through the pig character, personification takes place qualities of a person, in our case "mind": "The Wolf was very angry at being deceiving by the Pig..."

But in the fairy tale "Little Red Riding-Hood" the fate of the wolf is not so tragic.

The ending tells of his full stomach: "And, saying these words, this wicked wolf fell upon Little Red Riding-Hood, and ate her all up".

At the end of the tale, an anaphora is included, at the beginning of each speech passage of a repeated group of words or sounds. For example

Grandmamma, what great legs you have got! That is to run the better, my child. Grandmamma, what great ears you have got! That is to hear the better, my child. Grandmamma, what great eyes you have got! It is to see the better, my child. Grandmamma, what great teeth you have got! That is to eat thee up».

«A little country girl, this good woman, the poor child» are epithets in this tale. But, the very name of the tale "Little Red Riding-Hood" is antonomasia because it is a descriptive expression in the text: "This good woman had made for her a little red riding-hood; which became the girl so extremely well that everybody called her Little Red Riding-Hood" Hyperbole is expressed by the words: "the prettiest creature was ever seen...". So having analyzed stylistic devices used in these fairy tales we came to conclusion that the language of the fairy tale is rich, there are various stylistic devices are employed for vividness and to express emotions of characters of the fairy tales. The most common stylistic device in English fairy tales is an epithet. It is followed by personification and metaphor, and hyperbole, simile and anaphora, repetition and inversion, rhetorical question, antonomasia, irony and aposiopesis

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Rezyume: Maqola ingliz yertaklarining lingvostilistik xususiyatlarini tahlil qilishga urinishdir. Olimlarning yertaklarning ta'rifi haqidagi fikrlari muhokama qilinadi. Tergov ob'ekti ingliz yertaklarining lingvostilistik xususiyatlari "Zolushka", "uch kichkina cho'chqa"va" qizil qalpoqcha"

Резюме: Статья представляет собой попытку анализа лингвостилистических особенностей английских сказок. Обсуждаются мнения ученых об определении сказок. Объектом исследования являются лингвостилистические характеристики английских сказок "Золушка", "Три поросенка" и "Красная шапочка".

Kalit so'zlar: ertak, yekspressivlik, stilistik qurilma, metafora, personifikatsiya

Ключевые слова: сказка, выразительность, стилистический прием, метафора, персонификация

**ON THE ROLE AND SIGNIFICANCE OF THE DESIGN METHODOLOGY IN
IMPROVING THE LINGUISTIC COMPETENCE OF STUDENTS OF KARAKALPAK
PHILOLOGY**

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Summary: *Project-based learning is a teaching method in which students learn by exploring complex questions, problems, or tasks. This asset stimulates learning, engages students, and enables critical thinking. Students will be tasked with researching and finding answers to real-life questions while completing their projects. Including students can observe the project they are working on, in particular, how the project is completed, and the final product.*

Keywords: *design, self-assessment, collaboration, video, book, layout, magazine, systematization, communicative competence, speech description, pronunciation.*

In the course of the study, the content of methodological information was determined in the implementation of technology aimed at improving the linguistic competence of philology students, and a linguo-methodological product was prepared.

Project-based learning gives students the opportunity to develop in-depth knowledge as well as critical thinking, collaboration, creativity and approach skills. The PBL, among other things, paved the way for the release of creative energy between students and teachers, resulting in increased student engagement and better learning outcomes for all.

Project-based learning is increasingly used in universities and other educational institutions in various forms and at different levels.

Project-based learning is a teaching method in which students learn by exploring complex questions, problems, or tasks. This asset stimulates learning, engages students, and enables critical thinking. Students will be tasked with researching and finding answers to real-life questions while completing their projects. Including students can observe the project they are working on, in particular, how the project is completed, and the final product.

When students complete project-based learning tasks, goals are set from the very beginning and such learning becomes somewhat structured. Project-based learning is usually interdisciplinary, drawing on skills and knowledge from different disciplines [1].

For project-based learning to be complete, generality requires certain steps. Project-based learning has a well-deserved place in the modern classroom and can be applied in the education system of the 21st century.

The intended outcome of project-based learning can be long-term and vary by setting, teacher, and organization. However, the goals of project-based learning are indistinguishable from the features and benefits described above. However, the following general goals of project-based learning are:

- generalization of knowledge and skills in different areas through more complex research and multidisciplinary projects;
- independent learning encourages independent exploration of unstructured problems;
- teamwork to help prepare students for the social environment;
- self-assessment and self-criticism, which encourage students to explore their own ideas and knowledge.

Some of the general benefits of implementing project-based learning in the classroom are:

- Offers opportunities to explore deeper meaning and develop essential skills related to college and career preparation;

- Increases student engagement and achievement and helps students develop the 21st century skills they need to succeed in their future careers. These include criticism, communication, collaboration, and creativity;
- provides students with choice, allowing students to feel like they are the architects of their own learning path;
- due to the opportunity to involve students in classes improves their attitude to learning;
- Provides many opportunities to review and iterate the plan and project;
- encourages students to establish meaningful connections in meaningful areas without thinking about each subject area separately (multi-disciplinary pedagogical approach);
- Engages students in real life experiences, allowing them to deepen their understanding of concepts through relevant and authentic experiences. It prepares students for real-world challenges by reflecting what professionals do every day.

Some teachers may find it difficult to adapt because it requires more coaching and mentoring; Instead of teaching subjects in isolation, this means embracing interdisciplinary learning and getting used to uncertainty and new discoveries in the learning process.

This contrasts sharply with program education, in which most teachers have experience. Change takes time and is rarely without fear and challenges. The good news is that these problems can definitely be overcome.

Teachers may draw inspiration for problem solving or ideas from students, parents, or other members of the school community. Instead of lectures and books, they can think of the steps needed to solve a problem and use those steps as project-based learning activities. Instead of planning a big project, they can break the project down into smaller chunks with frequent milestones, making the learning process more manageable [2].

At the same time, they can develop real-world scores by meeting with experts about what a project-specific presentation would look like, instead of taking the informal exam that many students are used to.

At the beginning and at the end of the experiment, students and teachers were given questionnaires to determine the purpose of the study.

Methodology "Design"

The history of the use of the "Design Method" in pedagogy goes back more than a century. This method was invented by the American pragmatist, psychologist and educator John Dune (1859-1952). A project (lat. "projectus" - put forward) is the fruit of actions aimed at developing the content of pedagogical competence, based on a clear plan, a goal that guarantees its achievement. Its advantage is that it allows students to meaningfully organize their free time, expand their point of view, think freely and speak freely, analyze, reflect content more widely, use additional educational resources.

Students typically work on long-term projects ranging from a week to a semester that involve them in solving a real problem or answering a difficult question. Showcase what they've learned by creating a public product or presentation to a real audience.

With project-based learning, it is not so necessary to choose the form of presentation of the results of the work. This can be a video film, a book, a layout, a magazine (oral or written), a performance, a speech by a propaganda group, equipping the premises of an educational institution, creating a sports ground, etc. The form of presentation of the project is determined by its theme, purpose, content, general opinion of the author.

Design classification (based on duration)

Mini-projects Short-term projects Weekly projects Projects completed during the academic year

Design method:

- awakening students' interest in science;
- creation of a healthy competitive environment;
- support for creative participation;
- enable the acquisition of broader knowledge;
- work with gaps identified as a result of monitoring;
- learn topics that are difficult to master.

Predicted learning outcomes:

- writes historical works of the poet;
- looking for ways to solve their problems;
- depending on the content of the project, identifies the problem and determines the tasks for its solution;

- finds ways and means of solving the problem;
- plans his work;
- able to search, organize and analyze data.

He will have the following practical skills in the design service:

- creating a problem and setting goals;
- choice of methods and their use in performing tasks;
- identification, systematization and analysis of information sources;
- formalize the results at the required level and arrange them in the desired form.

The basic knowledge and skills that students must have in order to successfully complete a project include:

You need to know the following basic knowledge:

The year of birth and the husband of the poet Saribay, his works of art, the works of art of the poet, the reflection of the inequality of time and historical reality in the works of art of the poet.

Having the following skills:

- be able to distinguish between the problems embodied in works of art;
- work in a group;
- joint training procedures.

Information about the project by type designations:

- custom monoproject for one chapter, voluminous in terms of subject matter and content;
- the number of participants is divided into working groups of students of the group, each working group consists of 4-5 students;
- implementation period - medium-term [3].

The order of the project: is carried out in extracurricular work of students, is offered at a practical lesson. The product of the project is implemented in a practical session on a day set by the students and the teacher.

Project Evaluation - The work performed by the working group is evaluated as follows (for each member of the group):

collect information for a project completed by students (maximum score - 8); report (maximum score - 2); presentation of the project and the process of its defense (maximum score - 5).

Stages of project learning

Preparatory stage: familiarization with the project, organization of student services during classes in the classroom;

Stages of project implementation: outside the classroom.

Final stage: presentation of the project, assessment of students in the project and class audience.

Project-Based Learning Management: Beyond the Classroom

Brief description of the learning model

In the process of project-based learning, the following are implemented:

Teaching methods: project creation method, work with text and information sources, presentation;

Forms of education: small group;

Teaching aids: project assignment, guidelines, computer technology.

2. Guidelines for preparing a report on the work on the project. Explain the results (based on no more than 1 page of text) that describe the project you are proposing. Justify the problem you need to solve in (5-6) words. Describe the project work plan (schedule). Show the results of solving the problem and the work done in the project.

3. Instructions for preparing a project exhibition in MS Power Point.

1. The process of preparing an exhibition in MS Power Point consists of the following steps:

- selection of the type of exhibition;
- selection of the general design of the exhibition;
- highlighting the content aspects of the slides;
- add new slides;
- selection of slide labels;
- change the design of the slides if necessary.
- create various sound animations during the slideshow [4].

4. Criteria and indicators of evaluation.

The group project assesses:

Individual (thematic) sections of the project completed by each student (maximum 10 points);

Presentation of the MS Power Point project (maximum 2 points);

Oral presentation and defense of the project (maximum 3 points).

Expected results from the seminar:

- will have information about approaches to lesson planning in modern school education;
- knows how to properly organize the stages of the lesson;
- knows how to correctly set the results and goals of educational activities;
- develops a lesson plan using a sequence of tasks and activities in the lesson.

Procedure:

Ask participants how many stages there are in programming schools. Accept their answers and turn to slide 11. Explain that in modern schools it is necessary to plan the lesson stages in 3 main stages (slide 12).

At the same time, explain that the division of lessons into these stages is based on Robert Gagne's theory of 9 stages of learning.

Get and share feedback from members.

Divide the participants into small groups of 5-6 people and distribute them according to the topic from handout 2.

Ask participants that the lesson plans given in this handout were prepared by school teachers and review these lesson plans based on the information provided about lesson objectives and lesson steps (time 10 minutes).

After 10 minutes, ask each group to share the results of the group analysis with one participant.

Explain to participants the information on slides 15-16.

Give information about classification methods.

Ask questions about which of these task differentiation methods are used in their experience.

Final section:

Reflection

Ask participants questions about what they learned during the exercise and how it can be applied in their field and discipline.

Section 2. Lesson plan

Materials: slide, handout 1.

Procedure:

Ask participants to draw concepts on a piece of paper that can be supported by the lesson plan. For example: lesson plan is a compass, lesson plan is a map.

Ask them to explain what they wrote.

Then give a short lesson plan.

Review slides 7-9 about the lesson plan and provide information.

Explain the importance of goal setting and learning outcomes. In particular, it should be noted that most educational areas, curricula, etc. are mainly based on the results of educational activities (learning outcomes).

Tell them that the goal is important when planning a lesson, that the learning objectives determine what resources and activities, tasks and tasks should be used in the lesson (slide 9).

After analyzing the data, distribute Handout 1 and ask them to answer the questions.

Answer: The learning objectives for the various subjects in the handout are not specific, they do not take into account Bloom's taxonomy, they are written in a very general way. For this purpose, it is not said what materials, resources and tasks should be used in the lesson.

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Rezyume: *Loyiha asosida o'qitish - bu o'quvchilar murakkab savollar, muammolar yoki topshiriqlarni o'rganish orqali o'rganadigan o'qitish usuli. Ushbu xususiyat o'rganishni rag'batlantiradi, talabalarni jalb qiladi va tanqidiy fikrlashni ta'minlaydi. Talabalarga o'z loyihalarini bajarishda tadqiqot qilish va haqiqiy savollarga javob topish vazifasi topshiriladi. Jumladan, talabalar o'zlari ishlayotgan loyihani, xususan, loyiha qanday amalga oshirilayotganini va yakuniy mahsulotni kuzatishi mumkin.*

Резюме: *Обучение на основе проектов — это метод обучения, при котором учащиеся учатся, исследуя сложные вопросы, проблемы или задачи. Этот актив стимулирует обучение, вовлекает студентов и обеспечивает критическое мышление. Студентам будет поручено исследовать и находить ответы на реальные вопросы при выполнении своих проектов. В том числе учащиеся могут наблюдать за проектом, над которым они работают, в частности, за тем, как выполняется проект, и за конечным продуктом.*

Kalit so'zlar: *loyiha, o'z-o'zini baholash, hamkorlik, video, maket, jurnal, tizimlashtirish, kommunikativ kompetentsiya, nutq tavsifi, talaffuz.*

Ключевые слова: *проект, самооценка, сотрудничество, видео, макет, журнал, систематизация, коммуникативная компетентность, речевое описание, произношение.*

KINESICS IN LINGUISTICS

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Summary: *This article analyzes the terminology and concepts of scientific sources describing non-verbal and kinesics. Since linguistics is not only about verbal interaction, it is also important to study non-verbal communication, including gestures, facial expressions, posture, eye contact and touch. Non-verbal communication is extremely important in the analysis of cultural differences.*

Keywords: *non-verbal communication, non-verbal means, culture, kineme, kinesic means, gestures, facial kinemes, eye contact, head movements, pose.*

Introduction.

Verbal interaction with the world is not the only subject of linguistics. This fact demonstrates, for example, such a phenomenon as the language of the deaf and dumb. Quite often, verbal means of interaction complement, give an amplifying and reducing effect, or completely replace non-verbal means. For verbal language, the transmission of semantic meaning is functionally important; non-verbal language conveys only general semantics, but at the same time supports emotional-volitional channels of communication with communicative reality.

According to V.P. Morozov, non-verbal communication is a complex multi-channel and high-level system of simultaneous impact on a person of various types of information. Studies have shown that only 30-35% of information we receive through verbal communication, and 60-65% through non-verbal communication. [13.526]

Also, based on the analysis of the literature, it can be said that non-verbal means of communication are elements of a communicative code that consists of a non-speech (but sign) nature and, together with the means of a language code, serve to create, transmit and perceive messages.

Functions of non-verbal communication:

- 1) replacing - replaces words in the answer;
- 2) regulating - determines the behavior of the communicator;
- 3) conveying - signals about the emotions of the communicator;
- 4) modifying - increases the emphasis on certain words;
- 5) repeating - accompanies what was said with non-verbal, giving an additional signal to the communicator;
- 6) complementing - optional, supplementing the statement with a non-verbal model of what was said;
- 7) contradicting - bearing the opposite meaning to verbalism.

Non-verbal means of interaction is studied by paralinguistics. According to the Linguistic Encyclopedic Dictionary The concept of "paralinguistics" was introduced in the 1940s by A. L. Hill, but it received its main development in the 1960s. [12.370]

In a narrower interpretation, paralinguistics is a discipline that studies only sound, phonation means that are built above the spoken language. of J. Trager's and Kreidler's works are typical in this regard, in which the tempo, the rhythm of the language, the timbre of the voice, noises, vocalizations, etc. are studied. [7.45-75]

Paralinguistics in the broad sense of the term is equal to kinesics.

G. E. Kreidlin suggested that the gestures of the hands, head and legs, postures and symbolic body movements are the object of study of kinesics. [8.43]

The main signs of kineme:

1. The communicative significance of movement. The main criterion for separating kineme from other movements is their symbolic, semiotic character. Thus, blinking from a strong wind or bright light has a reflex-protective character, while blinking is semiotic. More often, for the correct interpretation of movements of this type, it is necessary to take into account the situation in which these movements are performed.

2. The arbitrariness of the execution of the movement. Here it is appropriate to talk about the ability of a person to control the manifestations of his emotional state and consciously select the means for the realization of a communicative intention. It is necessary to exclude reflexes characteristic of a painful condition of a person. At the same time, many external manifestations of emotions are often based on reflex reactions. So, if something causes laughter, we can reflexively smile and laugh, but we can also hold back laughter if this reaction is inappropriate.

3. Communicative movements should be known to the majority of representatives of a cultural ethnos. So, most of us hear, and therefore do not understand the language of the deaf. Therefore, it does not belong to the class of kinesics. The same applies to highly professional gestures, for example, divers or hunters. When highly professional gestures pass into common ones (by society), they become kinemes.

4. Movement reproducibility. Kinemes are repeated in different situations when conveying a similar meaning. However, it is necessary to take into account the intercultural differences of the kineme: what has a uniform meaning in one society leads to misunderstandings in another. So, a nod of the head often means consent, but among the Bulgarians it carries the meaning of denial.

N. V. Vakurova believes that knowledge of the basic laws of kinesics allows you to get up to 50% of information about the interlocutor even before you speak to him. [15.134-140]

The system of non-verbal means of each language is based on a clearly expressed national character, therefore it has its own meaning in each culture. [11.51-59]

G. E. Kreidlin divided the non-verbal communication of culture into two types: high-kinesic and low-kinesic. [8.43]

The key factor in differentiating cultures into these two types is the level of manifestation of emotions during communication, in particular gesticulation. [2.440]

G. E. Kreidlin also identified some features of male and female non-verbal behavior in a situation of dialogic communication [8.43].

The category of highly kinesic cultures includes the peoples of the Mediterranean, South America, and southeastern Europe. Scandinavia, northwestern Europe, Asia and others are low-kinesic.

Let us consider the opinions of various researchers on the functions of various types of kineme.

So, I.E. Alekberova describes the functions of gestures and considers the most important among them:

- the function of regulating the verbal behavior of both the actor and the recipient;
- performative function - displaying actual speech actions in a communicative act;
- communicative function as the transfer of a certain portion of information to the recipient;
- deictic function - an explanation of the size, magnitude, location of the subject or object.

[1.23-27]

F. Islamova claims that gestures are an identifier of the social, national, and territorial characteristics of the communicant. [6.263]

I.E. Ilyina, O.N. Morozova, O.G. Lyabina, S.I. Shmakov believe that facial expressions are a means of kinesics, which is easily understood already in infancy. Facial expressions include facial kinemes, eye contact and gaze direction, as well as head movements. [5.386-396.]

Facial expressions also make it clear how you feel about the interlocutor. It also supports the function of expressing an emotional state and conveying its opposite.

In addition, facial expressions are presented as feedback to the spoken word: whether the verbal part was understood, whether the other agrees or reacts rather negatively (or surprised). Thus, the horizontal folds of the forehead indicate increased attention when thinking. Vertical forehead wrinkles indicate that all attention is directed to something (someone).

To interpret facial expressions, there are various scientific opinions:

- for example, such emotional and mimic manifestations as joy, surprise, interest, grief, fear, anger, disgust, contempt are expressed and interpreted in the same way in all cultures and, obviously, refer to innate forms of expression;

- the trained forms of facial movements often include the movements of the eyebrows, the position of the lips, the position of the mouth, etc. [5.386-396.]

Eye contact is the main identifier of feelings and moods for others, which may also include information such as surprise, fear, or embarrassment.

An interaction between two people usually begins with a longer eye contact that identifies whether the other is ready for contact at all. Most people look away to emphasize the possibility and desire to refuse contact. Visual contact in terms of control is an important aspect of successful negotiation. [5.386-396.]

Posture is an expression of feelings and belonging. It assists in interpreting how safe, free someone feels. So, cheerfulness is reflected in a vertical, open pose, and tightness is reflected in a slightly curved, that is, visually rather closed pose.

The first thing that I.E. Ilyina, O.N. Morozova, O.G. Lyabina, S.I. Shmakov suggest to pay attention in a pose is a weight transfer. The more upright someone stands, the more confident his inner position is. [5.386-396.]

Another linguistic aspect is the openness or closedness of the position. Here we should pay attention to the area of the neck and chest.

It is also important to note whether a person is standing freely or looking for recline somewhere. There are people who always need something to lean on.

A sign of a sudden change in external position is a sudden change in internal attitude.

People of higher social rank take up more space in the sitting posture, they are more open in this position, because they consider themselves less vulnerable.

The way a person rearranges his legs can also have a signaling effect. The person who puts forward the knee shows caution, or rather uncertainty.

And since further work will be devoted to the analysis of kinesic units, it would be advisable to immediately highlight the encoding/decoding methods.

O. M. Kunitsyna believes that communicative interaction is based on messages implemented in some code. Code is one of the central concepts of communication theory. Message encoding is one of the steps in the communication process. It is implemented as the conversion of one signal system to another using "inner and outer codes". "Internal code" is presented as neurophysiological reactions, and "external" - as verbal and non-verbal reactions. [10.71-73]

F. Saussure argued that linguistic symbols unite not things and names, but concepts and sound images, that is, the "signified" and "signifier" of the symbol. And the relationship between the signified and the signifier is generally accepted and it is arbitrary (any changes occur only in a natural way). [3.256]

Yu. Kristeva considers the process of communication using the gesture code as one of the infracomunicative levels of the communicative structure. [9.114-135]

When comparing non-verbal behavioral patterns and reactions that reflect the cultural and linguistic codes of interacting cultures, we find that they can coincide and differ.

The ability to use the cultural characteristics of kineme to convey and encode meaning is the most vulnerable point in the system of encoding/decoding nonverbals.

Representatives of different cultures have differences in the use of communicative means,

including kinesics, since they do not have a single or similar system for decoding the meaning of a message. E. Hall noted that there is a close connection between the linguistic meaning and the meaning of culture. According to this researcher, value orientations influence the choice of an individual's communication style, regulate it in any situational context and influence the perception of reality (space, time), building relationships (individualism, power, competition, social structure) and way of thinking. [4.412]

Kinesic means, although observable, can still be decoded erroneously due to many reasons, for example, such as:

1) national and cultural specificity of kineme; 2) their ambiguity; 3) the lack of social experience of the observer, and so on.

F. Poyatos gives examples of typical errors in the decoding of kinesic means:

- kinesic means can be decoded incorrectly due to full or partial similarity of dynamic patterns and gesture values;

- these means are perceived, but not decoded, since they do not cause a virtual association with the kinesics of the native language; for example, pulling back the lower eyelid with the index finger in some Western European peoples means "I am watching";

- kinesic means are ignored, as they are considered semiotically insignificant; for example, in Hong Kong, tapping the table with the middle and index fingers indicates appreciation for poured drinks;

- these means are perceived, but decoded erroneously due to the similarity of dynamic patterns in the native and foreign society, but the difference in meanings; for example, the gesture "OK", shown not vertically, but horizontally, in French culture means "nothing, empty space." [14.263]

Conclusion.

On the whole, it can be concluded that the analysis of all systems of non-verbal communication shows that they undoubtedly play a large auxiliary role (and sometimes independent) in the communicative process. All elements of non-verbal communication help to fully reveal the semantic side of information, which is possible only if the participants in the communication process fully understand the meaning of the signs used. Possessing the ability not only to strengthen or weaken the verbal impact, all systems of non-verbal communication help to identify such an essential parameter of the communicative process as the intention of its participants. Together with the verbal communication system, these systems provide the exchange of information that people need to organize joint activities. Kinesic means can be interpreted in different ways, based on the cultural characteristics of communicators (encoder and decoder).

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Rezyume: Maqolada noverbal va kinetik hodisalarni tavsiflovchi ilmiy manbalarning terminologiyasi va tushunchalari tahlil qilinadi. Tilshunoslik nafaqat og'zaki o'zaro ta'sir bilan bog'liq bo'lganligi sababli, og'zaki bo'lmagan muloqotni, jumladan, imo-ishoralar, yuz ifodalari, pozitsiyalar, ko'z bilan aloqa qilish va teginishni o'rganish ham muhimdir. Madaniy farqlarni tahlil qilishda og'zaki bo'lmagan muloqot juda muhimdir.

Резюме: В статье анализируются терминология и понятия научных источников, описывающих невербальные и кинетические явления. Поскольку лингвистика занимается не только вербальным взаимодействием, важно также изучать невербальное общение, включая жесты, мимику, позы, зрительный контакт и прикосновения. Невербальное общение чрезвычайно важно при анализе культурных различий.

Kalit so'zlar: og'zaki bo'lmagan muloqot, noverbal vositalar, madaniyat, kinema, kinetik vositalar, imo-ishoralar, mimik kinemalar, ko'z bilan aloqa qilish, bosh harakati, tana holati.

Ключевые слова: невербальное общение, невербальные средства, культура, кинема, кинетические средства, жесты, мимические кинемы, зрительный контакт, движения головы, поза.

HISTORY OF TUTORING IN GLOBAL EDUCATION

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Summary: *This article analyzes the history and development of tutoring in antiquity. The development of tutoring activities in Europe, its role and importance in the system of European universities was thoroughly analyzed.*

Keywords: *Tutor, tutoring activity, educator, student, education, university, pedagogue, supervisor, consultation, control*

INTRODUCTION

Tutoring activity is a newly used method in the educational system of Uzbekistan. Uzbekistan was one of the world's leading educational systems without this method, and there will be a question whether this activity would have a positive effect on our educational system. To find out, I would suggest looking at the history of tutoring and identifying its shortcomings and achievements. Through this, we can compare the achievements of the activity in history with the present based on world experience.

If we take a look at the history, the term tutor is a word that entered the Karakalpak language from English and means "educator, teacher". This English word comes from the French word of tuteur (guardian), that comes from the Latin tueri (to prevent). The root of the term is tueri, derived from the Ancient Sanskrit word tavas, meaning strong. Based on this, the etymology of this term is related to the words "protector", "prevent".

The term tutor came to Uzbekistan from the English language, and his main task is a person who helps students to develop, participate in university, republican and international competitions and Olympiads, to spend their free time in a meaningful way. He is a person who is engaged in studying problems and shortcomings and finding solutions to them. At the same time, we must remember that tutoring is a historically formed pedagogical process - it helps to develop individual educational programs for pupils and students, and it is only in university, extended education and continuing education systems, completes the educational process [1.250].

Tutoring was introduced to the educational process in an informal and unstructured way and was originated in the 11th century. However, its history goes back to Ancient Greece. In ancient Sparta, when a child reached the age of 7, he was separated from his parents and brought up in special camps under strict teachers. The main purpose of this was to make children combative by developing them spiritually. During this period, the tutoring activity was not formal, but its main purpose was to form students' scientific skills. This type of service is called by different terms in different countries, for example, in Ancient Greece it was called pedagogue, and in Ancient Rome it was called tutor, which came from the Latin language. The implementation of tutoring into the educational system of European universities dates back to the 12th-10th centuries. The institutionalized form of tutoring appeared in the English universities of Oxford (XII) and Cambridge (XIII). The main purpose of these universities was to educate priests who were literate at that time [2.6]. Tutorship was recognized as part of the English university system by the 16th century. During this period, the tutor had the following characteristics;

- development of an individual learning trajectory, personal communication and continuous work of the teacher with students;
- teachers with three different functions; supervisor, moral tutor and tutor

During the following centuries, tutoring activities began to play a major role in the development of students. Tutors would interact with the student not only as a teacher, but as a

friend or citizen. Another change of tutors is that they communicate openly with students and help them spiritually.

In the 16th century, tutoring became the center of the university, having the effect of a parental figure on students. The tutor provided support for the students at the stage of university education. Together with the tutor, he followed up the students' study plans and prepared them for the university exams. The tutor has become the student's closest advisor and supervisor.

Great interest in analysis of the content and technique of tutoring in the XX century presents an authentic source – study of tutoring problems by practicing Oxford tutors. Will Moore, a scientist and tutor at one of the Oxford colleges (St. John College), regards tutoring as an indisputable achievement of British education. He states that tutor is not a teacher in its classical meaning: it is not his job to transfer the knowledge, student has to look for the information on his own. In this case teacher-tutor is a constructive critic who can help sort out the information, verify it, study possible ways of work and choose one approach over others. Will Moore finishes his work with following words: “When all the resources are directed for making the education efficient... it is doubtless that there is no substitute to individual lessons with a tutor. Function of a tutor is not to teach, but to set a goal to logically and reasonably communicate their thoughts, to help the student by critically analysing and revising of his work. ...” [3.66].

In Cambridge and Oxford universities tutors still play a crucial part in educational and morale building work. Also, they occupy staff positions. At present role of a tutor is changing as relationship between a tutor and a student shift to partnering. English educators are sure that a student can evolve into an expert only under conditions of so-called close academic community, offering feedback systems between a student, a professor and the whole academic teaching staff. Here a tutor is a linchpin providing integrity of academic education [4.2]. Under the present British university system a tutor performs functions of: a curator performing class management (organisation of schedule, holding tutorials, exams, consultations, control of academic progress, academic consultations); a professor, giving practical classes (seminars), consultations on specific topic, organising individual work of students, structuring of knowledge in a specific field, supervising research term work, organising internship program; a psychologist helping to solve personal problems; a facilitator promoting maximum self-expression of a student through psychological support during the studies; a distance teacher. Such composition of tutoring work assumes the following means for its realisation: individual and group consultations, conversations, tutorials (weekly classes), disputes, e-mails, seminars [5.19].

The main goal of education and training and the main responsibility of the tutor is to create an educational system that is flexible and ready for changes in individual education. Changes are made during instruction and are based on student achievement. This is done based on human psychology.

For many centuries, tutoring has existed in the British education system, and without turning into an anarchism of education, on the contrary, it played a large role in the development of education. By comparing the traditional and modern forms of the British education system, we can conclude as follows; after a long development path, tutoring activity has maintained its development path and gained its place in the educational system.

Currently, tutoring activities are implemented in many countries, especially in the Uzbek educational system, it develops in several directions: from one-on-one training programs to distance learning programs.

CONCLUSION

Tutoring activity was introduced in our country in order to organize the harmony of the educational process of students in higher educational institutions, regulation of relations between the educational institution and students, providing social- spiritual and psychological support to students. In conclusion, the introduction of tutoring activities in our country is a new method of

upbringing entering the education system, and it is appropriate to use the activities from the achievements of the world education system. Currently, many countries have special bachelor's and master's programs that train tutors, and these programs play a major role in educating students. The experience of the whole world shows that the opening of directions bachelor's and master's programs has a good effect on the training of spiritual advanced tutors. This offer is adapted to the requirements of the world education system

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Rezyume: *Ushbu maqola antik davrda repetitorlik faoliyatining tarixi va rivojlanishini tahlil qiladi. Yevropada repetitorlik faoliyatining rivojlanishi, uning Yevropa universitetlari tizimidagi o'рни va ahamiyati atroflicha tahlil qilindi.*

Резюме: *В данной статье анализируется история и развитие репетиторства в древности. Подробно проанализировано развитие тьюторской деятельности в Европе, ее роль и значение в системе европейских университетов.*

Kalit so'zlar: *Tyutor, tyutor faoliyati, tarbiyachi, talaba, tálim, universitet, pedagog, nazoratchi, maslahat, nazorat,*

Ключевые слова: *Тьютор, тьюторская деятельность, воспитатель, студент, образование, университет, педагог, научный руководитель, консультация, контроль*

**STUDENTS ARE MUSICAL IN LEARNING ABOUT OUR NATIONAL MUSICAL
HERITAGE THE PLACE OF ACTIVITY OF CIRCLES**

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Summary: *This article is written for our students about the formation of concepts of our national musical heritage in the study of the pedagogical and psychological methodical bases of forming the spiritual and ideological content of the tunes and songs that glorify the traditions of our country in the minds of the participants of the circle.*

Keywords: *Music art, club work, folk art, playing musical instruments, creative formation, youth education, spiritual heritage.*

The development of the culture of the young generation and its important work has become one of the issues raised to the level of state policy. Educating a person, which ensures the development of settlements and changes that are being implemented today, is a complex process, and this process requires special attention. Our ultimate goal is to demonstrate the acmeological independence of the idea, which is the spiritual source of our country's national strategy, in the strong faith of our youth, to be kind and consequential to work, to the future, to each other, to national culture and art.

As the President of the Republic of Uzbekistan Sh.M. Mirziyoev noted: "We should never forget one fact, the most important thing is that society will not develop if culture and art do not develop. The community of our people is judged primarily by national culture. In this sense, culture is the image of our people and society. As we are beginning to create a new image of Uzbekistan, we should start with the development of our national culture"[1].

The problem of raising a person with high spiritual, cultural, and moral qualities is of great importance today due to the rapid implementation of reforms in the political, economic, civic, and spiritual-cultural spheres. The changes taking place in Uzbekistan place a great burden on music teachers, as in all fields. This factor should be paid special attention to in the educational process implemented in general education schools, especially in the process of focusing on extracurricular education.

In studying the pedagogical and psychological methodical bases of formation of the unique spiritual and ideological content of the tunes and songs that glorify the traditions of each country in the minds of the participants of the circle, it serves as the main means of forming the concepts of our national musical heritage for our students. does.

Moral-cultural education of students is also carried out in music culture classes. These works are continued during various musical events and activities outside the classroom and school. These are: - music and choral circles, musical broadcasts of the school radio station, music club, "Khushavoz" show, musical quizzes, meetings with famous composers, performers, and singers, and various activities such as going to concerts and performances as team. can be shown. The effectiveness of the events depends not only on the activity of school music students but also on the organization of teachers of this subject.

The activity of musical circles is considered to be of great importance in the formation of students' national musical knowledge and skills.

Naturally, directing students to education and upbringing without studying the characteristic features of the psychological growth of students will not lead to good results.

Especially the sharp changes in the teenage years of students retain their certain aspects even at the age of 15-18. At the moment, students who are used to the 7-year school life, are now transitioning to the secondary special education system, which will make them more

psychologically alert. They will now be oriented to a certain profession, and this will lead to a deeper sense of responsibility, new conditions, new requirements, and new rules requiring more seriousness from them. Through the activity of the club, they turn from ordinary students into students who realize the vital necessity of their work and who can demand respect for their profession. They are directed and perform every task assigned to them responsibly, they understand the tasks that are necessary for life with their intelligence and perform them freely enough to please others. They begin to have a level of intelligence, that is, they begin to prepare themselves for an independent life. Parents and teachers should always support their initiative, guide them in this work if necessary, and teach them the skills they have gained in their life experience.

If young people are interested in any folk instrument, they will take individual lessons from this instrument. Today, along with increasing attention to our cultural heritage, we are teaching students the secrets of music using various methods, based on modern educational technology. The Ministry of Culture of the Republic of Uzbekistan and the Ministry of Culture of Karakalpakstan are conducting great and practical work on strengthening the material and technical base of our school. In particular, all general education and specialty training rooms are equipped at the required level and provided with the necessary technical tools and educational tools.

The music teacher in each school chooses a special repertoire for elementary school students and high school students. It is appropriate to teach musical pieces performed at medium tempos with the help of a computer. To fully substantiate our opinion, the possibilities of computer technology are used to improve the teaching of music lessons, including the music of Mukhammadjon Mirzaev's "Spring Waltz"[2].

Our main goal is to create a convenient music working program of various tones in music performance. From this point of view, the following algorithm was developed to convey the sample of music to students using a computer:

- Classification of sound extensions in the music of "Spring Waltz" with numerical numbers:-:
 - to determine the signs of alteration in the tune;
 - to express the voices of different forces through the sound of notes;
 - formation of students' musical abilities by listening to a tune;
 - classification of expressed sounds by comparing them with the initial information;
 - in the language of music, to express (farshlag) with the length of notes, i.e., with the short initial length, utilizing numbers and organizing it with the help of a table;
 - triol, i.e. (bitrate) to be done in the same way;
 - classification of quail singing and nightingale singing in sheet music.

It is known that there is a small difference between the natural performance of the melody and the difference of the computer. The dynamics, that is, the place where the melody is played in high and low voices, even the performance at the end of the melody is performed in the above-mentioned ways. In the process of listening to tunes with the help of a computer, the student can rediscover the discoveries of previous composers or create a new tune. Music teachers are increasingly using pedagogical technology to develop new strategies to engage students in group activities. While we used to think of acoustic instruments, pencils, and paper as the primary teaching tools, technical music programs, and educational technologies can now engage students in the creative exploration of music. Effectiveness is being discussed.

This process, that is, the method of programming the tune into the computer forces the planner to think independently and deeply. The most important thing is that it creates a desire for work.

Every music teacher should sing one of the cheerful, expressive tunes and songs of Uzbek composers to the children during the lesson, and explain it by comparing it with the work of the lesson.

The teacher conducts a question-and-answer session on the difference between two or three works, i.e., its timbre, loudness and loudness of performance, sadness, dynamic shades (variety), and forms the mood of the students for music[3].

Using the most advanced and modern methods of musical education and upbringing in the education of the perfect generation, promoting the unique masterpieces of classical music and folk music, growing the interest and love of our young people for our national musical heritage, instilling in them a high moral, spiritual, formation of aesthetic education is currently considered the most important task of music education and music teacher.

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Rezyume: Bu maqola halqimizning betakror har bir o'lkamizning an'analarimizni tarannum etuvchi kuy va qo'shiqlarning ma'naviy mavfukuraviy mazmunini to'garak qatnashchilari ongida shakllantirishning pedagogik, psixologik uslubiy asoslarini o'rganishda o'quvchilarimizga milliy musiqa merosimiz tushunchalarini shakllanish masalalari haqida yo'zilgan.

Резюме: Данная статья посвящена формированию у наших студентов представлений о национальном музыкальном наследии при изучении педагогических и психолого-методических основ формирования духовно-мировоззренческого содержания мелодий и песен, воспевающих традиции нашей страны в мысли участников кружка растянулись.

Kalit so'zlar: Musiqa san'ati, to'garak ishlari, xalq ijodiyoti, cholg'u asboblari ijrosi, ijodiy shakllanish, yoshlar tarbiyasi, ma'naviy meros.

Ключевые слова: Музыкальное искусство, клубная работа, народное творчество, игра на музыкальных инструментах, творческое становление, воспитание молодежи, духовное наследие.

THE HISTORY OF THE CONTRACT OF GRATUITOUS USE

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Summary: Although the contract of the gratuitous use of property has been well-known for a long time, there are some problems with its application in various fields. In some research papers, there have been proposed options for using combinations of “open-access agreement with library”, “contract on the gratuitous use of land and water resources”, “donation agreement”. This article analyzes and examines the origin of a contract for the gratuitous use of property, which will provide complete information about this type of contract. The article also thoroughly studies the legislation of the Republic of Uzbekistan considering the scientific views of various scientists and the development strategies adopted in our country. Based on all of the above, the author shares his suggestions and recommendations.

Keywords: gratuitous use of property, subject of gratuitous use of property, Roman law, the borrower, the lender, improvement of legislation.

For a long time, the contract of gratuitous use has existed since the time of Roman law (*commodatum*, *precarius*), which in terms of social orientation plays an important role in the system of contracts [2; 748]. In ancient Rome, two approaches to gratuitous use were known. One of them was *commodatum*, recognized as free use. According to the *Commodatum agreement*, one party (*commodans*) transferred the item to another party (*commodatarius*) for temporary free use. The object of the agreement was considered to be a material item, which was individually determined. This aspect distinguished it from loan [7; 324]. *Commodatum* was the basis for actual possession of the object (*detentio*). However, lender (*commodans*) was keeping not only the ownership right of the object, but also the right of possession. Certainly, in this case there was also a risk of accidental loss of the object. In these relations, law of obligations was taking a precedence over property law, as in the case of safekeeping agreement. When there is a dilemma about returning of an item to the owner or to the person who transferred the item without being its owner, a preference is given to the first, even if he is a thief.

The main feature of *Commodatum* was that the item could be used without any alternative interest, but after a certain time it had to be returned to the owner. As *Commodatarius* did not have both ownership and possession rights of the item transferred to him, he had an obligation to transfer the fruits of the item (*fructus*). The latter took on special significance, when along with movable property, immovable property in the form of a land plot and (or) buildings located on it started to be recognized as a possible subject of *commodatum*. The return of the thing to *commodans* had to take place within the time period established by the contract, and in the absence of a special condition on this score in the contract itself, the return period was determined “by fairness”. *Commodatarius*, for his part, was obliged to take good care of the transferred item.

In Roman law, the contract of gratuitous use is known as one of the oldest contracts. Furthermore, field of application of this contract has undergone very little changes over the past millennia [4; 342].

Commodatum as the gratuitous transfer of a thing for use was different from *fiducia cum amico contracta* in that it did not involve the transfer of ownership. In contrast to *precarius*, however, *commodatum* gave the borrower only detention of the thing and not interdictal possession. On the other hand, *precarius* did not give rise to a legal relationship; it was a *mere factum*, revocable at any time. In *commodatum* the lender was bound to leave the thing with the borrower for whatever time the parties had agreed upon, or until the object had been or could have been used in the way envisaged in the contract [8].

Along with direct claims addressed to *commodatarius* - *actio commodati directa*, in relation to things movable, under certain circumstances, liability of *the commodans* in the form of *actio commodati contrario* could occur. One example is the provision of a damaged barrel by *commodans* to *commodatarius* for storage of wine, from which as a result the wine poured out. *The actio commodatum contrario* could include the demands of *commodatarius* for reimbursement of extraordinary costs (expenses) incurred with the consent of *commodans*, and in the absence of such consent, expenses falling under the signs of *negotiorum gestio* (one example is increased feeding of the transferred horse). Consequences of the damage caused by *commodans* had to be compensated (for example, if he claimed the transferred prop supporting the roof back, as a result of which the roof collapsed) [5; 293].

In the Digests of Justinian, you can find a similar example associated with the name Pomponia: "If I lend you a horse so that you use it to a certain place, and if this horse was hurt without your fault, then you are not liable under the "loan" contract; it is my fault that I loaned a horse for such a long journey that he could not bear this work". Another type of contract for gratuitous use was *the precarium*. Its origin is connected with the most ancient non-contractual relations, which consisted in the gratuitous giving of a thing for use "out of charity" (upon the first demand). As G. Dernburg noted, from ancient times for the Romans *precarium* was a very important social, moreover, purely factual relationship. According to this, the patron and other noble rich people provided various favors and indulgences to their clients and people dependent on them. The relationship that developed between them was not legally fixed, but was based on trust. Law, according to ancient Roman views, was a sharply limited area dominated by strict rules and forms. The characteristic feature of *the precarium* was the absence of these rules [6; 201-202].

In Roman law, contract for gratuitous use was an agreement under which one party (the lender) transfers to the other party (the borrower) an individually defined thing for temporary gratuitous use with the obligation of the second party to return the same thing safe and sound at the end of use [10; 228].

The contract of gratuitous use was a real agreement. It was concluded only in the interests of one party - the borrower. According to the Roman lawyer Paul, the lender enters into this contract not due to economic necessity, but of his own free will, exercising only a moral duty and courtesy towards the other party. Based on this, Roman lawyers determined the responsibility of the borrower. Ulpian believed that "if a thing given on loan is returned, but in a worse condition, then it is not considered as returned, since it is returned, being worsened, until the losses are covered" [11; 195].

According to Roman lawyers, the lender could be not only the owner of the thing, but also another person. The Roman jurist Pavel believed that we can also lend someone else's thing if we own it. Marcel considered that both a thief and a robber could give a thing for gratuitous use, who then do not lose the right to demand the return of a thing based on the contract.

The obligation to return the goods after a certain period of time, on the other hand, is contractual in nature and independent, but it is an external contract related to *precarium*. *Precarium* is closer to the various target charities. A good example of this would be how a slave owner gives property to his former slave for free use. In this case, relations between the parties are unequal and are built only on the basis of trust. In case the return of goods was required and it was not returned, this did not lead to any legal consequences. Such a claim led to the loss of ownership of the goods by the person who received the goods [3; 52].

The peculiarity of *the precarium* was that on its basis, depending on the nature of the relationship, a thing could be transferred not only for holding (*detentio*), but also for possession. Bearing this last circumstance in mind, J. Baron saw elements of *precarium* in some modern relations. At the same time, he gave two examples: granting the buyer the right in certain cases to use the purchased thing before paying for it, as well as leaving the pledged thing with the pledger.

The object of the contract for gratuitous use could be domestic and working livestock, tools used in a certain trade, clothes, things, household appliances. At the same time, it was forbidden to transfer the property of the treasury for gratuitous use. It has been criticized that only movable property acts as an object in a gratuitous use agreement.

During the period of the former Soviet Union, the contract for gratuitous use was not regulated by law. The first Civil Code of 1922 did not separately regulate the contract for gratuitous use. In this regard, the question arises: if this agreement is not enshrined in the Civil Code, then how were the disputes related to it resolved by the court? In our opinion, indeed, in the historical process (1922), civil legislation did not include separate norms regarding gratuitous use even if this agreement was being applied in practice in everyday life, in relations between citizens. Therefore, the legal norms imposed by the courts could not be principal rules. At this stage, general provisions on obligations in civil law were used to resolve disputes on this issue. And even now, if the agreement on gratuitous use does not exist as a separate independent agreement, then it is required to establish a legal norm that applies not only to the implementation of the right, but also to the protection of the right through the courts. In our opinion, as an analogue of the law, it will be possible to use the general rules on obligations or the rules regarding rental property.

From the perspective of our legislation, the term "loan" covers a wide range of social relations, and not just a contract for gratuitous use. The main thing is that in this term the essence of initial gratuitous use or extremely privileged conditions is lost to a certain extent. For example, the Budget Code of the Republic of Uzbekistan provides for the issuance of loans and credit lines to resident legal entities based on decisions of the Cabinet of Ministers of the Republic of Uzbekistan. Article 158 states that they receive them at interest rates of at least 50% of the main rate of the Central Bank of the Republic of Uzbekistan.

Based on the foregoing, we can conclude that the Contract for gratuitous use has long been used for various purposes. The presence of trust between the parties, the manifestation of compassion for others by individuals, partly basement on contractual obligations, the provision of use for a temporary period, in fact, all these features are also reflected in the current reality. Scope of application of contract for gratuitous use still retains its influence in social relations.

In our opinion, at different times, the legal system of different countries was used in relation to the contract for gratuitous use and is still in force, not only similar contracts, but also provisions on the types of contracts that differ in important aspects. In particular, the concept of "loan" with the organization of a contractual thing as an object is also widely used today in many areas of banking legislation governing credit and debt relations, debt obligations, gift agreements. However, this concept is not related to important aspects of the donation agreement.

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Rezyume: Ushbu maqolada Rim xuquqidagi tekin foydalanish shartnomasining kelib chiqishi, hozirgi kundagi o'rganilishi, O'zbekiston Respublikasi qonunchiligi bilan taqqoslash, tekin foydalanishda muammolar va yechimlari haqqida aytib o'tilgan.

Резюме: В этой статье рассказывается о происхождении договора безвозмездного пользования в Римском праве, текущее исследование, сравнении с законодательством Республики Узбекистан, проблемах и решениях безвозмездного пользования.

Kalit so'zlar: mol-mulkdan tekin foydalanish, mol-mulkdan tekin foydalanish predmeti, rim huquqi, ssuda oluvchi, ssuda beruvchi, qonunchilikni takomillashtirish.

Ключевые слова: безвозмездное пользование имуществом, субъект безвозмездного пользования имуществом, римское право, ссудополучатель, ссудодатель, совершенствование законодательства.

**CONDUCTORS WHO HAVE CONTRIBUTED TO THE DEVELOPMENT OF
ORCHESTRAL PERFORMANCE IN KARAKALPAKSTAN**

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Summary: *This article contains information about such conductors who made a great contribution to the development and progress of Karakalpakstan orchestra performance. Because among the talented artists of the Karakalpak people, there are many such conductors who selflessly served to enrich the Karakalpak music art and make it last. Therefore, these issues are covered in detail in the article.*

Keywords: *Conductor, orchestra, performer, composer, music, musical work.*

Introduction

The art of the Karakalpak region is very rich, diverse and interesting, like the art of all regions of our country. This country can also be called the land of creative people who have a deep understanding of art. When talking about Karakalpakstan, it is worth remembering the words of our elders: "The people of Karakalpak have always been considered one of the backbone of our country. "After all, the people of Karakalpak have a long and rich history, and their national culture, attractive art, classical literature, values, customs and traditions are well known to the world.

The main part

Among the artists, there are talented people who are further developing the art of Karakalpak, adding their grateful contribution to its development and recognition in the world. Among the conductors who played a special role in the development of the performance of the Karakalpak orchestra, it is worth mentioning such artists as Abdireim Sultonov, Gaip Demisinov, Qurbanboy Zaretdinov, Bayrambay Otarbayev.

Abdreim Sultonov, a distinguished artist of Uzbekistan and Karakalpakstan, laureate of the Berdakh State Prize, made a great contribution to the development of the music culture of Karakalpak through his conducting, pedagogic, leadership and public activities. He was born on August 15, 1930 in Chimboy, Karakalpakstan. From 1937, he studied at a comprehensive school, learned to play the harmonica, mandolin and violin in a music club. At first, in 1941, he started working as a musician in the musical ensemble of the theater located in Chimboy district. In 1944-1949, he studied at the part-time department of the Nukus State Pedagogical University, and in 1949 he took violin lessons at the Tashkent State Conservatory in the class of professor B. M. Reyson, and from 1950, at the composition faculty, first from professor B. B. Nadejdin, then from B. Giyenko. Thus, he successfully graduated from the conservatory in 1955. In the same year, Abdireim Sultonov was appointed chief conductor of the symphony orchestra of the Stanislavsky Theater of Musical Drama and Comedy.

In addition, in 1957-1963, he was the artistic director and chief conductor of the folk instrument Philharmonic orchestra named after Berdakh, in 1963-1965 he was a teacher and manager at the Nukus State School of Music and Choreography, and in 1965-1968 he was a head of the singing and dancing ensemble of the Philharmonic. In 1968-1972 he was the chief conductor of the symphony orchestra of the Stanislavsky Musical Theater, in 1972-1977 he worked as the artistic director and chief conductor of the orchestra of folk instruments. In 1977-1982, he was the director of the children's music school in Nukus, and from 1982 until the end of his life, he was a teacher at the J.Shomurodov Academy of Arts. Throughout his career, Abdireim Sultonov never stopped creating, wherever he was. Working on new works, he set his heart on enriching Karakalpak music art. When he was conducting the symphony orchestra of the Stanislavsky Theater of Musical Drama

and Comedy, in collaboration with the composer F. Nazarov, he created the musical comedy "Ravshan", a year later, in 1957, together with O. Halimov, "Bakhit" and in 1961, "Qirli soqpaqlar", together with H. Turdikulov "Arular" the musical dramas and comedies brought to the attention of the audience. Abdireim Sultonov personally conducted the premiere of these works.

In fact, conducting a work created by himself gives a special spirit and enthusiasm to the creator. The delivery of the work to the viewer and the listener is also unique. Because the conductor reveals the main artistic idea of the work and solves the issues of artistic performance.

Gaip Demisinov, an honored artist of Karakalpakstan, composer and conductor, who left a bright mark in Karakalpak modern music art with his energetic and multifaceted creative activity, also received the recognition of the people. He constantly created, taught, led the orchestra, and promoted music in order to develop the modern music art of the Republic of Karakalpak. Although he lived for a short time, he left an indelible mark on music.

Gaip Demisinov was born on February 20, 1942 in Kungirot district of Karakalpakstan. He learned to play the Gijjak in the amateur club at school. In 1960-1964, he studied violin at the Nukus Music school. In 1965-1971, he studied at the Faculty of Composition of the Tashkent State Conservatory in the class of Professor G. A. Mushel. In 1971, he started working at Nukus Music school. In 1973, he worked as a concertmaster in the orchestra of folk instruments under the Karakalpak Television and Radio Company, and from 1974 until the end of his life as a conductor.

Actually, not every composer or musician can be a good conductor, because it requires some special knowledge and conducting skills. At the same time, any conductor must first be a good musician, that is, a performer or composer, have a strong hearing ability, a sense of rhythm, and possess musical-theoretical knowledge. Gaip Demisinov was such a knowledgeable and talented conductor. As for the composer's work, he achieved good results in composing national music in polyphonic genres based on Eastern and Western musical traditions. He created his first symphony in 1971 and named it "Ferganacha". In 1980, the second "Bozatov" symphony was released. In addition, he wrote concertos for first and second piano and symphony orchestra, "Prelyudiya and Fuga" for symphony orchestra, two "Prelyudiya and Fuga" for string quartet, "Toccata", "Fuga kaprichchio" and "Fantasia" for piano, violin and instrumental works such as 3-part sonata for piano and 3-part symphony for chamber orchestra are imbued with national melody and method. These works have become the most beautiful and unique examples of the direction of modern national music of the Karakalpak people.

An orchestra conductor should have the ability to make audible tones visible and visible events audible. The musical images heard by the conductor's inner feelings become visible to the orchestra players through his gestures and movements. It depends on the skill of the conductor that the performers will be able to clearly feel the conductor. The team of performers immersed in this process transfers the emotions of the conductor's inner world to real tones. Here is another famous creator with such skill, that we should mention, artist of the Republic of Uzbekistan, honored artist of Karakalpakstan, laureate of the Berdakh State Prize, conductor, pedagogue, composer Qurbonboy Zaretidinov. He was born on February 25, 1951 in the Kegeyli district of the Republic of Karakalpakstan. He studied at school from 1958 and joined an artistic amateur club. In 1966, he entered the choral-conducting department of the Nukus Music and Choreographic Academy and began practicing composition. In 1968-1970, he began to work as an artist in the chorus of the republican theater named after K. Stanislavsky. In 1970, Qurbonboy Zaretidinov entered the choir-conducting faculty of the Tashkent Conservatory, where he also studied opera-symphonic conducting in the class of Professor Z. Haqnazarov. After successfully graduating from the conservatory in 1975, he received a job offer at the Nukus School of Music and Choreography named after J. Shomurodov. In 1975-1976, he served as a choirmaster in the song and dance ensemble of the Internal Affairs Forces, and then continued his work as a teacher.

In 1981, the symphony orchestra named after Berdakh was established and Qurbonboy Zaretdinov was appointed as its second conductor. In 1985-1986, he worked as an intern under V.V. Kozhin, Chief Conductor of the Symphony Orchestra of the Leningrad Small Opera and Ballet Theater.

Conductor Q. Zaretdinov worked as the artistic director and chief conductor of the Karakalpakstan Symphony Orchestra in 1987-1992, as the chairman of the Karakalpakstan Composers' Union in 1992-2008, and from 2008 he started working as the head of the music department of the University. Qurbonboy Zaretdinov worked very effectively in the field of conducting. The ensemble he conducts has always performed the piece successfully and gained the sympathy of the audience.

Another person who has been contributing to the development of Karakalpak music culture is Bayrambay Otarbayev, the conductor of the Karakalpak State Academic Musical Theater named after Berdakh, one of the most prominent and talented conductors of Karakalpakstan. He graduated the Tashkent State Conservatory named after M. Ashrafiy in 1993 and worked as a teacher, deputy director at the Nukus specialized music school, deputy director of the Nukus Branch of the Uzbekistan State Institute of Art and Culture, he is considered a conductor and teacher who has made a great contribution to the development of Karakalpak art, working as a conductor of the symphony orchestra of the academic musical theater named after Berdakh.

His creative works is closely connected with the symphony orchestra of Karakalpak State Academic Musical Theater named after Berdak. Bayrambay Otarbayev conducted the symphony orchestra in the musical performances "Alpomish", "Berdaq", "Yedige", historical musical and other performances staged in the theater. For several years, he was the conductor of the symphony orchestra at the cultural events, big concerts, and anniversary parties of famous artists in our Republic, and he was well received by the audience. At the same time, B. Otarbayev worked as a mentor at the Nukus branch of the Uzbekistan State Institute of Art and Culture, teaching young people the classical music of Karakalpak, Uzbek and world composers. He has been actively participating as a jury in cultural events and competitions held throughout our country.

During 2014-2015, together with the symphonic orchestra of the Karakalpak State Academic Musical Theater named after Berdakh, under the leadership of the chief conductor Qurbonboy Zaretdinov, young, talented students in art and music schools located in all cities and districts of our Republic under the "Ustoz shogird" program held meetings and creative evenings. In May 2016, one of his main product was clearly demonstrated in the concert "Hello Tashkent evening" by "Ajiniyoz", "Tumaris" opera and symphony orchestra team, which was performed at the A.Navoi State Academic Theater of Uzbekistan in Tashkent. In addition, during the years 2017-2019, he continues to work as a conductor in the musical performances "Ghorib achik" and "Berdaq" with the symphonic orchestra of the academic musical theater named after Berdakh as a conductor at all holidays, meeting parties and concert programs held in our country.

Conclusion

Today, there are many of our young conductors who are working, creating and following these conductors as their masters and ancestors. We wish them success and success in their creative activities to further develop and enrich Karakalpak music.

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Rezyume: *Ushbu maqolada Qoraqalpog'iston orkestr ijrochiligi rivoji va taraqqiyotiga katta hissa qo'shgan ana shunday dirijyorlar haqida ma'lumotlar keltirilgan. Chunki qoraqalpoq xalqining iste'dodli san'atkorlari orasida qoraqalpoq musiqa san'atini boyitish, uning bardavom bo'lishiga fidokorona xizmat qilgan ana shunday dirijyorlar ko'p. Shu sababli maqolada ushbu masalalar atroflicha ypritilgan.*

Резюме: *В данной статье собраны сведения о таких дирижерах, которые внесли большой вклад в развитие и прогресс оркестрового исполнительства Каракалпакстана. Ведь среди талантливых артистов каракалпакского народа немало таких дирижеров, которые самоотверженно послужили обогащению каракалпакского музыкального искусства и его долговечности. Поэтому эти вопросы подробно освещены в статье.*

Kalit so'zlar: *Dirijyor, orkestr, ijrochi, bastakor, musiqa, musiqiy asar.*

Ключевые слова: *Дирижер, оркестр, исполнитель, композитор, музыка, музыкальное произведение.*

THEORETICAL FOUNDATIONS OF POETIC METAPHOR

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Summary: *The article presents comments on metaphor as a special kind of artistic means. The views of foreign scientists on the theory of metaphor are taken into account. In addition, the types of metaphors are discussed, especially poetic metaphors.*

Keywords: *Tropes, metaphor, poetic metaphor, linguistic metaphor, individual - author metaphor, individual style metaphor.*

If words and word combinations are used to describe an object, a phenomenon, or a story, in a way that is different from the meaning of the word itself, such a method is called tropes in science. "Trope" is a Greek word meaning to turn, copy, transform, image. A trope is a way of poetic expression using words, word order and a figurative, figurative sense of meaning. [1:312] Trope includes metaphor, metonymy, epithet, simile, synecdoche, symbol, allegory, etc. Metaphor is one of the types of sharp artistic imagery among these.

Although metaphor is a linguistic phenomenon, it realizes its artistic qualities through poetic thinking. It is accepted as an artistic image in poetic thinking. Metaphor not only re-names the subject, but also compares it to another subject, creates a vivid image of the mentioned thing in our mind. From this point, you can see that metaphor has a significant role and importance in poetry.

The German philosopher E. Cassirer connects the genesis of myth, language and art with the spirit; they are closely related to each other, and for that reason, it is necessary to learn a unity of their meanings and patterns. Recently, as a result of the increasing ability of abstract thinking and thinking in the spiritual world of a person, the close connection between them has disappeared. The word has lost its figurative nature and has become an abstract term for things and events. However, according to my opinion, there is a branch of the soul, in which the imagery of the word is not preserved, but it is renewed, it is called poetry. The reason is that the traditional roots of poetry are connected with myth, and the mythological point of view is reborn in it. It is only in poetry that the spirit of creation controls the word and the mythological spirit. Now they do not reflect the mythological world of Gods or devils, or the truth of thoughts of abstract concepts or relationships. On the contrary, poetry is separated from them and turns into an artistic poetic world. In this poetic world, the soul roams freely, concrete feelings find their expression. The word used for artistic expression begins its new aesthetic era in poetry. [2:41-42] E. Cassirer's statement that the metaphorical view of the world is reborn in poetry is also true, because the poetic thought that took the place of the mythological thought is born in the view.

A. Potebnya, a Russian scholar, emphasizes the recognition of any word image in the meaning of metaphor - "stable uniqueness of the language". Taking into account that the image and the meaning explained are different things, the scholar understands the emerging metaphor and emphasizes the disappearance of mythological ideas. [3:341] O. Freudenberg points out that there is a connection between the disappearance of mythological ideas and the appearance of metaphor. He explains this not as a loss of faith in myths, but as related to structural changes in visual thinking. [4:64-66]

In general, the growth of human consciousness, which took the place of mythological thinking, metaphorical thinking, became a phenomenon connected with me. The ability of poetry to use metaphor requires a metaphor that aims to understand the objective world - real reality and the subjective world - human personality, based on the similarities between them. Therefore, the most common manifestations of metaphor are in terms of animating or objectifying. In particular, it indicates that the metaphor is significant in terms of revitalization and that its roots are nourished by

mythological thoughts. Therefore, the idea that the metaphor takes the place of mythological thinking, and the mythological view of the world is reborn in poetry, should be understood in the same sense.

Metaphor is one of the tools of artistic depiction in the research object of philological (linguistic and literary) sciences. At the same time, it has become a research object of philosophy, logic, pedagogy and psychology.

In the dictionary related to the science of literature:- "metaphor (from the Greek word "metapora" - transfer, exchange) is a type of poetic trope, it is the use of a word in the transferable sense to give the definition of a phenomenon or subject based on the signs of similarity. It is said that the use of metaphor shows the common features of two things or describes the peculiarities of phenomena, and the writer makes it for the reader's understanding" [5:83].

Metaphor gives a special tone to a work of art. With its help, all kinds of images are created in fiction. Emotionality and expressiveness attract the reader's or listener's attention. Metaphor occurs when there is a "conceptual similarity" between two different phenomena. It is a reflection of the world, how we perceive the world and how we understand it. A person experiences various emotions, it is not possible to convey inner apologies, regrets, feelings of longing and resentment with meaningful and kind words. In figurative meaning, convenient metaphor replaces many words. That's why poets use the method of metaphorization more often in the art of writing. Therefore, it is known that metaphorization is the act of providing the aesthetic effect of words in poetry. Many opinions have been expressed about the place of metaphor in poetry. Academician V. M. Zhirmunsky said: "...literary communication is the characteristic of romanticism in the method of metaphorization", "...metaphor is a method of romantic reconstruction of the story" [6:335]. In many cases, metaphor resin is evaluated as a characteristic of a personal style. That's probably why V.M. Zhirmunsky A. Blokhti, R. Jakobson calls V. Mayakovsky "poet of metaphor".

Metaphor is a trope that is more commonly used in the world's languages as metaphors. Aristotle, Plato, Theophrastus, Cicero, and Cavintilian in their philosophical moments evaluated metaphor only as an artistic tool of poetic speech. Aristotle in his poem "Poetics" for the first time noted that metaphor is a way of thinking differently about the meaning of words in terms of similarity and change.

"Using words in a metaphorical sense is the most common phenomenon. It comes out of necessity. Metaphor is like clothes, in fact, clothes are worn only to protect against the cold, but later they are used to beautify a person's appearance and to mark status. Metaphorical words are also used for the sake of beauty and artistry in the process of speaking," says the late Roman philosopher Marcus Tullius Cicero. [7:230] In addition, Cicero tells about the division of metaphor into linguistic and poetic metaphors and the emergence of linguistic metaphors. A well-known linguist, Charles Bally, comparing linguistic metaphors and poetic metaphors, said, "...in the nature of images, in figurative speech, a number of differences can be felt. Language facts, symbolic and social description of expressive factors in various languages add up to a lot of information. [8:394] Therefore, Charles Bally states that metaphor is related to extralinguistic and intralinguistic factors.

Metaphors are divided into verbal and poetic metaphors. A number of terms are used to define the category of poetic metaphors. For example, artistic metaphor, individual author's metaphor, personal style metaphor, author's metaphor, etc. In science, the term poetic metaphor is more commonly used than the traditional one. [9:66-67] Thus, categories and classifications that are not assigned to metaphors are also found in the core of poetic metaphor.

Metaphor is the cornerstone of poetry, poetry is made of images, and metaphor is the main method of creating that image. The Spanish philosopher Jose Ortega-y Gasset in his essay "Two main metaphors" says: "... a metaphor is a precious tool of consciousness, a form of scientific thinking. ...he notes that if poetry invents metaphors, science uses them. [10:68-81] Metaphor serves as an additional service to science, but metaphor itself is clearly evident in poetry. Poetry and

metaphor are closely related. There is a reason for writing a work (lyrics). It is dedicated to a certain community center, student community. Writers use metaphors to convey ideas to the reader in a correct and clear image. Metaphor is one of the ways of convincing the reader and creating a visual impression. If the created image is artistic, it has a strong aesthetic effect on the reader or listener. That's why O. Barfield: - "... try to change the metaphor and use another word, then half of the poetry will disappear." [11:104]

"Metaphor is a specific trope used in artistic speech. In the metaphor, the word, word order is used not in its strictly autologous (in the sense of touch) sense, but in its variable sense. Metaphor is a figurative artistic word aimed at a comparison, this trope of various forms and modifications is present in all poetic texts. Poetic metaphor differs from other metaphors in its novelty. [12:376] The main purpose of metaphor is to depict, describe, not to name an object or phenomenon. The reader is impressed by the artistic image and is divided into aesthetic and emotional feelings. It is not a set of beautiful words, but it should create thoughts and views in our minds. Poetry is a great way to find artistic metaphors; a metaphor is the only way to convey one's thoughts and intentions to the reader.

A. M. Ohanian's research work called "Metaphor as the main trope of poetic speech" (2006) was conducted in the field of English poetry of the 20th century. In this research work, the author emphasizes that metaphor is the most relevant trope used in poetry and that hyperbolic character prevails in metaphor in poetry. Thus, the author points out: "...in poetry, the aesthetic service of metaphor prevails during the creation of an image... In poetry, two types of metaphor are distinguished: direct (stable) and individual authorship" [13:206].

Metaphor, one of the tools of artistic representation, will be studied in every aspect in linguistics and literature. In these studies, metaphor is classified into several types. The ancient philosopher Cicero divided metaphor into two types. The first type is a kamahresa (linguistic metaphor), and the second is a poetic metaphor. Thus, metaphor in language learning N.D. Arutyunova, M.V. Nikitin, J. Lakoff, V. P. Moskvina, G. N. Sklyarevskaya, I. V. Arnold and other linguists have developed various forms of classification. We do not dwell on all forms of their classification.

The process of classifying metaphors in this way was not overlooked in the science of literature. Linguists study linguistic metaphor, while literary scholars study poetic metaphor. Here the question arises: what is the difference between linguistic metaphor and poetic metaphor? Bugan scientist J. Vardzlashvili noted that "...linguistic metaphor is a ready-made element of the lexicon (vocabulary): it is not necessary to create such a metaphor again, the speaker narrates without feeling the underlying, shifting meaning of the relevant words" [14:9], B. Larin about poetic (artistic) metaphor, "...artistic metaphor is multi-faceted, unique, innovative, a bit far from stereotyped thinking standards" [15:50].

Yu.V. Tsinkovskaya divides metaphor into three groups in modern literary studies.

1. Vital metaphor (Latin *vita*-life). In these types of metaphors, the semantics of life prevails, the object is perceived as a living, living object.

2. Mortal metaphor (Latin *mors*-death). In this metaphor, the semantics of an inanimate object prevails.

3. intertextual metaphor - the relationship between two texts or text and art forms. Such a metaphor can be exaggerated in most cases in prose passages. [16]

Philip Wheelwright's voluminous article "Metaphor and Reality" shows that there are two types of metaphor. The first type is epiphora (with a template), and the second is diaphora (sharp, figurative, contrasting). [17:83-90] Thus, among the scientists who worked on the classification of metaphor, the American literary scholar Jonathan Culler proposed to divide metaphor into cognitive and rhetorical metaphor [18:202], while J. Lakoff and M. Johnson proposed to divide metaphor into

orientational metaphor and ontological metaphor. [19:36] V.P. Moskovin proposes to divide the metaphor into semantic, structural and functional types.

In conclusion, a number of scholars have made significant contributions in linguistics and literary studies in terms of theoretical definition, classification and artistic service of metaphor and left valuable scientific heritages.

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Rezyume: Maqolada badiiy vositalarning alohida turi metafora buyicha mulohazalar bayon etiladi. Bunda xorijiy olimlarning metafora nazariyasi buyicha qarashlari hisobga olinadi. Metaforaning turlari, ayniqsa, poetik metafora bo'yicha ilmiy tadqiqot ishlari so'z etiladi.

Резюме: В статье представлены комментарии к метафоре как особому виду художественных средств. Учтены взгляды зарубежных ученых на теорию метафоры. Обсуждаются виды метафор, особенно поэтические метафоры.

Kalit so'zlar: Troplar, metafora, poetik metafora, lingvistik metafora, individual – muallif metafora, individual uslub metafora

Ключевые слова: Тропы, метафора, поэтическая метафора, языковая метафора, индивидуально-авторская метафора, индивидуально-стилевая метафора

THE STUDY OF MIRZA BABUR'S LEGACY IN THE SCIENCE OF WORLD HISTORY

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Summary: *Information about Babur's activity as a great king, classic poet, theoretician, literary critic, ethnographer, jurist, linguist, encyclopedist, art critic, scholar of the world of animals and nature, and the study of his works by world historians and research scientists and their opinions. aggregated.*

Keywords: *Fatihlik, sarkarda, aruz, mahram, kamusi alloma, mumtoz, ethnographer.*

Many scientific-historical and artistic works have been created dedicated to Zahriddin Muhammad Babur, one of the last Timurid princes, about his personality, activities and energetic life, human qualities, contribution to world science, and his descendants. This great genius is one of the most complex, most attractive, most dramatic figures in our history. When he died, he lived a relatively short life - he lived only forty-seven years. But during his short life, he managed to take a proud place in world history.

Babur, who was well-versed in literature, history, music and art, was always in the circle of scholars and virtuous people, showed sincere respect and patronized the people of creativity, professions and crafts. Probably for this reason, English historian Edward Holden said to him, "Babur deserves to be loved more than Caesar because of his character. "It is written on his forehead that he is a person of high virtue," he described. Mirza Muhammad Haydar writes in his book "History of Rashidi": "...He was a king who was decorated with various qualities and had praiseworthy qualities. Among all his qualities, courage and kindness stood out. After Amir Alisher, no one wrote Turkish poetry to the extent that Babur did."

Babur's lyric is a song about human beauty and love. In his works, he glorifies a true, honest, loyal person. Elevates a just and worthy person. He describes his feelings so delicately and gracefully that reading his lines of love, one gets an understanding of the extremely deep and emotional nature of this genius. Indeed, it is a huge spiritual treasure left by this great man, which has been fascinating the enlightened people of the world for five centuries.

Babur Mirza's scientific, creative and military legacy is equally famous in the East and the West, from the 16th century to the present, hundreds of scientists and writers on earth regularly refer to the work of this great poet and thinker, his works are translated into English, Arabic, German, It is no coincidence that it has been repeatedly translated into Japanese, French, Hindi, Urdu, Dutch, Uyghur, Kazakh, Russian and many other foreign languages. As the famous Oriental scholar Pave de Courteil said, Hazrat Babur's bright character and unique appearance, "He was able to withstand any difficult test, embodied will and perseverance", artistically and scientifically perfect, classic works created with high sincerity and truthfulness, without a doubt, takes a worthy place in the treasury of humanity.

Since Babur's memoirs were first translated into European languages in the nineteenth century, many biographers have written books and encyclopedias about his life. In 1826, John Leyden and William Erskine published the first book. An English translation of the Boburnoma using the Babur Manuscript Noma is the primary source material. Following John Leyden and William Erskine, the translations appear to be a combination of primary source material. Although many translations of the Boburnoma have been largely based on earlier translations, Annette Susannah Beveridge's translation in the 20th century is considered the next best English translation.

Until now, in addition to Uzbek writers, dozens of foreign authors have written about Babur. In particular, the work "Babur in India" by the English historian W. Erskine in 1995, the work "The Empire of the Baburites" by the Indian historian L.P.Sharma published in Delhi in 1988, the

manuscripts of contemporary historians of Babur in the works "Akbar Shah - the greatest of the Baburites" by the American scientist S. M. Burke, to the history of India Babur's entire life path, childhood, adolescence, young man's years, anxious days, ruling activities, religious and philosophical views, state issues such as management method, attitude to culture and art are described. In general, as a statesman and a general who spent most of his time in battle, Babur was able to find time for creative work even in the most intense period of his social activity, and when his personal life and state were in extremely complicated and dangerous conditions, he surrounded himself with the people of science, art and creativity. collected, sponsored and encouraged them.

The famous British historian William Rushbrook seriously studied many historical works and sources related to the history of India, where Babur lived and established his state, and used them effectively in his work to create artistic images, especially Babur's artistic image to perfection. In the introduction to the work "The Creator of the Sixteenth Century", he says the following about his quality: "... W. Rushbrook in this work related to the life and work of Babur, "Habib us-siyar", "Humayunnama", "Tarihi Rashidi", "Tabaqoti Akbari" and using other historical sources, he provides a lot of scientific evidence about Baburshah.

At the same time, American researcher Burke, in his short and succinct descriptions of Beaubourg, managed to briefly cover the most important aspects of the great figure's life path, services in the history of statehood, and personality. The author writes about Babur's ruling policy: "In Babur Shah's opinion, even if he uses a hundred thousand methods in the work of conquest and rulership, it is right and necessary. However, although he planned to include the conquered lands, especially these lands, in his kingdom, he absolutely did not allow the victorious soldiers to plunder the property of the defeated. The thoughts about "Boburnoma" are also noteworthy: "I wrote the truth," says the author, and indeed he does not hide from the reader his shortcomings, wrong actions that led to bad luck.

Babur's life and works are also widely studied in France, and the French orientalist Bartholomew D'Erbelo (1621-1695) was the first to inform French scientists about Zahiruddin Muhammad Babur and "Boburnoma". D'Erbelo in his article "Babur or Babar" in the collection "Oriental Library" (La Biblioteque orientale. Paris, 1967) provides information about Babur's life, his state and military skills, and that he was a progressive thinker interested in literature and art.

By the 19th century, a new era began in Europe, especially in French oriental studies, in terms of studying Babur's heritage and translating his works. During these years, French scientists created remarkable researches in translating Babur's great work "Boburnoma" into French, studying its text features, and evaluating its political and historical significance. In 1948-1949, the complete text of "Boburnoma" consisting of two parts was printed and distributed.

Some Western scientists associate the creation of "Baburnoma" with the period when Babur ruled India. The French translator gives the following opinion about it: "If I were asked in what period "Baburnoma" was written, I would answer that the book was written after Babur's conquest of India, that is, from 1526 and continued until the end of Babur Shah's life."

It is known that Babur's work "Aruz Risola" is an important guide for studying the laws of poetry of Uzbek, Arab and other Turkic peoples. The scientific community may not know that the manuscript of this work has survived until now. In 1923, the Turkish scholar M.F. Koprulizod first reported that a copy of the manuscript is kept in the National Library in Paris. The French orientalist Edgar Blochet in his book "Catalogue of the Manuscripts kept in the National Library" in Paris specifically mentions this manuscript of the "Treatus of Aruz".

Based on this, we can see that the study of Babur's work from history to today is extremely relevant and important. In particular, he was rightly admired and respected by the people of the world with his extraordinary talent and incomparable human potential. With these qualities, he introduced our nation and people to the whole world. Therefore, it has become one of the proud flags of our nation and people. Many virtuous people in the world still tell great stories about him,

full of admiration and recognition. While studying the life and work of Zahiriddin Muhammad Babur, famous foreign scholars are convinced that our compatriot was a great king, a masterful poet, an enlightened person, and a spiritually perfect person. This further increases the respect for Babur's personality and legacy. Because, in order to understand the contribution of our great compatriot Babur to the world science and state administration and to accept his exemplary aspects, it is important to study his work even today.

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Rezyume: *Boburning buyuk shoh, mumtoz shoir, nazariyotchi, adabiyotshunos, etnograf, huquqshunos, tilshunos, qomusiy, san'atshunos, hayvonot va tabiat olami olimi sifatidagi faoliyati hamda uning asarlarini jahon tarixchilari tomonidan o'rganish va tadqiqotlari haqida ma'lumotlar. olimlar va ularning fikrlari. jamlangan.*

Резюме: *Информация о деятельности Бабура как великого царя, поэта-классика, теоретика, литературоведа, этнографа, правоведа, лингвиста, энциклопедиста, искусствоведа, исследователя мира животных и природы, а также об изучении его произведений мировыми историками и исследователями ученых и их мнения. агрегировано.*

Kalit so'zlar: *Fotihlik, sarkarda, aruz, mahram, kamusi alloma, mumtoz, etnograf.*

Ключевые слова: *Фатихлик, саркарда, аруз, махрам, камуси аллома, мумтоз, этнограф.*

THEATER JOURNALISM: AS A JOURNALISTIC DISCOURSE

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Summary: *The author of this article talks about what theater journalism is, its main formats and goals. In addition, the characteristics of theater journalism and the main genres used in it are discussed.*

Keywords: *Criticism, theater journalism, theater art, review, journalistic discourse.*

Introduction

Theater art is the art of a whole community. Theater art, like other art forms, has traveled a long historical path. The foundation stone of the theater was laid in Roman amphitheaters with all kinds of scenic performances in the ancient times, and in the following centuries, theater art began to develop rapidly like other art forms.

The main part

In the art of theater, the sense of national calorite and national mentality is also very important. That is, during the stages of development of theater art, several national programs were able to influence its development. Central Asian theater studies are among them. Especially in the works "Wedding" (1914) by Uzbek Nusratilli ibn Qudratilla, "Baxtsiz Kuyov" (1915) by A. Qadiri, the moderns who considered theater as an important tool for finding solutions to the problems of the time and promoting the shortcomings of social and political life among the people, traditions and rituals of the society importance in life

Judging from the above, theater can be accepted as a communicative tool with its own position in relation to art studies. That is why, through the performances staged on the theater stage, the audience receives artistic information, this information provides education and includes spiritual and educational tasks. That is, theater communication can affect people's moods with social thought, social views. The reason is that theatrics bring to the stage situations that are aimed at real life reality, and the audience who gets acquainted with these scenes can form certain values in themselves.

If one focuses on the role of mass media as a communicative tool, it performs a number of communicative services. Today, with the help of Internet journalism, it is possible to mention a number of features of the flow of information:

- 1) operational information
- 2) data variability
- 3) not knowing the limits of information distribution, etc.

To generalize, the theater provides the mass media with material about the life of the theater, its future, today's life, television, press, radio, and the Internet. In addition, mass media may publish a series of reviews on new repertoires on the theater stage, the spiritual and educational impact of the performances, and their role in educating the next generation. This, in turn, led to the formation of a new direction in journalism about theater art, theater art studies, and a community of journalists specializing in theater journalism among journalists. That is, it caused the entry of the direction of theater journalism into the types of journalism.

Theatrical journalism is considered to be the driving force of the communicative system, but today theater studies has differentiated tasks and a special place that needs a terminology [1].

A. Bakanursky's in his opinion, theater journalism forms a system of genres connected to a theater theme. There is a place for theater research and theater journalism. These emphasis and views have become a separate section of modern journalism. That is why we can

consider theater journalism as a direction that has formed and died in journalism, like environmental journalism, children's journalism and other areas of journalism.

If one focuses on history, theater journalism influenced the formation of critical thinking and research direction in press journalism. The first magazine publications appeared in France, and the first magazines featured literature and research opinions in their pages. Especially in the magazines of those times, the scenes on the stage of the theater served as objects for critical articles.

To emphasize, the genres of review, creative portrait theater research and research journalism are considered. This means that it fulfills the same tasks as theater journalism and journalistic discourse.

Charles-Augustin Saint-Beuve considered research into two types. One is deep-thinking, somewhat narrower in terms of subject matter, explains the old era, names facts in a certain order and classification. The second type is journalism - it is a widespread, malleable, mobile art. It started from the letters of scientists to the pages of newspapers and became an influential tool of modern life [3].

Mass media will become part of the creative process through the creative thinking of employees, and a tandem of theater and mass media will be formed. Among them, in the form of a bridge, there may be:

1. The journalist understands the views of the theater and defends the views of this team in the media;
2. The theater observes and revises research ideas carried out by the journalist in its work.

In order to deeply interpret critical thinking in the theater and mass media, journalists have to fulfill a number of requirements. Firstly, when writing a research article, first of all, it is required to obey the rules of journalistic ethics, and secondly, critical opinions must include certain logical points.

In fact, the stage of the theater is a place where spiritual views and valuable assets of people are reflected. Especially national ideology, national spirituality is an integral part of theater culture. That is why, in every creative work brought to the stage, some manifestations of national spirituality are embodied.

Theatrical journalism is of great importance in the expansion of these spiritual views and their spread to the general public. The reason is that journalists working in the field of theater studies know the real value and spiritual impact of dramas performed on the stages of the national theater. That's why theater journalism is considered to be an integral part of spirituality and a real communicative weapon of theater art.

In order to have a wider range of ideas, let's focus on the views of national spirituality, universal and national values.

The mass media is one of the civic institutions that can conveniently express the essence of national ideology, national spirituality, universal and national values and create unified social views in the society. Because the press provides information about all aspects of the country, directly observes the processes taking place in society, and acts as a bridge between the people and state institutions. From this point of view, the press plays the role of educating people in the spirit of humanism and mutual respect, along with raising healthy thoughts and views in the society.

The concept of "spirituality" does not lose its essence-importance in any era. In this indescribable revolution, human way of life, geographical conditions, social consciousness and national beliefs are embodied. Therefore, the problem with this concept is always in the center of debate. Therefore, the institution of social citizenship - the press cannot avoid the interpretation of spirituality. For example, people's mood, need, demand, benefit, opportunity, desire and interest are attached to it. A term that integrates worldviews, philosophies and perspectives has the power to

define the aesthetic criteria of society. As the mass media plays a leading role in shaping and strengthening the public opinion, consolidation of the nation's goals and aspirations becomes its main essence. Journalistic discussion is a powerful tool for speeding up the progress of past events, in which transparency and truthfulness, objectivity and attitude, image and discussion are combined. After all, only and only in debates can a fair solution of problems be found. The pressure created in the social consciousness appears in the press. In turn, the essence of spirituality becomes more clear in the tension of the interview.

In fact, society always feels the need for a system of certain spiritual and moral needs. Interfaith work guarantees the logical development of social thought. Consequently, the regions of the psyche provide the dialectical integrity of human will and personal responsibility. The mass media, penetrating the environment and human consciousness, strives to cover the possibilities of spiritual and moral interpretation. The connection between national and universal values and the rule of law, the development of clear and true criteria, the achievement of the commonality of tradition and experience, and the promotion of national unity define its field of activity. At the same time, the press is considered a leading social institution that clarifies the solution of complex and complicated problems.

According to the definition of science, spirituality includes moral culture and spiritual relationships. Usually, a person's inner orientation to being and to himself determines the discipline of moral consciousness. His character, way of life, profession, belief and faith strive for spiritual wholeness, completeness. In fact, human nature has the principle of mutual comparison and comparison of events, events, situations, situations and scenes. Fullness of perception is formed only when the imagination of the person feels the naturalness of the comparisons. The criterion of evaluation is a certain edge of moral culture, in which human beginning and end, the meaning of life and activity, friendship, society's behavior and the inevitability of norms find their expression.

In theater publicism and theater research, the spiritual views of stage creation are the main focus of expert journalists. When we say why, in theater studies, national values and universal human values stand out as inner virtues. Each character, actor's behavior brought to the stage embodies national spirituality, national culture, national traditions.

For example, the national values and traditions of the Karakalpak people are embodied in the Karakalpak opera "Ajiniyaz". In addition, the issue of national spirituality is the central point of every opera and drama, because national value and national culture, national traditions are the main sign of national identity and identity.

The review genre occupies a special place in the field of research in theater journalism. The review genre also focuses on the issue of the existence or absence of concepts of national spirituality, which are considered to be human signs embodying spirituality, together with the artistry of stage performances, the skills of actors, and stage decorations.

Conclusion

To generalize, national spirituality, national values are one of the main objects of theater journalism. The ability to see national spirituality and national values on theater stages depends on the skills of the journalist.

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Rezyume: Ushbu maqola muallifi teatr jurnalistikasi nima, uning asosiy formatlari va maqsadlari haqida gapiradi. Bundan tashqari, teatr jurnalistikasining xususiyatlari va unda qo'llaniladigan asosiy janrlar muhokama qilinadi.

Резюме: Автор этой статьи рассказывает о том, что такое театральная журналистика, ее основных форматах и целях. Кроме того, обсуждаются особенности театральной журналистики и основные жанры, используемые в ней.

Kalit so'zlar: Tanqid, teatr jurnalistikasi, teatr san'ati, sharh, jurnalistik nutq.

Ключевые слова: Критика, театральная журналистика, театральное искусство, рецензия, журналистский дискурс.

EDUCATIONAL POTENTIAL IN FORMING INTERCULTURAL COMPETENCE OF STUDENTS IN THE PROCESS OF LEARNING A FOREIGN LANGUAGE

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Summary: *The scientific work considers the main conditions for increasing the educational potential of the academic discipline "Foreign language" in the development of intercultural competence of students of non-linguistic areas of training. Among them, the most important are the following: a) the creation of a humanitarian environment as a factor in the humanization of the educational process; b) cultivating in students the imperative to develop their inclinations and abilities for languages; c) the formation of value attitudes towards a tolerant attitude towards people around them and reality; d) inclusion in the content of training of a system of concepts and concepts that orient future specialists to reflection and the ability to intercultural communication; e) the use of such active methods and forms of learning that would saturate the educational process with personal meaning for the student.*

Keywords: *potential, educational, communication, intercultural, intercultural, competence, reflection, language, globalization, culture, society, environment, connection, education.*

INTRODUCTION

It is difficult to overstate the importance of learning a foreign language in the development of a fully developed, diverse, and competitive personality in the context of a contemporary multicultural society. The relevance of understanding a foreign language is increased by the globalisation of the international economy and the global community as a whole, as well as the rapid increase in the number of businesses actively collaborating with foreign partners.

Tens of thousands of representatives from science, culture, business, technology, and other spheres of human life have started to study foreign languages as an effective tool for production and an essential tool for developing a successful career, placing foreign language teachers at the centre of everyone's attention over the past ten years. For practical use in a variety of societal contexts and, most significantly, as a method of direct connection with individuals from other nations, languages - most notably English - are essential.

The main goal of higher education is to develop students into strong, critical thinkers who are equipped to solve pressing basic and applied problems in science, technology, culture, and society. This is accomplished through exploration and conversation during the research process.

The teaching of intercultural communication should be an essential component of any foreign language instruction. The interconnectedness of the processes of learning a foreign language and cognition of the surrounding world has currently been established as an undeniable fact of pedagogical reality, which points to the necessity of teaching language and culture in a way that is connected to one another and the subject of numerous studies [5].

In this sense, the influence of language shapes and supports our perception of the world's fullness and diversity. In this sense, learning a foreign language should be construed as a process of understanding the culture of the people who speak it. This is currently one of the top issues with revamping the foreign language education system, where the objectives and curriculum are geared at helping students acquire not just the language but also the culture of the target language.

The term "intercultural education" is described in the scientific literature as an organic and dynamic process that ensures the growth of intercultural discourse and the building of a complex set of varied identities of interlocutors in other cultures [10]. By the use of a foreign language, intercultural education aims to educate students for productive professional and academic collaboration in the contemporary multicultural world.

MATERIALS AND METHODS

Based on this, communication and intercultural, professional, and self-educational orientation are the primary teaching philosophies for teaching foreign language communication to students in non-linguistic fields of training. Goals define how learning is organised as a system, including its structure and content, on the one hand, and are influenced by a particular social order based on the increasing integration of nations and peoples on the other [4; 6; 7]. The communicative approach of teaching a foreign language, which is evident in the design of goals and the choice of content, is a case in point. At the same time, it must be emphasised that a foreign language as a discipline of education will only be able to fully realise its potential if all aspects of the learning process are considered not autonomously, but interconnected and equivalent. This is especially true given that only through the combined use of these elements is it possible to develop high-quality intercultural competence.

As is generally known, learning a foreign language can and should be used to develop a student's multicultural personality. This not only exposes students to the culture of the language's speakers but also helps them establish and develop their own cultural awareness. A foreign language holds a specific position in the development of students' intercultural competency among the academic subjects they study. According to I. A. Zimnyaya, "learning a foreign language involves a significant amount of the development of speech skills (skills) and at the same time no less than for the exact sciences, the amount of language knowledge in the form of rules, patterns, programmes, and solutions to various communication tasks." Like in other scientific areas, these norms relate to the creation and execution of linguistic action, therefore they are not very important in and of themselves [2]. We think that learning a foreign language, like learning any other subject should evolve into a crucial personality-forming element that is required for an individual's diverse development and the full realisation of his potential in an independent existence.

So, learning a foreign language has substantially risen in stature and educational potential as an academic field since it is a tool for communication and self-realization in the outside world. The development of a tolerant mindset and the capacity to shift to conversation as the main mode of communication amongst representatives of other cultures can both be greatly aided by learning a foreign language. The formation of positive psychological attitudes towards other peoples, which are laid not only in the learning process but also in a real social multicultural environment, where native and non-native languages frequently coexist, is one of the main tasks of the teacher. These conditions must be created for both national (Russian, Tatar, Jewish, etc.) and multinational Russians.

RESULTS AND DISCUSSION

Based on the aforementioned, it is feasible to identify the key factors that will increase the educational potential of the academic discipline "Foreign Language" in the growth of students' intercultural competence in training areas other than language. The following are the most crucial among them: a) the development of a compassionate environment as a factor in the humanization of the educational process; b) encouraging students to develop their aptitude for language learning; c) the formation of value attitudes towards a tolerant attitude towards others and reality; d) the use of such active methods and forms of learning that would saturate the educational process with personal meaning for the student and thereby provoke his desire for the full formation and improvement of intercultural competence; e) the inclusion in the training content of a system of concepts and concepts that orient future specialists to reflection and the ability to intercultural communication. The effectiveness of educating students in tolerance, openness, respect for the cultures of other peoples as integral to their own and the global culture as a whole, as well as spiritual immersion in a foreign culture and comprehension of another people's mentality is increased as a result. This ultimately enables students to comprehend and originality own culture.

Language and culture are now so inextricably linked that learning a foreign language also requires some degree of acculturation, when pupils absorb certain aspects of the original speakers' cultures as a result of speaking with them. In addition, a foreign interlocutor will have higher expectations for the development of relationships and successful collaboration the more fluently they speak English. It is typically difficult to advance effective dialogic conversation with a representative of another culture if one or more key cultural specificities of the language being studied are ignored. The practise of teaching a foreign language at a university demonstrates how the co-creation of two personalities - a teacher and a student - increases the efficacy of this discipline's educational and parenting potential. The teacher's personality is no longer overpowering, and his effect on the audience grows dramatically while remaining somewhat more intimate. The role of the contemporary teacher is to plan and direct group activities [10]. A competent teacher should be passionate about teaching a foreign language [8], have broad knowledge of its teaching techniques [9], and have an understanding of the latest developments in language dynamics [1].

CONCLUSIONS

The following conditions will thus apply to the development of an individual's intercultural competence within the context of a university's educational environment.

Firstly, a young person's intercultural and personal development goals will be established while in the educational process at a high level since he will be able to live his life successfully right now.

Secondly, if the person's desire to comprehend a different culture is compatible with his upbringing, it will result in an active expression of his uniqueness.

Thirdly, a young person's spiritual development, education in citizenship and tolerance, comprehension of the meaning of true education, and the formation of an active, self-developing personality gravitating towards universal human values occur when the process of a student's personal growth in a multicultural setting and his movement towards self-realization in a foreign language environment are of real significance.

Also, as it is founded on prior experience, newly developed intercultural competence aids in the individual's self-realization. In fact, the university develops this capacity as a young person's personal education, combining a crucial comprehension of social reality and specialised linguistic knowledge, both of which are used in professional contexts and make their evident in social engagement as a guide to action.

Moreover, the process of so-called secondary socialisation, which involves the absorption of sociocultural and local information, is intrinsically intertwined with the development of intercultural competence. This is explained by the fact that it is impossible to develop the aforementioned ability without understanding of the sociocultural features of the nation whose language is being studied. Here it should be emphasised that understanding the culture of the nation whose language is being studied, including its history, literature, music, fine arts, etc., not only makes it possible to communicate with members of that culture on a personal level, but also contributes to the individual's spiritual growth [3].

This implies that the process of developing intercultural competence must be structured such that knowledge of the culture of the nation whose language is being studied and its uniqueness are consistently utilised in students' speaking activities, both in formal and informal settings. The ability to engage in full-fledged, effective dialogue with native speakers won't be created in them until that point.

We therefore came to the conclusion that students need to develop a holistic perception of the cultural picture of the world, structured by languages and a unique value system of each people, after considering the educational potential of the academic discipline "Foreign Language" in the development of intercultural competence of students in the context of multicultural education.

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Rezyume: *Ilmiy ishda "Chet tili" o'quv fanining ta'lim salohiyatini oshirishning asosiy shartlari tilga oid bo'lmagan ta'lim yo'nalishlari talabalarining madaniyatlararo kompetensiyasini rivojlantirishda ko'rib chiqilgan. Ular orasida eng muhimlari quyidagilardir: a) ta'lim jarayonini insonparvarlashtirish omili sifatida insonparvarlik muhitini yaratish; b) o'quvchilarda tilga bo'lgan moyillik va ko'nikmalarni rivojlantirish imperativligini tarbiyalash; v) atrofdagi odamlarga va voqelikka bag'rikeng munosabatda bo'lgan qadriyat munosabatlarini shakllantirish; d) bo'lajak mutaxassislarni fikrlashga va madaniyatlararo muloqot qobiliyatiga yo'naltiruvchi tushunchalar va tushunchalar tizimini o'qitish mazmuniga kiritish; e) o'quv jarayonini talaba uchun shaxsiy ma'no bilan to'ldiradigan faol o'qitish usullari va shakllaridan foydalanish.*

Резюме: *В научной работе рассматриваются основные условия повышения воспитательного потенциала учебной дисциплины «Иностранный язык» в развитии межкультурной компетенции студентов неязыковых направлений подготовки. Среди них в качестве важнейших можно назвать следующие: а) создание гуманитарной среды как фактора гуманизации образовательного процесса; б) культивирование у студентов императива на развитие своих задатков и способностей к языкам; в) формирование ценностных установок на толерантное отношение к окружающим людям и действительности; г) включение в содержание обучения системы понятий и концепций, ориентирующих будущих специалистов на рефлексию и способность к межкультурному общению; д) применение таких активных методов и форм обучения, которые насыщали бы образовательный процесс личностным для обучаемого смыслом.*

Kalit so'zlar: *potentsial, ta'lim, kommunikativ, madaniyatlararo, madaniyatlararo, kompetentsiya, aks ettirish, til, globallashuv, madaniyat, jamiyat, atrof-muhit, aloqa, ta'lim.*

Ключевые слова: *потенциал, образовательный, коммуникативный, межкультурный, межкультурный, компетенция, рефлексия, язык, глобализация, культура, общество, среда, связь, образование.*

**RETROSPECTIVE ANALYSIS OF MILITARY-PROFESSIONAL TRAINING IN THE
SYSTEM OF DEFENSE PROVISION**

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Summary: *The article outlines a retrospective analysis of military-professional training from the early stages of the institutionalization of defense to the present. The period from the primitive form of defense to the increase, improvement of the types of military weapons in the pursuit of overcoming conflicts with military force is illuminated.*

Keywords: *seed breeding period, spear throwing, hand-to-hand combat, horsemanship, actions for protection, military didactics, the art of fighting, martial arts, military-professional competence, military army, military-professional training.*

INTRODUCTION

The history of wars begins with the period of tribalism, when individual society appeared [10, 8], in which the desire to resolve conflicts between tribes with the help of weapons and military force is noticeable, and the primitive form of defense was created in this way. There were constant conflicts between clans for territories, meadows, arable lands, and water bodies in the form of attack and defense. It was during this period that the first manifestations of the institutionalization of defense appeared [8]. During this period, each member of the team had to have certain military skills to protect himself and his team, and to be always ready for defense. Every adult member of the clan (mostly boys) was required to learn archery, spear shooting, hand-to-hand combat, horse riding, and under the leadership of the clan chief, special military actions (defensive action skills) were formed with them. Neither in the history of military didactics nor in the research conducted today, this issue has not been studied from the perspective of Eastern military history [11, 12]. Because there is a tradition of military education in Turkey, graduates of higher military educational institutions (HMEI) - young lieutenants are given a personal weapon, a silver ring with the logo of the school, a sword [2]. This is a sign that evaluates the quality of the military-professional education of young officers, along with raising their position in society.

MAIN PART

From the cultural layers of Obirahmat area in Tashkent region, a variety of weapons made of limestone lightning stone, including nucleuses, parakeets, sharp-pointed sixes, scrapers and shovels, cutters, have been found, the total number of which exceeds 30 thousand. The site of Kotyrbulok, famous for its finds, was identified in the Kattakurgan region of Samarkand region. The discovery of sharp-pointed lancets, scrapers and punches, leaf-shaped weapons with double-sided processing and various other stone weapons indicates that the military was active [15. 456].

Over time, the art of fighting on horseback appeared. In the last period of the clan community, small warrior units were formed in each clan-tribe, who thoroughly studied the art of war. Their main task was to protect the clan from the attack of the enemy, engage in military training, and master the art of war.

With the increasing importance of the military field in the tribal tribes, the influence of the military leader (commander in today's military language) also increased. Prestige was based on knowledge of how to march or attack, skill in maneuvering and handling of weapons, and the skill of the military profession acquired through years of participation on the battlefield. Military researchers V.E.Utkin, S.V.Buryan and A.F.Nabiullin studied and taught the pedagogical aspects of teaching to fight, or determined that the acquired knowledge and skills directly affect the moral and spiritual state [17]. The moral-spiritual state is embodied individually and collectively. In this case, the educational process (military-pedagogical process) at higher military educational institutions

(HMEI) is considered the only military-educational center for forming the basic components of military-professional competence [18, 7]. In this way, the military profession was created by using it in the form of a tool (a stick, a stone in the form of the first appearance of weapons) for teaching or learning independently, protecting oneself and loved ones. For the first time, primitive defensive barriers appeared around clan-communal villages, which later began to function as fortified fortresses. Military settlements were created to hide from the enemy's attack [15]. Various methods of conducting defense appeared, indicating the institutionalization of combat training.

Components of combat training consist of command readiness and independent training. Our president, the Supreme Commander-in-chief of the Armed Forces said "We have every reason today to proudly and proudly say that in the short term, a national army has been built capable of reliably protecting the independence, territorial integrity, inviolability of our borders, the peaceful and peaceable life of our people"[16. 2] he meant direct combat readiness.

The emergence and improvement of military troops was practiced in connection with the development of the history of statehood, which existed during this period in the form of infantry, cavalry, and cannon divisions [1]. From the time of the emergence of the ancient states, the wars of the east took a leading place in interstate relations. Military conflicts between different peoples and countries, wars led to the establishment of excellent defensive structures, fortresses in terms of engineering work, and the continuous improvement of military weapons. Weapons were improved and new types were introduced. The first rules of conduct of war arose. The organizational structure of the Army developed. The state authorities took over the organization and supply of the army, the emerging new social layer established the rights and obligations of the military and put this layer under its protection. On the eve of the emergence of the state, temporary military associations appeared which then formed a military unit of the tribal chief.

The formation of the first military troops, the beginning of wars for the conquest of neighboring and distant lands is considered to have begun due to the emergence of ancient states in Mesopotamia and Egypt, their desire to conquer neighboring territories rich in various raw materials reserves. For some people, military work begins to become a profession. It was the first frog of the military organization. The most important feature of the military organization was the presence of military discipline, military equipment and a form of military organization. Military discipline was the orientation of the entire strength of the personal composition towards the goal of completing a combat mission. It was during this period that the first military procedures emerged. The rule of unconditional submission of the warrior to the military chief arose. This rule consolidated the army and strengthened its combat ability, the main elements of the formal approach were expressed. As a result, the conditions of defense provision, means of defense provision and participants in defense provision were defined.

RESULTS AND DISCUSSIONS

Considering that the first states in the history of the world appeared in different regions of the Ancient East at the end of the 4th millennium BC to the beginning of the 3rd millennium BC, they also contained theological and tactical compositions of the provision of Battle, attack and defense. In particular, military actions were carried out, taking into account the seasons and time of the Year [4, 9, 5, 3]. In order to ensure the stability of political, economic and social development in these states, the military sphere also began to develop. One of the most important tasks for these states was to protect the external borders of the country from the enemy, to ensure stability within the country. For this reason, the military sphere was established, a separate body of people and state power was formed, which was engaged in this sphere. A volunteer army, initially raised from the population, and later a regular army, was formed. Military organization became the most important component of state power. Like Ancient Egypt, Mesopotamia, Assyria, the Hittite, Iran, India, China, and other countries, Central Asia saw the rise of early armies with the ability to ensure the inviolability of Defense and borders. The history of military power, Wars is the history of struggle

between different peoples, nations, political groups, mutual disputes and disputes, violence and destruction. In ancient times, the military army was a symbol of the power of the state. States with a strong army were constantly trying to rule over neighboring lands, to own their wealth.

World military art-taking a look at the history of various types of education, it is possible to note that in historical times the countries are within the factors affecting the power of military power: the nature of the territory of the geographical state of the country (reserves of raw materials), the size of the territory and area; the number and composition of the population. It is known that the peoples of Uzbekistan have been actively involved in international political, economic, and cultural processes since ancient times. Due to the influence of these contacts and the internal and external geopolitical situation, socio-economic development, the military art of the peoples of Uzbekistan has also developed in its own way [13.3-8]. It is noted that the "Battle of Alimkul" indicates the presence of elements of rapid attack in ensuring defense as a specific aspect of the classical military strategy, or describes the "Shiba" and "shundulomishiy" methods of retreat fighting, which are widely used in the military structures of NATO bloc member states[14.25-27]. This was also influenced by the favorable geographical location of the region, which had an important military strategic importance in international relations. Economic-economic needs forced the ancient tribes to cultivate new lands rich in raw material reserves. This, in turn, would have led to the emergence of political and military disputes between different tribes. The struggle for survival, in turn, was the impetus for the emergence and improvement of weapons, defensive structures.

The territory of Uzbekistan, located at the crossroads of ancient roads connecting the ancient Eastern world with each other, was also drawn into the framework of the military-political relations of the ancient Eastern world. In southern Uzbekistan, in the third-second millennia BC, the first urban settlements with strong defensive walls appeared, as well as separate defensive fortifications. For an effective attack to be carried out or reliably protected; only the presence of weapons would be scarce. Therefore, the ancient tribes began to unite into military-political alliances; the main elements of the functional approach began to apply in the provision of Defense.

By the middle Ages, all the major cities were surrounded by strong defensive (burj) walls, fortified with horoscopes of lime, which were surrounded by water-filled ditches of (handak) lime. This defensive wall maintained its importance until the late 19th century.

Due to the socio-political progress of society, the desire to overcome the conflicts that arise between different peoples with military force has led to an increase in the types of military weapons, to their improvement. Protective weapons common in antiquity (armor, helmet, shield, bargustwon, etc.), assault weapons (spear, sword, arrow-bow, palakhmon, manjanak, etc.) were produced in many forms and appearances throughout much of the world. In ensuring defense, reacting on the basis of a logical approach, it arose to study combat activities, to carry out, plan and manage operational activities, to establish that a phenomenon generates a second phenomenon (possibly also possible).

The development of the military sphere has always been under state control. In general, from the time of the beginning of wars, the greatest minds, thinkers of humanity have been concerned about the creation of a "space without war", a "common house without war" on Earth. Unfortunately, so far this idea of humanism has not found its gift. Because, whether in a manufactured or anthropogenic form, the risks and risks always exist, and the Army serves to eliminate it. In particular, by the decree of the president of the Republic of Uzbekistan of December 12, 2017, a unique system has been created to increase and activate the role of civil society and state authorities in places in strengthening the defense power of our country. According to him, on the principle of "our National Army – pride", military – administrative sectors were established, the direction of its activities and tasks were determined[16.14], notes the secretary of the Security Council under the president of the Republic of Uzbekistan, Lieutenant General V.Makhmudov.

At first, when the country was attacked by an external enemy, an army was formed, which was assembled from different segments of the population. What falls into the hands of this army, gathered for the protection of the country (ordinary stick, ax, knife, etc.), thus the armed infantry were the. Gradually, an arrow-bow, a short and a long spear appeared. This army, led by a military chief, entered a chaotic war where it was confronted by enemy forces.

Equestrian parts did not appear at once. The genesis of horses as a biological species lasted thousands of years. 2 thousand years ago, high-speed herbivorous herds of current horses roamed the steppes of southern Siberia, Central Asia. Horses may have been domesticated in the Bronze Age or earlier. Domesticated horses spread from Southern and eastern Siberia, Central Asia to Western Asia, and Africa in the 18th century BC. The horses were first used by nomadic herdsmen and passed on to Grassier societies. Since the second millennium BC, horses have been used as a means of transportation. Nomadic tribes first used horses for military purposes. In the first half of the 2nd millennium BC, all the powerful states of Old Asia added horses to their chariots. The Hyksos, Semitic tribes that ruled from 1670 to 1570 BC [6.512], first introduced horses and war chariots in parts of Egypt. For the first time in Old Asia, equestrian parts appeared in Mitanni, in Assyria in the 9th century BC. The cavalry units squeezed the chariots over time.

Chariots formed part of the tattooed State Army until the 2nd century BC of the 1st millennium BC. Especially in the Achaemenes Iranian army, the installation of Sickles on the wheels of chariots made the chariot even more formidable. The trenches cut off the legs of enemy soldiers, which caused horror in the ranks of the enemy. However, the cavalry pieces squeezed out the chariots.

Arab tribes and states in the Arabian Peninsula, Achaemenes Iran, later India, had military units that could ride camels. The camel's two-duck (camel's bastrianus) and one-duck (camel's dromedaries) species are domesticated. The homeland of two duck camels is the Gobi Desert of Africa, the homeland of one duck camel is the Arabian Peninsula. The domesticated site of the camel is Turan and Iran. Camels were among the first to be used by the Arabs in combat and in direct infantry fighting.

In the ancient States, intelligence was gradually improved with the development of the military sphere. Initially, information was collected about the economic and political state of the neighboring state, the state of the military sphere, and the combat capabilities of the army. Information and messages from tourists, traders were often used. At the time of the threat of War, intelligence was revived; spies were sent to a rival country. All kinds of lies were spread among the population on enemy territory, trying to reduce the population to fear and panic, to create distrust of their own authority, and to ensure the surrender of enemy soldiers without a fight.

CONCLUSION

According to the results of a retrospective analysis of military-professional training in the Defense Supply System, the following can be indicated:

First, militarism was perceived as a type of Labor to ensure defense. The primitive form of militarism arose because of the need to protect oneself, loved ones, people, Territory, region. Each region of the world was improved based on the dynamics of war and military conflicts. His primitive appearance was transmitted from generation to generation in the manner of military skills and qualifications. With the advent of weapons, the type of Labor is also being carried out from an improved, simple appearance, complex appearance;

Secondly, after the emergence of statehood, knowledge of military action was taught to those who were separately sorted (secretly) from the eyes of the enemy in specially organized places (on the Sahara, mountain, and riverbanks). From this period, the first stage of institutionalization of preparation for the provision of Defense began, which can be reached because of such as a formal approach, a functional approach, a logical approach, a semantic approach and a systematic approach.

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Rezyume: *Maqolada mudofaa tizimining dastlabki bosqichlaridan to hozirgi kungacha bo'lgan institutsionallashuvi va unga harbiy-kasbiy tayyorgarlik ko'rishning retrospektiv tahlili keltirilgan. Shuningdek, mudofaaning ibtidoiy shaklidan to konfliktlarni harbiy kuch bilan bartaraf*

etishga intilishi, harbiy qurollar turlarining ko'payishi va takomillashtirishgacha bo'lgan davri yoritilgan.

Резюме: В статье проводится ретроспективный анализ военно-профессиональной подготовки от начальных этапов институционализации обороны до настоящего времени. Освещен период от первобытной формы обороны до увеличения, совершенствования видов боевого оружия в стремлении к преодолению конфликтов военной силой.

Kalit so'zlar: urug'chilik davri, nayza uloqtirish, qo'l jangi, chavandozlik, himoya qilish harakatlari, harbiy didaktika, harbiy san'at, jang san'ati, harbiy-professional malaka, armiya, harbiy-kasbiy tayyorgarlik.

Ключевые слова: семеноводческий период, метание копья, рукопашный бой, верховая езда, защитные действия, военная дидактика, боевое искусство, боевые искусства, военно-профессиональная компетентность, армия, военно-профессиональная подготовка.

AREAL OF ETHNOGRAPHIES RELATED TO FAMILY-HOUSEHOLD RITUALS

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Summary: *Today, the etymology of ethnographisms, their interpretation, the definition of semantic tasks that they perform in the construction of the text, their areal research is one of the most important and urgent tasks facing Uzbek linguistics. Ethnographisms play an important role in the history of each nation and its language. Ethnographisms are also studied in folklore. The works created in the past centuries, as well as in our days, cannot be separated from folk traditions.*

Keywords: *Ethnographisms, rituals, everyday, magical, calendar, ceremonial clothes, linguistic unity.*

The lexical layer of the Uzbek language is also sufficiently researched in large-scale studies carried out in linguistics today. In the structure of the lexical layer there are such cultural units that are studied that they reveal the mentality, nationality of the people. Folk science, that is, the science of ethnography, is present in all languages and is one of the areas that has not been fully studied and completed. Because while many traditions still manifest themselves now, some are embedded in the composition of other traditions. Habits not found in an area may still be common in remote areas.

Lexical units that represent ritual are words that have been consumed in the vernacular for many years, rising to the level of the term. Ritual lexicon is closely related to folk life, and lexemes representing ethnic meaning acquire historicism in a certain sense by having distinct inter-territorial characteristics. Therefore, all-Russian words and Arabic words make up the etymological layers of the ethnographic lexicon of Uzbek dialects. All-Russian words, in particular, form a major part of the lexicon of rituals and children's games. The reason for this ritual, games preserve the genetic basis of the ethnic unity of each people as historical, social phenomena. Therefore, the ethnographic lexicon within these areas is stable. Arabic loanwords include Sunnah, khatna, potiya(Fatiha), Mayite, ghassal, funerary, Mullah, hayit, etc.k. Recorded lexemes serve to express religious-belief concepts that represent more ceremonial names, the individuals involved in them, what is given, the holidays celebrated publicly. It is known that the vocabulary of the language serves as the main means of communication in all activities of speakers of this language. Consequently, from birth to death, a person's national language wealth takes part in both his oral speech and written speech. In every folk lexicon, there are also words that directly represent the behavior and concepts of the domestic life, Customs and rituals of this people, their dress, the way of doing business. It is this sum of words that, as a historical phenomenon, will always change and become richer, and it will be more correct to conditionally consider it an ethnographic layer. Because, first of all, they are ethnically unique to only one seed or tribe, and do not occur in the language of other Ethnos. Secondly, the lexical layer can be genetically formed on the basis of words characteristic of the language of this ethnic unit, and then, due to necessity, take and assimilate new words from the language of other ethnic units or Ethnos(people). In addition, the emergence of new phenomena in the ethnographic state of the same ethnic unit also contributes to the creation of new words in this ethnic life. Here is such a historical vital process that forms an ethnographic lexical layer. About it E.Begmatov writes: "terms such as the ethnographic layer, dialectal lexical layer found in Uzbek linguistics, do not actually represent lexical layers, but a group of words characteristic of the colloquial speech style of the Uzbek language. There is no process of stratification, that is, the organization of a lexical layer, but rather a characteristic of the type of speech, style. So, the word "layer" in the terms given correctly expresses the essence of the phenomenon in this place.

Uzbek rites are classified into categories according to their content, rather than transfer. In linguistics, the naming of rituals, their essence, the study of ethnographies in groups as a linguistic unit are some of the issues that are still important today.

According to the content and essence of the rituals B.I.Sarimsoqov learned in three groups: household rituals: wedding, burial; calendar rituals: Navruz, Ramadan pride, cauldron filled; magik rituals: such as taking hands, bleeding, Chilla reading, juicing.

Indeed, what ritual name ethnographers mean, taking into account its semantic nature, we can divide them into the following groups:

1. Family-household ethnography;
2. Calendar ethnography (Navruz, Kazan is full, iftarlik...);
3. Magik ethnographisms (Bibimushkulkusho, momooshi...).

Family-household ethnographers arose in connection with the formation of a family in a human society. The fact that in the early periods of the historical development of the Uzbek people, family-household rituals consisted of weddings and funerals was noted by linguist S.M. It had been recorded by Abramzon . However, the names of family-household rituals and traditions of Turkic peoples have reached us with certain linguistic changes. They are more pronounced when compared with Turkic languages.

The meeting of family-household ethnographies in the works of Hazrat Mir Alisher Navoi allows the Turkic peoples of the Navoi period to conduct research on linguistic features and semantics of ethnographies such as marriage, divorce, aza, mourning, which are actively used in the Uzbek language, as well as to reflect on the language units, their domestic life, as well

I.Jabborov noted, the family, which is considered the most important cell of society, begins with marriage. The healthier, fuller and stronger the family, the healthier, calmer and more prosperous the community will develop. Marriage, therefore, is a ritual that is celebrated by the public from the time of primitive society onwards, aimed at strengthening and strengthening the family through a special custom, first the custom, later legalized in writing.

Marriage is a form, method of formalizing the marriage of a man and a woman. It has not lost its semantic content in modern Uzbek literary language. Currently, marriage means that a man and a woman will have a legal family. When the marriage is read to the age of two, a man from the groom's close relatives, vakʼl ota, takes part. In the Pakhtachi dialects of the Samarkand region, is called oldʼga chʼqqan ota . In the Uzbek dialects of Karakalpakstan, the lexeme jʼgʼt ogʼasʼ is used for the one who teaches the young man all things in the marriage ceremony, and oʼkulata//okulota in the Kipchak dialects. This lexeme is represented in Kashkadarya dialects by the aklota lexeme.

In conclusion, each linguistic lexical macrosystem has a system of lexemes that form a separate microsystem, representing an ethnographic concept. To study these lexemes, a special area of linguistics is formed – ethnolinguistics, which, as a linguistic field, studies both linguistic universals and private aspects. Therefore, general and private ethnolinguistics are distinguished. While general ethnolinguistics deals with general issues such as the emergence, development of ethnographic language phenomena, private ethnolinguistics studies ethnographies specific to certain languages in this context. Traditions show the peculiarities of a particular Ethnos, have an active place as a linguistic sign throughout the ethnographic system, in this aspect it is important for linguistics.

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Rezyume: Bugungi kunda etnografizmlarning etimologiyasi, talqini, matn qurishda bajaradigan semantik vazifalarini aniqlash, hududiy tadqiq etish o'zbek tilshunosligi oldida turgan eng muhim va dolzarb vazifalardan biridir. Har bir xalq va uning tili tarixida etnografizmlar muhim o'rin tutadi. Xalq og'zaki ijodida etnografizmlar ham o'rganiladi. O'tgan asrlarda, qolaversa, bugungi kunimizda yaratilgan asarlarni xalq an'alaridan ajratib bo'lmaydi.

Резюме: На сегодняшний день этимология этнографизмов, их интерпретация, определение смысловых задач, которые они выполняют при построении текста, их ареальное исследование является одной из важнейших и актуальных задач, стоящих перед узбекским языкознанием. Этнографизмы играют важную роль в истории каждого народа и его языка. Этнографизмы изучаются и в фольклористике. Произведения, созданные в прошлые века, как и в наши дни, неотделимы от народных традиций.

Kalit so'zlar: Etnografizmlar, marosimlar, kundalik, sehrli, kalendar, marosim kiyimlari, til birligi.

Ключевые слова: этнографизмы, обряды, быт, магия, календарь, парадная одежда, языковое единство.

RESEARCH OBJECT AND RESEARCH DIRECTIONS OF KAZAKH ETNOLINGUISTICS

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Summary: *The article deals with the objects and direction of research of Kazakh ethnolinguistics. The role of ethnolinguistics, ethnoidentity, ethnographies in the study of the relationship between language and culture of the Kazakh people is defined.*

Keywords: *ethnolinguistics, ethnos, ethnic identity, ethnographism, material culture, spiritual culture.*

INTRODUCTION.

Currently, one of the most important issues in the field of world languages is the study of the national worldview, culture, thought system of an ethnic group based on the language of people. Ethnolinguistic studies of linguistic data with the identity of the nation, worldview, material and spiritual wealth, lifestyle began to be used in Kazakh language education in the last quarter of the twentieth century. Ethnolinguistic research promotes the achievements of structural linguistics and combines it with a new scientific paradigm, the anthropocentric paradigm system. The goal of the anthropocentric direction is the consistent study of mastering the world with the help of the mind and consciousness of a language master based on the recognition of the processes of a person who knows this language and its environment, as well as history and culture.

Defining the meaning of ethnolinguistics, O.S. Akhmanova says: "Ethnolinguistics is a branch of macrolinguistics that studies the relationship between the language and the people and the influence of linguistic and ethnic factors in the process of language development [1:530]." Therefore, ethnolinguistics studies the ethnos and its language. These studies introduced the term "ethnos" to science in the 1960s and 1980s. "Ethnos is a community that was formed in a certain historical period in a specific region, knew how to recognize its uniqueness, recognized the integrity of its language, and knew how to feel the characteristics of other differences [2:18]"

Therefore, ethnolinguistics studies an ethnos in connection with its language, because language is a clear and stable sign of an ethnos, and territorial integrity, culture, self-awareness of oneself as an ethnos, state structure, economic area, social organism and anthropological type of an ethnos are subject to more or less change of signs [3:397]. It is clear from this that the problem of the relationship between language and ethnicity is as important as linguistics. This goes a long way to recognizing the uniqueness and nature of hundreds of nations, especially the Kazakh ethnos, which have spread to the four sides of the world.

The founder of Kazakh ethnolinguistics, academician A.T. Kaidar, according to the purpose of ethnolinguistic research, recommends using the term "ethnos" in the sense of "the essence of the ethnos", and "language" in terms of "linguistic world". According to the scientist, ethnolinguistics determines not only individual problems of an ethnos, but also its general image, and complete information about an ethnos is stored in its linguistic wealth.

"The identity of the ethnos is the national image of the ethnos, its historical identity and the truth about it. In other words, what we mean by "the essence of the ethnos" is the mirror of the life experience of the ethnos from ancient times to the present, its rich spiritual and cultural wealth, which is molded by its language, preserved in memory, and passed down from generation to generation as an inheritance" [2:11].

In the history of any nation, an important place is occupied by written data, archaeological excavations, historical monuments, A.T. Kaidar includes them among the "thousand kinds of life of the ethnos".

According to the scientist: "Ethnolanguage is not only about itself, but also about its natural environment and the social relations created by it, its soul, the secret of the heart, joy and admiration, anger and laughter, dreams, understanding and knowledge, one's own assessment of phenomena on mother tongue - everything is like a mirror to express oneself in one's mother tongue" [2:11] Ethnolinguistic studies in Kazakhstan have defined their orientations as a result of such simple conceptions and have risen to the rank of "School of A.T. Kaidar".

M.M. Kopylenko distinguishes three schools of ethnolinguistic research in the former Soviet Union: The researches of the initial direction are associated with the names of V.V. Ivanov and V.N. Toporov, the purpose of their research is to update the materials of modern mythological lexicon; Second, N.I. Tolstoy and his school turned Slavic anthology, mythology, tradition, and dialectological materials into the object of study. That is, such issues as divergent and convergent processes of the development of the language and culture of the ethnos owning it, the problems of the dialectal division of the language, the conditions of the geographical location of the ethnos are considered.

And the third goal of the School of A. T. Kaidar is to demonstrate the importance of the cumulative function of language for the transmission of the precious wealth of national history from generation to generation [4:17].

If we assume that the “phenomenon of an ethnos” is a national image, “historical identity”, then “what is born from this image is life, those tools that are made by one’s own hands for living and other necessary things, that which left traces of joys and sorrows of the emotional and psychological states of the human soul. If all this is called culture, it is known that culture can be divided into material and spiritual. We believe that culture is a science, starting with an individual, and taking the wealth of a whole nation into its own work.

The consideration of the ethnic group by dividing the world into material and spiritual groups shows the difference of the function of the ethnic group in the society. The terms of material culture define the fruits of the conscious life of every people, their achievements, and their outlook on the world. Material culture determines the way of human activity in the successful production of materials, if so, then the analysis of the terms of material data such as food, clothing, housing, shelter, tools, etc. is an important guide for reading and learning about the history of the people.

In the Kazakh language, *saukele* is only a bride's headdress, which exists among some Turkic peoples and is one of the sacred names. It is clear that *Saukele* is a source of material culture, but the spiritual background here is more important than its material value. First of all, its raised form, limited by space, attracts attention. This means infinite duration. Also, if this bright, radiant image shows the wealth of the country of the bride, then, on the other hand, it gives the appearance of endless blessings and good wishes worthy of the luxury and wealth of that country. This shows the pride and loftiness of a beautiful daughter raised by her parents. This background shows the honor of the Turkish origin of the girl, the upbringing of the girl, the purity of conscience.

Saukele is an ethnic term rarely used today, a headdress that can only be seen in museums. It is a pity that some Kazakhs have forgotten many of the *saukele* traditions associated with the bride's wedding. At the same time, it is important that the main task of parents is to “marry their son and marry their daughter”, so it becomes clear that ethnolinguistics can offer a lot to representatives of the Kazakh ethnic group, encouraging and reviving the wedding ceremony”. Reviving the meaning of such sacred terms, one can “revive the dead and ignite the extinguished” in times of difficulties of the people. Thus, material culture and spiritual culture are connected as two sides of one whole, forming each other. The so-called *saukele* ethnography is a manifestation of both material culture and spiritual culture. Any source of material culture shows people's own attitude, everyday differences.

Spiritual culture lives in a symbolic, abstract form, in their original semantics, in most cases, the material nature is preserved. It is not the thing itself, but the image and symbolic meaning, which is born due to the people's culture, that serves in the people's society. That is, a significant function of culture appears. This is evidenced by the following in the society of the people: the cauldron is not turned upside down, on the contrary, they wish that “the cauldron does not fall from the fire”; do not give or exchange a headdress for another person; they will anoint with oil the threshold of a clean house that there was an abundance of food, etc.

In the philosophy of the great Abay, “There is no place for humanity if it does not know the visible and invisible secrets of the world and at least does not divide them into parts. Without knowing this, this soul will not be a human soul, but an animal soul. ... We must cultivate, expand our fields and increase the wealth that we collected with passion, it was food for the soul” [5:103], it was said. According to Abay, spiritual culture is the food of the soul, and the lust of the body, the food of the body are things necessary for the body, without these things the body cannot be a guest for the soul. S.Mukanov in his work “National Heritage” means “food for the body”, in other words, material culture. And what we mean by food for the

soul is fine art. "This is the beauty and power of nature, adapted to the needs of man and adorned with the help of language [6:126]", - the addition of music, examples of oral literature (songs of heroes, lipoeptic songs, sayings, etc.) are considered food for the soul.

Therefore, the terms of material culture can be said to be a symbol of the structures produced by human beings to satisfy their needs for life, and they also show the ethical, aesthetic, and symbolic experience of that society.

From this point of view, the connection between material conditions and life is visible, and the points of view about the similarity of the products of material culture with spiritual needs become clear. Because spiritual culture is the result of the mind and worldview of each people, a system of standardized knowledge about life, living, mastering it, normalizing life, collected in the memory of society.

Customs and traditions are signs of a perfect culture, the dominant feature of archaic culture. Customs and traditions are formed on the basis of examples of habitual ways of life of very simple characters. They are used in society at a certain time and in a certain place depending on a certain event and situation. Their appearance in the language creates ethnographisms. A.T. Kaidar said: "Ethnographisms are special terms that were in our past ways of life, many of which are still used today, for a certain profession, economy, traditions, customs, beliefs, housing, clothing, food, kinship, administrative differences, legal order and traditional law, pointing to everyday and linguistic differences of our people [7:18-22].

So, the object of ethnolinguistics is ethnolexis, ethnographisms. However, ethnographicisms are not a combination of linguistics and ethnology, but linguistic units that use language data to express ethnographic symbols such as customs and traditions, which are the spiritual and material manifestations of the people's mind and consciousness. The meaning of ethnos is a broad concept, so studying it in one direction and one way does not give many results. In this connection, the research scope of the science of ethnolinguistics is expanding, and there is talk about the possibility of considering it in a broad and narrow scope.

From that, it became clear that ethnolinguistics is a science aiming at the recognition and promotion of the nation. A. Kaidarov defines that the object of Kazakh ethnolinguistics is a complete "ethnos language", its goal is to recognize the identity of the ethnos based on that language" and divides the subjects related to ethnolinguistics into two groups: social subjects and linguistic subjects:

"Even if it has its own goal, it is related to one common object - "language world", "language treasure", "language power", etc. "Ethnolinguistics cannot be separated from the mentioned disciplines and cannot stand alone" [2:12], he points out.

This shows the uniqueness of Kazakh ethnolinguistics and the scope of the research object, therefore, in order to fully cover such an infinite linguistic treasure, A.T. Kaidar divides into three macro-groups called "Man", "Society", "Nature" and defines the programmatic goal of consideration, shows the principles according to the difference of research in the "mirror of language", and opens the eyes of the researcher to search for data.

In addition, if for the first time the theoretical problems of ethno-lexical studies were mentioned in detail in the works of A.T. Kaidar, E. Janpeisov, M.M. Kopylenko, J. Mankeeva after which they are divided into separate thematic groups and studied: jewelry, dialect vocabulary, phraseology, anthroponymic, toponymic, measured, folk cosmonymic terms, spiritual cultural vocabulary, etc. [8] This, of course, is a short list of specific thematic groups, become the object of research.

CONCLUSION.

The object of ethnolinguistic research can be any phenomenon, source, topic in our language wealth (phraseology, proverbs, onomastics, riddles, art, quadrupeds, etc.). Because all these facts are connected with the recognition of ethnic identity and they are studied not only from the point of view of ordinary linguistic formality, but also deeper, delving into all sides and studying them comprehensively.

The use of special words, which arose from the unique way of thinking of the ethnic group, from the differences in social customs, has the same meaning in the past life of the people, and it is even more beneficial to the life of the people today. Therefore, revealing the content of ethnographisms that mark the individual culture and national spirit of the people, and making a linguistic analysis of them remains one of the urgent problems of Kazakh ethnolinguistics.

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Rezyume: Maqolada qozoq etnolingvistikasining tadqiqot ob'ekti va tadqiqot yo'nalishi haqida so'z yuritilgan. Etnolingvistika, etnosning o'ziga xosligi, etnografizmlarning millat tilini xalq madaniyati bilan bog'liqda tadqiq qilish xizmati aniqlangan.

Резюме: В статье рассматриваются объекты и направление исследования казахской этнолингвистики. Определена роль этнолингвистики, этноидентичности, этнографизмов в изучении взаимосвязи между языком и культурой казахского народа.

Kalit so'zlar: etnolingvistika, etnos, etnosning o'ziga xosligi, etnografizm, moddiy madaniyat, ma'naviy madaniyat.

Ключевые слова: этнолингвистика, этнос, этническая идентичность, этнографизм, материальная культура, духовная культура.

**CONSTITUTIONAL LEGAL REGULATION OF PARLIAMENTARY CONTROL IN THE
REPUBLIC OF KARAKALPAKSTAN**

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Summary: *The article is devoted to the development of the constitutional and legal foundations of parliamentary control in the Republic of Karakalpakstan. It provides an analysis of the large-scale consistent reforms carried out over the years of independence aimed at strengthening the role, powers and controlling functions of the Parliament of the Jokargy Kenes of the Republic of Karakalpakstan. Issues related to the stage and factors in the implementation of parliamentary control are considered separately.*

Keywords: *state, parliamentary control, constitution, powers of parliament, stages of parliamentary control, factors.*

State control is a necessary element of public administration, a function of public authorities and is designed to ensure the normal functioning of society. Control is one of the most important channels for obtaining objective information about the life of society as a whole, about the political, economic and social processes that take place in the state, about the activities of government and administration.

In accordance with the principle of separation of powers, legislative bodies are allocated, which determine the main directions of state policy through the adoption of legislative acts.

The national representative body is the parliament, whose main function in the system of separation of powers is the exercise of legislative power, i.e., the adoption of laws and control over their implementation. The modern parliament is the highest body of people's representation, expressing the sovereign will of the people [6, 175].

A democratic system of government based on the principle of separation of powers cannot exist without transparency and accountability of public authorities to the people. This is the essence and main requirement of another democratic principle - the principle of democracy, which underlies any democratic state, its legal system. Consistent implementation of these principles in the field of state building and social development largely depends on the effectiveness of the parliament, which is directly formed by the people and acts on their behalf.

Realizing its main functions: representative, legislative and control, the parliament becomes a guarantee that the government's policy, its actions will be effective and commensurate with the needs, interests of the people and society. At the same time, one of the effective political and legal means of ensuring the rule of law, the efficiency of the executive branch, maintaining an optimal balance between the branches of power is parliamentary control.

Parliamentary control is a system of norms that regulates the procedure for monitoring and verifying the activities of executive authorities, which is carried out both by the parliamentary majority and the opposition, and by auxiliary structures of the highest legislative body and is aimed at assessing this activity with the possible application of sanctions (vote of no confidence, resolutions of censure, etc. .)

The adoption of laws by Parliament is not an end in itself. It is important that these laws work, regulate specific social relations and be effective, i.e. achieved in practice the goal that was determined by the legislator when they were adopted.

According to the French scientist M. Lesage, laws will only be "a dead letter" if the legislature that issued them will not be able to control the actions of the executive branch, designed to implement these laws.

The study of foreign experience shows that the limits of control are determined by two criteria, or ways: laws, where the object of parliamentary control is clearly defined (legal aspect), and the scope of the separation of powers, which delimits the scope of constitutional powers of parliament and executive power (political and legal aspect) [5,103].

Parliamentary control should be regular, not episodic. It should be noted that the regularity of control can be ensured in various ways. For example, in the Netherlands every law contains a provision that three, four or five years after its adoption, it will be revised. In the process of such a review, the practice of applying this law is studied and certain amendments to it may be proposed.

The French Parliament, after the expiration of, as a rule, six months after the adoption of the law, considers the issue of its implementation. At the same time, primary attention is paid to the question of what was done to ensure the implementation of this law (whether the relevant by-laws were adopted, whether they contradict the law, whether these acts were published, communicated to the population, etc.).

Over the past years of independence, large-scale reforms have been consistently and gradually carried out in Uzbekistan to strengthen the controlling functions of the parliament - the Oliy Majlis of the Republic of Uzbekistan as an essential component of the principle of separation of powers, a system of checks and balances. The main forms of parliamentary control were enshrined in the Constitution of the country already at the time of its adoption in 1992. In accordance with Articles 70 and 71 of the Constitution of the Republic of Uzbekistan, "The Sovereign Republic of Karakalpakstan is part of the Republic of Uzbekistan", and also "The Republic of Karakalpakstan has its own Constitution"[1, 5].

So, on the basis of this norm, on April 9, 1993, the Constitution of the Republic of Karakalpakstan was adopted, which fixed human rights and freedoms as the initial constitutional and legal institution, recognized that the protection of human rights is the primary task of the state. The Preamble of the Constitution recognizes the commitment of the people of Karakalpakstan to human rights, it is stated that the main goal of our people is the formation of a humane democratic state of law.

The Republic of Karakalpakstan occupies a special position within Uzbekistan. The Republic of Karakalpakstan is a sovereign republic within Uzbekistan. The republic has its own parliament - Jokargy Kenes (The supreme Council), there is a government - the Council of Ministers, there are judicial and law enforcement agencies.

The constitutional status of the Republic of Karakalpakstan is established by articles 70-74 of the Constitution of the Republic of Uzbekistan.

The status of Jokargy Kenes - the Parliament of the Republic of Karakalpakstan, the legal nature, the foundations of its organization and activities are determined in Chapter XVII of the Constitution of the Republic of Karakalpakstan. Thus, according to Article 68 of the Constitution of the Republic of Karakalpakstan, the highest state representative body of power is the Jokargy Kenes of the Republic of Karakalpakstan, which exercises legislative power.

The most important condition for the quality work of the parliament is the professionalism and competence of deputies. Article 69 of the Constitution of the Republic of Karakalpakstan defines the requirements for candidates for deputies of the Jokargy Kenes. Citizens of the Republic of Karakalpakstan who have reached the age of 25 by the Election Day have the right to be elected to the Jokargy Kenes of the Republic of Karakalpakstan. The requirements for candidates for deputies are determined by law [3, 1993].

The exclusive powers of the Parliament of the Republic are defined in Article 70 of the Constitution of the Jokargy Kenes of the Republic of Karakalpakstan. In accordance with this article, the exclusive powers of the Jokargy Kenes include: the adoption of the Constitution and laws of the Republic of Karakalpakstan, the introduction of amendments and additions to them; adoption of state programs for the economic and social development of the Republic; appointment

and dismissal of judges of district and city courts in the territory of Karakalpakstan; appointment and dismissal of the Prosecutor of the Republic; legislative regulation of issues of the administrative-territorial structure of the Republic; determination of the system and powers of republican and local authorities; exercise of other powers provided for by the Constitution of the Republic of Karakalpakstan.

Analyzing the powers of the Jokargy Kenes of the Republic of Karakalpakstan

There are several areas of activity of the parliament: the legislative sphere, the sphere of state building, participation in the formation of the judiciary and the prosecutor's office, in the socio-economic sphere.

Thus, on the basis of the Constitution of the Republic of Karakalpakstan, the parliament determines the scope of powers of each of the branches of power. The main form of work of the parliament is sessions, i.e., a period of time during which plenary sessions are periodically convened chambers, standing committees work.

To conduct legislative work, preliminary consideration and preparation of issues submitted to the session, as well as control over the implementation of laws and other decisions of the Jokargy Kenes of the Republic of Karakalpakstan, deputy committees and commissions are created under it. Jokargy Kenes of the Republic of Karakalpakstan creates, if necessary, deputy, revision and other commissions on a permanent or temporary basis [7, 8].

Stages of parliamentary control:

- 1) receiving, collecting and processing information, as well as information necessary for making responsible decisions and developing positions;
- 2) analysis and evaluation of the information received;
- 3) adoption by the Jokargy Kenes, on the basis of the information received, of an appropriate decision based on the results of parliamentary control.

Factors contributing to the effectiveness of parliamentary oversight:

- the presence of several parties (fractions, political groups or associations in parliament);
- a favorable democratic environment for parliamentary control over the activities of the executive branch by the parliamentary majority (leading party) and the possibility of participation in this process of the opposition;
- Participation of the Parliament (the leading party) in the formation of the Cabinet of Ministers;
- existence of a solid legislative base for the implementation of parliamentary control;
- existence of a balanced state system of separation of branches of power.

An analysis of the powers and competence of the parliamentary control of the Jokargy Kenes of the Republic of Karakalpakstan showed that the solution of key issues of state policy is not complete without the participation of a representative body of power. The main activity of the Jokargy Kenes of the Republic of Karakalpakstan in the field of state building is legislative activity, as well as the formation of other supreme bodies of the state.

The influence of a representative body of power on the formation of state policy is the most important and inalienable attribute of the rule of law. In most parliamentary states, the solution of key issues of state policy (management of state property, taxation, economic policy in general, social security) is not complete without the participation of a representative body of power.

The appearance in the Republic of Karakalpakstan of a professional constantly the current representative and legislative body was the result of active and contradictory historical development, the institution of popular representation.

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Rezyume: *Maqola O'zbekiston Respublikasida parlament nazoratining konstitutsiyaviy-huquqiy asoslariga bag'ishlangan. Unda istiqlol yillarida Qoraqalpog'iston Respublikasi Jo'qorg'i Kengesi parlamentining o'rni, vakolatlari va ijroiya funksiyalarini kuchaytirishga qaratilgan keng ko'lamli izchil islohotlar tahlili berilgan. Parlament nazoratini amalga oshirish bosqichi va omillari bilan bog'liq masalalar alohida ko'rib chiqiladi.*

Резюме: *Статья посвящена развитию конституционно-правовых основ парламентского контроля в Республике Каракалпакстан. В нем представлен анализ масштабных последовательных реформ, проведенных за годы независимости, направленных на усиление роли, полномочий и исполнительных функций Парламента ЖокаргыКенеса Республики Каракалпакстан. Отдельно рассматриваются вопросы, связанные со стадией и факторами осуществления парламентского контроля.*

Kalit so'zlar: *parlament nazorati, konstitutsiya, parlament vakolatlari, parlament nazorati bosqichlari, omillar.*

Ключевые слова: *государство, парламентский контроль, конституция, полномочия парламента, этапы парламентского контроля, факторы.*

PECULIARITIES OF STUDYING LEGAL SCIENCES

Nuratdinova I.M.

Legal collage of the Republic of Karakalpakstan

Summary: *As a scientific pedagogical discipline, the methodology of legal interpretation is a component of the study and teaching process.*

1. Providing legal knowledge about state and legal norms, their types, legal relations, their types, legal networks, legal institutions, crime, legal responsibility.

2. By providing them with legal knowledge, they will acquire the understanding, skills and qualifications of legal norms.

3. Forming a creative attitude towards law and justice in the process of legal education.

Therefore, the 1st structural part of the legal education process is knowledge.

Keywords: *Right, qualification, Legal education, Legal knowledge, forms of consciousness, students, civil, judicial protection, Court*

Legal knowledge:

1. Gives students general information about the legal relations in which they participate through the concepts of morality and law.

2. Students get an idea about the rightness or wrongness of their actions and direct these actions.

3. Understanding the meaning of relationships between the environment and members of the society in students is the necessary understanding to solve them.

In law classes, students should acquire knowledge in the form of music.

1. Understanding legal terms.

2. knowledge of legal standards

3. Understanding the content of legal relations.

4. Theory necessary to systematize legal knowledge
knowledge

5. To know the forms of consciousness and types of activities

6. Acquiring comparative knowledge and this knowledge creates the necessary skills and abilities to know, study and comply with legal norms of state legal relations, legal activities that do not conflict with the law. In the process of preparation for the introductory lesson, it is necessary to plan and clarify the knowledge necessary to master the new topic when giving this material to the students in advance.

The 2nd element of legal education is the formation of students' skills and abilities to use the law based on the legal knowledge they have received. Skills and qualifications are services for those who have legal knowledge.

1. Understanding the object, i.e. identifying the subject, situation, event, condition according to their signs: for example. To enumerate the personal rights of a person, to determine which rights are included in the sentence; In what cases and by whom is the fine determined? To answer the question.

2. Carrying out a concrete action: resigning from work; paying taxes and fees on time.

3. Commenting on legal relations based on the knowledge of the received law; explaining the role and function of the state in the civil society based on the knowledge of the civil society.

The 3rd component of legal education is the skill of creative use of legal knowledge.

Creativity is a type of mental activity in which the intellectual activity of a person is related to creating something new. The use of legal knowledge in legal education is rarely used.

Two types of education are known in pedagogy:

- 1) informational education;
- 2) developmental education;

First of all, if the first type of education is in the main place, then the second one is given the leading effort. If at first the main task was to impart knowledge, the most important task for the school in the last ten years is to form a well-rounded person, which requires the adoption of a developmental type of education, as a result of which it is necessary to reconsider the attitude to the methods of education.

When choosing the right method for a course, department, topic, lesson, it is necessary to decide that it will allow to better perform the tasks during the time allocated for studying the material.

When choosing the right educational method, the purpose, task and content of learning materials, the capabilities of the learner, the class, the learner, as well as external conditions should be taken into account.

In order to choose the correct method of the operator, it is necessary to know the capabilities of the class. If the oral method is used, the theoretical and factual content is quickly connected. Comparing the materials of reproductive and problem research, the latter is preferable in the formation of theoretical knowledge, but it is necessary to take into account the time. If the time is limited, it is better to use the reproductive method, because the problem study requires a lot of time.

Demonstration, practical and reproductive methods are widely used in the formation of factual knowledge. Oral methods are of high importance. Dealing with research is secondary.

In the formation of practical skills, practical and reproductive methods are of great importance, the role of problem-research is not high.

Verbal methods play a major role in the development of abstract, verbal logical consciousness. Demonstration methods help the development of memory, practical method develops independent thinking.

The conclusion is that the right choice of educational methods, methods, tools, and forms is a difficult task, and the right choice requires a high level of preparation from the listener. Students' interests, skills in studying, ability to correctly remember materials, independent solving of practical tasks and life problems, emotional intelligence of a person are formed in the whole system of methods. Methodology is not only a science, but also an art. It also depends on the ability to use personal experience and work experience of other students.

Forms and methods of organization of legal education have their own characteristics.

Forms and methods of legal education do not differ from those of other subjects. But there are some peculiarities in the purpose, tasks and components of legal education.

The interrelationship of classroom and extra-curricular forms of learning using the most important method is considered. As we know, legal concepts are abstract. In order for them to be understandable to students, it is necessary to make them concrete with clear, understandable examples from life.

The main form of legal education is the classroom form, but individual and group forms are also used.

In the group form, the sleepers form collectivism and laugh at each other. But it also requires deep knowledge and skills from the listener. Otherwise, the desired goal will not be achieved. Therefore, when dividing the sleepers into groups, in one group there should be sleepers with different abilities, that is, sleepers with different levels of sleep.

In the individual form of sleep, each student is given special tasks to perform independently, taking into account his ability. This should ensure the development of both good sleepers and poor sleepers.

Individual work requires a lot of effort and time. Individual learning gives students the opportunity to provide accurate and in-depth knowledge.

Individual tasks are used to consolidate and repeat what has been lost, to learn new materials independently at home.

When organizing individual work with students, attention is paid to the following: studying the individual capabilities of each student; implement an individual assignment and control system for each student's learning and development; teach students to constantly perform from simple tasks to complex ones; analysis of didactic tools in working with students and others.

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Rezyume: *Huquqni o'qitish metodikasi ilmiy pedagogik fan sifatida o'qish va o'qitish jarayonida quyidagi tarkibiy qismlardan tashkil topadi.*

1. *Davlat va huquq huquqiy me'yorlar ularning turlari, huquqiy munosabatlar ularning turlari, huquq tarmoqlari, huquq institutlari, huquqbuzarlik, huquqiy javobgarlik to'g'risidagi huquqiy bilimlar berish.*

2. *Bu huquqiy bilimlarni berish orqali ularda huquqiy normalarning tushunish, ko'nikmalari va malakalarini xosil qilish.*

3. *Huquqiy ta'lim jarayonida qonun va huquqqa nisbatan ijodiy munosabatni shakllantirish. Demak huquqiy ta'lim jarayonining 1-tarkibiy qismi bu- bilimdir*

Резюме: *Методика преподавания права как научной педагогической дисциплины состоит из следующих компонентов в процессе чтения и преподавания.*

1. *Предоставление правовых знаний о государственно-правовых нормах, их видах, правоотношениях, их видах, отраслях права, правовых институтах, преступлении, юридической ответственности.*

2. *Предоставляя им юридические знания, они приобретут понимание, навыки и компетенции правовых норм.*

3. *Формирование творческого отношения к закону и праву в процессе юридического образования.*

Поэтому 1-й составляющей процесса юридического образования являются знания

Kalit so'zlar: *Huquq, malaka, Huquqiy ta'lim, Huquqiy bilim, ong shakllari, o'quvchilar, fuqarolik, sud himoyasi, Sud.*

Ключевые слова: *Право, квалификация, Юридическое образование, Юридические знания, формы сознания, ученики, гражданская, судебная защита, Суд.*

**ANALYSIS OF FACTORS AFFECTING FOOD SECURITY OF THE REPUBLIC OF
KARAKALPAKISTAN**

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Summary: *The developed scientific recommendations and practical recommendations on food security, the growing demand for food products, the main factors affecting the food security of Karakalpakstan region, the problems of food security in the region.*

Keywords: *Food security, globalization, hunger, Food and Agriculture Organization of the United Nations.*

It is known that the problems of economic security, as well as ensuring food security, are gaining importance day by day, when the processes of globalization continue rapidly.

The problems of providing food to the population were first studied by the English economist Thomas Robert Malthus (1766-1834), who introduced the concept of "food security" into science and expressed a number of his views on it.

In developed countries, food security is considered as a key element of the national economy. Its existence is characterized not only economically, but also expresses its ability to ensure the interests of its citizens without harming the independence and security of the current political system.

According to data provided by the UN, at the beginning of 2020, more than 850 million people around the world suffered from hunger, and this figure has increased significantly during the pandemic.

One of the important problems that require solving in the field of ensuring food safety requires greater coordination of efforts in this regard and the development of large-scale international cooperation. Naturally, in this matter, there is a need to get acquainted with the experience and practice accumulated in different countries of the world.

It should be noted that in recent years, a number of regulatory documents have been adopted by the government to ensure food safety in our country.

Analysis of literature on the topic

The theoretical and methodological foundations of food supply and safety have been researched by a number of foreign and domestic scientists.

In particular, according to the economist H. Abulkasimov, "food security" means sufficient supply of the country's population with basic food products, using domestic resources, and achieving a minimum level of dependence on imports [2].

According to Russian scientists A.Tatarkin and S.Polbitsyn, the country's food doctrine reflects the minimum level of providing the population with quality and affordable food products. Therefore, food safety can be considered as the physical, economic and social provision of food products that meet the needs and preferences of consumers [3].

According to a group of Russian scientists led by I. Ushachev, "food security" is a complex concept that includes food independence and opportunities to obtain food physically and economically. "Food independence" is a concept defined by the country's self-sufficiency with food products based on the standard and actual consumption level, that is, the ratio of the production volume in the country to the total internal consumption volume of all types [4].

In his address to the Oliy Majlis on December 22, 2017, President Sh.M. Mirziyoev said, "Solving the problem of food safety requires special attention to establish strict control over the production of genetically modified products. The fact that the number of fruit and vegetable products imported to the markets of our country is increasing in recent years should certainly call us

to be vigilant. In order to prevent such a situation, first of all, it is necessary to restore the ancient varieties that are disappearing, to start effective selection work, and to widely introduce scientific achievements and innovative developments in the field" shows the importance of this issue.

At the World Summit held in 1974, the concept of "food security" was officially introduced, which means "the existence at all times of sufficient stocks of basic foodstuffs in the world to ensure a steady increase in food consumption and to cover changes in production volume and prices."

Over the years, more than 200 definitions of this concept have been given in the food safety literature.

According to the definition given by the UN Food and Agriculture Organization (FAO - Food and Agriculture Organization), "food security is the availability of sufficient safe and nutritious food for all people to meet their nutritional needs and personal preferences and to lead an active and healthy life." - it means having physical, economic and social opportunities to have food products.

Also, according to the proposal developed by this organization, it is indicated that in the Republic of Uzbekistan, one person consumes an average of 2100-2300 kcal of food products per day.

Hunger and malnutrition lead to a decrease in people's ability to work and an increase in susceptibility to disease, and ultimately to a deterioration in the quality of life, and remain an obstacle to the sustainable development of the world economy. Ending hunger can have a positive impact on the economy, health care, and education processes, making a significant contribution to the social development of society [5].

Research methodology

Comparison and economic-statistical methods were used in the research process. As a result of the research, food safety in the Republic of Karakalpakstan and the factors affecting it were analyzed, and scientific and practical proposals were developed. These proposals and recommendations can be used in the development of targeted state programs for the organization of the food safety policy in our country and its improvement.

Analysis and results

It should be noted that growing or producing enough food does not mean that food security is achieved. Because everyone has the opportunity to buy enough products for their needs is also a process that ensures food security.

Although much attention is being paid to deepening reforms in the agrarian sector, an important branch that operates in order to fully satisfy the needs for food products and ensure stability in the food market, problems remain in completely eliminating the factors affecting food safety.

If we pay attention to the analysis of this situation on the example of the Republic of Karakalpakstan, the following can be seen.

In particular, the Republic of Karakalpakstan is located in the north-west of the Republic of Uzbekistan and consists mainly of lowlands. There are 16 districts, 1 city, 141 villages and 250 community assemblies in the republic. The total land area is 166.6 thousand km², the population consists of 1923.8 thousand people (as of January 2021).

As the domestic processing industry is not well developed in the region, the food supply of the population is insufficient. Therefore, meeting the need for food products is mainly carried out at the expense of bringing them from Tashkent city, Samarkand, Surkhandarya and Bukhara regions. This causes the price of food products in the republic to increase compared to other regions.

Based on research, the following can be mentioned as the main factors affecting the food security of the Republic of Karakalpakstan:

- the need for food products increases with the growth of the population of the republic;

- 85% of the land areas used in agriculture have varying degrees of salinity and the salinity level is high (35%);
- low level of annual precipitation in the area;
- insufficient water supply in agriculture and low soil fertility and productivity;
- the region is located far from the capital and other regions of our republic, and the import of products is at a high level.

As the population of the region increases, the demand for food products can be seen in the table below.

Dynamics of population growth of the Republic of Karakalpakstan
(thousand people)

Table 1

<i>Residential addresses</i>	2010	2011	2012	2013*	2014	2015	2016	2017	2018	2019**	2020
Nukus	284,3	284,3	289	295,2	300,7	303,7	307,4	310,9	314,9	319,6	324,0
Amudaryo	172,3	174,4	176,8	179,1	182,2	185,7	188,7	191,6	195,2	199,2	201,3
Beruniy	162,2	164,5	167,3	170,3	173,7	177,2	180,5	183,9	187,6	191,4	194,5
Bozatov	-	-	-	-	-	-	-	-	-	21,5	21,8
Kegeyli	82,7	82,9	83,8	84,8	85,7	85,7	88,1	88,9	89,5	72,4	73,2
Moynog	28,9	29,0	29,2	29,4	29,7	30,2	30,6	30,9	31,3	31,8	32,3
Nukus	44,1	44,1	44,3	44,4	45	46,1	47,1	48,2	49,1	49,1	51,1
Taxiatosh	47,3	47,3	47,5	-	-	-	-	71,9	72,8	73,8	74,7
Taxtakopir	39,6	38,8	38,6	38,7	38,8	39,1	39,4	39,7	39,9	40,2	40,4
Tortkol	183	185,9	189	192,6	196,1	199,7	203,1	206,4	210,3	214,3	217,7
Xojayli	135,1	134,4	134,7	183,5	185,2	187,5	189,5	119,7	121,2	122,7	124,3
Chimboy	105,1	106	107,2	53,1	109,4	111,2	112,7	113,8	115,2	112,3	113,4
Ellikqala	133,3	135,3	137,8	140,5	143,2	146,7	149,9	152,8	156,1	159,1	161,9
Qoraozak	48,2	48,6	49,2	49,6	50,3	50,9	51,5	52,0	52,4	52,8	53,3
Qonlikol	45,4	45,7	46,3	46,9	47,6	48,3	49,1	49,7	50,3	50,9	51,7
Qongirot	117,5	117,5	118,5	120,1	121,9	123,6	125,2	126,8	128,4	129,9	131,6
Shumanay	51,9	52,2	52,6	53,1	53,6	54,2	54,7	55,1	55,6	56,2	56,6
Total:	1681	1692,8	1711,8	1736,5	1763,1	1791,1	1817,5	1842,3	1869,8	1869,7	1923,8

* - Takhyatosh district was part of Khojayli district in 2013-2017.

** - Buzatov district was reorganized in 2019.

Source: Statistics Department of the Republic of Karakalpakstan.

The table shows that the population of the republic has increased by 14.5% in the last 10 years. If we take into account the fact that the land area used in agriculture remains unchanged, the salinity level of the land is increasing and the soil fertility is decreasing, it can be said that the need for food products is increasing year by year. Therefore, in recent years, cotton and grain areas have been reduced, and the cultivation of food products has increased significantly.

Currently, the Republic of Karakalpakstan has 419,900 hectares of arable land, and 4,802 agricultural enterprises are operating. 141.6 thousand ha of land areas with poor melioration status.

In the development of the agricultural sector in the region, it is necessary to ensure the rational distribution of crops, taking into account the soil and climate conditions, and the effective use of fertile land and water resources. At this point, there is a need to widely use water-saving technologies in agriculture.

Below is the state of cultivation of the main types of agricultural products in the Republic of Karakalpakstan in 2020 and their average annual consumption values per capita (kg/capita).

Table 2

Product name Districts	Wheat (norm 94 kg)	Potatoes (norm 92 kg)	Vegetable (norm 180 kg)	Police (norm 21 kg)	Fruit (norm 75 kg)	Grapes (norm 15.4 kg)	Meat (standard 46.2 kg)	Milk (standard 219 l)	Eggs (210 pieces)
Amudaryo	24265	20824	73308	26801	18849	2220	15225	59368	63028
Beruniy	16396	10101	33796	22636	10954	1944	16542	47900	50285
Bozatov	0	1036	2259	2708	915	82	3020	10170	5587
Kegeyli	9465	2697	5971	8107	860	147	5412	12789	10457
Moynoq	8605	1417	7196	6722	1778	195	5050	12987	8759
Nukus	13570	5920	12849	7409	765	420	6084	24802	31411
Taxiatosh	9470	1106	10635	6851	538	156	4408	14286	10694
Taxtakopir	502	1698	3176	1133	116	13	1857	5603	4151
Tortkol	13322	3945	21388	8695	1299	426	2836	10754	9854
Xojayli	3888	1979	4687	2695	658	243	2420	13168	6151
Chimboy	8640	2716	4743	5261	782	258	5259	11438	6124
Ellikqala	19883	11184	29081	13780	6675	943	10989	53720	43715
Qoraozak	5459	3998	10728	5656	1207	370	6093	28334	15685
Qonlikol	14854	6474	23201	16717	3119	384	8260	26719	23980
Qongirot	8177	1776	13362	10158	842	104	3942	13484	12763
Shumanay	17556	8392	27045	11645	8243	2049	12514	56503	32256
Total:	174053	85721	287743	157824	57853	10161	110701	403833	338405
<i>Practical norm (kg)</i>	90,5	44,5	149,5	82	30	5,3	57,5	209,8	175,9

Source: "Rules of Sanitary Standards and Hygienic Standards of the Republic of Uzbekistan" approved by the Ministry of Health and information from the Statistics Department of the Republic of Karakalpakstan.

The table shows that the population of the Republic of Karakalpakstan is not sufficiently supplied with potatoes, vegetables, fruits, grapes and egg products. Taking into account the growing population, more attention should be paid to the cultivation of these products.

Cultivation of sugarcane crops in Karakalpakstan is 3.9 times more than the population's demand for this product, and these products are mainly grown in Beruni, Nukus, Khojaly and Qonliko'l districts, and are also supplied to other regions. Also, the republic is fully self-sufficient in meat products.

It should be noted that during the visit of the President of the Republic of Uzbekistan Sh.M. Mirziyoyev to the Republic of Karakalpakstan on October 2, 2020, a number of instructions were given on the development of industry and agriculture in the region.

In order to ensure the implementation of these instructions, on 11.11.2020, the Decision of the President of the Republic of Uzbekistan No. PQ-4889 "On measures for the comprehensive social and economic development of the Republic of Karakalpakstan in 2020-2023" was adopted [6].

According to the decision, the total value of agro-industry as well as in all sectors in the republic is 1 trillion. 653 billion Implementation of 448 projects amounting to 418,000 soums is planned, as a result of which it is planned to create 7032 new jobs. As a result of the implementation of these projects, the food supply of the region will be significantly strengthened.

Conclusions and suggestions

Based on the above-mentioned opinions and considerations, it was found appropriate to pay attention to the following in terms of effective and reliable provision of food safety in the Republic of Karakalpakstan:

- to continuously monitor the condition of existing cultivated fields in the republic, to ensure the quality of agrotechnical activities;
- based on climatic conditions, modern technologies for watering crops, in particular irrigation systems that ensure water saving, are widely involved in practice;
- organization of a system of separate clusters in the cultivation of agricultural crops;
- conducting research on the wide use of varieties resistant to various diseases and high productivity in agriculture and the creation of new varieties;
- to ensure the stability of the price of products in domestic markets and satisfy the needs of the population by increasing the number of enterprises with modern technologies specializing in the production, storage and processing of food products in the region.

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Rezyume: Ushbu maqolada oziq-ovqat xavfsizligi, axolini oziq-ovqat maxsulotlariga bo'lgan extiyojning o'sib borishi, Qoraqalpog'iston Respublikasida oziq-ovqat xavfsizligiga ta'sir ko'rsatuvchi omillar, oziq-ovqat xavfsizligini ta'minlashga qaratilgan ilmiy-amaliy taklif va tavsiyalar ishlab chiqilgan.

Резюме: В статье рассмотрены вопросы продовольственной безопасности, растущий спрос на продовольственные товары, основные факторы влияющие на продовольственную безопасность Республики Каракалпакстан и разработаны научно-практические рекомендации по обеспечению продовольственной безопасности региона.

Kalit so'zlar: Oziq-ovqat xavfsizligi, globallashuv, ochlik, BMTning Oziq-ovqat va qishloq xo'jaligi tashkiloti.

Ключевые слова: продовольственная безопасность, глобализация, голод, Продовольственная и сельскохозяйственная организация Объединенных Наций.

CIVIL LIABILITY FOR VIOLATION OF RIGHTS INDUSTRIAL PROPERTY OBJECTS

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Summary: *Industrial property rights are associated with the fight against violations of rights to these objects. The article analyzes the issues of countering violations of industrial property rights. The proposed study provides complete information about the fight against infringement of industrial property rights, its necessity, the application of liability, conflict situations in the legislation on this matter and trends in solving problems. In recent years, approaches to the protection of industrial property rights have been studied in Uzbekistan and the world. At the same time, the need to adapt the legislation of Uzbekistan to international requirements for the legal regulation of industrial property objects is indicated. The article studied in detail the scientific views of scientists, the legislation of the Republic of Uzbekistan during the period of the development strategy. The author puts forward certain suggestions and ideas.*

Keywords: *intellectual property, industrial property, objects of industrial property rights, violation of rights, legal liability, improvement of legislation*

The Civil Code provides legal provisions for the protection of subjective civil rights. At the same time, the protection of the rights of the rights holders in relation to objects of industrial property requires special provisions. Authors, patent owners, license holders and legal successors participate as subjects of this right.

Intellectual property rights infringement focuses on contractual liability and non-contractual liability [1.236-242]. Each contractual relationship, non-contractual obligations, in particular delict and conditional obligation, has its own characteristics.

It should be noted that protection of patent rights is carried out administratively and judicially. Protection of rights in the administrative procedure is carried out by applying to the Appellate Council of the Intellectual Property Agency under the Ministry of Justice. The reason for such an appeal may be the decision to grant a patent, the decision to refuse to grant a patent, or the withdrawal of an application.

Judicial protection has a special place in the protection of rights to objects of industrial property. In this case, the courts consider disputes based on the offense committed, the legal status of the subject of law (natural person or legal entity). For example, in cases where a civil offense is committed by an individual, the dispute is resolved by a civil court, and in cases where a civil offense is committed and the subject of civil-legal responsibility for it is a legal entity, the dispute is resolved by an economic court.

Liability for violation of rights in relation to objects of direct industrial property rights. The types of legal liability available in the law may lead to the application of civil, administrative, and criminal liability measures.

Impacting the economy through the application of civil-legal liability measures is important for the formation of a system of providing a favorable innovation-investment environment and for the sustainable development of all sectors of the economy, especially industrial production [2.184].

The origin of the problem of legal responsibility for the violation of rights to intellectual property objects, including industrial property, should be seen mainly as a socio-legal reality. In this case, responsibility affects the management and legal culture of the real sector of entrepreneurship, economy and production. Business serves society, which in turn promotes social progress. Being responsible in this regard requires compliance with the law in the conditions of market economy, digitization of society, rapid development of competition. For example, a patent attorney is engaged

in specific activities and has a place in the patent application system. In turn, the patent representative may be held liable under civil law [3.67].

The conclusion of the patent representative can lead to the results of intellectual activity, including the violation of exclusive rights when crossing the customs border, as well as the violation of the rules of registration of intellectual property in another jurisdiction.

In order for civil legal liability to arise in relations related to industrial property, its grounds and conditions must first exist.

Some experts emphasize the need to clarify the rules on the liability of subjects of civil legal liability, in particular, legal entities. According to M.Kh.Baratov and B.Akhrarov, according to the nature of legal entities, they can be responsible for non-fulfillment of monetary obligations. A debtor legal entity may be liable for the actions of solidary and subsidiary and third parties [4.39].

F.Shodmonov sees the existence of breach of contractual obligations, damage, causation, guilt as the basis of responsibility [5.70-71]. J.I. Yuldashev stated that it is inappropriate to use the term "obligation" in relation to the term responsibility. After all, civil legal responsibility has an additional feature, and bringing to civil legal responsibility does not release the guilty party - the person who caused the damage or the debtor - from fulfilling the obligation [6.125-126].

According to N. Egamberdieva, first of all, any situation that gives rise to civil legal responsibility is expressed directly by the non-fulfillment of the obligations of the other party. Secondly, the main reason why Chapter 24 of the Civil Code cannot be expressed as "liability for breach of obligation and damage" is that these two factors that give rise to liability are fundamentally different from each other in their specific aspects. Thirdly, an obligation arises as a result of the violation of any civil right [7.15].

Buying an object of industrial property from a third party does not prove that the person selling it is innocent. If an employee of the organization violates the industrial property rights of another person by committing actions that are not within his authority, the claim may be rejected in cases where a lawsuit is filed against the organization. Because it is impossible to hold the organization responsible for actions committed outside of work duties. Therefore, it is appropriate to apply the presumption of "existence of guilt" for the violation of industrial property rights. This situation can be seen in the application of the provisions arising from damage provided for in Chapter 57 of the Civil Code. The person who caused the damage is exempted from paying the damage if he proves that the damage was not caused by his fault (Article 985 of the Civil Code).

If we pay attention to the contents of Article 333 (bases of liability for obligations) and Article 985 (bases of liability for damage) of the Civil code, the grounds of civil liability do not exist in the form of a single content [8.253]. It should be noted here that liability in both cases, that is, in Article 333 and Article 985, is different from each other. In the first case, there must be a non-fulfilment of the obligation, and in the second case, there must be a delict fact.

The analysis of the norms of the Civil Code shows that the foundations of civil liability are not limited to being consolidated in a separate chapter (Chapter 24 of the Civil Code) or in a specific article. Accountability norms are expressed in a somewhat fragmented manner. It can cause a number of difficulties in its application to the object of industrial property.

It is important to determine whether the withdrawal of the manufactured product from civil transactions is a delict or conditional obligation due to the violation of rights to industrial property. Article 1040 of the Civil Code specifies the confiscation of the material objects with the help of which the absolute rights are violated, as well as the material objects created as a result of such a violation, but does not specify what obligation it is. However, both obligations differ in terms of the emergence of legal relations, implementation and legal consequences. Articles 1023, 1025, 1026 of the Civil Code provide that content can be applied in this case.

General rules on liability for breach of obligations shall apply in case of breach of the contract for the creation and use of tools reflecting the results of intellectual activity and private signs.

Civil liability may consist of banning the sale of goods and compensation for damages caused to the right holder. In this case, the infringer is liable without fault, and the copyright owner must prove that there are damages caused by a specific infringer in the case of other infringers [9]. It is not necessary to be at fault for the occurrence of liability as a result of the use of an object of industrial property [10.236-242]. Because, unless otherwise stipulated by the law or the contract, the person who did not fulfill or did not properly fulfill the obligation in the course of business activity must prove that due to an insurmountable force, i.e. emergency and circumstances that cannot be prevented in certain circumstances (force majeure), it was not possible to fulfill the obligation properly. If not, he will be responsible. Violation of obligations by the contracting partners of the debtor, lack of goods necessary to fulfill the obligation on the market, lack of necessary funds at the debtor are not included in such situations (Article 333 of the Civil Code).

The recognition of the person named as the author when obtaining a patent for an object of industrial property, as the author of this object until proven otherwise, should be strengthened in the legislation. In turn, it is important that the rights of the subjects of industrial property rights and the absolute rights of each right holder in their protection, what are the cases of their violation, the use of procedural methods and means of proof, and the spirit of respect for the rights of the absolute right holders.

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Rezyume: Sanoat mulk huquqi ushbu ob'ektlarga nisbatan sodir etiladigan huquqbuzarliklarga qarshi kurashish bilan bog'liq. Maqolada sanoat mulk huquqi ob'ektlariga nisbatan sodir etiladigan huquqbuzarliklarga qarshi kurashish masalalari tahlil etilgan. Taklif etilgan tadqiqot sanoat mulk huquqi ob'ektlariga nisbatan sodir etiladigan huquqbuzarliklarga qarshi kurashish, uning zarurati, javobgarlikni qo'llash, bu boradagi qonunchilikdagi nizoli vaziyatlar, muammolarni hal etish tendentsiyalari haqida to'liq ma'lumot olishga imkon beradi. So'nggi yillarda O'zbekiston va jahonda sanoat mulk huquqini himoya qilishga doir yondashuvlar o'rganilgan. Shu bilan birga, sanoat mulki ob'ektlarini huquqiy tartibga solish uchun O'zbekiston

qonunchiligini xalqaro talablarga moslashtirish zarurati ko'rsatib beriladi. Maqolada olimlarning ilmiy nuqtai nazarlari, taraqqiyot strategiyasi davrida O'zbekiston Respublikasi qonunchiligi atroflicha o'rganilgan. Muallif muayyan taklif-g'oyalarni ilgari suradi.

Резюме: Права промышленной собственности связаны с борьбой с нарушениями прав на данные объекты. В статье анализируются вопросы противодействия нарушениям права промышленной собственности. Предлагаемое исследование позволяет получить полную информацию о борьбе с нарушениями прав промышленной собственности, ее необходимости, применении ответственности, конфликтных ситуациях в законодательстве по этому поводу и тенденциях решения проблем. В последние годы в Узбекистане и мире изучаются подходы к защите прав промышленной собственности. При этом указывается необходимость адаптации законодательства Узбекистана к международным требованиям правового регулирования объектов промышленной собственности. В статье подробно изучены научные взгляды ученых, законодательство Республики Узбекистан в период стратегии развития. Автор выдвигает определенные предложения и идеи.

Kalit so'zlar: intellektual mulk, sanoat mulki, sanoat mulk huquqi ob'ektlari, huquqbuzarlik, huquqiy javobgarlik, qonunchilikni takomillashtirish.

Ключевые слова: интеллектуальная собственность, промышленная собственность, объекты права промышленной собственности, нарушение прав, юридическая ответственность, совершенствование законодательства.

**COMPARATIVE ANALYSIS OF DERIVATIONAL NEGATION IN ENGLISH
AND KARAKALPAK LANGUAGES**

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Summary: *The article deals with lexico-derivational expression of negation in English and Karakalpak languages. In comparative base affixal and lexical peculiarities of expression of negation is studied, its categorial meaning and function are defined.*

Keywords: *negation, affixes, logical category, derivation, contrastive analysis, stem, oppositive, positive, constructive-syntactical, negative pronouns.*

In linguistic history negation has been one of the most extensively discussable subject and moreover questionable matter of a deal of important work, such as by N.N. Boldirev, O.S. Miloserdova, M.S. Kayumova, S.V. Motov, D.A. Zuparkhodjaeva and others. Negation is studied from different point of views or aspects, that's why it is considered as a grammatical, lexico-grammatical, modal or logical category of a language.[1;2;5;9]

The main aim of our article is to reveal lexical and derivational means of this language phenomenon in English and Karakalpak languages with the help of contrastive analysis. Though in English the problem of negation has been studied well enough, but in Karakalpak there is no special work concerning to this matter.

According to their semantic character affixes divided into lexical or derivational, where they specify or transform the meaning of the root.

In English there are too many affixes which have negative meaning, moreover they transform the lexical meaning of the root or stem of any words.

According to the definition of A.S. Hornby in his dictionary to the word of "negation" 1) act of denying, refusing; 2) absence of any positive or real quality or meaning [8,417]. The word "negation" expresses the absence of any positive character in different situations at the moment of speech communication of speakers.

According to the definitions of English dictionaries prefixes form more words with the negative meaning than the suffixes.

The English language has a single suffix -less changing the meaning of the word to the negative. e.g. noise - noiseless, sleep - sleepless. The suffix with it's meaning coincides to the Karakalpak suffixes -сыз, -сиз. e.g. бахыт - бахытсыз, жумыс - жумыссыз, with the meaning of "without".

As for the prefixes in English the point of traditional linguists that they only modify the lexical meaning of the stem is not correct. Prof. A. Muminov points out that there are about 25 prefixes which can transfer words to a different part of speech [10,29]. e.g. adventure, n.-misadventure, v. apply, v. - misapply, v. fit, v. - mis fit, n. etc.

According to dictionaries prefixes have the following meanings:

- a - not, without (showing an opposite or absence of something). e.g. amoral.
- anti - apposed to, against: e.g. antinuclear opposite of: an anticlimax.
- contra - opposite: contradiction.
- de- showing an opposite: e.g. a depopulated area.
- dis- showing an opposite or negative: e.g. disapprove, discharge.
- il -, im -, ir-. (variants of in) - showing a negative: e.g. illegal, impossible, irregular, insensible.
- mis - negative, wrong: e.g. misfortune, misunderstanding.
- non - showing a negative: e.g. non-smoker.

un - showing a negative: a lack or an opposite: e.g. unfair.[8]

In Karakalpak their meanings may be rendered by suffixes -cb13, -си³; negative words - емес, - *ок, negative suffixes -Ма, -Ме, -^a, -не, -ба, -бе. E.g. impossible мүмкин емес, illegal - нызамсыз. No, I don't know — (як) жок, мен билмеймен.

Besides lexico-derivational expression of negation in English and Karakalpak there are another ways of expression: grammatical, lexico- grammatical and "constructive-syntactical" [9,154] c.g. I wish, I knew - билсем еди. (бирок билмеймен).

In this article we analyse only lexico-derivational expression of negation, i.e. the function of derivational affixes, negative words in both non-related languages expressing negation. Let's give negative words formed by different affixes in translation into the both languages.

E.g. -atypical — тән емес, әуелгидей емес,
-anti-aircraft – самолетларга қарсы (әскерий),
-contraindication - - көрсетпеге қарсы,
-destabilize — бузыў, азғыртыў,
-illiterate - саўатсызланыў.
-disbelieve-исенбеу,
-disbelief-исенимсізлик,
-immodest - уятсыз, арсыз, бетсіз,
-inaction – ҳәрекетсізлик, қозғалмаслық,
-irrational - ақылсыз, пәмсіз, ойсыз.
-misunderstand — тусинбеў, анламаў,
-non-related – туўысқан емес, қатпаслы емес, қатнасы жоқ,
-unknown - белгисіз, нағалим,
-countless-есепсіз.

As seen here, English negative affixes are rendered into Karakalpak by words and derivational affixes. There is a few prefixes of foreign origin in Karakalpak as н³ -, н² -, бй -, which are corresponded to all English prefixes and are used in a certain speech situations. E.g. unemployment-бғалалық, жуықCHLIK, meaningless-биймәнг, мәниссіз, uncourageous-нәмәрт, careless-бийнәрўа.

Some suffixes in Karakalpak express negation which are rendered into English by definite words or suffixes: e.g. kopkak-timid, coward; ypsickak-quarreling: бийшара-roog; жапахор-slanderer, напахор-briber, grafter(A.E.). [6,62]

As we said above negation which is expressed by negative affixes is lexical, because they are used to create new words. They always bring some negative meaning to the derived words, changing its meaning to opposite. In this case we can classify them according to their structure and antonymic pairs.

1. simple-simple: true - false, black-white, open-close.
2. simple-derived: direct-indirect, true - untrue, finish- unfinished.
3. derived - derived: friendly-friendless, believer - non-believer etc.

In Karakalpak there are also three types of antonymic pairs of negativity

1. simple – simple: бар-жок, қуўаныш-қайғы, ашшы-душшы, ақ-қара, күліў- жылаў etc.
2. simple - derived: бет-бетсіз, мәлим-нәғалим, ҳақ-наҳақ, опа-бийопа etc.
3. derived - derived: ақыллы-ақылсыз, күшли-күшсіз, дәмлі-дәмсіз etc.

Some idiomatic composites denote negative expressive character of a person: E.g. muddle-headed, milk-sop, dirty-dog; сүрбет, қошжакпас, суўмурын etc.

If we continue to study expression of negation by means of special words we shall have many interesting language facts in both languages with rather differences and similarities. Negativity may be expressed in most cases by adjectives, adverbs, verbs, pronouns, rarely by nouns and special negative words such as, no, not – жок, емес (як, дым, ҳасла in oral speech)

In both languages the negative pronouns are the most motivational means of expressing negation. Let's compare with the following examples. English negative pronouns: no, none, not any, no one, neither, nobody, nothing have their equivalents in Karakalpak, as: ҳеш, (дым, ҳасла), ҳешким, ҳештеме, ҳеш нәрсе, ҳеш биреўн.

Negative adverbs: never, ever, nowhere ҳешқашан, ҳешқандай, ҳешхәм, ҳеште, ҳеш жерде, ҳеш бир жерде, ҳеш бир etc.

We here specify that the syntactical functions of pronouns, adverbs, special negative words with their antonymic features and other parts of speech in the sentence structure with negative meanings will be special subject matter of the following articles. However we assert that they completely can change the whole meaning of the sentence into the denying. For example: Саған ҳешбир сунқар пәнже сала алмас. (И. Юсупов)

Бул жерде ҳешким ҳешнарсе айтпады. (Т. Кайыпберегнов)

I've got nothing to tell you - Менин сизге айтатуғып ҳеш гәпим жоқ.

Both smiled but neither spoke - Екеуиде күлди бирак ҳеш кайсысы сөйлемеди.

In this case the difference is that in Karakalpak double negation elements are presented but in English double negative forms are not used in the same clause.

Summing up we can notice that:

1. All the negative affixes in context bring the negation into a sentence and the words which they are added can be used independently in the structure of the sentence being a part of the certain phrase. Some of them perform the antonymic function.
2. The most productive and frequent are the following negative affixes: un-, in, (with its variants) in English, negative pronouns, negative suffixes, -Ма, -ме, -³, -пе, -ба, -бе, -сыз, -сиз, — in Karakalpak.
3. Negative affixes are rarely attached to verbs in both compared languages. However, negative elements no, not and others completely change the whole meaning of a certain clause into the negation (denying) in English. In Karakalpak double negation forms are often used in the same clause or sentence, excluding negatives *OK, емес, where in English this case is not inherent.
4. In further the category of negation can be studied from the point of modern linguistic directions (paradigm) as a subject of communicative, cognitive, pragmatic, text and socio-cultural linguistics.

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Rezyume: Ushbu maqolada ingliz va qoraqalpoq tillarida inkor so'zning leksik-derivatsion ifodasi haqida so'z boradi. Qiyosiy rejada inkorning lisoniy ifodalanishidagi affiksalar va leksik xususiyatlari va farqlari o'rganiladi, inkorning kategorik ma'no xususiyatlari aniqlanadi.

Резюме: В данной статье рассматривается лексико – деривационное выражение негативности в английском и каракалпакском языках. В сравнительном плане изучаются особенности аффиксальных и лексических средств выражения отрицания.

Kalit so'zlar: inkor, affikslar, mantiqiy kategoriya, hosila, chog'ishtirma tahlil, negativ, pozitiv, kontrastiv, inkor olmoshlari.

Ключевые слова: отрицание, аффиксы, логическая категория, деривация, контрастивный анализ, основа, оппозиция, позитивность, негативность, отрицательные местоимения.

УДК 343.2

**APPLICATION OF COERCIVE MEASURES OF A MEDICAL NATURE TO THE
MENTALLY ILL IN FOREIGN CRIMINAL LAW**

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Summary: *This article discusses the features of the application of medical measures to mentally ill persons in an equal analysis with foreign experience*

Keywords: *Coercive measures, mental health, foreign experience, application, criminal legislation*

A certain scientific interest for the study of the problems of compulsory medical measures under the criminal legislation of the Republic of Uzbekistan is the study of the application of this institution in foreign countries. Comparison of this institution will expand the subject of the science of criminal law, thereby enriching it with new knowledge. It seems that it is the comparison that will make it possible to identify those problems that have not even been posed or have not yet been resolved by jurisprudence. Note that this is achieved in the process of comparative research, and not as a result of the study of foreign law alone. Therefore, the statement "everything is known in comparison" in this case is quite true.

In the modern criminal law of a number of foreign countries, compulsory medical measures are terminologically referred to as "security measures". However, security measures include not only the use of medical measures, but also many other sanctions and restrictions applied to criminals. In our opinion, the legislation of the Republic of Uzbekistan is more priority in this regard, since the institution of compulsory medical measures is independent and therefore should exist separately from other criminal law measures that pursue other goals. For example, confiscation is a property security measure under the Italian Criminal Code. Until recently, the legislation of the Republic of Uzbekistan also used confiscation [1] of property, but it was an additional type of punishment. Therefore, when applying medical measures, the goal is the treatment of a person, and during confiscation this goal is absurd, which once again proves the independence of the institute for the application of compulsory medical measures, which has its main goal not inherent in other measures.

Covering the issues of the distinctive properties of the name of the institution under consideration in foreign and criminal law of the Republic of Uzbekistan, it should be noted that the system of security measures is assessed by its supporters as the embodiment of the idea of resocialization, as early preventive measures. Thus, security measures of foreign states can be applied to persons who have not committed a criminally punishable act, only on the basis of its public danger, which, in our opinion, goes beyond the scope of criminal law, and also violates human rights. The criminal law of the Republic of Uzbekistan applies compulsory medical measures only to persons who have committed a socially dangerous act in a state of insanity or become ill before sentencing or while serving a sentence with a mental illness.

Along with the distinctive features of legislation, there are many similar rules for the application of medical measures, as well as rules that could be borrowed from each other. In this regard, it would be preferable to continue the study by considering the criminal law norms governing the use of medical measures in each foreign state separately.

According to the modern criminal law of England, security measures are applied to the insane who have committed illegal acts, as well as to criminals suffering from alcoholism and drug addiction.

A person who has committed an unlawful act in a state of insanity is sent to a special psychiatric institution by a court decision. As in the legislation of the Republic of Uzbekistan, the duration of detention in an institution is not established in advance and is largely determined by the success of treatment. A person who has committed a crime in a state of alcoholic or drug intoxication, who abuses alcohol or drugs, is subjected to compulsory treatment in institutions for alcoholics and drug addicts. The duration of this measure is set for a period of six months to three years [2].

British [3] criminal law applies to persons who have committed a crime and suffering from alcoholism such a security measure as keeping in a special institution for narcological patients. The court has the right to send a person to such an institution for up to three years if he is convicted of a crime and the court recognizes that the crime was committed under the influence of intoxication and the offender himself or the jury considers that he is a "habitual drunkard". The regime of such an institution was similar to the conditions of detention in prison, as a result of which the latter could be replaced by detention in an institution for narcological patients. UK law in relation to persons who have committed a socially dangerous act and suffering from mental disorders, applies internment in a special institution. The decision to send to such an institution can be made both before the opening of the main proceedings - by the decision of the jurors on the incapacity of the person to participate in the process, and as a result of the main proceedings by the verdict "guilty but insane"[4].

French criminal law also knows security measures. Such measures in France are applied to persons declared insane due to mental illness, to "dangerous" alcoholics, drug addicts and drug addicts. They are aimed at preventing criminal actions on the part of a dangerous subject, and are associated with his personality, and not with actions. Unlike sanctions, which are based on the guilt of the offender and must correspond to its severity, security measures under French criminal law are addressed to the state of the individual and must respond to the threat to society emanating from him. For example, hospitalization of persons with a diagnosis of mental illness can be ordered not only by the court, but also by the administrative authorities (Minister of the Interior, prefect and other bodies) [5].

From the point of view of the legislation of the Republic of Uzbekistan, it seems unthinkable that a mentally ill person who has committed a socially dangerous act and poses a danger to himself and society will be assigned a compulsory measure of a medical nature by administrative bodies. Therefore, in the criminal law of the Republic of Uzbekistan, only the court is endowed with this competence. In this regard, the approach of the Uzbek legislator seems to us more preferable, since it is hardly possible to apply a coercive measure of a medical nature to a person who poses a danger in his mental state in an administrative manner. As for persons who do not pose a public danger, according to the legislation of the Republic of Uzbekistan, the court can transfer the necessary materials to the health authorities to decide on the treatment of these persons or send them to psycho-neurological institutions, but not to the prefect [6] - as under the criminal law of France.

Security measures in Japan consist in isolating a criminal or a person with properties that indicate the possibility of a criminal act on his part from society [7]. The result is assessed as a "criminal-legal effect achieved in addition to criminal penalties"[8]. Japanese law provides for an appropriate hospital for mentally abnormal persons. If they are in danger of injuring themselves or harming others without being hospitalized, they are permitted to be placed in certain hospitals by force under the Mental Hygiene and Welfare of the Mentally Impaired Persons Act.

In Switzerland, the institution of coercive medical measures has also found its way into legislation. Although not singled out as an independent section, as in the Criminal Code of the Republic of Uzbekistan, this institution is contained in a section called "punishment, security measures and other measures". Structurally, the legislative material is located in two articles that

normatively regulate the application of measures to the mentally ill and measures aimed at the treatment of persons who abuse alcohol and drugs.

A distinctive feature of Swiss criminal law is the absence of a coercive nature of such a security measure as the placement of a drug addict who has committed a crime in a medical institution. According to Art. 44 of the Swiss Criminal Code, the court sends a person (who has committed an unlawful act) suffering from drug addiction for treatment only at the request of this person [9]. Beforehand, the court finds out the suitability of the person for treatment and whether he has a desire to be cured. When a drug addict is sent to a medical institution, the execution of the punishment is delayed.

The Criminal Code of Italy provides, along with punishment, the application of security measures. Security measures in this country apply only to socially dangerous persons who have committed an act prescribed by law as a criminal offense. In addition, the Italian legislator determines that a person is recognized as socially dangerous, including those who are insane or not provided for by law as a criminal offense. When determining the public danger of a person, not only his mental state is taken into account, but also the motive of the already committed crime, the nature of the offender, his behavior during and after the offense, as well as the behavior and life before the commission of the criminal offense, personal, family and social living conditions.

In the United States, legislation has been widely developed that provides for the application of security measures depending not on the number of crimes committed, but on the mental state of the persons who committed them [10]. Terminologically, these measures (depending on the legislation of a particular state) are referred to as "isolation of defective offenders", "compulsory treatment for alcoholics", "social recovery of drug addicts" and others. Also in the United States, coercive medical measures are applied to persons prone to committing sexual crimes. In the legislation, these persons are terminologically referred to as "criminal sexual psychopaths", "sexually dangerous persons". A sexual psychopath is a person suffering from such a mental disorder that causes a criminal propensity to commit sexual crimes.

Currently, both surgical and "chemical" castration are practiced in the United States. Surgical castration, carried out through a medical operation, is used (for example, in the state of Texas) as an alternative to imprisonment. This measure is imposed only at the request or with the consent of the person who committed the sexual offense. "Chemical" castration is the introduction to the offender of an injection of the drug "Depot - Provera", which greatly dulls sexual desire.

The use in the United States of such an unusual security measure as castration, perhaps, will raise objections from many in terms of seeing it not as a security measure, but as a punishment. Today, in our country, the application of coercive measures "Chemical" castration to persons who have committed crimes and suffer from sexual preference disorder (pedophilia) is being considered.

In our opinion, coercive measures of a medical nature in the criminal legislation of the CIS countries, for example, the Republic of Belarus, which are referred to in it as "compulsory measures of security and treatment," deserve great attention. The first thing I would like to draw attention to is the purpose of the application of coercive security measures and treatment. Thus, the Belarusian legislator in Art. 100 of the Criminal Code of the Republic of Belarus conducts a conditional division of goals related to the following categories of persons:

1. mentally ill who have committed socially dangerous acts - prevention of the commission of new socially dangerous acts by them, protection and treatment;
2. the commission of a crime by a person recognized as reduced sane - the creation of conditions for treatment and achievement of the goals of criminal liability;
3. persons who have committed crimes and who suffer from
chronic alcoholism, drug addiction or substance abuse - treatment, creation of conditions conducive to achieving the goals of criminal liability.

In the legislation of the Republic of Uzbekistan, the goals of applying compulsory medical measures are the same for all categories of persons to whom these measures can be applied. So, in accordance with Art. 91 of the Criminal Code of the Republic of Uzbekistan, compulsory medical measures are aimed at treating and preventing these persons from committing new socially dangerous acts [11]. It seems to us that such an approach is more rational, since both compulsory measures of a medical nature and punishment are applied to persons to whom such measures are prescribed along with punishment, and as a result, both the goals of coercive measures and the goals of criminal liability will be achieved.

Undoubtedly, it will be useful to consider the experience of fixing the institution of compulsory medical measures in the criminal legislation of Ukraine. Firstly. The Criminal Code of Ukraine, in contrast to all the above legislative acts, establishes a legislative definition of compulsory medical measures. According to Art. 92 of the Criminal Code of Ukraine, coercive measures of a medical nature are the provision of outpatient psychiatric care, the placement of a person who has committed a socially dangerous act that falls under the signs of an act provided for by the Special Part of this Code, in a special institution for the purpose of his mandatory treatment, as well as preventing him from committing socially dangerous acts [12].

Secondly, the Criminal Code of Ukraine contains a rule on the application of compulsory treatment to persons who have committed a crime and who suffer from a disease that poses a danger to the health of others. Most likely, the legislator refers to such diseases tuberculosis, venereal diseases and, of course, the plague of the 20th century - AIDS. It is well known that every day the number of people susceptible to these diseases is increasing not only in Ukraine, but also in Uzbekistan.

Thus, the comparison allows us to conclude that the degree of detail of the criminal-legal regulation of the institution of compulsory medical measures in foreign countries has both similar and distinctive features. However, most of the Criminal Codes of the reviewed countries do not provide for the concept of the measures under study, which should be considered a significant gap in the criminal legislation.

Based on the studied foreign legislation, the following conclusions can be drawn: Basically, the criminal legislation of various foreign states is characterized by the exemption from criminal prosecution of mentally ill persons who have committed criminally unlawful acts, with the obligatory application of special measures of influence aimed at treating and supervising them, as a rule, in the form of placement in a special psychiatric institution. The main foreign legislative model-legal impact on the mentally ill is the institution of security measures. Security measures applied to the mentally ill are aimed at preventing them from committing new illegal acts.

At the same time, it should be recognized that the foreign experience of some states may be useful in terms of further improvement of the legislation of the Republic of Uzbekistan.

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Rezyume: Ushbu maqolada chet el tajribasi bilan teng tahlilda ruhiy kasallarga nisbatan tibbiy choralarni qo'llash xususiyatlari muhokama qilinadi

Резюме: В данной статье рассматриваются особенности применения медицинских мер к психически больным лицам в сопоставлении с зарубежным опытом

Kalit so'zlar: Majburiy choralar, ruhiy salomatlik, chet el tajribasi, qo'llanilishi, jinoyat qonunchiligi

Ключевые слова: Принудительные меры, психическое здоровье, зарубежный опыт, применение, уголовное законодательство

FINANCING JOINT STOCK COMPANIES THROUGH THE BOND MARKET

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Summary: *Corporate bonds - transferable debt securities issued by businesses - are one of several methods by which businesses fund their operations and expansion, alongside equity share capital, bank lending, and other sources. This paper studies the importance of bond market, analyzes the international bond market and develops some conclusions according to the analysis.*

Keywords: *bond, bond market, joint stock company.*

Introduction. The term «capital market» refers to a location where long-term supply of funds is available, as well as where those funds are procured. That is, the capital market is the source of long-term funds of all types, including equity, preferred stock, and debt securities. That is, the capital market trades capital market securities such as Treasury notes or bonds, municipal bonds, corporate bonds, and mortgage-backed securities, as well as equity securities such as common stock and preferred stock. Personal and institutional savings are converted to investment through the capital market. As a result, the capital market is developed in collaboration with savers and investors.

When capital is supplied in a manner consistent with the needs of industrial enterprises, it is referred to as an ideal capital market.

Additionally, it should be well-organized, transparent, and efficient in order to be an ideal one. A perfectly functioning capital market should exhibit the following characteristics:

- i) Sufficient individual and institutional investors;
- ii) The presence of numerous competitors and auxiliary organizations, such as stock exchanges, investment banks, and broker firms.
- iii) Increased liquidity as a result of sufficient transactions in the indirect market.
- iv) Expected transparency and reasonableness in dealings and contracts
- v) Appropriate supervisory organization, such as the stock exchange commission, to oversee the capital market's operation
- vi) Transactions involving various types of securities, such as stock, equity, preferred stock, bond, and other securities.
- vii) To provide investors and savers with a clear understanding of the capital market's operation and administration through the presence of skilled entrepreneurs and professionals.

Corporate bonds have historically been a popular way for joint stock companies to raise capital for operations and debt financing, particularly in the long run. It is also a popular investment channel for investors seeking stable returns through holding bonds to maturity or high yield through secondary market bond trading (Tendulkar & Hancock, 2014). The development of bond markets is critical for the economic system's efficiency, in addition to providing additional opportunities for investors and deepening financial markets (Herring & Chatusripitak, 2007). The existence of a functioning bond market is critical for reducing financial sector fragility and providing joint stock companies with an alternative source of cheap capital (Yoshitomi & Shirai, 2001). As evidenced by the Asian financial crisis of 1997-1998, one of the primary causes was cited as the economy's excessive reliance on the banking system, which was highly regulated and thus susceptible to efficiency loss as well as increased systematic risk. Additionally, a healthy bond market will help to mitigate currency and maturity mismatches when long-term assets are financed by long-term liabilities; it will improve risk pricing tools due to reduced information asymmetry; it will enable efficient asset management, and it will strengthen the country's position in international capital markets (Plummer & Click, 2005). In terms of macroeconomic policy, a well-developed bond

market not only provides useful market signals to policymakers, but also serves as a financing mechanism for fiscal deficits (Kahn, 2005). Sharma (2001) examined the corporate bond markets in Southeast Asia and concluded that corporate sector and banking reforms, as well as the enforcement of legal processes and increased business transparency, were necessary to increase the market's attractiveness. Additionally, market infrastructure should be strengthened and regulations governing bond issuance and operations should be improved.

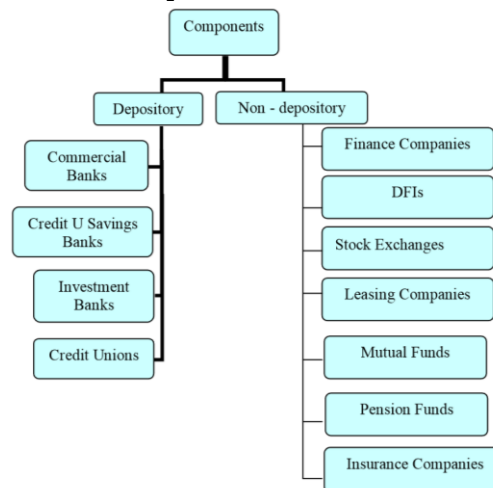


Figure 1 Various Components of Capital Market

Source: Eugene F. Brigham, Joel F. Houston, Fundamentals of Financial Management, 2016

Because the capital market is formed in collaboration with investors and savers, the capital market's primary components are as follows: i) Saving banks; ii) Investment banks; iii) Finance companies; iv) Development Financial Institutions (DFI); v) Commercial banks; vii) Leasing companies; viii) Credit units; ix) Mutual funds; x) Insurance companies. The various components of the capital market can be classified as depositors and non-depository financial institutions, as illustrated in Figure 1.

Individuals with savings to invest, merchant banks, commercial banks, and non-bank financial intermediaries such as insurance companies, finance houses, unit trusts, investment trusts, venture capital, leasing finance, mutual funds, and building societies all contribute to the capital market.

Additionally, there are issuing houses that do not provide capital but rather underwrite companies' shares and debentures and assist them in selling new issues of shares and debentures. Joint stock companies seek funds to finance working and fixed capital assets and inventories, while local, state, and federal governments, improvement trusts, and port trusts seek funds to finance a variety of expenditures and assets.

The capital market operates via the stock exchange. A stock exchange is a market where shares, stocks, bonds, securities, and debentures can be bought and sold. It is not just a market for older securities and shares; it is also a market for newly issued securities and shares. Indeed, the capital market is intrinsically linked to the supply and demand for new capital, and the stock exchange facilitates these transactions.

Capital Markets' Importance or Functions:

The capital market is critical in mobilizing savings and channeling them into productive investments for the development of commerce and industry. As such, the capital market contributes to the country's capital formation and economic growth. The following section discusses the capital market's significance.

The capital market is critical in connecting savers and investors. Investors are lenders of funds, whereas savers are borrowers. The term refers to savers who do not spend all of their income. The surplus units are referred to as «surplus units,» while the borrowers are referred to as «deficit units.» The capital market is the mechanism by which surplus and deficit units are transmitted. It acts as a conduit for surplus units to lend their excess funds to deficit units.

Joint stock companies typically finance their growth and development through a variety of different sources of funding. Some are self-financing with retained cash. External sources of funding include long and short term bank loans, syndicated loans made by a group of banks and possibly institutional investors, trade finance, short term (less than one year) capital market debt, corporate bonds, and other forms of hybrid capital.

The position of corporate bonds in a joint stock company's capital structure is determined by the terms of the issue. Secured debt is typically repaid from the proceeds of the security's sale prior to unsecured debt, and both are repaid prior to equity in the event of the issuer's insolvency.

Corporate bonds provide both issuers and investors with predictable cash flows: payment of capital at issue, regular interest payments, and capital return at maturity. Secondary market prices fluctuate in response to prevailing interest rate expectations and the issuer's creditworthiness. Bond financing is typically less expensive and riskier for businesses than equity financing. Because dividend payments are contingent on future profitability, dividend expectations drive market valuations, and investors demand higher returns to compensate.

Joint stock companies typically choose between bank and bond debt financing based on their size, the stage of market development, and the availability and relative costs of various forms of finance. Typically, SMEs seek funding from banks or tailored lenders, or from the syndicated loan market. As they expand, they may issue bonds, initially in their domestic bond market, and then in international markets if their needs exceed the domestic market's investor capacity or if the international nature of their business necessitates more sophisticated risk management of foreign exchange or other risks. The stages of this progression may vary by country, depending on the maturity of their bond markets. Certain emerging markets continue to be heavily reliant on bank financing.

Analysis and results

As of August 2020, ICMA estimates that the global bond markets will total approximately \$128.3 trillion in terms of USD equivalent notional outstanding. This total includes \$87.5 trillion in SSA bonds (68 percent) and \$40.9 trillion in corporate bonds (32 percent).

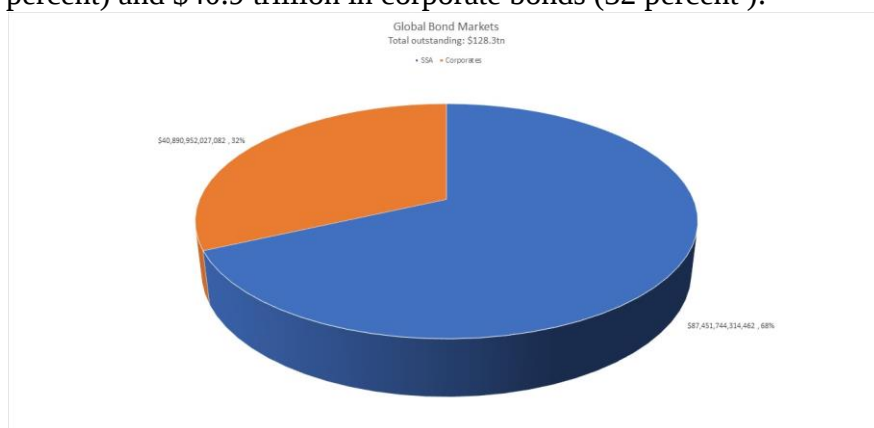


Figure 2. Global Bond Markets

Source: ICMA analysis using Bloomberg Data

In terms of country of incorporation, the US (\$10.9 trillion) and China (\$7.4 trillion) dominate the global corporate bond markets. Together, they account for 45 percent of the global corporate bond market. Financial institutions issue 53% (\$21.5tn) of all outstanding corporate bonds.

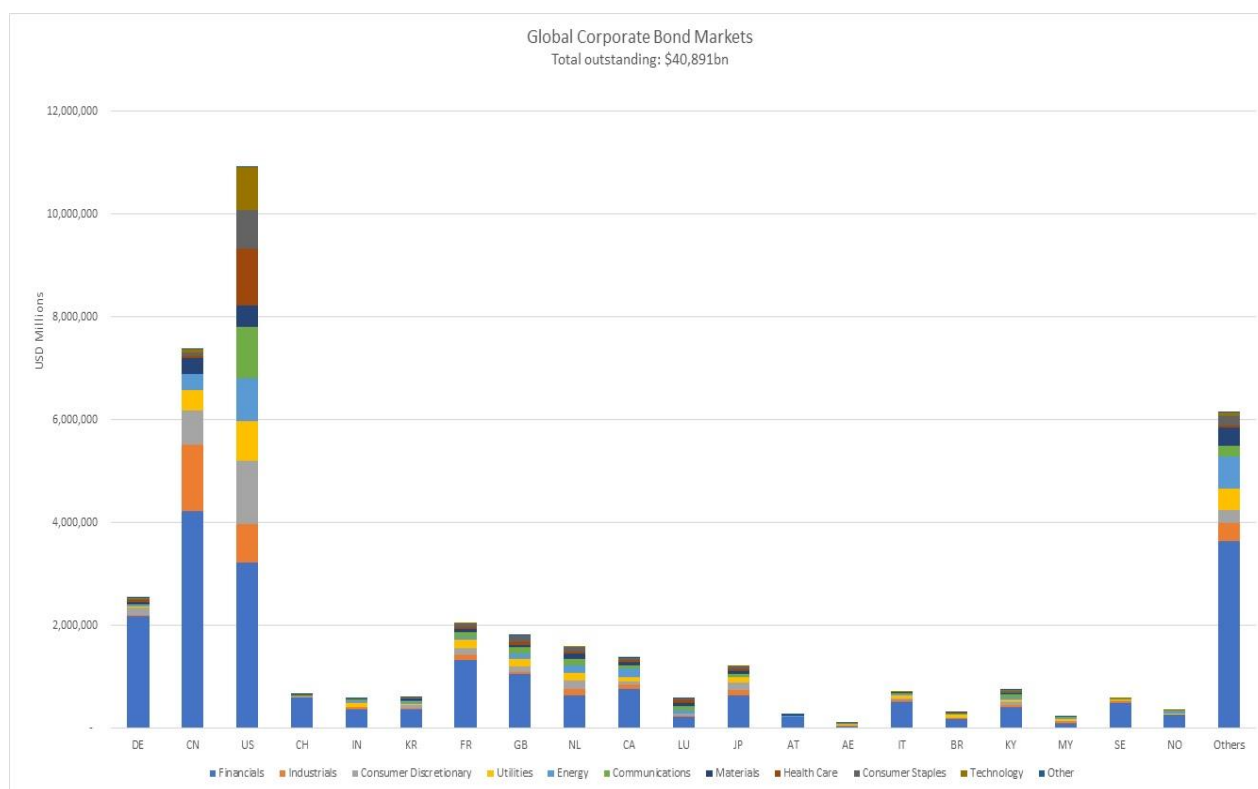


Figure 3 Global Corporate Bond Markets

Source: ICMA analysis using Bloomberg Data

It can be seen that Denmark, China and the US have big bond market, therefore they outnumber other countries in terms of corporate bond issuance.

Conclusions. Corporate bond markets benefit issuers by providing secure, stable, and flexible financing for enterprise, innovation, technological development, economic growth, trade, employment, and wealth creation. Typically, investors (typically insurance companies or pension funds tasked with financing long-term cash flow commitments on behalf of retail investors) buy to hold to maturity. The secondary market has a much lower turnover rate than the equity market.

Corporate bonds compete with alternative sources of capital, such as equity or commercial bank lenders, driving down companies' funding costs. The cost of issuance must continue to be reduced. However, because of the disintermediation between issuers and investors, as well as the intense competition among underwriters and brokers who provide support services, corporate bond markets help issuers reduce their cost of capital. This enables the most efficient use of investor funds to benefit corporate enterprise.

Bond financing reduces companies' reliance on banks, whose ability to lend is occasionally tested – for example, in the years following the 2007/8 financial crisis, as a result of reformed prudential regulation, and as a result of banks' need to deleverage their balance sheets in response to the Third Basel Accord. Deleveraging could have a disproportionately large effect on the real economy, particularly in areas where banks have been the primary source of debt financing.

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Rezyume: *Korporativ obligatsiyalar - xo'jalik yurituvchi sub'ektlar tomonidan chiqarilgan o'tkazuvchan qarz qimmatli qog'ozlari - bu korxonalar o'z faoliyatini va kengayishini, shuningdek, aksiyadorlik kapitali, bank kreditlari va boshqa manbalar bilan moliyalashtiradigan bir necha usullardan biridir. Ushbu maqola obligatsiyalar bozorining ahamiyatini o'rganadi, xalqaro obligatsiyalar bozorini tahlil qiladi va tahlilga ko'ra ba'zi xulosalar ishlab chiqadi.*

Резюме: *Корпоративные облигации — переводные долговые ценные бумаги, выпущенные предприятиями, — это один из нескольких методов, с помощью которых предприятия финансируют свою деятельность и расширение, наряду с акционерным капиталом, банковским кредитованием и другими источниками. В данной статье изучается значение рынка облигаций, анализируется международный рынок облигаций и на основе анализа делаются некоторые выводы.*

Kalit so'zlar: *obligatsiya, obligatsiyalar bozori, aksiyadorlik jamiyati*

Ключевые слова: *облигация, рынок облигаций, акционерное общество.*

**ENSURING THE FINANCIAL STABILITY OF COMMERCIAL BANKS AS A
NECESSARY CONDITION FOR ENSURING THEIR COMPETITIVENESS**

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Karakalpak state university named after Berdakh

Summary: *Ensuring the financial stability of the commercial bank makes it possible to ensure the investment attractiveness of its securities and increase the profitability of its assets. This allows to strengthen its competitiveness in the financial market. The article identifies problems related to ensuring the financial stability of commercial banks of the Republic of Uzbekistan and develops scientific proposals aimed at solving them.*

Keywords: *commercial banking, net profit, interest income, cost, reserve, interest rate, loan, investment.*

Enter. In the strategy of reforming the banking system of the Republic of Uzbekistan for 2020-2025, improving the assets of banks and the risk management system in their activities, reducing the dependence of banks on state resources, modernizing the provision of banking services, ensuring the financial stability of the banking system by implementing technological solutions for assessing financial risks defined as one of the priority areas of reform [1]. This creates the need to ensure the financial stability of commercial banks.

Here it is worth noting that there are some problems related to ensuring the financial stability of commercial banks of our republic. One of such urgent problems is the low profitability of assets in large commercial banks. Also, it is observed that the reserve allocations intended to cover losses from loans in commercial banks with a state share are higher than the standard level of this indicator. **Review of literature on the subject.**

According to J.Sinki's conclusion, the main factors affecting short-term changes in commercial bank profits are portfolio risk and operational risk. Among the portfolio risks, credit risk, interest rate risk, liquidity risk, early maturity risk and currency risk have a significant impact on the profit of commercial banks.[2].

According to V.Usoskin, profitability of assets and profitability of capital indicators play an important role in assessing the financial stability of a commercial bank. [3].

O.Ovchinnikova and A. According to Betts, the financial stability of a commercial bank refers to the ability of the bank to perform its traditional functions and emerging functions, regardless of the content of external influences. [4]

S.According to Urazov, the financial stability of the bank is its ability to support the indicators of the bank's own activity within certain limits, despite the negative effects of various factors. [5]. G. Melikyan divides the financial stability of a commercial bank into micro and macro levels [6].

At the micro level, the financial stability of a commercial bank is its ability to fulfill its goals and objectives in relation to customers even in the face of very negative influences. At the macro level, the financial stability of a commercial bank is the ability of the banking system to overcome crisis situations in various areas and to continue its activity without causing economic agents to change their goals in relation to savings and investments.

According to F. Mishkin, the financial stability of a commercial bank is such a balanced state of its financial flows and sources of own funds that it ensures the operation of the bank in a certain periodic interval. The financial stability of the bank determines its financial independence[7].

According to B. Berdiyarov's conclusion, profitability of banks plays an important role in ensuring their liquidity, in particular, ensuring the normative level of the net interest spread indicator is important in ensuring the normative level of liquidity indicators [8].

Analysis and results. The implementation of the policy aimed at increasing the level of capitalization of commercial banks by the Central Bank of the Republic of Uzbekistan is of great practical importance from the point of view of ensuring the liquidity and financial stability of commercial banks. In particular, in accordance with the instructions of the Central Bank of the Republic of Uzbekistan No. 2693 of June 13, 2015 "On the approval of the Regulation on the requirements for the capital adequacy of commercial banks", in order to introduce the recommendation of the Basel Committee on increasing the requirements for the capital adequacy of commercial banks into banking practice, regulatory capital and the first the requirements regarding the adequacy of level capital have been gradually increased [9].

It should be recognized that in ensuring the liquidity and solvency of the banks of the Republic of Uzbekistan, the President of the Republic of Uzbekistan dated November 26, 2010 No. gi's decision played an important role. In this Decision, a number of tasks related to ensuring the financial stability of commercial banks, including further capitalization of commercial banks in accordance with the requirements of international standards established by the Basel Committee, attracting private capital to this sector, increasing the resource base, improving the quality of assets, and improving banking operations tasks such as increasing financial stability and liquidity, introducing a bank evaluation system based on international norms, criteria and standards used by leading international rating companies [10].



Figure 1. Return on assets and net interest margin in AT Turobank and TIF National bank JSC¹

From the data presented in Figure 1, it can be seen that in 2021, compared to 2018, AT Turobank's return on assets increased and decreased again, and the net interest margin decreased by -0.9%, while in TIF Milliybank JSC, the return on assets increased by 0.3% and the net interest margin increased by 1.5%.

Table 1
The level of indicators of profitability of assets and profitability of capital in JSC "Uzsanoatkurilishbank", in percent²

Indicators	2018 й.	2019 й.	2020 й.	2021 й.
Return on assets	0,9	1,9	0,3	1,9
Return on capital	8,3	11,3	2,2	15,4

¹ The picture was compiled by the author based on the balance data of Turobank and TIF National Bank

² Jalval was compiled by the author based on the balance data of Uzsanoatkurilishbank.

From the data presented in Table 1, it can be seen that in Uzsanoatkurilishbank in 2021, compared to 2018, both the profitability index of assets and the profitability index of capital increased. This is a positive situation in terms of ensuring the financial stability of banks.

From the data presented in Table 1, it can be seen that the rate of return on capital in Uzsanoatkurilishbank grew at a high rate (7.1 p.p.) in 2021 compared to 2018.

It should be noted that the quality of the loan portfolio plays an important role in ensuring the financial stability of commercial banks. The reason for this is that loans occupy the highest weight in the composition of the assets of commercial banks of our republic. As of January 1, 2022, the share of loans in the assets of commercial banks of the Republic of Uzbekistan was 71.1 percent [11].

Table 2

Indicators describing the profitability of loans of the TIF National Bank of the Republic of Uzbekistan, in percent				
Indicators	2018 й.	2019 й.	2020 й.	2021 й.
The weight of loans in gross assets	82,4	81,1	82,1	82,3
The share of interest income from loans in gross income	59,8	55,4	58,9	52,9

From the data of Table 2, it can be seen that, firstly, in 2018-2021, loans occupied a very high weight in the total volume of assets of TIF National Bank; secondly, there is no correlation between the weight of loans in the volume of gross assets and the weight of interest income received from loans in the volume of gross income. For example, in 2021, the weight of loans in the volume of gross assets was 82.3 percent, while the weight of interest income from loans was 52.9 percent in the volume of gross income.

Conclusions and suggestions. In the course of the research, we formed the following conclusions:

*In the 2020-2025 Strategy of the banking system reform of the Republic of Uzbekistan, ensuring the financial stability of commercial banks is defined as one of the priority directions of the country's banking system reform;

*there are the following criteria that determine the financial stability of commercial banks:

* threshold level of risks;

* profitability of assets;

* profitability of capital;

* the weight of capital in the volume of liabilities;

*bank's current liquidity.

* In 2021, compared to 2018, AT Turonbank's return on assets increased and then decreased, and the net interest margin decreased by -0.9%, while at TIF Milliybank JSC, the return on assets increased by 0.3% and the net interest margin increased by 1.5%;

* In Uzsanoatkurilishbank in 2021 compared to 2018, both the profitability index of assets and the profitability index of capital increased is a positive situation in terms of ensuring the financial stability of these banks.

* In Uzsanoatkurilishbank, the return on capital increased at a high rate (7.1 p.p.) in 2021 compared to 2018;

* In the period 2018-2021, loans occupy a very high weight in the total volume of assets of TIF National Bank, and there was no proportion between the weight of loans in the volume of gross assets and the weight of interest income received from loans in the volume of gross income.

In our opinion, the following measures should be taken to ensure the financial stability of commercial banks of our republic:

In our opinion, it is appropriate to implement the following measures to increase the profitability of commercial banks of our republic:

1. In order to ensure a high and stable level of net profit of commercial banks in relation to gross assets, first, it is necessary to ensure the balance between the weight of interest income from loans in the volume of gross income and the weight of gross loans in the volume of gross assets; secondly, in order to increase the amount of income from commercial banks' investments in securities, it is necessary to ensure the balance between the profitability and riskiness of the portfolio of securities, and to exempt the dividends of banks from investments in shares of enterprises of the real sector of the economy from profit tax.

2. In order to increase the level of financial stability of banks by ensuring the balance between interest income and interest expenses, first of all, it is necessary to ensure the standard level (1.0%) generally accepted in international banking practice of reserve allocations intended to cover losses from loans; secondly, it is necessary to ensure that the growth rate of interest income from loans is not lower than the growth rate of gross loans; thirdly, it is necessary to reduce the amount of interest expenses by reducing the weight of interbank loans in the total volume of liabilities of commercial banks; fourthly, by making the net interest spread indicator an object of constant analysis and control, it is necessary to ensure the achievement of the standard level of this indicator.

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Rezyume: *Tijorat bankining moliyaviy barqarorligini ta'minlash uning qimmatli qog'ozlarining investitsion jozibadorligini ta'minlash, aktivlarining rentabellik darajasini oshirish imkonini beradi. Bu esa, uning moliya bozoridagi raqobat bardoshligini mustahqamlash imkonini beradi. Maqolada O'zbekiston Respublikasi tijorat banklarining moliyaviy barqarorligini ta'minlash bilan bog'liq bo'lgan muammolar aniqlangan va ularni hal qilishga qaratilgan ilmiy takliflar ishlab chiqilgan.*

Резюме: *Обеспечение финансовой устойчивости коммерческого банка позволяет обеспечить инвестиционную привлекательность его ценных бумаг и повысить доходность его активов. Это позволяет усилить его конкурентоспособность на финансовом рынке. В статье обозначены проблемы, связанные с обеспечением финансовой устойчивости*

коммерческих банков Республики Узбекистан и разработаны научные предложения, направленные на их решение.

Kalit so'zlar: tijorat banki, sof foyda, foizli daromad, xarajat, zaxira, foiz stavkasi, kredit, investitsiya.

Ключевые слова: коммерческий банкинг, чистая прибыль, процентный доход, стоимость, резерв, процентная ставка, кредит, инвестиции.

IMPROVEMENT OF FINANCIAL MANAGEMENT MECHANISMS OF INVESTMENT ACTIVITY

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Summary: *In the article, conclusions and proposals were formed on the issues of financing investment activities, creating a favorable investment environment, factors affecting investment activities, analysis of the activities of enterprises with participation of foreign investments and their improvement.*

Key words: *investment, investment financing, investment policy, investment environment, investment activity, investment activity qualitative indicators.*

Introduction. In the next period in our country, the trend of deepening the structural changes in the economic sectors and accelerating the innovative activities of regional enterprises, the weight of the share of state property, and the increase of the share of the non-state sector in the value of the gross domestic product (GDP) was ensured. As a result, the composition of financial sources in the formation of state budget revenues has increased, the development of mechanisms for the formation of decentralized market entities from the centralized distribution of capital funds, the establishment and development of new industries based on the state's investment policy, and the provision of the population's demand for consumer goods, new services and workplaces at the highest possible level. an opportunity was created.

Decree of the President of the Republic of Uzbekistan dated January 28, 2022 No. PF-60 "On the new development strategy of Uzbekistan for 2022-2026"[1] was adopted. In addition, on December 25, 2019, the new version of the Law "On Investments and Investment Activities"[2] and several other regulatory legal documents related to this field were adopted and are serving to a certain extent in the implementation of the specified tasks.

Also, investments and innovation activities carried out in economic sectors and business entities cannot fully meet the requirements of today's economy. For example, there are issues such as insufficient flow of investments, lack of complete stability in regional investment policy, transformation of production, high level of state share in the economy, volatility of inflation rate and lack of new modern equipment and technologies.

It can be said that in recent years, we can see the growth of investment loans in the total loan portfolio of the banking system. This creates the need to improve the mechanisms of financial management of investment activities of commercial banks and increases its relevance.

Based on this, it is important for commercial banks involved in the financing of investment activities to form their own scientific and theoretical foundations that help to improve financial management mechanisms.

Analysis of literature on the topic. The new version of the Law of the Republic of Uzbekistan "On Investments and Investment Activities" dated December 25, 2019, regulates relations on investments and investment activities in the territory of our country. Article 3 of this law defines the sources and procedures of investment financing and the investment policy accordingly. "Investment policy is a set of interrelated measures aimed at ensuring the necessary level and structure of investments in the economy of the Republic of Uzbekistan and its specific sectors, increasing the investment activity of investment activity subjects to find sources of investment and to determine the priority sectors of their use."

Financial management of investment activity in the economy, creation of a favorable investment environment, study of factors influencing investment activity in the development of the

country's economy, many issues on improving the activity of foreign investments have been comprehensively covered in scientific research conducted by several economists. In particular, foreign economists D. Ricardo and U. Petty, as well as P. Samuelson, Y. Fisher and several other scientists have widely covered the scientific and theoretical foundations of financial resources and financing mechanisms, in particular, the mechanism of financial management of investment activities, and several the basics have been developed. In addition, M. Miller, D. Alexander, S. Valdaitsev, P. Vorobev, V. Igoshin, V. Kiseleva, Ya. S. Melkumov, Ya. M. Mirkin, D. Tobin, U. Sharp and others Economists conducted their scientific research in areas related to investment activities, their financial sources and scientific-theoretical foundations of development, financial-economic methods of investment environment. Of these, the textbook published by S. Valdaytsev and P. Vorobev analyzes the sources of investment financing of the social sector. It is concluded that the funds spent on the processes of obtaining social income consist of finding a higher income or social effect in the future [3].

Ya.S.Melkumov analyzed the effective use of financial, property and intellectual investments in the financing of investments in order to gain profit in the development of production and entrepreneurship [4].

Also, economist U.Sharp pays special attention to the mechanism of financing investment activities through the stock market. In his opinion, a rational investment strategy with a direct relationship between the profitability and riskiness of securities is the basis of financing investment activities. Financial intermediaries (commercial banks, savings and loan associations, credit unions, insurance companies, pension funds) indirectly provide corporations with the opportunity to attract additional funds from the stock market[5]. According to his opinion about the role of financial intermediaries in financing investment activities, they are one of the active subjects of financing investment activities. Local scientists A. Vakhabov, D. G'ozibekov, N. Karimov, N. Jumaev, Sh. Mustafakulov, N. H. Haydarov, B. K. Tukhliev and other scientists have studied the issues of foreign investments and financial management of investment activities in their research.

In particular, according to Professor N. G. Karimov, "The analysis of the economic development of highly developed countries shows that the relationship between investment activity and economic growth is not the same. In this, it is observed that they require each other. As economic growth depends on economic activity, in turn, it determines the real potential of the country at each concrete stage of economic development. In other words, the higher the rate of GDP growth, the more opportunities there are to create more investment resources and conduct an effective investment policy on this basis" [6]. Economic activity cannot be achieved unless there is a favorable investment environment in the country.

Sh.Mustafagulov analyzes factors affecting investment activity, investment potential and investment attractiveness in his scientific research. "One of the most important issues that must be resolved in the regulation of investment activities is the uniform placement of enterprises with foreign investments across regions at an acceptable level. Factors such as the natural conditions of the regions, the business environment created there, social-political, organizational-management principles, the population's enthusiasm for doing business and entrepreneurship, risk propensity and the qualification of labor resources, the existence of various institutional structures, and their development is one of the important conditions that show investment attractiveness" [7].

In addition, some aspects of the mechanisms of financial management of investment activity were researched by other economists whose names were mentioned above, and their author's approaches in this regard were put forward.

Research methodology. Based on researching the approaches and views of foreign and domestic economists on the subject and expressing the author's attitude towards them, the scientific-theoretical methodological aspects of the article, as well as the analysis of the sources that provide

financial support for the formation of state investment policy, the implementation of investment activities, and the implementation of investment relations today. scientific works were studied. The comparative analysis of literature, logical and structural analysis, grouping and comparative comparison, economic-statistical analysis and hypothesis substantiation methods were used in the implementation of this research.

Analysis and results.

State management of investment activity in the republic is currently carried out mainly by directing financial resources to state target programs and other state needs determined in accordance with the law. In general, the effectiveness of public investments is considered to be less, because in most cases they are directed to the development of non-productive sectors. In addition, due to limited budget funds, it is not possible to implement them in large quantities in the current conditions. The budget resources of the state are primarily directed to the implementation of targeted investment programs for the development of the country and regions.

In addition to allocating funds directly from the budget for the financing of state investment projects, issuing targeted bonds and other special investment bonds, providing concessions to local and foreign investors on trade results, implementing investment activities within the framework of targeted programs, not allocating direct funds from the state budget, but using budget funds the need to increase attention to the multiplier effect, to regularly carry out econometric analyzes of the factors affecting the financial management of investment activity and to determine the levels of correlation and regression between them, to make an economic assessment of the investment activity of the regions as a result of the analysis of the existing investment situation and management mechanism in the regions and districts of the republic and it is necessary to develop strategic programs of financial management of investments by identifying development trends. In addition, it is desirable to develop forecast indicators based on the results of the econometric analysis of the future state of financial management of investments, to group the factors affecting investment attractiveness by management entities by the level of influence.

It should be said that a number of authors have one-sided scientific opinions when analyzing the features of regional development of investment activity. They evaluate the effect of the investment objects implemented at the expense of the state centralized investments as "significantly strengthened their economic potential as a result of the implemented intensive investment policy" [8], and at the same time, in the current period, the regions with less centralized investments are classified as "weakly implemented market relations and weak infrastructural networks they come to the conclusion that investment activity in developed regions is at a low level.[9].

Today, more than 50 countries of the world are steadily investing in Uzbekistan. They operate mainly in metallurgy, energy, chemical industry, electrical engineering, mechanical engineering, and light industry sectors of our economy.

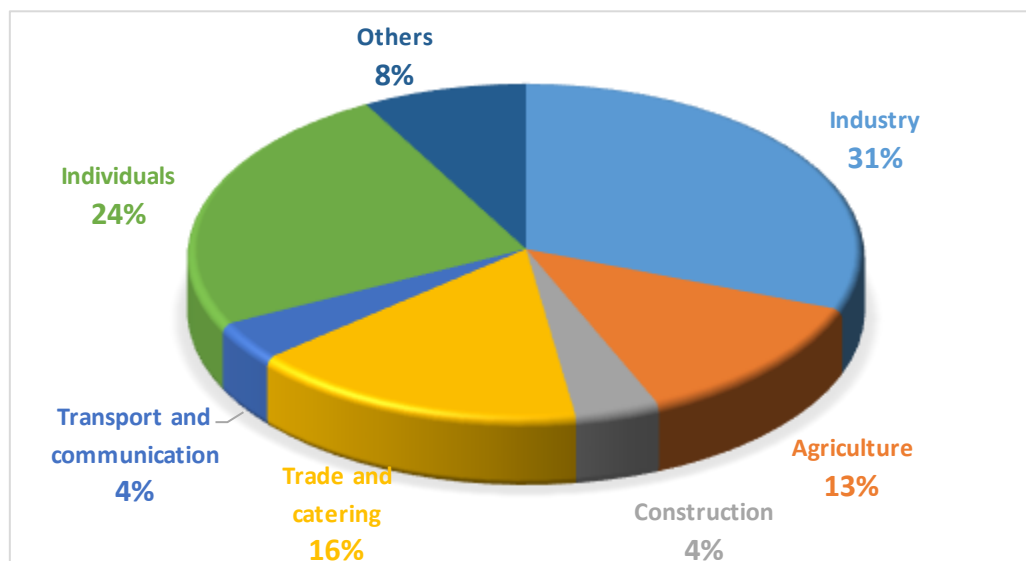
If we consider the share of investments in fixed capital by commercial banks by specific types of economic activity, it can be seen that the volume of investment funds allocated to industry and individuals has a high weight (diagram 1) [10].

According to the data, 31% or 51.3 trillion of investments in fixed capital. soum is directed to the industry. In addition to other types of economic activity: the volume of investments allocated to individuals is 24 percent of the total investments or 40.5 trillion. amounted to soum.

Here, in the financing of investment projects by commercial banks, the following quality indicators of the project, i.e. discount rate, payback period, discounted payback period, average rate of return, net income from the project, income index, internal rate of return and modified rate of internal rate of return attention has an important place in ensuring the viability of the investment project. That is, the high efficiency of the project quality indicators indicates the quality of the investment projects under consideration.

1-diagram

Special types of economic activity of investments in fixed capital by commercial banks distribution on
As of January 1, 2022, in percent



Today, in order to further develop and improve the effectiveness of the activity of directing investment funds to economic sectors of commercial banks, annual investment programs, including financing of projects involving foreign investments, expansion of the volume of investments in economic sectors, further improvement of the investment environment in the republic, systematic control of the implementation of investment projects, as well as increasing the effectiveness of the use of foreign investments attracted to the economy of our country on the basis of determining the factors that prevent the timely and effective implementation of investment projects with the participation of foreign investments and taking prompt measures to eliminate them, provides a mechanism for financial management of investment activities..

Conclusions and suggestions. In order to improve the mechanism of financial management of investment activities, it is considered appropriate to implement the following measures:

1. Constantly analyze the purposeful use of funds allocated to investment projects, widely attract external sources of investment financing, encourage foreign direct investment to the country for the establishment of new projects and joint ventures, all types of customs until production capacities are fully utilized. it is appropriate to apply exemptions and preferences from payments, taxes, fees.

2. Financial management of investment activity, proper and perfect implementation of initial control over the effective use of funds, independent and free determination of the business entities' directions of activity based on innovations, in accordance with market relations, and paying special attention to the state of quality indicators.

3. Relying on advanced foreign experience, in order to improve the method of financing investment activities in the republic, to provide tax and customs benefits to business entities and entrepreneurs who establish a venture company or venture fund, to introduce preferential loans with bonus interest on the basis of state funds into the venture financing system, venture companies and venture execution of contractual relations of funds with large industrial enterprises should be turned into an object of control by the state.

4. The positive impact of the banking system on economic growth and ensuring the stability of the economy, the increase in the volume of attracting funds from abroad to finance investment activities at the expense of international financial institutions and foreign government financial

organizations, foreign direct investments and other decentralized sources allows to increase the level of positive effect.

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Rezyume: Maqolada investitsiya faoliyatini moliyalashtirish, qulay investitsiya muhitini yaratish, investitsiya faoliyatiga ta'sir etuvchi omillar, xorijiy investitsiyalar ishtirokidagi korxonalar faoliyatini tahlili va ularni takomillashtirish masalalari yuzasidan xulosa va takliflar shakllantirilgan.

Резюме: В статье сформированы выводы и предложения по вопросам финансирования инвестиционной деятельности, создания благоприятной инвестиционной среды, факторов, влияющих на инвестиционную деятельность, анализа деятельности предприятий с участием иностранных инвестиций и их совершенствования.

Kalit so'zlar: investitsiya, investitsiyalarni moliyalashtirish, investitsiya siyosati, investitsiya muhiti, investitsiya faoliyati, investitsion faollik sifat ko'rsatkichlari.

Ключевые слова: инвестиции, финансирование инвестиций, инвестиционная политика, инвестиционная среда, инвестиционная деятельность, качественные показатели инвестиционной деятельности.

EMERGENCE AND DEVELOPMENT OF PRIVATE PROPERTY RIGHTS

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Summary: This article describes the emergence and development of private property rights, the concept and content of citizens' private property rights, a general description of the grounds for revocation of citizens' private property rights, and specific features of voluntary revocation. Also, the procedure for compulsory cancellation of private property rights of citizens has been thoroughly studied.

Key words: private property, property rights, cancellation of property rights, mandatory cancellation of private property rights

Since the emergence of human society, the issue of property and property relations is one of the most complex and central problems. Many wars, uprisings, and revolutions that took place in the long history of mankind are proof of this, and their real reason was considered to be the change and reconstruction of property relations that existed at that time. The great Italian civil scientist U. Mattei also stated that "all revolutions are a process of redistribution of property relations that do not correspond to the constitutional order of the previous social organization."

In particular, as a result of the Great French Revolution in France in the 19th century, the interest in property relations shifted from the aristocracy to the rapidly developing bourgeoisie. In our country, during the 20th century, property relations were changed and re-established twice. The first was implemented after the October Revolution of 1917, while the second is happening now. Historical development also shows how important a category property relations are[1].

Property is the economic basis of society. Also, the socio-economic structure of society is determined by property and who owns the property. Without property, it is impossible to develop social relations, to implement measures aimed at ensuring the well-being of the people in the country[2]. Property is a source of action in all spheres of social life. What is property? It should be noted that the issue of property is studied in science as an economic and legal category and interpreted in different ways. According to the Marxist doctrine, property shows the relations of appropriation (expropriation) of the means of production and the material goods created with them in the process of production, distribution, exchange and consumption. Here property is expressed in the form of social relations. Material goods belonging to a person should be recognized not only by him, but also by other persons. That is, without the attitude of other persons towards the object "as if it were someone else's", the owner of the property would not have an attitude of "his own".

A characteristic feature of this doctrine is that the economic content of property is prioritized over its legal form. But some scientists, in particular, economists V.P. Shkredov, A. Pashkov and lawyer V.A. The Rakhmilovichs emphasize the legal form of property and argue that property exists only as a legal category. It is objectionable to recognize property as a legal category in the literal sense. Understanding property in this way denies that it has an economic meaning[3].

According to many Farb economists and lawyers, property is a person's attitude towards things. Here, property is explained ontologically, that is, as the owner's interaction with the property that belongs to him. These views deny that property has a social relationship character. Russian civil scientists D.I. Meyer, I. Trepitsyn and A.A. Ivanovs are also considered to be supporters of such an opinion and promote the recognition of property in this way, that is, as a person's attitude towards things. In our opinion, understanding property in this way denies that it is a social relationship, as we noted above. However, property cannot exist as a relationship between a person and a thing. Prof. As Yu.K. Tolstoy rightly stated, "property means a relationship between people

on the basis of things. On one side of this relationship is the owner, who treats the object as if it were his own, and on the other side, there are all non-owner third parties who are forced to treat the object in the same way[4].

Therefore, property refers to the relationship between people and their communities, social relationship, and social production relationships. As an economic category, property exists independently of the will of people. Laws do not create property relations, but strengthen economic relations formed in society.

The legal form of property relations is determined by its economic content. The concept of property in the legal context arises as a result of the strengthening of economic property relations in legal norms and is manifested as property rights.

Property-legal relations cannot develop normally without legal norms and protection by the state. For a society whose economic system is based on the production of goods, this situation is undoubtedly of great importance. Therefore, it is appropriate to evaluate property as an economic-legal phenomenon, whose legal form is closely related to its economic content[5].

It should be noted that although the legal concept of property is related to the regulation of economic relations by law, the legal category of property does not reveal the process of creating property objects, the reasons for the concentration of property in individuals, and the trends of change in these processes with the development of production forces.

The historical development of property relations also shows that property in the legal sense has a relative character, since a certain form of property cannot be absolutely superior to another. The effectiveness of different forms of property is determined by the conformity of production relations with productive forces.

In other words, any form of property that serves the development of productive forces is effective.

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Rezyume: *Ushbu maqolada xususiy mulk huquqining vujudga kelishi va rivojlanishi, fuqarolar xususiy mulk huquqining tushunchasi va mazmuni va fuqarolar xususiy mulk huquqini bekor bo'lish asoslariga umumiy tavsif va ixtiyoriy tartibda bekor bo'lishining o'ziga xos xususiyatlari haqida yozilgan. Shuningdek, fuqarolar xususiy mulk huquqini majburiy tartibda bekor bo'lish tartibi atroflicha tadqiq qilingan.*

Резюме: *В статье рассмотрены вопросы возникновения и развития права частной собственности, понятие и содержание права частной собственности граждан, общая характеристика оснований лишения права частной собственности граждан, особенности добровольного лишения права собственности. Также тщательно изучен порядок принудительного прекращения права частной собственности граждан.*

Kalit so'zlar: *Hususiy mulk, mulk huquqi, mulk huquqini bekor bo'lishi, xususiy mulk huquqini majburiy tartibda bekor bo'lishi.*

Ключевые слова: *частная собственность, право собственности, прекращение права собственности, принудительное прекращение права частной собственности.*

UZBEK APPLIED ART IS A FACTOR THAT STRENGTHENS CULTURAL TIES

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Summary: *This article explores such issues as the place of applied art in international cultural relations, the latest international projects that were carried out in Uzbekistan. The III Tashkent International Biennale of Applied Arts is covered, including the work of the participant and winner of the Grand Prix A. Karimov. In addition, information is given about the Gijduvan school of ceramics.*

Key words: *international cultural relations, ceramics, A. Karimov, Uzbek ceramics, ceramics of the Gijduvan center, ceramics of the Afrasiyab school, dialogue of cultures.*

INTRODUCTION.

The development of handicrafts, especially applied decorative arts, has long served to strengthen Uzbekistan's international cultural and economic ties. From ancient times, Central Asian works of art were exported to the Maghreb and the East through caravans, and various art objects were imported from foreign countries through the same caravans, and our region became a center of cultural exchange. That is why the culture of Uzbekistan has paid great attention to applied art since ancient times, and this type of art has been continuously developing for several millennia. Historically, Uzbek craft schools have been formed, and now measures are being taken to restore the traditions of these schools. Regular exhibitions, annual International Fine and Applied Arts Festival, Biennale of Applied Decorative Arts serve as clear evidence of this. The purpose of organizing projects is not only to preserve the traditions of Uzbek applied art, but also to establish a cultural dialogue with various foreign countries, to strengthen the existing international relations, and to bring the art of our country to the world stage and increase its popularity. Cultural cooperation implemented through art is an effective and important factor in the emergence of cooperation in all aspects, along with the study of the art of different nations. The next such event is the 3rd Tashkent International Applied Art Biennale entitled "Modern Applied Decorative Art: Decoration and Style", which was organized on November 8-12, 2021 in the cities of Tashkent and Samarkand, Uzbekistan.

18 foreign countries took part in the Biennale: Australia, Russia, Kazakhstan, Sweden, Ukraine, Tajikistan, Azerbaijan, Belarus, Bulgaria, France, Italy, Sweden, Kenya, Japan, China, Pakistan, Turkey, Oman, Iran, etc. in a row, applied art masters, artists and designers of Uzbekistan participated with their creations. At the Biennale, artisans working in various directions of Uzbek applied decorative art exhibited their products in several locations. In order to better illuminate this international applied art biennale, we found it appropriate to analyze the work of the participant who won the highest award. One of the notable exhibitions was called "Illustrated Fantasy in Clay", in which artisans of Uzbek pottery presented samples of different pottery schools. One of the participants, Abduvahid Karimov, won the Grand Prix with his traditional Uzbek pottery. The works presented at the exhibition are made in the ancient traditions of Afrosiyab and G'izhduvan ceramics. Although A.Karimov is not a dynastic craftsman, he has been a student in the workshops of Kubaro Boboevalar, a representative of the Gijduvan Pottery School, folk craftsman Alisher Narzullaev from the village of Uba, Vobkent district, a master of traditional pottery toys. He strengthened the knowledge he acquired as a result of folk masters in the field of "Art Pottery" at the National Institute of Art and Design named after K. Behzod. M. Rakhimov and his son A. Rakhimov, representatives of the Afrosiyab pottery school, were masters who later influenced Abduvahid Karimov's work. For this reason, among the ceramics presented by A.Karimov to the biennale, one can see examples of traditional, lead-glazed Afrosiyab and blue pottery of the

Gijduvan School of the Bukhara Pottery Center. In Afro-Syob ceramics, plates made of white clay have Arabic writing and zoomorphic patterns on the surface, while plates belonging to the Gijduvan school show geometric, zoomorphic, and Islamic stylistic patterns in various shades of blue and ochre.

In general, in many ceramic works of A. Karimov, we can see the development of the direction that M. Rakhimov founded in the 1960s. In this, the items are related to the interpretation of the traditional pottery of Uzbekistan, in particular Afrosiyob ceramics. The master brought innovation from his own point of view to the samples of Afrosiyob ornament with a creative approach. A. Karimov, the winner of the main prize of the International Biennale of Applied Arts, came to the attention of art historians conducting research in the field of Uzbek applied art many years ago. One of such scientists, Akbar Khakimov, made the following comments about pottery in his academic work: "A. Karimov's interest in the Bukhara pottery school can be seen in his practice of reconstruction and arrangement of cast blue ceramics. This type of pottery went out of circulation by the beginning of the 20th century, but fragments and remnants of it were preserved. They are currently on display in Bukhara museums and are being rediscovered by archaeologists. The master says about his work: "Now my goal is to restore Bukhara ceramics. I took the 18th century Bukhara pottery as a basis for restoration of traditions, because the style of this period has its own technique and character. I found a fragment of a sample of this period in my house, in the old part of Bukhara, in the neighborhood in front of the Khoja Zayniddin mosque, at a depth of almost two meters, when construction work was going on. The fragment reveals the bottom part of the plate, which has a blue (copper oxide) and yellow (manganese oxide) plant-like ornament, made in the drawing technique, and covered with a transparent alkaline glaze" (1. 138).

Kamola Akilova, another research scientist and art critic dealing with applied art of Uzbekistan, gave the following research about Bukhara ceramics: "One of the largest and most famous centers of traditional pottery of Uzbekistan is the city of Gijduvan, located 40 km from the northeast of Bukhara. The ceramics of this center always stood out from other pottery centers of Uzbekistan with its rich color and ornamentation.

Gijduvan ceramics have a typology of content characteristic of folk art. It shows the characteristic of a festive perception of life, shows great creative power with poetic conditional expression, is distinguished by its laconism and monumental figurative appearance. We observe that the objects have achieved brightness and color saturation by painting the background in a dark-brown color. A uniform rhythm of ornamental motifs is characteristic for the school. In addition, another aspect specific to the center is that the only form of education in the Gijduvan Pottery School was the "master-apprentice" system. Therefore, the traditions of the center have been preserved from generation to generation and passed down in their natural form. All active Gijduvan potters imitated their teachers to a certain extent and took the ceramic products created by the masters of the generation before them as standards. However, in the 20th century, the demand for the use of ceramics created by artisans will decrease, and this will cause the loss of traditions that have been preserved for centuries" (2. 70). Only by the years of independence, the restoration of Uzbek pottery traditions will be started.

"It can be concluded that the use of alkali in Bukhara was a widespread technique like in Ferghana Valley and Khorezm. Today, it is considered that this direction has prospects for A. Karimov's creative research. Therefore, the potter is carefully studying the alkaline glaze technology. In Bukhara, near the Nomozgoh mosque, A. Karimov picks a herb known as "choroynak" and uses it to prepare an alkaline glaze. It is also used in the reconstruction and arrangement of Bukhara late medieval blue ceramics. And in the cycle of Afrosib ceramics, the potter uses lead glaze" (1, 138).

A. Karimov worked effectively in restoring and continuing Uzbek ceramic traditions. Adhering to the laws of ceramic schools, he combined his own creative views in his works. We will

witness Abduvahid Karimov's application of the history of Uzbek applied art and traditional pottery in modern applied and decorative art.

CONCLUSION.

To sum up, big projects like the Biennale of International Applied Art lead to the collision of traditions of different ethnic groups, the exchange of experiences of many countries, and the dialogue of cultures. This will help not only to improve economic conditions, but also to strengthen international relations and enter the world arena. At the same time, it serves to restore the traditions of national applied art, increase the experience of craftsmen, and develop their creativity. Among them, A. Karimov not only won the grand prize at the international biennale, but also showed Uzbek ceramics to foreign countries. With his efforts, he made a significant contribution to the revival of the disappearing pottery traditions.

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Rezyume: *Mazkur maqolada xalqaro madaniy aloqalarda amaliy san'atning o'rni, so'nggi yillarda tashkil etilgan xalqaro loyihalar haqida so'z boradi. 2021-yili o'tkazilgan III Toshkent xalqaro amaliy san'at biyennalesi yoritiladi, xususan, uning ishtirokchisi va gran-pri g'olibi A.Karimov ijodi tadqiq etiladi. G'ijduvon kulolchilik markazi haqida ma'lumotlar keltiriladi.*

Резюме: *В данной статье изучены такие вопросы, как место прикладного искусства в международных культурных связях, последние международные проекты, которые проводились в Узбекистане. Освещается III Ташкентская международная биеннале прикладного искусства, в том числе, изучается творчество участника и победителя гран-при А.Каримова. Кроме того, даётся информация о Гиждуванской школе керамики.*

Kalit so'zlar: *xalqaro madaniy aloqalar, kulolchilik, A.Karimov, o'zbek kulolchiligi, G'ijduvon keramikasi, Afrosiyob keramikasi, madaniyatlar dialogi.*

Ключевые слова: *международные культурные отношения, керамика, А.Каримов, узбекская керамика, керамика Гиждуванского центра, керамика Афрасиябской школы, диалог культур.*

THE PROCESS OF EDUCATION AND TRAINING OF YOUNG BASKETBALL PLAYERS IN THE INITIAL TRAINING STAGE

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Summary: *This article describes various factors of the process of education and training of young basketball players at the primary training stage, and presents the tasks that must be solved in the primary training groups.*

Key words: *primary training stage, physical training, technical training, tactical training, load adjustment*

INTRODUCTION. Training of young basketball players in our country is carried out in secondary schools and extracurricular educational institutions. In schools, sports are conducted in the form of extracurricular activities. Primary training groups are formed from students of secondary schools who want to do sports.

The main form of preparing of young athletes is training. Through the training system, a targeted pedagogical effect is shown, the main sports, health and educational tasks are solved. A system of sports exercises presented in an interesting way predetermines the success of training in many ways. The main goal of the training is not for young athletes to master this or that system of exercises, but to understand certain rules for the development of certain laws of mastering specific sports skills that can “lose” any sports situation and mastery.

Currently, in connection with the widespread of basketball, the problem of the content of the methodology of physical and technical-tactical training of young basketball players is clearly manifested.

LITERATURE ANALYSIS AND METHODS. Many scientific works are devoted to the study of various aspects of the process of education and training of young basketball players (Yaroslavtsev G.G.; Drujinina L.E.; Gaptov F.B.; Kurse A.A.; Grigorovich I.N.; Skulme S.Ya.; Nesterovsky D.I.; Lukonina O.I.; Platonov V.A.) , however, in the opinion of many researchers, the structure and content of training programs in the training of young basketball players remain relevant today (Lenshina M.V.; Al Katib Akhmat).

Many studies are devoted to the study of age-related features of the development of motor skills in childhood and adolescence (Balakireva M.V.; Gujalovsky A.A.; Zatsiorsky V.M.; Kuznetsova Z.I.; Filin V.G.; Fomin N.A., Vavilov Y. N.).

The movement function is one of the complex physiological phenomena that ensures the resistance of the human body to environmental conditions and is a combination of physical qualities, movement qualities and abilities (Martirosov E.G.; Fomin N.A., Vavilov Y.N.).

The most rapid development of motor function occurs in childhood and adolescence (Balsevich V.K.; Blagush L.K.; Bril M.S.; Vasilyeva V.V.; Volkov V.M., Volkov L.V., Guba V.P., Ermolaev Y.A., Kuznetsova Z.I., Filin V.P.) and 13-14 age is completed based on the morphological and functional maturity of the human movement analyzer.

RESULTS AND DISCUSSION. Basketball is characterized by a variety of movement activities. It includes running, walking, jumping, twisting, spinning, catching and throwing exercises. These exercises are performed in the context of interaction with the players of the own team and the opposing teams. The effectiveness of the athlete’s actions in the game is related to the

speed of assessment of the game positions and actions of the players, the improvement of the technique, the level of physical development. Practice shows that basketball training usually begins at the age of 7-8. The first link, the most popular, is secondary schools, where this sport is included in various forms of physical education. It is recommended to start high-target basketball training at the age of 10-11.

The duration of the preliminary stage of sports specialization is 2-3 years. The main directions of organizing the work of primary training groups of young basketball players are to achieve universality and versatility. Based on this, the following tasks are solved in the initial training groups:

1. To promote health, physical development and versatile physical training.
2. Cultivation of special qualities necessary for successful acquisition of game skills (coordination of movements, speed, flexibility, dexterity, ability to move in a changing environment, speed-power).
3. Strengthening of the base-movement system.
4. Teaching the fundamentals of movement and standing techniques, catching, passing, dribbling, putting the ball into play.
5. Preliminary preparation for tactical actions in attack and defense.
6. Fulfillment of regulatory requirements for types of training.
7. Formation of competitive activity skills in accordance with mini-basketball rules and arousing strong interest in basketball.
8. Primary selection and selection of children capable of playing basketball.

Allocation of training time, development of planning documents are carried out in accordance with these tasks. The main tasks of basketball training in elementary training groups are comprehensive physical training, mastering the basic technical methods and elementary tactics of the game, and cultivating a strong interest in training. Children aged 10-13 should have three 90-minute sessions per week. At the age of 13-14, the duration of training is increased to 2-2.5 hours.

The main part of the primary education program is teaching. This consists in the need to successfully train young athletes in a wide technical and tactical arsenal, to create the necessary conditions for achieving a high level of special physical training. The main indicator of the activity of basketball sports schools is the fulfillment of the regulatory requirements for the training level of the participants at the end of each year.

An important factor in the selection of preparations is their multifaceted effect on the body. The tools chosen are very diverse. A lot of attention is paid to acrobatics and gymnastic exercises, athletics, various games and others. Exercises with a ball have a special place in training. Their tasks are not only physical development, but also to develop the skills of controlling the ball, coordinating their movements with the ball in time and space. As a basketball player's training increases, this ability becomes crucial. The main goal of technical training of children in the initial training stage is to master the basic methods of the game: movements, stops, turns, catching, passing, shooting, dribbling. It is studied on the basis of mastering the main ways of their implementation. This will be the basis for future practitioners to master all kinds of techniques.

The basis of technical training in the first year of training is the development of the ability to perform the learned methods in harmony with each other and with different movement methods (running, side steps, jumping, etc.). These combinations do not involve a large number of techniques simultaneously or in succession.

At this stage of sports training, the main tasks of tactical training are the formation and development of abilities underlying tactical thinking and tactical actions, as well as mastering

individual actions related to the studied techniques. During this period, attention, visual memory for situations, orientation in time and space develop. Not only special exercises, but also action games are widely used. After proper preparation, the game method is used in the exercises.

The task of game training at this stage is to have an added effect on the physical, technical and tactical preparation of young basketball players. At the same time, general preparatory exercises using interrelated methods and playing according to simplified rules, as well as mini basketball, serve as the main tool.

The second year of training in elementary school groups is a logical continuation of the first. During this period, the main attention is paid to physical and technical training. In the second year, the time for physical training is slightly reduced and the hours for tactical and game training are increased. The arsenal of learned technical skills and tactical actions is significantly expanded. The number of games is increasing.

In training with children of primary school age, the duration of the game, the size of the field, the height of the hoop and the weight of the ball are limited. The duration of a basketball game in elementary training groups is 24 minutes, with a 10-minute break between 12-minute sections. 8-9 and 10-11-year-old children play basketball on an 18x12 m court. At the same time, the size of the ball is smaller than that of older athletes, and its weight should not exceed 450-480 g. The height of the ceiling from the floor should not exceed 2.6 m.

The "second childhood" period is often called the play-oriented period, because at this age the game plays a leading role in the development of the most important mental functions and higher nervous activity of children. At the same time, game activities stimulate the child's motor activity and the development of many structural and functional features of the body.

Between the ages of 5 and 12, a child acquires about 90% of the gross motor skills acquired in life. Consequently, the greater the volume of movements mastered during this period, the easier it is to master the most subtle elements of technical skill in the chosen sport.

Inadequate use of movement abilities of children of elementary school age at the initial stage of sports makes it difficult to further improve sports, makes it impossible to use a wide range of techniques in complex technical sports. At this age, children's ability to master movement techniques is so great that many movement skills are mastered without special instruction.

According to V.K. Balsevich, between 7 and 10 years of age, almost all physical qualities and coordination skills that are implemented in human movement activities are implemented most quickly and qualitatively. If this does not happen, then the time to form the physical and physiological basis of the future kinesiological potential can be considered lost, because all further steps in this regard will turn out to be illogical, contrary to the basic laws of human movement skills development which disrupts the harmony of development.

Therefore, according to the author, the organization of the child's training regimen to ensure general physical fitness with a sharp increase in coordination ability depends on the age of the child in this period of human life best suited to its characteristics.

It is preferable to use loads of low intensity when training children. However, this does not mean that intensive work is not available to them. For children, intense but short-term (5 to 15 seconds) exercise is also acceptable, and sufficient rest is necessary for full recovery.

What is of great importance in the initial training of basketball players is the rational development of all aspects of movement activity, with special attention to the development of speed-power qualities as the most characteristic feature of basketball players. A number of studies have shown that complex training is the most effective in developing motor skills. Based on these materials, it is recommended to give a great place to speed-strength exercises during initial

basketball training. The use of these exercises to develop speed and strength (up to 50% of the total training time) has a positive effect on physical fitness and the growth of sports results.

It was found that the most effective external influence for the development of a certain direction is manifested at the age of 9-12 years. In this regard, it is recommended to build the educational process in the initial stages of training in such a way that the acquisition of movement skills and abilities is carried out simultaneously with the education of children's ability to independently solve movement problems and analyze a specific situation. For this, it is necessary to use extensive training and special exercises aimed at developing observation, the size of the field of vision, the speed of complex response, the speed of transition from one movement to another. It is important to use exercises in constantly changing conditions and to change the way they are performed.

CONCLUSION.

The basketball training process, we note some features identified in the literature review. First, there is a wide arsenal of opportunities for beginners to master the game of basketball, ranging from a relatively high level that needs to be properly maintained to a low level that requires skillful pedagogical guidance. Secondly, there are some contradictions in defining the most favorable periods for the individual development of the movement area of young basketball players according to their age and pace. Finally, and thirdly, the emphasis on comprehensive training that achieves the same success in most types of this training: physical, technical, tactical, etc.

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Rezyume: *Ushbu maqolada boshlang'ich tayyorgarlik bosqichida yosh basketbolchilarni tarbiyalash va tayyorlash jarayonining turli omillari haqida bayon etilgan bo'lib, boshlang'ich tayyorgarlik guruhlarida hal qilinishi kerak bo'lgan vazifalar keltirilgan.*

Резюме: *В данной статье описаны различные факторы процесса воспитания и обучения юных баскетболистов на этапе начальной подготовки, представлены задачи, которые необходимо решить в группах начальной подготовки.*

Kalit so'zlar: *boshlang'ich tayyorgarlik bosqichi, jismoniy tayyorgarlik, texnik tayyorgarlik, taktik tayyorgarlik, yuklamani me'yorlash*

Ключевые слова: *начальный этап подготовки, физическая подготовка, техническая подготовка, тактическая подготовка, регулировка нагрузки.*

TRANSFORMATION PROCESSES IN THE SOCIAL SYSTEM: IN THE CONTEXT OF ADAPTATION AND BIFURCATION APPROACHES

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Summary: *Today, the complexity of social processes is increasing, showing uncertainty, instability and unpredictability. This process also affects the family system, which is undergoing certain transformations.*

The search for a worldview and methodology that can respond to these new challenges and describe these processes is of current importance.

This article reveals the nature of the family system as a complex dynamic system based on adaptive, bifurcation approaches.

The synergetic nature of transformational processes in the structure of the worldview of modern youth is founded.

Key words: *linearity, nonlinearity, stability and instability, adaptation, bifurcation.*

The current stage of development is characterized by the emergence of unprecedented new situations. The environment and the human are becoming more complex. This complexity also reveals uncertainties, instabilities, and unpredictability. This process is also affecting the social system, which is undergoing certain transformations. The search for a worldview and methodology that can respond to these new challenges and describe these processes is of urgent importance.

The basis of the problem we are talking about is today's conflicts, to be more precise, conflicts in the social system. Which methodology is more suitable for finding and eliminating these conflicts?

In clarifying and solving this problem, we use the theory of complex systems, synergetics (H.Haken, I.Prigogine, N.N.Taleb, V.G.Lyovin etc.), adaptation theory, the approaches of I.Ansoff, A.G.Asmolov, V.A.Vinokurov, M.B.Tabachnikov, N.V.Beketov, M.Abdullaeva and M.Niyazimbetov as a theoretical and methodological basis. In the works of these scientists, the synergistic features of complex social processes are studied in detail [1,2,3,4].

It is known that in the evolution of any developing systems, whether they are biological systems or social systems, there are two tendencies - the tendency to preserve and the tendency to change systems. For example, in the biological systems, if heredity ensures the preservation of the system due to the general tendency of the developing system to transmit genetic information from generation to generation, then adaptation of this organism to the environment is manifested by variability.

As an analogy to this, the tendency of preservation in social systems is manifested in social heritage, in the continuity of general culture, national identity or cultural codes, which ensure adaptation of the social system to any specific situations encountered in the process of evolution.

The tendency of changes in the social system is ensured by the mechanism of bifurcation. Such a situation comes into action in conditions of instability, chaos, imbalance, and crisis.

Indeed, during the pandemic, a manifestation of bifurcation was observed in the social system. The point of bifurcation is considered a critical moment in the development of social processes. It is difficult to accurately predict the future development of the system. The reason is that, under the influence of random factors, the possibilities of the further development of the social system become multivariate; it means that, the nonlinearity increases. For example, uncertainty, instability, and critical situations occurred in socio-economic processes during this period. In such conditions, should we give free rein to "blind" coincidences? Or should we act with specific

strategic goals? In our opinion, in such a case, it is necessary to act purposefully and alleviate critical situations.

The adaptive mechanism provides the tendency of preservation in the social system. Such a state is manifested in conditions of stability, balance, order, coherence of the system with the environment.

In contrast to the adaptive mechanism of development, that is, the tendency of the system to preserve itself, bifurcation-type mechanisms are characterized by the uncertainty of the future of the system, the impossibility of predicting which way the system will develop after one or another crisis, which new option of evolution will be chosen.

The Belgian physicist I. Prigogine, who developed similar views on the evolution of the system in nature and society, emphasizes that instability is the turning point of the system's life in conditions of imbalance, its future cannot be predicted, because any insignificant event or action that occurs under normal conditions can cause the entire system to change, and history continues in a new, different way [5].

Adaptation mechanisms operating in social systems are related to stability, linearity of social processes, and their predictable states. Bifurcation mechanisms are characteristic of various problematic social conflict situations. In cases where a turning point occurs in this social system, small insignificant actions can lead to fundamental social changes, characterized by the nonlinearity of social processes, and this can lead to the emergence of a new, unpredictable stage in the further development of the system. In any developing system, there are redundant non-adaptive elements that are relatively independent of the regulatory influence and ensure the system's self-development when unexpected changes occur in the conditions of its existence [6].

For example, in developing social systems, various elements included in these systems (people, individuals, social groups, etc.) operate and thereby manifest themselves. These elements serve to ensure the stability and balance of the system, in short, its preservation. For example, the family as a system, its elements, parents, strive to maintain the stability and order of the family. But nowadays, a transformational process is also observed in the institution of the family. The family is losing its linearity. This is influenced by the change of social values, the nonlinearity of the environment. However, the elements that maintain the system are always in motion. On the one hand, it is related to adaptive processes. In the family system, under the influence of the bifurcation mechanism, family values are undergoing transformation. It is also influenced by the gender movement. The exchange of roles and values in the family also provide the bifurcation mechanism.

Variants of family evolution, which we propose as a "modern" family, in some cases do not correspond to social values, and therefore sometimes such cases are suppressed. When "excessive circumstances" in the family override the behavior, these behaviors are often socially ridiculed. For example, if once in the national family system "inner groom" (ich kuyov) was condemned and considered as "strange" and "exception", now it is becoming the norm in some cases. This is manifested behind the label of "modernity" by our society. But behind this phenomenon there are seeds of new directions of cultural development, revolutionary new changes in the evolution of the family. The evolutionary significance of the individuality of the "modern" family is that it includes such a new version of its social development that such a situation is not accepted at the moment and in some cases is destroyed. In this way, adaptive and bifurcation situations are legitimately manifested in the family system. It is caused by adaptive and non-adaptive elements in the family system.

A prerequisite for the development of various types of systems is the existence of a conflict (conflict or harmonious interaction) between the adaptive forms of activity aimed at the implementation of a common program and the manifestation of the activity of individual elements [7]. The worldview of today's youth can be considered as a social process that meets this principle. In fact, some of our young people are changing the structure of their worldview under the influence

of the virtualization of our lives. Their life positions, values, norms, beliefs, and ideals are changing and leaving the framework of previous cultural programs. This contradiction has reached the level of conflict, which is manifested by family turmoil, social alienation of young people, and suicide cases. Resolving this conflict has become difficult. This situation is explained by the fact that it is legal in synergetics. That is, the evolution of the system is determined to be legal in the "chaos-order-chaos-new order" chain.

In conclusion, in the development of social systems, the principle of the legitimacy of two opposite trends, that is, adaptive and bifurcation types of development and their complementarity always works. It is common to all systems and is a systemic law. For this reason, we are required to try to find and choose constructive positive attractors from such situations without being distracted by any social changes, social chaos and social entropy conditions.

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Rezyume: Bugun ijtimoiy jarayonlarning murakkablashuvi ortib, o'zida noaniqliklarni, beqarorliklarni, bashorat etish mumkin bo'lmagan holatlarni ham namoyon etmoqda. Bu jarayon oila tizimga ham o'z ta'sirini o'tkazmoqdaki, bu muayyan transformatsiyalar bilan kechmoqda. Ushbu yangi chaqiriqlarga javob beraoladigan, mazkur jarayonlarni tasvirlaydigan dunyoqarashni, metodologiyani izlash dolzarb ahamiyat kasb etadi.

Mazkur maqolada oila tizimi murakkab dinamik tizim sifatidagi mohiyati adaptatsion va bifurkatsion yondashuvlar negizida ochib berilgan.

Shuningdek maqolada bugungi yoshlar dunyoqarashi strukturasidagi transformatsion jarayonlarning sinergetik xususiyati asoslangan.

Резюме: Сегодня сложность социальных процессов возрастает, проявляя неопределенность, нестабильность и непредсказуемость. Этот процесс затрагивает и семейную систему, которая претерпевает определенные преобразования.

Поиск мировоззрения и методологии, способных ответить на эти новые вызовы и описать эти процессы, имеет актуальное значение.

В данной статье раскрывается природа семейной системы как сложной динамической системы на основе адаптационного бифуркационного подходов.

Основано синергетический характер трансформационных процессов в структуре мировоззрения современной молодежи.

Kalit so'zlar: chiziqlilik, nochiziqlilik, barqarorlik va beqarorlik, adaptatsiya, bifurkatsiya.

Ключевые слова: линейность, нелинейность, устойчивость и неустойчивость, адаптация, бифуркация.

SEMANTICS OF CAUSATIVE RELATIONS IN A COMPLEX SENTENCE (ON THE MATERIAL OF THE KARAKALPAK AND RUSSIAN LANGUAGES)

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Summary: *The article reveals the essence and distinguishes the concepts of "causative constructions", «causation», «causality», which occupy a special place in a social communication. Different linguistic phenomena can represent causative constructions depending on the result of causative impact, semantics of caused reaction, the intensity of causator's actions. These categories have a rich range of means of realization. The value of causation, as a call to action, can be expressed by a great variety of causative constructions – from polite and non-categoric to sharp and persistent.*

Keywords: *causation, causative constructions, causality, call to action*

INTRODUCTION.

Causative constructions are interesting for research, since they are predicative structures that convey a complex set of categorical meanings of cause, effect and relationships that arise between centers of predicativity [13, p. 5].

To study causative constructions, different areas of science were used: comparative-typological (M.G. Symulov [2006], S.K. Bevova [2002]), lexical-semantic (G.G. Silnitsky [1974], O.N. Zhuravleva [2002]). Despite the sufficient knowledge of causativity, this term remains controversial and has many definitions, the main of which is the following: "Causativity is a complex, multifaceted category that reflects the actual connections between objects of the external world, marked and categorized by consciousness as causal, and takes its origins in the philosophical category of causality" [13, p. 5]. "Causality is a genetic connection of phenomena, in which one phenomenon - a cause, under certain conditions inevitably produces, gives rise to another phenomenon - a consequence (or action)" [14, p.370]. "The category of causality in its deep essence expresses the self-activity of matter, the ability of material things, phenomena to produce other things, phenomena. The reason can be either the nature of an external influence, refracted through the internal nature of the thing experiencing this impact, or the nature of the interaction of parts, elements, causing a change in the whole, system" [11, p. 119]. "The category of cause, first of all, reflects the action of one thing on another in accordance with their properties, and this action gives rise to a certain change of this other thing, according to the nature of the effect and the properties of another thing" [10, p. 118]. "Causality is such a necessary connection between phenomena, in which one inevitably gives rise to another" [8, p. 9].

A.A.Potebnya gives the following definition of causality: "The concept of an action, like the concept of a subject and an object, is inseparable from the concept of a cause ... there is a cause, causing (action), caused (perfect, done): the reflection of an action on an object is caused by the action of the subject. Causality is composed of the action of the subject and the simultaneity or sequence of this action with the state of the object. according to 1, p. 117]. An adequate expression of the category of causality in the language is achieved with the help of lexical means and grammatical constructions. The result of any "cause" is a "consequence" and, considering the concept of "causative construction", it is also necessary to consider the concept of "consequence". B.N. Golovin defines the category of consequence as "the real linguistic unity of the grammatical meaning and the means of its material expression" [5, p 311]. These positions are held by K.G. Krushelnitskaya and N.I. Kovtunov, defining causation as a grammatical category of non-

morphological type [16, p.9]. A consequence is characterized as “what follows from something, the result of something, a conclusion, a necessary component of a causal relationship” [12, p. 423]. The study of the linguistic units used to convey the reflected relations contributes to the identification of the characteristic features of these units associated with the linguistic interpretation of causality. Causal relationships are one of the most important semantic categories of natural languages [1, p. 118].

The problem of cause-and-effect relationships is very extensive and multifaceted. In the linguistic literature, there is another term that correlates with this category - causality. This term, like “causativity”, is closely related to cause-effect, however, causality is a broader category that reflects the entire spectrum of connections between events in reality and is implemented in the language through syntactic means. Causality is interpreted as conditionality - a complex interaction of conditions, goals, consequences, causes [3, p. 89].

The semantics of the category of causation is very extensive, since causative, causal, resultative and target meanings are intertwined in it. In general, the semantic meaning of causative constructions is based not only on the concept of “causality”, but is also considered as “inducement” - from the point of view of the pragmatic approach. Indeed, with the help of language, a person not only communicates his thoughts to an interlocutor or a group of people, but also encourages them to perform certain actions. And the motivation for action is always based on a social and psychological factor. When prompted to act, a person puts forward and realizes the purpose of his act, i.e. this process is a phenomenon of a logical and psychological order. The motivation to act also depends on the situations and conditions of communication, which are determined by the following moments of the act of communication: a) the relationship between the speaker and the addressee; b) the attitude of the speaker to the action; c) dependence of the addressee on the will of the speaker; d) lack of dependence between the speaker and the addressee. Important factors in the causation of an object by the subject are the conditions of communication, the status of the interlocutors, their age, the rules and peculiarities of etiquette inherent in this society and people. Thus, a strong variant of causation is used in direct proportion to the status of the participants in the causative situation, where the initiator (subject) is a senior in rank, position or age. In such cases, the authors use verbs of the same semantic series, expressing an impulse, an order, in contrast to other semantic fields, expressing a request or permission. In other words, the use of causative constructions of various semantic fields is determined by the genre, context and style of the writer. [3, p. 90].

Thus, various linguistic phenomena can be causative constructions, depending on the effectiveness of the causative influence, the semantics of the causative reaction, and the intensity of the causator's actions.

The category of causation has a very rich range of means of implementation. Thus, such a value of causation as a stimulus to action can be expressed by a wide variety of incentive structures - from polite and non-categorical to sharp and persistent [15, c.14] “There is also the potential to support and improve therapeutic measures aimed at perpetrators of these crimes, as well as victims of child abuse.” (author's translation) «Соның менен бирге, бул жынаятларды жүз еткен шахсларға, соның менен бирге, балаларға салыстырғанда зорлықшылық жәбирлениўшилерине қаратылған емлеў илажларын қоллап-қуўатлаў ҳәм жақсылаў мүмкиншилиги әмелде».

A.V.Bondarko argues that any functional-semantic category has a field structure, the fundamental property of which is the commonality of the semantic function of means of different language levels [2, p.77], and the core of the functional-semantic field of causation is the causative verb [15, p.14]. According to E.E. Cordy, causation is associated with the expression of causal relationships in the verb system without restrictions on the semantics of individual elements of the construction [6, p.112].

Causative verbs can express the constant K in its pure form, or in combination with other constants. Depending on this, all causative verbs can be divided into service causative verbs;

Service causative verbs express only a constant. These include the following verbs: allow, create, receive, possess, establish, put, give, save (рухсат бериң, жаратың, алын, иелик етиң, орнатың, қойын, бериң, сақлаң): «... The results showed that emotional display had a significant impact on the definition of trust and guilt...” [17]. In sentences, these verbs perform a lexico-grammatical function and differ from significant causative verbs in that, being a means of formalizing a causative grammatical meaning, they always retain their lexical meaning (factual, permissive, assistive) [7, p.78].

CONCLUSION

Thus, the linguistic category of causation is a complex multifaceted category that reflects the actual connections between the objects of the external world and is closely related to the concept of cause-and-effect relationships. The semantic meaning of causative constructions is also considered as "incitement to action". Having a very rich range of means of implementation, the category of causation can be conveyed by a wide variety of incentive constructions, it can convey its meanings in different ways in word-building, lexical and contextual ways. The core of the functional-semantic field of causation is causative verbs, which are divided into service and significant. The semantics of the causative constructions of the modern English language is very multifaceted and requires a comprehensive study.

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Rezyume: *Ushbu maqolada alohida o'rin tutadigan "kauzativlik", "kauzativ konstruktsiyalari", "kauzallik" tushunchalari mazmuni ochib berilgan va ajratilgan. Til hodisalari sababiy ta'sirning samaradorligiga, sabab bo'lgan reaksiyaning semantikasiga, sababchi*

harakatlarning intensivligiga qarab "kauzativ konstruksiyalari" bo'lishi mumkin. Ushbu toifalar juda boy til vositalariga ega. harakatga turtki sifatida, turli xil rag'batlantiruvchi tuzilmalar bilan ifodalanishi mumkin – muloyim va kategorik bo'lmaganlardan tortib to keskin va qat'iyatligacha haqida so'z boradi.

Резюме: *Статья раскрывает содержание и разграничивает понятия «каузативные конструкции», «каузативность», «каузальность», которые занимают особое место в социальной коммуникации. Языковые явления могут представлять собой каузативные конструкции в зависимости от результативности каузативного воздействия, семантики каузируемой реакции, интенсивности действий каузатора. Данные категории имеют очень богатый спектр средств реализации. Значение каузативности, как побуждение к действию, возможно выразить большим разнообразием побудительных конструкций – от вежливых и некатегоричных до резких и настойчивых.*

Kalit so'zlar: "kauzativlik", "kauzativ konstruksiyalari", "kauzallik", sababchi harakatlar, harakatga chorlash.

Ключевые слова: каузативные конструкции, каузативность, каузальность, причинно-следственная связь, призыв к действию.